DEPARTMENT of HEALTH and HUMAN SERVICES

Fiscal Year 2010

Centers for Disease Control and Prevention

Justification of Estimates for Appropriation Committees

INTRODUCTION

The FY 2010 Congressional Justification is one of several documents that fulfill the Department of Health and Human Services' (HHS) performance planning and reporting requirements. HHS achieves full compliance with the Government Performance and Results Act of 1993 and Office of Management and Budget Circulars A-11 and A-136 through the HHS agencies' FY 2010 Congressional Justifications and Online Performance Appendices, the Agency Financial Report, and the HHS Citizens' Report. These documents are available at http://www.hhs.gov/asrt/ob/docbudget/index.html.

The FY 2010 Congressional Justifications and accompanying Online Performance Appendices contain the updated FY 2008 Annual Performance Report and FY 2010 Annual Performance Plan. The Agency Financial Report provides fiscal and high-level performance results. The HHS Citizens' Report summarizes key past and planned performance and financial information.

MESSAGE FROM THE DIRECTOR

As the Acting Director of the Centers for Disease Control and Prevention (CDC) and the Acting Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR), it is my pleasure to present the agency's budget request for Fiscal Year (FY) 2010. In response to the evolving public health challenges of the 21st century, this budget addresses a balanced portfolio of health protection activities, emphasizing both the urgent threats that we must be prepared to face tomorrow and the urgent realities that we confront today.

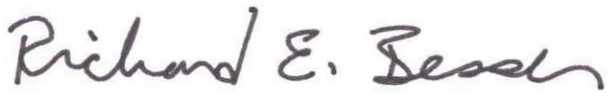
For more than 60 years, CDC's mission has been dedicated to protecting health and promoting quality of life through the prevention and control of disease, injury, and disability. We are committed to programs that reduce the health and economic consequences of the leading causes of death and disability and that ensure a long, productive healthy life for all people.

Each day at CDC, we try to imagine a safer, healthier world: a world where infants are born healthy and cared for so that when they are children, they can arrive at school safe, well-nourished, and ready to learn; a world in which teenagers have the information, motivation, and hope they need to make healthy choices about their lifestyles and behaviors; and a world in which adults enjoy active and productive lives in safe communities where they can remain independent and engaged with family and friends throughout their senior years. Imagining this safer, healthier world brings us closer to reaching our vision of "Healthy People in a Healthy World–Through Prevention."

CDC, in collaboration with HHS, continues to play an important role in the Healthy People 2010 framework and goals. In addition, the agency is actively involved with HHS in the development of Healthy People 2020. In highlighting our accomplishments and prioritizing our investments, the FY 2010 budget request reinforces CDC's position as our nation's health-protection leader and conveys our vision for continuing this important work in the future. Maintaining the agency's investments into FY 2010 for critical programs will allow the agency to advance our core health-protection mission while providing the leadership and investment that are needed to move our nation in the direction of better health.

Reforming our health system is fundamental to the economic future of the United States. CDC is committed to focusing our financial investments and programmatic efforts to accelerate health impact, reduce health disparities, and protect people at home and abroad.

Sincerely,



Richard E. Bessser, M.D.

Acting Director, CDC, and

Acting Administrator, ATSDR

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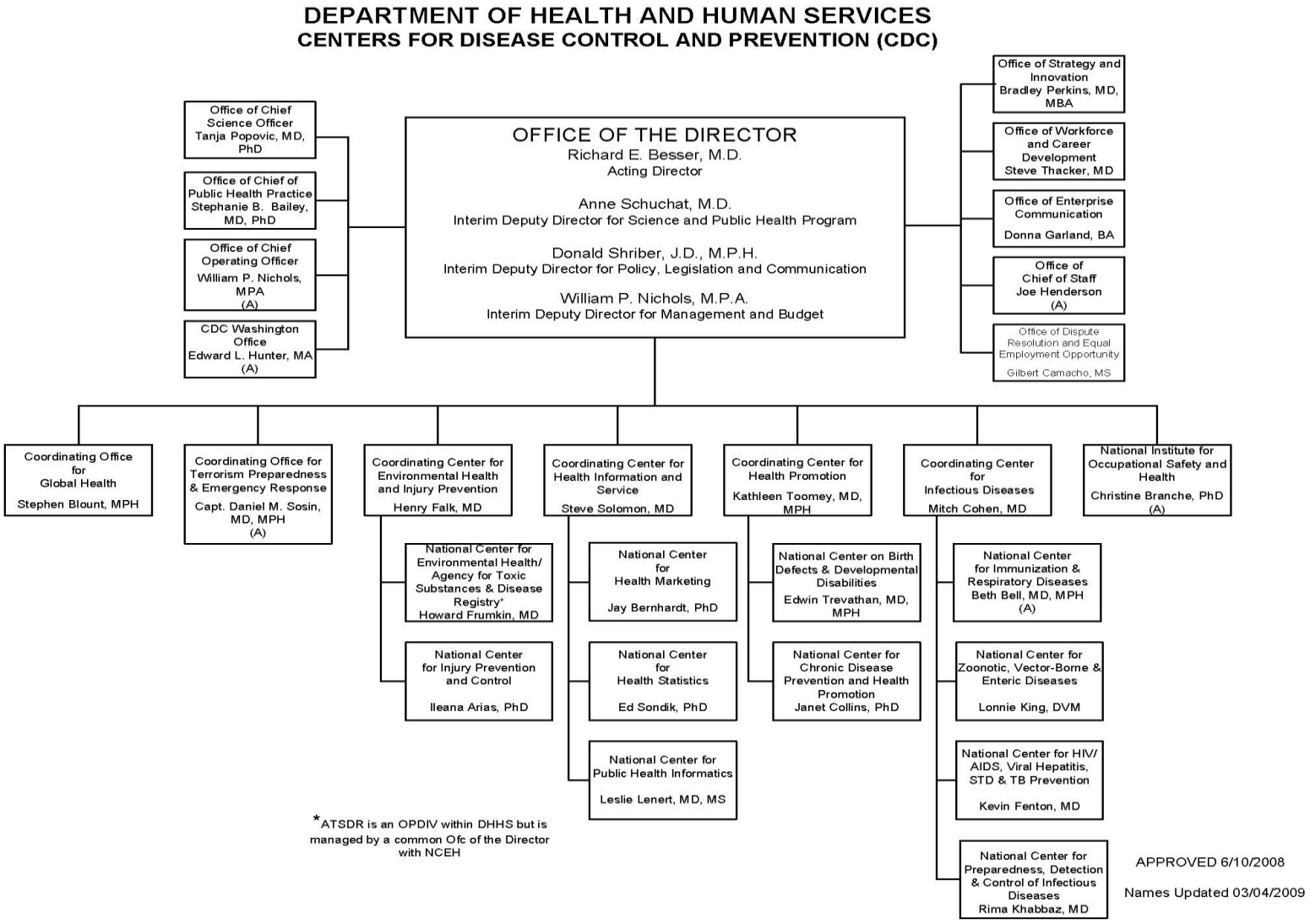
ORGANIZATIONAL CHART



EXECUTIVE SUMMARY

INTRODUCTION AND MISSION

The Centers for Disease Control and Prevention (CDC) is an operating division of the Department of Health and Human Services. The agency's mission is to promote health and quality of life by preventing and controlling disease, injury, and disability.

CDC seeks to accomplish its mission by working with partners throughout the nation and the world to—

- Monitor health,
- Detect and investigate health problems,
- Conduct research to enhance prevention,
- Develop and advocate sound public health polices,
- Promote healthy behaviors,
- Implement prevention strategies,
- Foster safe and healthful environments, and
- Provide leadership and training.

These functions are the backbone of CDC's mission. Each of CDC's component organizations undertakes these activities in conducting its specific programs. The steps needed to accomplish this mission are also based on scientific excellence, requiring well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice.

CDC protects the health of Americans on many levels and in many arenas. We conduct surveillance on a wide range of health threats—from infectious diseases to bioterrorism to environmental hazards. When diseases break out around the globe, CDC responds at a moment's notice, lending its expertise and resources to conduct outbreak investigations and provide technical assistance.

We also provide funding for state and local health departments, community-based organizations, and academic institutions for a wide array of public health programs and research. Each day, Americans benefit from those activities through the safety and health tips we promote directly to the public, the training and education we offer our partners, and the guidance and recommendations we provide for healthcare providers.

So much has changed in the world since CDC was founded in 1946. We have had to find new ways to carry out our mission and meet new threats head on, whether a terrorist attack or the next global epidemic of an infectious disease like SARS or avian flu. As we look forward to the next 60 years and beyond, we will continue to position ourselves as the nation's health protection leader.

BUDGET OVERVIEW

The FY 2010 President's Budget submission includes $6,389 million in discretionary budget authority for CDC and ATSDR, an increase of $32 million above the FY 2009 level.

This budget request allows CDC to accomplish its mission by working with partners throughout the nation and the world to monitor health, detect and investigate health problems. CDC is also able to conduct research to enhance prevention, develop and advocate sound public health policies, implement prevention strategies, and promote healthy behaviors.

Those functions are the backbone of CDC′s mission. Each of CDC′s component organizations undertakes these activities in conducting its specific programs. The steps needed to accomplish this mission are also based on scientific excellence, requiring well-trained public health practitioners and leaders dedicated to high standards of quality and ethical practice. CDC remains committed to allocating resources in a way that maximizes our ability to enhance public health capabilities at the federal, state and local level. The Recovery Act includes $1 billion for HHS innovative prevention activities to decrease the prevalence of chronic diseases and improve the quality of life for American. In addition, the health care reform effort will have a substantial impact improving disease prevention.

INCREASED PROGRAM INVESTMENTS (+$185.0 million)

HIV/AIDS, Research and Domestic (+$51.0 million)

The FY 2010 budget request includes $744,914,000 for HIV/AIDS Research and Domestic, an increase of $51,000,000 above the FY 2009 Omnibus, to reduce HIV infections, increase access to care, and reduce health disparities. Approximately $27 million will support efforts of state and local health departments to test 600,000 persons with HIV and identify 6,000 new HIV infections per year, with an emphasis on African Americans, Hispanics and MSM of all races and ethnicities. Approximately $11 million will support efforts of state and local health departments to provide and evaluate active referral and linkage to care or other supportive services to at least 5,000 people living with HIV/AIDS or their partners; and support the delivery and evaluation of behavioral interventions to more than 2,000 newly and previously diagnosed people living with HIV. Remaining funds will be used to promote program collaboration and service integration to prevent HIV, STDs, viral hepatitis, and TB; increase the capacity of health departments and CBOs to deliver effective evidence-based HIV prevention interventions to high-risk populations such as communities of color and MSM of all races and ethnicities; strengthen the ability of health departments to monitor critical aspects of the HIV/AIDS epidemic; and support CDC's ability to collect data on the performance of HIV testing and other prevention programs, and monitor and publicly report on the progress of such programs.

Strategic National Stockpile (SNS) (+$25.2 million)

The FY 2010 budget request includes $595,749,000 for SNS, an increase of $25,186,000 above the FY 2009 Omnibus. This request will provide resources for increased product replacement costs. Within this augmentation, funds are provided for one SNS aircraft that will be utilized in public health emergencies. FY 2010 funding for the SNS program will enable CDC to continue to purchase, warehouse, and manage medical countermeasures necessary to provide an adequate response during a catastrophic public health event to treat affected populations, prevent additional illness, and provide medical supplies and equipment.

Pay Raise (+$19.7 million)

The FY 2010 President's budget request includes a pay raise of $19,656,000. Increased funding for the pay raise is a critical component of CDC's budget, as it allows programs to continue funding extramural and intramural science programs without the need to absorb the increased pay costs at the expense of these programs. Increased funding will also support ongoing services maintained by CDC's business service units and expansion into new business areas that are critical to the success of the agency. As CDC's science and business staff conduct critical activities and oversee the implementation of the nation's public health programs funded by CDC, increased funding to support pay is a necessary component of enhancing the health of the nation.

Public Health Emergency Preparedness (PHEP) Cooperative Agreement (+$14.2 million)

The FY 2010 budget request includes $714,949,000 for PHEP, an increase of $14,177,000 above the FY 2009 Omnibus. This increase will provide additional funding to state and local health departments through the PHEP Cooperative agreement. During FY 2010, the PHEP cooperative agreement will continue to provide technical assistance and resources to public health departments to improve their emergency preparedness and response capabilities.

Health Statistics (+$13.3 million)

The FY 2010 budget request includes $138,683,000 for Health Statistics, an increase of $13,299,000 above the FY 2009 Omnibus. With the increase, CDC will fully fund all sample sizes and surveys funded at the expanded level in FY 2009, and will reinstate the reductions in operational capacity that have been implemented in the past several years. These include collecting a full 12 months of core birth and death data from states; conducting the National Health Information Survey (NHIS) in at least 30,625 households covering 76,562 persons; redesigning a new sample for NHIS to ensure it accurately reflects the shifting U.S. population; conducting nationally representative surveys of health care providers in physician offices, community health centers, hospital outpatient and emergency departments, and other selected settings; and maintaining continuous field operations for the National Health and Nutrition Examination Survey (NHANES). Furthermore, the increase will enable CDC to maintain the timely release of data files; the quality of reports released in print and on the internet; and the number and quality of data access tools that ensure data are available in easily accessible forms.

Business Services and Support (BSS) (+$10.0 million)

The FY 2010 request includes $372,662,000 for Business Services Support, an increase of $10,000,000 above the FY 2009 Omnibus. This increase will provide resources for to support ongoing services maintained by CDC's business service units, expansion into new business areas that are critical to the success of the agency, and federally mandatory requirements.

Emerging Infectious Diseases (+$10.0 million)

The FY2010 budget request includes $141,383,000 for Emerging Infectious Diseases, an increase of $10,000,000 above the FY 2009 Omnibus to support the CDC's infectious disease laboratories, surveillance systems, epidemiological investigations, enhancing responsiveness, detection and control of infectious diseases. The additional resources will provide sustainability to CDC's infectious diseases laboratories enabling CDC to perform diagnostic analysis of specimens that are received from around the world, and develop and produce reagents to have readily available for preparedness.

Global Immunization Program (+$10.0 million)

The FY 2010 budget request includes $153,475,000 for Global Immunization, an increase of $10,000,000 above the FY 2009 Omnibus. This increase will be used to maintain the gains of polio eradication and measles elimination by expanding measles vaccination campaigns into high burden countries of South Asia and continuing the successful groundwork achieved in Africa; building in-country capacity for more effective immunization program management and evaluation; and, strengthening routine immunization programs through bilateral and multilateral partnerships.

School Health (+$5.0 million)

The FY 2010 budget request includes $62,780,000 for the School Health program, an increase of $5,000,000 above the FY 2009 Omnibus. CDC will fund 10 additional state education agencies (22 states and one tribe currently funded) to assist these agencies in meeting the health and safety needs of their K-12 students. State agencies will be funded to build the capacity of schools and school districts to implement quality, cost-effective school health programs that research has shown increase both students' health-promoting behaviors and have positive effects on academic performance. This funding will provide jobs for health and education professionals, stimulate increased professional development for education agency personnel, and support expanded partnerships between schools and the community to improve health programs delivered in school.

Safe Motherhood/Infant Health (+$5.0 million)

The FY 2010 budget request includes $49,891,000 for Safe Motherhood/Infant Health, an increase of $5,000,000 above the FY 2009 Omnibus for the program to support the President's initiative to prevent teen pregnancies. CDC will expand its current teen pregnancy prevention efforts to promote evidence-based interventions. CDC's activities will highlight three key strategies: state-based partnerships, national technical assistance, and promoting youth development programs. CDC will fund up to eight additional state-based teen pregnancy prevention coalitions to work with state departments of education to implement innovative science-based prevention programs in youth-serving organizations and schools. The initiative will build on current state-based efforts and will enhance the focus on local areas of greatest need.

Nanotechnology (+$5.0 Million)

The FY 2010 budget request includes an increase of $5,000,000 for Nanotechnology. This is the first year that the program has a line item in the budget. CDC has developed a strategic plan to address immediate and long-term issues associated with nanotechnology and occupational health in partnership with other federal agencies, research centers, and industry participating in the National Nanotechnology Initiative and the Nanoscale Science, Engineering and Technology subcommittee of the National Science and Technology Council Committee on Technology. This increase will provide funding for CDC to investigate and develop guidance for two critical aspects of nanotechnology: reduction of uncertainty about the health effects and development of evidence-based risks management procedures to control exposures to workers and ultimately the general population exposed to nanomaterials.

Racial and Ethnic Approach to Community Health (REACH) (+$4.0 million)

The FY 2010 budget request includes $39,644,000 for REACH an increase of $4,000,000 above the FY 2009 Omnibus. The REACH program promotes the ongoing development and dissemination of innovative and effective strategies that respond to the unique needs of diverse communities. REACH will fund 12 to 15 additional communities at $200,000-$250,000 for two

year planning grants. Grantees will be able to use these funds to conduct meaningful community outreach to racial and ethnic minority populations; assemble a community coalition including members from across a variety of sectors; conduct a community needs assessment; and develop a community action plan. With these additional funds, CDC will support a broader array of communities working to reduce and eliminate racial and ethnic health disparities.

Food Safety (+4.0 million)

The FY 2010 budget request includes $26,942,000 for Food Safety, an increase of $4,000,000 above the FY2009 Omnibus. This investment will enhance food safety efforts for the enhanced detection of foodborne outbreaks and comprehensive laboratory and epidemiological surveillance of these diseases. Significant resources will be provided to the states to focus on better methods for identifying, characterizing and sub-typing foodborne pathogens. In addition, CDC will work to develop and deploy new epidemiological tools for outbreak detection and investigation.

Domestic Violence (+$3.0 million)

The FY 2010 budget request includes an increase of $3,000,000 for Domestic Violence. The increase for FY 2010 will enhance efforts to develop, implement, and evaluate a comprehensive program to prevent teen dating violence in high-risk urban communities by building on current evidence-based practice and experience.

Navajo Nation Uranium Studies (+$2.0 million)

The FY 2010 budget request includes an increase of $2,000,000 for Navajo Nation Uranium Studies. With this increase, ATSDR will conduct epidemiologic studies of health conditions caused by non-occupational exposures to uranium released from past mining and milling operations on the Navajo Nation.

Paralysis Resource Center (+$2.0 million)

The FY 2010 request includes $7,748,000 for Paralysis Resource Center (Christopher and Dana Reeve Foundation) an increase of $2,000,000 over the FY 2009 Omnibus. The funding increase will be used to expand and implement activities related to the recently enacted Christopher and Dana Reeves Paralysis Act, such as the expansion of the disability and health state program activities to address the needs of people with paralysis and other physical disabilities.

Autism (+$1.6 million)

The FY 2010 budget request includes $22,061,000 for Autism, an increase of $1,600,000 above the FY 2009 Omnibus. Increased funds will be used to expand autism surveillance activities to include a broader age-range of target populations and support efforts of the Study to Explore Early Development (SEED) to address public concern over the causes of autism and other developmental disabilities.

PROGRAM REDUCTIONS AND ELIMINATIONS (-$206.9 million)

Buildings and Facilities (-$121.5 million)

The FY 2010 request includes a decrease of $121,500,000 for Buildings and Facilities. The CDC Buildings and Facilities account has a total of $228 million in unobligated balances available for CDC projects. The 2010 Budget level is sufficient for CDC to conduct all major repairs and improvements and finish construction of priority infectious and environmental health labs.

Vaccines for Children (-$54.1 million)

The FY 2010 request includes a decrease of $54,140,000 for the VFC program. The reduction reflects a decrease in vaccine stockpile, ordering, and contract support for the vaccine management business improvement plan (VMBIP). The VFC Program allows vulnerable children access to lifesaving vaccines as a part of routine preventive care, focusing on children without insurance, those eligible for Medicaid, and American Indian/Alaska Native children. Children with commercial insurance that lacks an immunization benefit are also entitled to VFC vaccine, but only at Federally Qualified Health Centers (FQHCs) or Rural Health Clinics (RHCs).

Congressional Projects (-$22.0 Million)

The FY 2010 request includes a decrease of $22,000,000 for Public Health Improvement and Leadership in the area of congressionally determined projects. This line funded one-time projects whose selection was incorporated into law by reference.

Anthrax (-$7.8 million)

The FY 2010 request includes a decrease of $7,800,000 for Anthrax. Anthrax vaccine research activities at CDC began in FY 1999 because of a mandate by the U.S. Congress. This mandate directed funding to CDC to conduct studies of safety and efficacy of the U.S. licensed Anthrax vaccine, Anthrax Vaccine Adsorbed (AVA, BioThrax), resulting in the Anthrax Vaccine Research Program (AVRP). In FY 2009, the anthrax vaccine research program will achieve its stated goals, which include an FDA-approved reduced dosage schedule and new administration route, as well as the conclusion of long-term safety studies for the AVA vaccine.

National Center for Health Marketing (-$3.0 million)

The FY 2010 request includes a decrease of $3,000,000 for the National Center for Health Marketing. The FY 2010 Health Marketing budget will continue to fund CDC priority prevention areas. This reduction will maintain full funding for, and will not have a negative impact on, key communication tools: the Community Guide, the Morbidity and Mortality Weekly Report, and the CDC website. The reduction would eliminate Health Marketing funding for the Global Communication Pilot. This pilot funds information and communication technology pilot tests in China to see if participants prefer distance based training to traditional face-to-face training. In addition, the offset would reduce funding for CDC's Public Health Partners, who have other resources for public health activities. CDC is committed to reaching the widest audience with existing resources.

Mind-Body Institute (-$1.5 million)

The FY 2010 request includes a decrease of $1,500,000 for the Mind, Body Research program. In FY 2010, this program will not be continued.

ALL PURPOSE TABLE

**FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
ALL PURPOSE TABLE
(DOLLARS IN THOUSANDS)**

Budget Activity	FY 2008 Appropriations	FY 2009 Omnibus	FY 2009 Recovery Act [1]	FY 2010 President's Budget
Infectious Diseases [2, 3]				
Budget Authority	$1,891,741	$1,935,033	$300,000	$2,006,758
PHS Evaluation Transfers	*$12,794*	*$12,794*	*$0*	*$12,864*
Subtotal, Infectious Diseases -	***$1,904,535***	***$1,947,827***	***$300,000***	***$2,019,622***
Health Promotion	**$961,193**	**$1,019,708**	**$0**	**$1,038,255**
Health Information and Service				
Budget Authority	$89,868	$83,124	$0	$96,690
PHS Evaluation Transfers	*$186,910*	*$196,232*	*$0*	*$195,094*
Subtotal, Health Information and Service -	***$276,778***	***$279,356***	***$0***	***$291,784***
Environmental Health and Injury Prevention	**$289,323**	**$330,657**	**$0**	**$335,016**
Occupational Safety and Health				
Budget Authority	$286,985	$268,834	$0	$276,664
PHS Evaluation Transfers	*$94,969*	*$91,225*	*$0*	*$91,724*
Subtotal, Occupational Safety and Health -	***$381,954***	***$360,059***	***$0***	***$368,388***
Global Health [4, 5]	***$302,371***	***$308,824***	***$0***	***$319,134***
Public Health Research (PHS Evaluation Transfers)	***$31,000***	***$31,000***	***$0***	***$31,170***
Public Health Improvement and Leadership (PHIL)	***$224,899***	***$209,136***	***$0***	***$188,586***
Preventive Health & Health Services Block Grant (PHHSBG)	**$97,270**	**$102,000**	**$0**	**$102,034**
Buildings and Facilities	**$55,022**	**$151,500**	**$0**	**$30,000**
Business Services Support	**$371,847**	**$359,877**	**$0**	**$372,662**
Terrorism [6]	***$1,479,455***	***$1,514,657***	***$0***	***$1,546,809***
Total, L/HHS/ED -	***$6,049,974***	***$6,283,350***	***$300,000***	***$6,312,608***
Total, L/HHS/ED (inc. PHS) -	***$6,375,647***	***$6,614,601***	***$300,000***	***$6,643,460***
PHS Evaluation Transfer (non-add)	*$325,673*	*$331,251*	*$0*	*$330,852*
Agency for Toxic Substances and Disease Registry	$74,039	$74,039	$0	$76,792
Vaccines for Children	$2,719,702	$3,377,911	$0	$3,323,770
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)	$0	$55,358	$0	$55,358
User Fees	$2,226	$2,226	$0	$2,226
Total, CDC/ATSDR Program Level -	***$9,171,614***	***$10,124,135***	***$300,000***	***$10,101,606***
Full-Time Equivalents (FTEs) -	***8,951***	***9,646***	***N/A***	***9,797***

[1] American Recovery and Reinvestment Act (ARRA) funding included on this table refelects what was approapriated to CDC. CDC may receive additional ARRA funding from HHS.

[2] The FY 2008 appropriation levels have been revised to reflect proposed consolidation of Flu funding. The FY 2009 CDC budget consolidated all Flu funding lines to one line under Infectious Diseases.

[3] The FY 2008 Infectious Diseases funding includes a comparability adjustment of -$2.1 million. In the FY 2009 budget, CDC transfered the funds to support AIDS Clearing House activities currently financed by the National Center for Health Marketing.

[4] Funding does not include transfers to CDC from the Department of State Office of the Global AIDS Coordinator ($1,262,668 million in FY 2008), as part of the President's Emergency Plan for AIDS Relief.

[5] The FY 2008 Global Helath appropriation amount includes a comparability adjustment of -$0.6 million. In the FY 2009 budget, CDC transfered the funds to support AIDS Clearing House activities currently financed by the National Center for Health Marketing.

[6] The FY 2008 for Terrorism appropriation includes a comparability adjustment of -$7.4 million. In the FY 2009 budget, CDC transferred funds from the Strategic National Stockpile program to Business Services Support to fund CDC-wide administrative and business service support activities.

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BUDGET EXHIBITS

APPROPRIATION LANGUAGE AND ANALYSIS

CENTERS FOR DISEASE CONTROL AND PREVENTION APPROPRIATION LANGUAGE

DISEASE CONTROL, RESEARCH, AND TRAINING

To carry out titles II, III, VII, XI, XV, XVII, XIX, XXI, and XXVI of the Public Health Service Act ("PHS Act"), sections 101, 102, 103, 201, 202, 203, 301, 501, and 514 of the Federal Mine Safety and Health Act of 1977, section 13 of the Mine Improvement and New Emergency Response Act of 2006, sections 20, 21, and 22 of the Occupational Safety and Health Act of 1970, title IV of the Immigration and Nationality Act, section 501 of the Refugee Education Assistance Act of 1980, and for expenses necessary to support activities related to countering potential biological, nuclear, radiological, and chemical threats to civilian populations; including purchase and insurance of official motor vehicles in foreign countries; and purchase, hire, maintenance, and operation of aircraft, **[**$6,283,350,000**]** *$6,312,608,000*, of which **[**$151,500,000**]** *$30,000,000* shall remain available until expended for acquisition of real property, equipment, construction and renovation of facilities; of which **[**$570,307,000**]** *$595,749,000* shall remain available until expended for the Strategic National Stockpile under section 319F-2 of the PHS Act; **[**of which $21,997,000 shall be used for the projects, and in the amounts, specified under the heading "Disease Control, Research, and Training" in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act);**]**[1] of which **[**$118,863,000**]** *$118,979,000* for international HIV/AIDS shall remain available through September 30, **[**2010**]** *2011*; and of which **[**$70,000,000**]** *$70,723,000* shall be available until expended to provide screening and treatment for first response emergency services personnel, residents, students, and others related to the September 11, 2001 terrorist attacks on the World Trade Center: *Provided*, That in addition, such sums as may be derived from authorized user fees, which shall be credited to this account: *Provided further, That with respect to the previous proviso, authorized user fees from the Vessel Sanitation Program shall be available until September 30, 2011*[2]*: Provided further*, That in addition to

amounts provided herein, the following amounts shall be available from amounts available under section 241 of the PHS Act: (1) **[**$12,794,000**]** *$12,864,000* to carry out the National Immunization Surveys; (2) **[**$124,701,000**]** *$138,683,000* to carry out the National Center for Health Statistics surveys; (3) **[**$24,751,000**]** *$9,375,000* to carry out information systems standards development and architecture and applications-based research used at local public health levels; (4) **[**$46,780,000**]** *$47,036,000* for Health Marketing; (5) **[**$31,000,000**]** *$31,170,000* to carry out Public Health Research; and (6) **[**$91,225,000**]** *$91,724,000* to carry out research activities within the National Occupational Research Agenda: *Provided further*, That none of the funds made available for injury prevention and control at the Centers for Disease Control and Prevention may be used, in whole or in part, to advocate or promote gun control: *Provided further*, That of the funds made available under this heading, up to $1,000 per eligible employee of the Centers for Disease Control and Prevention shall be made available until expended for Individual Learning Accounts: *Provided further*, That the Director may redirect the total amount made available under authority of Public Law 101-502, section 3, dated November 3, 1990, to activities the Director may so designate: *Provided further*, That the Committees on Appropriations of the House of Representatives and the Senate are to be notified promptly of any such redirection: *Provided further*, That not to exceed *$19,528,000* may be available for making grants under section 1509 of the PHS Act to not less than 21 States, tribes, or tribal organizations: **[***Provided further*, That notwithstanding any other provision of law, the Centers for Disease Control and Prevention shall award a single contract or related contracts for development and construction of the next building or facility designated in the Buildings and Facilities Master Plan that collectively include the full scope of the project: *Provided further*, That the solicitation and contract shall contain the clause ``availability of funds'' found at 48 CFR 52.232-18:**]**[3] *Provided further*, That of the funds appropriated, $10,000 shall be for official reception and representation expenses when specifically approved by the Director of the Centers for Disease Control and Prevention: *Provided further*, That employees of the

Centers for Disease Control and Prevention or the Public Health Service, both civilian and Commissioned Officers, detailed to States, municipalities, or other organizations under authority of section 214 of the PHS Act, or in overseas assignments, shall be treated as non-Federal employees for reporting purposes only and shall not be included within any personnel ceiling applicable to the Agency, Service, or the Department of Health and Human Services during the period of detail or assignment: *Provided further*, That out of funds made available under this heading for domestic HIV/AIDS testing, up to $15,000,000 shall be for States newly eligible in fiscal year **[**2009**]** *2010* under section 2625 of the PHS Act as of December 31, **[**2008**]** *2009* and shall be distributed by May 31, **[**2009**]** *2010* based on standard criteria relating to a State's epidemiological profile, and of which not more than $1,000,000 may be made available to any one State, and amounts that have not been obligated by May 31, **[**2009**]** *2010* shall be made available to States and local public health departments for HIV testing activities**[**: *Provided further*, That none of the funds made available in this Act to carry out part A of title XIX of the PHS Act may be used to provide more than 75 percent of any State's allotment under section 1902 of the PHS Act until such State certifies that it will submit a plan to the Secretary of Health and Human Services, not later than January 1, 2010, to reduce healthcare-associated infections: *Provided further*, That each such State plan shall be consistent with the Department of Health and Human Services' national action plan for reducing healthcare-associated infections and include measurable 5-year goals and interim milestones for reducing such infections: *Provided further*, That the Secretary shall conduct a review of the State plans submitted pursuant to the preceding proviso and report to the Committees on Appropriations of the House of Representatives and the Senate not later than June 1, 2010, regarding the adequacy of such plans for achieving State and national goals for reducing healthcare-associated infections: *Provided further*, That for purposes of the two preceding provisos, the term “State” means each of the several States, the District of Columbia, and the Commonwealth of Puerto Rico**]**[4].

In addition, for necessary expenses to administer the Energy Employees Occupational Illness Compensation Program Act, **[**$55,358,000**]** *$55,358,000*, to remain available until expended, of which $4,500,000 shall be for use by or in support of the Advisory Board on Radiation and Worker Health (``the Board'') to carry out its statutory responsibilities, including obtaining audits, technical assistance, and other support from the Board's audit contractor with regard to radiation dose estimation and reconstruction efforts, site profiles, procedures, and review of Special Exposure Cohort petitions and evaluation reports: *Provided*, That this amount shall be available consistent with the provision regarding administrative expenses in section 151(b) of division B, title I of Public Law 106-554**]**[5].

CENTERS FOR DISEASE CONTROL AND PREVENTION LANGUAGE ANALYSIS

LANGUAGE ANALYSIS

LANGUAGE PROVISION	EXPLANATION
["…of which $21,997,000 shall be used for the projects, and in the amounts, specified under the heading "Disease Control, Research, and Training" in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act)..."**]**	The FY 2010 Budget request for CDC does not include one-time project costs included in the FY 2009 enacted appropriation.
"*Provided further, That with respect to the previous proviso, authorized user fees from the Vessel Sanitation Program shall be available until September 30, 2011…*"	Provides specific authorization to allow all funds collected as user fees for the Vessel Sanitation Program to be available for two years.
["*Provided further*, That notwithstanding any other provision of law, the Centers for Disease Control and Prevention shall award a single contract or related contracts for development and construction of the next building or facility designated in the Buildings and Facilities Master Plan that collectively include the full scope of the project: *Provided further*, That the solicitation and contract shall contain the clause "availability of funds" found at CFR 52.232-18…"**]**	The FY 2010 Budget request does not specify specific contracts or buildings to be completed.
["*Provided further*, That none of the funds made available in this Act to carry out part A of title XIX of the PHS Act may be used to provide more than 75 percent of any State's allotment under section 1902 of PHS Act until such State certifies that it will submit a plan to the Secretary of Health and Human Services, not later than January 1, 2010, to reduce healthcare-associated infections: *Provided further*, That each such State plan shall be consistent with the Department of Health and Human Services' national action plan for reducing healthcare-associated infections and include measurable 5-year goals and interim milestones for reducing such infections: *Provided further*, That the Secretary shall conduct a review of the State plans submitted pursuant to the preceding proviso and report to the Committees on Appropriations of the House of Representatives and the Senate not later than June 1, 2010, regarding the adequacy of such plans for achieving State and national goals for reducing healthcare-associated infections: *Provided further*, That for purposes of the two preceding provisos, the term "State" means each of the several States, the District of Columbia, and the Commonwealth of Puerto Rico."**]**	This was a one-time activity. All States will have created a spend plan in FY 2009. In addition, there is funding within the infectious disease line to reduce healthcare-associated infections.
["…of which $4,500,000 shall be for use by or in support of the Advisory Board on Radiation and Worker Health ("the Board") to carry out its statutory responsibilities, including obtaining audits, technical assistance, and other support from the Board's audit contractor with regard to radiation dose estimation and reconstruction efforts, site profiles, procedures, and review of Special Exposure Cohort petitions and evaluation reports: *Provided*, That this amount shall be available consistent with the provision regarding administrative expenses in section 151(b) of division B, title I of Public Law 106-554."**]**	The Advisory Board on Radiation and Worker Health will be funded out of the $55,358,000 appropriation to administer the Energy Employees Occupational Illness Compensation Program Act.

AMOUNTS AVAILABLE FOR OBLIGATION

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
DISEASE, CONTROL, RESEARCH AND TRAINING
AMOUNTS AVAILABLE FOR OBLIGATION [1]

	FY 2008 Actual	FY 2009 Estimate	FY 2010 Pres. Budget
General Fund Discretionary Appropriation:			
Annual	6,156,541,000	6,283,350,000	6,312,608,000
Rescission	(106,568,000)	-	-
Unobligated balance permanently reduced - Bulk Monovalent	-	-	-
Subtotal, adjusted Appropriation	**6,049,973,000**	**6,283,350,000**	**6,312,608,000**
Transfers to Other Accounts (Section 202 Transfer to CMS)	-	-	-
Transfers from Other Accounts (Office of the Secretary)	-	-	-
Transfers from Other Accounts (Department of State)	-	-	-
Subtotal, adjusted General Fund Discr. Appropriation	**6,049,973,000**	**6,283,350,000**	**6,312,608,000**
Mandatory Appropriation:			
Appropriation (CRADA)	2,216,000	1,750,000	1,750,000
Appropriation (EEOICPA)	-	55,358	55,385
Vaccines for Children	2,719,702,000	3,377,911,000	3,323,770,000
Subtotal, adjusted Mandatory Appropriation	**2,721,918,000**	**3,379,716,358**	**3,325,575,385**
Receipts from CRADA	2,215,000	1,750,000	1,750,000
Recovery of prior year Obligations	223,715,000	-	-
Unobligated balance start of year	(419,221,000)	(347,696,000)	(380,000,000)
Unobligated balance expiring	(1,694,000)	-	-
Unobligated balance end of year	347,696,000	380,000,000	347,696,000
Total Obligations	**8,924,602,000**	**9,697,120,358**	**9,607,629,385**

[1] Excludes the following amounts for reimbursements: FY 2008 $508,598,000; and FY 2009 $439,215,000.

SUMMARY OF CHANGES

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
SUMMARY OF CHANGES
(DOLLARS IN THOUSANDS)

	Dollars	FTEs
FY 2010 Budget (Budget Authority)	**$6,312,608**	**9,491**
FY 2009 Enacted (Budget Authority)	**$6,283,350**	**9,354**
Net Change	**$29,258**	**137**

	FY 2009 Appropriation		Change from Base	
	FTE	Budget Authority	FTE	Budget Authority
Increases:				
Domestic HIV/AIDS Prevention and Treatment	---	$691,860	---	$51,000
Food Safety	---	$22,520	---	$4,000
Emerging Infectious Diseases	---	$157,426	---	$10,000
REACH	---	$35,553	---	$4,000
School Health	---	$57,636	---	$5,000
Safe Motherhood - Prevention of Teen Pregnancy	---	$44,777	---	$5,000
Paralysis Reseach Center	---	$5,717	---	$2,000
Autism	---	$20,400	---	$1,600
Health Informatics	---	$45,324	---	$15,511
Domestic Violence	---	$31,283	---	$3,000
Nanotechnology - NIOSH	---	$0	---	$5,000
Global Immunization	---	$143,326	---	$10,000
Business Services Support	---	$359,877	---	$10,000
Public Health Emergency Preparedness Cooperative Agreement	---	$746,596	---	$14,177
Strategic National Stockpile	---	$570,307	---	$25,186
Pay Raise	---	N/A	---	$19,656
Total Increases	**N/A**	**$2,932,602**	**N/A**	**$185,130**
Decreases:				
Mind-body Research Program	---	$1,500	---	($1,500)
Health Marketing	---	$37,800	---	($3,000)
Congressional Projects (PHIL)	---	$21,997	---	($21,997)
Buildings and Facilities	---	$151,500	---	($121,500)
Anthrax	---	$7,875	---	($7,875)
Total Decreases	**N/A**	**$220,672**	**0**	**($155,872)**
Built-In:				
1. January 2009 Pay Raise/Locality Pay	---	---	---	$0
2. Annualization of FY 2008 Pay Increase	---	---	---	$0
3. Changes in Day of Pay	---	---	---	$0
4. Within-Grade Increases	---	---	---	$12,157
5. Rental Payments to GSA and Others	---	---	---	$1,374
6. HHS Service & Supply Fund	---	---	---	$0
7. Medical Inflation	---	---	---	$327
8. Inflation Costs on Other Objects	---	---	---	$7,390
Total Built-In	**9,354**	**$6,283,350**	**137**	**$21,247**
1. Absorption of Current Services	---	---	---	($21,247)
Total	---	---	---	($21,247)
Total Increases (Budget Authority)	**9,354**	**$6,283,350**	**137**	**$206,377**
Total Decreases (Budget Authority)	**N/A**	**N/A**	**0**	**($177,119)**
NET CHANGE - L/HHS/ED BUDGET AUTHORITY	**9,354**	**$6,283,350**	**137**	**$29,258**
Program Level Changes				
1. Vaccines for Children	---	$3,377,911	---	($54,141)
2. ATSDR*	292	$74,039	14	$2,753
3. PHS Evaluation Transfers	---	331,251	---	($399)
- Health Statistics	---	*$124,701*	---	*$13,299*
- Health Informatics	---	*27,751*	---	*($15,511)*
- Pay Raise	---	*N/A*	---	*$1,813*
4. User Fees	---	2,226	---	$0
5. EEIOCPA	---	$55,358	---	$0
Total - Program Level Net Increase	**292**	**$3,840,785**	**14**	**($51,787)**
NET CHANGE: BUDGET AUTHORITY & PROGRAM LEVEL	**9,646**	**$10,124,135**	**151**	**($22,529)**

* Includes pay raise

BUDGET AUTHORITY BY ACTIVITY (ALL PURPOSE TABLE)

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
ALL PURPOSE TABLE
(DOLLARS IN THOUSANDS)

Budget Activity	FY 2008 Appropriations	FY 2009 Omnibus	FY 2009 Recovery Act [1]	FY 2010 President's Budget
Infectious Diseases [2, 3]				
Budget Authority	$1,891,741	$1,935,033	$300,000	$2,006,758
PHS Evaluation Transfers	*$12,794*	*$12,794*	*$0*	*$12,864*
Subtotal, Infectious Diseases -	***$1,904,535***	***$1,947,827***	***$300,000***	***$2,019,622***
Health Promotion	**$961,193**	**$1,019,708**	**$0**	**$1,038,255**
Health Information and Service				
Budget Authority	$89,868	$83,124	$0	$96,690
PHS Evaluation Transfers	*$186,910*	*$196,232*	*$0*	*$195,094*
Subtotal, Health Information and Service -	***$276,778***	***$279,356***	***$0***	***$291,784***
Environmental Health and Injury Prevention	**$289,323**	**$330,657**	**$0**	**$335,016**
Occupational Safety and Health				
Budget Authority	$286,985	$268,834	$0	$276,664
PHS Evaluation Transfers	*$94,969*	*$91,225*	*$0*	*$91,724*
Subtotal, Occupational Safety and Health -	***$381,954***	***$360,059***	***$0***	***$368,388***
Global Health [4, 5]	***$302,371***	***$308,824***	***$0***	***$319,134***
Public Health Research (PHS Evaluation Transfers)	***$31,000***	***$31,000***	***$0***	***$31,170***
Public Health Improvement and Leadership (PHIL)	***$224,899***	***$209,136***	***$0***	***$188,586***
Preventive Health & Health Services Block Grant (PHHSBG)	**$97,270**	**$102,000**	**$0**	**$102,034**
Buildings and Facilities	**$55,022**	**$151,500**	**$0**	**$30,000**
Business Services Support	**$371,847**	**$359,877**	**$0**	**$372,662**
Terrorism [6]	***$1,479,455***	***$1,514,657***	***$0***	***$1,546,809***
Total, L/HHS/ED -	***$6,049,974***	***$6,283,350***	***$300,000***	***$6,312,608***
Total, L/HHS/ED (inc. PHS) -	***$6,375,647***	***$6,614,601***	***$300,000***	***$6,643,460***
PHS Evaluation Transfer (non-add)	*$325,673*	*$331,251*	*$0*	*$330,852*
Agency for Toxic Substances and Disease Registry	$74,039	$74,039	$0	$76,792
Vaccines for Children	$2,719,702	$3,377,911	$0	$3,323,770
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)	$0	$55,358	$0	$55,358
User Fees	$2,226	$2,226	$0	$2,226
Total, CDC/ATSDR Program Level -	***$9,171,614***	***$10,124,135***	***$300,000***	***$10,101,606***
Full-Time Equivalents (FTEs) -	***8,951***	***9,646***	***N/A***	***9,797***

[1] American Recovery and Reinvestment Act (ARRA) funding included on this table refelects what was approapriated to CDC. CDC may receive additional ARRA funding from HHS.

[2] The FY 2008 appropriation levels have been revised to reflect proposed consolidation of Flu funding. The FY 2009 CDC budget consolidated all Flu funding lines to one line under Infectious Diseases.

[3] The FY 2008 Infectious Diseases funding includes a comparability adjustment of -$2.1 million. In the FY 2009 budget, CDC transfered the funds to support AIDS Clearing House activities currently financed by the National Center for Health Marketing.

[4] Funding does not include transfers to CDC from the Department of State Office of the Global AIDS Coordinator ($1,262,668 million in FY 2008), as part of the President's Emergency Plan for AIDS Relief.

[5] The FY 2008 Global Helath appropriation amount includes a comparability adjustment of -$0.6 million. In the FY 2009 budget, CDC transfered the funds to support AIDS Clearing House activities currently financed by the National Center for Health Marketing.

[6] The FY 2008 for Terrorism appropriation includes a comparability adjustment of -$7.4 million. In the FY 2009 budget, CDC transferred funds from the Strategic National Stockpile program to Business Services Support to fund CDC-wide administrative and business service support activities.

AUTHORIZING LEGISLATION

DOLLARS IN THOUSANDS	FY 2009 AMOUNT AUTHORIZED	FY 2009 OMNIBUS	FY 2010 AMOUNT AUTHORIZED	FY 2010 BUDGET
Infectious Diseases:				
Immunization and Respiratory Diseases	Indefinite	$716,048	Indefinite	$717, 460
PHSA §§ 301, 307, 310, 311, 317, 317A, 317J, 317K, 319, 319E, 327, 340C, 352, 2125, 2126, 2127 Section 1928 of Social Security Act (42 U.S.C 1396s) Pandemic Influenza: PHSA §§ 317N, 317S, 319, 319C, 319F, 322, 325, 327 Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8 USC Sec. 1252) Pandemic and All Hazards Preparedness Act (PAHPA) of 2006				
HIV/AIDS, Viral Hepatitis, STD, and TB Prevention	Indefinite	$1,006,375	Indefinite	$1,060,299
PHSA §§ 301, 306[1], 307, 308, 310, 311, 317 , 317E, 317N, 317P, 318[1], 318A[1], 318B [2] , 322, 325, 327, 352, 1102, 2315, 2317, 2320, 2341, 2500, 2521, 2522, 2523, 2524, 2625 [2] Tuskegee Health Benefits: P.L. 103-333 Section 502 of Ryan White CARE Act Amendments of 2000 (P.L. 106-345) International authorities- Division F, Section 213 of the Omnibus Appropriations Act of 2009 (P.L. 111-8)				
Zoonotic, Vector-Borne, and Enteric Diseases	Indefinite	$67,978	Indefinite	$73,122
PHSA §§ 301, 307, 310, 311, 317, 317N, 317P, 317R, 317S, 318, 319, 319E, 319F, 319G[3], 321, 322, 325, 327, 352, 361, 362, 363, 1102 Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8 USC Sec. 1252)				
Preparedness, Detection, and Control of Infectious Diseases	Indefinite	$1,947,827	Indefinite	$2,019,622
PHSA §§ 301, 304, 307, 310, 311, 317, 317G, 319, 319D, 319E, 319G, 321, 322, 325, 327, 352, 361-369, 1102, Immigration and Nationality Act Sec. 212 (8 USC Sec. 1182) Immigration and Nationality Act Sec. 232 (8 USC Sec. 1252) Immigration and Nationality Act Sec.412 (8 USC Sec. 1522)				
Health Promotion:				

DOLLARS IN THOUSANDS	FY 2009 AMOUNT AUTHORIZED	FY 2009 OMNIBUS	FY 2010 AMOUNT AUTHORIZED	FY 2010 BUDGET
Chronic Disease Prevention, Health Promotion, and Genomics	Indefinite	$881,686	Indefinite	$896,239
PHSA §§ 301, 307, 310, 311, 317, 317C, 317D, 317H[2], 317K[2], 317L[2], 317M[2], 330E[2], 399B-399D[1], 399F[1], 399H-399J[1], 399L[2] 399N [2], 399W-399Z[2], 1102, 1509, 1701, 1702, 1703, 1704, 1706[1] Comprehensive Smoking Education Act of 1984 (P.L. 99-474) Comprehensive Smokeless Tobacco Health Education Act of 1986 (P.L. 99-252) Fertility Clinic Success Rate and Certification Act of 1992 (P.L. 102-493) Asthmatic Schoolchildren's Treatment and Health Management Act of 2004 (P.L. 108-377) Benign Brain Tumor Cancer Registries Amendment Act (P.L. 107-260) Breast and Cervical Cancer Mortality Prevention Act (P.L. 101-354) Prematurity Research Expansion and Education for Mothers who Deliver Infants Early Act (P.L. 109-450) Public Health Cigarette Smoking Act of 1969 (P.L. 91-222)				
Birth Defects, Developmental Disabilities, Disabilities & Health	Indefinite	$138,022	Indefinite	$142,016
PHSA §§ 301, 307, 310, 311, 317, 317C[4], 317J[2], 327, 352, 399G, 399H, 399I, 399J, 399M[1],1102, 1108[2] PHSA Title IV[2]				
Health Information and Service:				
Health Statistics	Indefinite	$124,701	Indefinite	$138,683
PHSA §§ 301, 304, 306[1] 307, 308 1% Evaluation: PHSA § 241 (non-add); Superseded by Section 206 of the FY 2002 Labor HHS Appropriations Act [P.L. 107-116]	Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary		Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary	
Public Health Informatics	Indefinite	$70,075	Indefinite	$70,597
PHSA §§ 301, 304, 306[1], 307, 308, 310, 311, 317, 318[1], 319, 319A, 327, 352, 391[2], 1102, 2315, 2341, Clinical Laboratory Improvement Amendments of 1988, § 4 (42 USC Sec. 263a)				
Health Marketing	Indefinite	$84,580	Indefinite	$82,504
PHSA §§ 301, 304, 307, 308, 310, 311, 317, 318[1], 319, 319A[3], 327, 352, 391[2], 1102, 2315, 2341, 2521				
Environmental Health and Injury:				
Environmental Health	Indefinite	$185,415	Indefinite	$186,401

DOLLARS IN THOUSANDS	FY 2009 AMOUNT AUTHORIZED	FY 2009 OMNIBUS	FY 2010 AMOUNT AUTHORIZED	FY 2010 BUDGET
PHSA §§ 301, 307, 310, 311, 317, 317A[2], 317B, 317I[2], 327, 352, 361, 1102 Housing and Community Development Act, Sec. 1021 (15 U.S.C. 2685) Chemical Weapons Elimination Activities (50 USC Sec. 1512, 50 USC Sec. 1521) Housing and Community Development (Lead Abatement) Act of 1992 (42 USC Sec. 4851 et seq.)				
Injury Prevention and Control	Indefinite	$145,242	Indefinite	$148,615
PHSA §§ 301, 307, 310, 311, 317, 319, 327, 352, 391, 392, 393, 393A, 393B, 393C, 393D, 394, 394A[2] Traumatic Brain Injury Act of 2008 (P.L. 110-206) Safety of Seniors Act of 2007 (P.L. 110-202) Sec 413 of the Family Violence Prevention and Services Act (42 USC Sec. 10418)				
Occupational Safety and Health:				
Occupational Safety and Health	Indefinite	$360,059	Indefinite	$368,388
PHSA §§ 301, 304, 306[1], 307, 310, 311, 317, 317A[2], 317B, 327 Occupational Safety and Health Act of 1970 (P.L. 91-596), §§ 9, 20-22 (29 USC 657) Federal Mine Safety and Health Act of 1977, P.L. 91-173 as amended by P.L. 95-164, §§ 101, 102, 103, 202, 203,204, 205, 206, 301, 501, 502, 508 and PL 95-239 § 19 (30 USC 904) Federal Fire Prevention and Control Act, § 209, (29U.S.C.671(a)) Radiation Exposure Compensation Act, §§ 6 and 12(42U.S.C.2210) Housing and Community Development Act of 1922 §1021 (15 U.S.C. 2685) Energy Employees Occupational Illness Compensation Program Act (2000) 42 U.S.C. 7384, et. Seq. (as amended) Floyd D. Spence National Defense Authorization Act §§ 3611, 3612, 3623, 3624, 3625, 3626 of P.L. 106-398 National Defense Authorization Act for Fiscal Year 2006, PL 109-163 Toxic Substances Control Act (15 USC 2682) Prohibition of Age Discrimination Act (29 USC 623) Mine Improvement and New Emergency Response Act of 2006 (MINER Act), P.L. 109-236 (29 U.S.C. 671, 30 U.S.C. 963 and 965) §§ 6, 11 and 13				
Global Health:				
Global Health	Indefinite	$308,824	Indefinite	$319,134
PHSA §§ 301, 304, 307, 310, 319, 327, 340C,				

DOLLARS IN THOUSANDS	FY 2009 AMOUNT AUTHORIZED	FY 2009 OMNIBUS	FY 2010 AMOUNT AUTHORIZED	FY 2010 BUDGET
361-369, 2315, 2341 Foreign Assistance Act of 1961 §§ 104, 627,628 Federal Employee International Organization Service Act § 3 International Health Research Act of 1960 § 5 Agriculture Trade Development and Assistance Act of 1954 § 104 Economy Act 22 U.S.C. 3968 Foreign Employees Compensation Program 41 U.S.C. 253 International Competition Requirement Exception) Division F, Section 213 of the Omnibus Appropriations Act of 2009, P.L. 111-8				
Public Health Research:				
Public Health Research	Indefinite	$31,000	Indefinite	$31,170
PHSA §§ 301, 304, 307, 310, 317, 327	Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary		Not more than 1.25% of amounts appropriated for PHSA programs as determined by the Secretary	
Public Health Improvement and Leadership:				
Public Health Improvement	Indefinite	$209,136	Indefinite	$188,586
PHSA §§ 301, 304, 306[1], 307, 308, 310, 311, 317, 317(F), 319, 319A[3], 322, 325, 327, 352, 361 -369, 391[2], 399(F), 399G, 1102, 2315, 2341 Federal Technology Transfer Act of 1986, (15 U.S.C. 3710) Bayh-Dole Act of 1980, P.L. 96-517 Clinical Laboratory Improvement Amendments of 1988, § 4 (42 USC Sec. 263a)				
Preventive Health and Health Services Block Grant:				
Preventive Health and Health Services Block Grant	Indefinite	$102,000	Indefinite	$102,034
Grants: PHSA Title XIX[1] Prevention Activities: PHSA §§ 214, 301, 304, 306[1], 307, 308, 310, 311, 317J[2], 327 Violent Crime Reduction Programs 40151 of P.L. 103-322				
Buildings and Facilities:				
Buildings and Facilities	Indefinite	$151,500	Indefinite	$30,000
PHSA §§ 304 (b)(4), 319D[3], 321(a)				
Business Services Support:				
Business Services Support	Indefinite	$359,877	Indefinite	$372,662

DOLLARS IN THOUSANDS	FY 2009 AMOUNT AUTHORIZED	FY 2009 OMNIBUS	FY 2010 AMOUNT AUTHORIZED	FY 2010 BUDGET
PHSA §§ 301, 304, 307, 310, 317[3], 317F[1], 319, 327, 361, 362, 368, 399F[1] Federal Technology Transfer Act of 1986, (15 U.S.C. 3710) Bayh-Dole Act of 1980, P.L. 96-517				
Terrorism:				
Terrorism	Indefinite	$1,514,657	Indefinite	$1,546,809
PHSA §§ 301, 307, 311, 317[3], 319, 319A 319C-1, 319D[3], 319F[3], 319G[3], 351A, 361-368, 2801, 2811 42 U.S.C. 262 note,. Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (P.L. 107-188) Pandemic and All Hazards Preparedness Act of 2006 (P.L. 109-417)				
Reimbursables and Trust Funds: (non-add)				
PHSA §§ 301, 306(b)(4)[1], 353 Clinical Laboratory Improvement Act User fee: Labor-HHS FY Appropriations	Indefinite	$439,215	Indefinite	$439,215
Agency for Toxic Substances and Disease Registry:				
ATSDR	Indefinite	$74,039	Indefinite	$76,792
The Great Lakes Critical Programs Act of 1990, 33 U.S.C. § 1268 Section 104(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C § 9604(i) The Defense Environmental Restoration Program, 10 U.S.C. § 2704 The Resource Conservation and Recovery Act, as amended, 42 U.S.C § 321 et seq. The Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.				
Total Appropriation		$10,124,135		$10,101,606

[1] Expired Prior to 2005
[2] Expired 2005
[3] Expired 2006
[4] Expired 2007

APPROPRIATIONS HISTORY

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION[1]
APPROPRIATION HISTORY TABLE
DISEASE CONTROL, RESEARCH, AND TRAINING

	Estimate	House Allowance	Senate Allowance	Appropriation
1997	2,229,900,000	2,187,018,000	2,209,950,000	2,302,168,000 [2]
1998	2,316,317,000 [3]	2,388,737,000	2,368,133,000	2,374,625,000 [4]
1998 Supplemental	--	--	--	9,000,000 [5]
1999	2,457,197,000	2,591,433,000	2,366,644,000 [6]	2,609,520,000 [7]
1999 Offset	--	--	--	(2,800,000) [8]
1999 Resc./1% Transfer	--	--	--	(3,539,000)
2000	2,855,440,000 [9]	2,810,476,000	2,802,838,000	2,961,761,000 [10]
2000 Rescission	--	--	--	(16,810,000)
2001	3,239,487,000	3,290,369,000	3,204,496,000	3,868,027,000
2001 Rescission	--	--	--	(2,317,000)
2001 Sec's 1% Transfer	--	--	--	(2,936,000)
2002	3,878,530,000	4,077,060,000	4,418,910,000	4,293,151,000 [11]
2002 Rescission	--	--	--	(1,894,000)
2002 Rescission	--	--	--	(2,698,000)
2003	4,066,315,000	4,288,857,000	4,387,249,000	4,296,566,000
2003 Rescission	--	--	--	(27,927,000)
2003 Supplemental [12]	--	--	--	16,000,000
2004 [13]	4,157,330,000	4,538,689,000	4,494,496,000	4,367,165,000
2005 [13 14]	4,213,553,000	4,228,778,000	4,538,592,000	4,533,911,000
2005 Labor/HHS Reduction	--	--	--	(1,944,000)
2005 Rescission	--	--	--	(36,256,000)
2005 Supplemental [14]	--	--	--	15,000,000
2006 [13 15]	3,910,963,000	5,945,991,000	6,064,115,000	5,884,934,000
2006 Rescission	--	--	--	(58,848,000)
2006 Suplemental [16]	--	--	--	275,000,000
2006 Supplemental [17]	--	--	--	218,000,000
2006 Section 202 Transfer to CMS	--	--	--	(4,002,000)
2007 [15 16 18]	5,783,205,000	6,073,503,000	6,095,900,000	5,736,913,000
2008 [15]	5,741,651,000	6,138,253,000	6,156,169,000	6,156,541,000
2008 Rescission [15]	--	--	--	(106,567,000)
2009 Appropriation	5,618,009,000	6,202,631,000	6,313,674,000	6,283,350,000
2009 American Reinvestment & Recovery Act [19]				300,000,000
FY 2010 President's Budget	6,312,608,000	--	--	--

[1] Does not include funding for ATSDR

[2] Includes $32,000,000 for the transfer of the Bureau of Mines. Transfer occurred in FY 1997.

[3] Includes $522,000 supplemental increase for ICASS activities.

[4] Includes $509,000 supplemental increase for ICASS activities/transfer from Department of State and a $4.436 million reduction due to the exercise of the Secretary's 1% Transfer Authority.

[5] This supplemental increase was provided for emergency Polio eradication efforts in Africa.

[6] Does not include emergency funding provided under the Public Health and Social Services Emergency Fund (PHSSEF) for $228,400,000 or $25,000,000 in interagency transfer from NIH for state tobacco control activities.

[7] Does not include $156,600,000 in FY 1999 for emergency funding provided under the PHSSEF for Bioterrorism, Polio & Measles, and the Environmental Health Laboratory.

[8] This offset was used to fund Bioterrorism across the Department of Health and Human Services.

[9] Revised to include $35,000,000 for Global HIV initiative. Does not include $20,000,000 ($18,040,000 with rescission of $1,960,000) transferred from NIH for Anthrax.

[10] Does not include $229,000,000 ($228,680,000 with rescission of $320,000) in FY 2000 for emergency funding provided under the PHSSEF for Bioterrorism, Global AIDS, Polio, Malaria, Micronutrient Malnutrition, and the Environmental Health Laboratory.

[11] Includes Retirement accruals of +$57,297,000; Management Reform Savings of -$27,295,000

[12] Emergency Wartime Supplemental Appropriations Act, 2003 PL 108-11 for SARS

[13] FY 2004, FY 2005, FY 2006, funding levels for the Estimate reflect the Proposed Law for Immunization.

[14] FY 2005 includes a one time supplemental of $15,000,000 for avian influenza through the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005.

[15] Beginning in FY 2006, Terrorism funds are directly appropriated to CDC instead of being appropriated to the Public Health and Social Service Emergency Fund (PHSSEF). As a result, FY 2006 House, Senate, and Appropriation totals include Terrorism funds. Terrorism funding is included in CDC Appropriation after 2006.

[16] FY 2006 includes a one-time supplemental of $275 million for pandemic influenza and World Trade Center activities through P.L.109-141, Department of Defense Emergeny Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006

[17] FY 2006 includes a one time supplemental of $218 million for pandemic influenza, mining safety, and mosquito abatement through P.L. 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006.

[18] The FY 2007 appropriation amount listed is the FY 2007 estimated CR level based on a year long Continuing Resolution.

[19] FY 2009 Appropriation amount display $300M Section 317 funds for American Reinvestment & Recovery Act

FY 2009 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION [1] APPROPRIATION HISTORY TABLE TERRORISM FUNDING				
	Estimate	House Allowance	Senate Allowance	Appropriation
1999	---	43,000,000 [1]	81,000,000	123,600,000
2000	118,000,000	138,000,000	189,000,000	155,000,000
2000 Rescission	---	---	---	(320,000)
2001	148,500,000	182,000,000	148,500,000	180,919,000
2002	181,919,000	231,919,000	181,919,000	181,919,000
2002 PHSSEF [2]	---	---	---	2,070,000,000
2002 Rescission [3]	---	---	---	(396,000)
2003 [4]	1,116,740,000	1,522,940,000	1,536,740,000	---
2003 Transfer [5]	(400,000,000)	---	---	---
2004 [4]	1,116,156,000	1,116,156,000	1,116,156,000	1,507,211,000
2004 Transfer [6]	(400,584,000)	---	---	---
2005	1,509,571,000	1,637,760,000	1,639,571,000	1,577,612,000
2005 Labor/HHS Reduction	---	---	---	(271,000)
2005 Rescission	---	---	---	(12,584,000)
2005 Supplemental [7]	---	---	---	58,000,000
2006 [8,9]	1,796,723,000	---	---	---

[1]This funding was an amendment to the original House mark, which did not include Bioterrorism.

[2]Public Health and Social Services Emergency Fund

[3]Administrative and Related Expenses Reduction.

[4]Funding will be provided through the Public Health and Social Services Emergency Fund (PHSSEF).

[5]$300,000,000 for the National Pharmaceutical Stockpile and $100,000,000 for Smallpox to the Department of Homeland Security.

[6]Same transfer as FY 2003 to the Department of Homeland Security, plus an additional $584,000 for support/overhead.

[7]FY 2005 includes a one time supplemental of $58,000,000 for avian influenza through the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005.

[8]Starting with the FY 2006 House Mark, Terrorism funds are directly appropriated to CDC instead of being appropriated to the Public Health and Social Service Emergency Fund (PHSSEF). As a result these funds are now included in CDC's appropriation history table.

[9]The FY 2006 President's Budget for Terrorism was amended after submission of the FY 2006 Justification of Estimates for Appropriations Committee to include an additional $150,000,000 for influenza activities through the Strategic National Stockpile.

NARRATIVE BY ACTIVITY

COORDINATING CENTER FOR INFECTIOUS DISEASES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$1,891,741,000	$1,935,033,000	$300,000,000	$2,006,758,000	+$71,725,000
PHS Evaluation Transfers	$12,794,000	$12,794,000	$0	$12,864,000	+$70,000
Total	$1,904,535,000	$1,947,827,000	$300,000,000	$2,019,622,000	+$71,795
FTEs	2,797	3,088	0	3,167	0

SUMMARY OF THE REQUEST

The Infectious Disease budget supports critical management and coordination functions for infectious disease science, programs, and policies which include disease-specific epidemiology and laboratory activities. The four functional areas by which the budget activity is organized are vaccine preventable diseases; routes of disease transmission, sexually transmitted diseases, and preparedness and response. The specific budget categories within Infectious Diseases are:

- Immunization and Respiratory Diseases;
- Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS), Viral Hepatitis, Sexually Transmitted Diseases (STDs) and Tuberculosis (TB) Prevention;
- Zoonotic, Vector-Borne, and Enteric Diseases; and
- Preparedness, Detection, and Control of Infectious Diseases.

CDC's FY 2010 request includes $2,019,622,000 for the Coordinating Center for Infectious Diseases, an increase of $71,795,000 above the FY 2009 Omnibus. This increase reflects $6,795,000 for pay increases and $65,000,000 for non-pay increases to include the following:

- $717,460,000 for the Immunization and Respiratory Diseases program, an increase of $1,412,000 above the FY 2009 Omnibus, to prevent disease, disability, and death through immunization and control of respiratory and related diseases; reduce the burden of complications associated with pneumonia and influenza; and improve preparedness and response capacity for a potential influenza pandemic.
- $1,060,299,000 for the HIV/AIDS, Viral Hepatitis, STD, and TB Prevention program, an increase of $53,924,000 above the FY 2009 Omnibus, to prevent, eliminate, and control diseases, disability, and death caused by HIV/AIDS, non-HIV retroviruses, viral hepatitis, STDs, TB, and non-tuberculosis mycobacteria. This increase reflects $2,924,000 for pay increases and $51,000,000 for non-pay increases.
- $73,122,000 for the Zoonotic, Vector-Borne, and Enteric Diseases program, an increase of $5,144,000 above the FY 2009 Omnibus, to protect, identify, investigate, and diagnose, as well as prevent and control diseases associated with zoonotic (animal to-human transmission), vector-borne (insects or ticks), waterborne, and foodborne (enteric).
- $168,741,000 for the Preparedness, Detection, and Control of Infectious Diseases program, an increase of $11,315,000 above the FY 2009 Omnibus, to improve the detection of disease emergencies and outbreaks and to provide sound epidemiological and operational response during events. These resources enhance and promote improved laboratory practices as well as to develop, evaluate, and implement methods and systems to improve overall laboratory quality.

IMMUNIZATION AND RESPIRATORY DISEASES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$671,840,000	$703,254,000	$300,000,000	$704,596,000	+$1,342,000
PHS Evaluation Transfers	$12,794,000	$12,794,000	$0	$12,864,000	+$70,000
Total	$684,634,000	$716,048,000	$300,000,000	$717,460,000	+$1,412,000

SUMMARY OF THE REQUEST

CDC provides leadership in preventing disease, disability, and death through immunization and control of respiratory and related diseases. In the United States, immunization programs have made major contributions to the elimination of many vaccine-preventable diseases and significant reductions in the incidence of other vaccine-preventable diseases. CDC is working throughout the world to implement a pandemic influenza strategy that will also improve prevention of and response to seasonal influenza. CDC's efforts support the President's National Strategy on Pandemic Influenza, the Department of Health and Human Services Pandemic Influenza Plan, and other initiatives to ensure that the United States is prepared for an influenza pandemic. CDC's domestic and global Immunization and Influenza programs are supported by CDC's infectious disease infrastructure, which integrates epidemiologic and laboratory capacity, advancing knowledge of disease burden, and effective strategies to prevent disease. Supported by this strong integrated infrastructure, CDC's Immunization and Respiratory Disease programs improve local, state, national, and global public health capacity to respond to outbreaks of respiratory and related infectious diseases.

CDC's FY 2010 request includes $717,460,000 for Immunization and Respiratory Disease, an increase of $1,412,000 above the FY 2009 Omnibus for pay increases. This includes the following:

- $558,468,000 for the Immunization Program to support efforts to plan, develop, and maintain a public health infrastructure that helps assure high immunization coverage levels, including low incidence of vaccine-preventable diseases.
- $158,992,000 for the Influenza Program to provide the highest quality public health preparedness and response to limit morbidity and mortality from influenza both domestically and globally, including seasonal (annual) influenza, avian influenza, and pandemic influenza.

These programs are among the Infectious Disease programs subject to reauthorization. Immunization and Respiratory Disease related Infectious Disease Programs do not anticipate a reauthorization action in FY 2010.

Consistent with the multi-center funding streams for infectious disease activities, related National Center for Immunization and Respiratory Disease functions and programs not described in the Immunization or Influenza sections are described in the following sections:

- Emerging Infections and Antimicrobial Resistance sections of Preparedness, Detection, Control of Infections Diseases;
- Food Safety section of Zoonotic, Vector Borne, and Enteric Diseases; and,
- Global Immunization section of Global Health.

IMMUNIZATION PROGRAM

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Section 317 Immunization Program	$465,901,000	$495,901,000	$300,000,000	$496,847,000	+$946,000
Program Operations	$61,458,000	$61,458,000	$0	$61,621,000	+$163,000
Total	$527,359,000	$557,359,000	$300,000,000	$558,468,000	+$1,109,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317(a), 317(j), 317(k)(1), 319, 319E, 327, 340C, 352, 2125, 2126, 2127, Title XXI, 1928 of Social Security Act (42 USC 1396s)

FY 2010 Authorization……..……..Indefinite

Allocation Methods…….……..Direct Federal/Intramural; Formula Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Vaccines are one of the most successful and cost-effective public health tools for preventing disease and death.

COST-EFFECTIVENESS OF CHILDHOOD VACCINES

For every $1.00 spent on an individual vaccine:

- Diphtheria-Tetanus-acellular Pertussis (DTaP) saves $27.00
- Measles, Mumps, and Rubella (MMR) saves $26.00
- Perinatal Hepatitis B saves $14.70
- Varicella saves $5.40
- Inactivated Polio (IPV) saves $5.45

For every $1.00 spent:

- Childhood Series (7 vaccines) saves $16.50[1]

[1] Series includes DTaP, Td, Hib, IPV, MMR, Hep B and Varicella
Source: various peer reviewed publications. Direct and indirect savings included.

An economic impact evaluation of seven vaccines (DTaP, Td, Hib, polio, MMR, hepatitis B, and varicella) routinely given as part of the childhood immunization schedule found that vaccines are tremendously cost-effective. Routine childhood vaccination with these seven vaccines resulted in annual cost savings of $9,900,000,000 in direct medical costs and an additional $33,400,000,000 in indirect cost savings. Indirect cost savings are the economic productivity losses that are averted by keeping vaccinated individuals healthy and productive by preventing morbidity or mortality associated with vaccine-preventable diseases.

The two primary federal programs that support immunization in the United States are the Section 317 Immunization Program and the Vaccines for Children program. These two programs combined provide nearly 50 percent of the pediatric vaccines and thirty percent of the adolescent vaccines (Tdap, MCV4, and HPV) distributed in the United States each year.

In 1962, with the enactment of the Vaccination Assistance Act, the Section 317 Immunization Program (Section 317 of the Public Health Service Act) was created. The Program is a discretionary federal grant program to 64 state and local public health immunization programs that include all 50 states, six city/urban areas, and eight U.S. territories and protectorates. The purpose of the Section 317 Program is to support efforts to plan, develop, and maintain a public health infrastructure that helps assure high immunization coverage levels and low incidence of vaccine-preventable diseases. As part of this effort, the Section 317 Program also provides vaccines to underinsured children and adolescents not served by the Vaccines for Children program and to uninsured and underinsured adults.

The Section 317 Program remains a significant source of federal funding for most jurisdictional vaccine program operations. Immunization infrastructure is crucial, especially when public health priorities must shift rapidly in the event of an outbreak of a vaccine-preventable disease or a bioterrorism event. Therefore, managing resources to address urgent events or unanticipated shortages pose challenges to state immunization programs.

CDC supports the immunization efforts of states by providing extramural support and funding through grants and contracts for vaccine purchase and operations/infrastructure activities. More than 90 percent of Section 317 Program funds are provided to states through grants for vaccine purchase and for state operations and infrastructure. The remaining funds are used to support CDC operations and infrastructure for immunization and the prevention and control of vaccine-preventable diseases. Section 317 Program funding supports the following activities:

- Vaccine purchase grants: purchase of recommended vaccines through CDC's consolidated vaccine purchase contracts available to all 64 grantees.
- Integration of new vaccines into routine medical care: strategies to increase vaccination coverage rates, and decrease racial and ethnic disparities in immunization coverage.
- Front-line public health professionals: supports public health professionals at the state and local level, including nurses who administer vaccines; public health professionals who work with immunization providers to improve immunization practices and handling of vaccines; and immunization managers who coordinate and direct the complex activities needed to assure vaccination of a population.
- Immunization information systems: tracks the vaccination status of individuals to ensure that individuals are vaccinated appropriately and on-time in order to minimize susceptibility to vaccine-preventable diseases while also eliminating unnecessary immunizations, resulting in more efficient use of resources.
- Disease surveillance systems: monitors the occurrence of vaccine-preventable diseases at the state and local levels in order to help plan immunization strategies as well as facilitate timely response to disease outbreaks.
- Education and outreach activities: public education campaigns, public and private provider education, and quality assurance and improvement reviews.
- Post-licensure vaccine safety surveillance and research activities: identifies and analyzes safety concerns; tests potential vaccine safety hypotheses; standardizes case definitions and clinical guidelines for studying vaccine adverse events; collaborates with partners to develop a scientifically robust vaccine safety research agenda; and fortifies the nation's vaccine safety infrastructure to prepare for and respond to public health emergencies.

The Vaccines for Children (VFC) program, established by Section 1928 of the Social Security Act in 1994, allows eligible children to receive vaccinations as part of routine care, supporting the reintegration of vaccination and primary care. The VFC program serves children through 18 years

of age who meet one of the following criteria: those without health insurance, those eligible for Medicaid, American Indian and Alaska Native children, and underinsured children who receive care through Federally Qualified Health Centers (FQHCs) or Rural Health Centers (RHCs). Through VFC, CDC provides funding to 61 state and local public health immunization programs that include all 50 states, six city/urban areas, and five U.S. territories and protectorates. This funding supports the purchase of recommended pediatric and adolescent vaccines and program operations.

CDC initiated the vaccine management business improvement project (VMBIP) to revamp the entire vaccine distribution process and enhance the efficiency and accountability of vaccine management systems. Funding for VMBIP comes from both VFC and Section 317. VFC provides the majority of funds because most of the vaccine ordered off the CDC managed vaccine contracts with manufacturers and distributed by the centralized distributor are for VFC-eligible children. CDC will continue to leverage commercial best practices to address all aspects of vaccine procurement, ordering, distribution, and management. VMBIP has increased overall program efficiency through inventory reduction and increased visibility of the location of vaccines throughout the program, enhancing CDC's ability to address public health emergencies, such as vaccine shortages. VMBIP will also improve accountability at the individual immunization provider level. Through VMBIP, CDC is working to build a foundation that will support the long-term requirements and accountability of the program.

Assuring strong immunization programs are in place to protect Americans requires the ongoing evaluation of immunization coverage as well as understanding the impact of immunization program efforts on disease outcomes. There are four key performance measures that monitor the impact of the program on disease reduction, immunization coverage, improved vaccine safety surveillance, and improved efficiency.

Impact on Disease Reduction: Measuring the reduction of vaccine-preventable diseases provides essential information to ensure that U.S. immunization policies are effective and safe (see outcome table). The reduction in the number of indigenous case targets have been met or exceeded for five out of nine diseases for which there are routinely recommended childhood vaccines (paralytic polio, measles, diphtheria, congenital rubella syndrome, and tetanus). Although disease reduction achievements are largely due to reaching and maintaining high immunization coverage levels, outbreaks of vaccine-preventable diseases can occur. Hence, U.S. immunization coverage information, as well as, disease incidence information is essential to responding when vaccine-preventable disease outbreaks occur.

- New or expanded immunization recommendations can achieve reductions in disease by limiting exposure of the most vulnerable populations to the disease. For example, to address challenges in reducing pertussis disease, one of the vaccine-preventable diseases for which disease rates remain high, it is likely that 2006 immunization recommendations for adolescents and adults to receive Tdap vaccine may also result in the accelerated reduction of pertussis disease among children.
- Improved laboratory diagnostics can increase understanding about the molecular epidemiology of the disease. This information can be used to improve disease control measures. Appropriate laboratory confirmation of disease was part of the challenge in setting and achieving disease reduction targets for Haemophilis influenza type B.

Immunization Coverage: The nation's childhood immunization coverage rates are at record high levels for most vaccines and for all the vaccination series measures. As childhood immunization coverage rates increase, cases of vaccine preventable diseases decline significantly.

CDC has made significant progress in meeting the performance measure that monitors progress in achieving or sustaining immunization coverage of at least 90 percent in children 19- to 35-months of age with appropriate vaccinations (see output table). For the past six years, the 90 percent

coverage target has been exceeded for four of the seven routinely recommended childhood vaccines (Hib, MMR, hepatitis B, and polio) and reached the 90 percent target for varicella in the past year, (as of 2007, most current data).

- To sustain current high coverage rates and increase coverage rates for vaccines that have not yet reached the 90 percent target, CDC provides funding, guidance, and technical assistance to state and local immunization programs so that they may conduct provider assessments, develop and utilize immunization information systems, and provide education and training to both public and private immunization providers.

Another important performance measure is the increased proportion of adults, 65 years of age and older, who are vaccinated annually against influenza and who are vaccinated against pneumococcal disease (see output table). During the past decade, immunization coverage levels among older adults have slowly increased as CDC implemented national strategies and promoted adult immunization among health care providers and state and local governments. Influenza vaccination coverage levels among the elderly have increased from 30 percent in 1989 to 67percent in 2007 and pneumococcal vaccination levels have increased from 15 percent in 1989 to 58 percent in 2007 (most recent data available).

- Despite the increases in coverage, the performance targets have not been met. Coverage has plateaued in recent years and remains well below the 2010 target of 90 percent coverage. To reach these ambitious targets, CDC and its partners will continue to aggressively promote vaccination. Efforts will encourage health care providers to recommend influenza vaccine to their patients and encourage the vaccination of health care providers, a recommended group with consistently low vaccine coverage.

Improved Vaccine Safety Surveillance and Research: Improved vaccine safety is evaluated through the goal of increasing the total population of managed care organization members from which Vaccine Safety Datalink (VSD) data are derived annually. The VSD Project includes eight managed care organizations that represent approximately three percent of the total U.S. population (8.8 million). Since 2005, a total population of nearly nine million has been achieved. However, the performance target of 10 million has not yet been met due to challenges with adding managed care organizations (MCO's) to VSD. There have been several significant accomplishments in the area of improved vaccine safety surveillance and research not captured by this performance measure. For example,

- VSD published a retrospective cohort study that assessed the relationship between thimerosal and neuropsychological functioning. The weight of the evidence in this study does not support a causal association between early ethyl mercury exposure from thimerosal-containing vaccines and immunoglobulins and neuropsychological functioning at ages 7 to 10 years.
- VSD used Rapid Cycle Analysis (RCA), an innovative methodology that allows for near-real time monitoring of potential adverse events following immunization, in an ongoing study on measles, mumps, rubella, varicella (MMRV) vaccine. This study showed an increased risk for febrile seizures in children who received MMRV, compared with MMR and varicella vaccines at the same visit. This finding contributed to the U.S. Advisory Committee on Immunization Practices' (ACIP) recommendation to remove the preference for MMRV vaccine over MMR and varicella vaccines. VSD also conducted RCA for several other vaccines such as Menactra, Rotateq, HPV, and Tdap, and plan to conduct RCA for Influenza and Rotarix.
- CDC is collaborating with the HHS National Vaccine Program Office (NVPO) to develop a five-year Scientific Agenda for vaccine safety. CDC obtained input from partners, CDC experts, and external consultants in developing this draft agenda and presented it to

NVPO's National Vaccine Advisory Committee's (NVAC's) Safety Working Group. NVAC's Safety Working Group is charged to undertake and coordinate a scientific review of the draft agenda and provide input to CDC.

- In 2008, the Clinical Immunization Safety Assessment (CISA) Network developed an algorithm for managing individuals with immediate hypersensitivity reactions following vaccination for use by allergists and other providers.
- In January 2008, CISA hosted an HHS-National Vaccine Program Office-sponsored conference, "Understanding the Genetic Basis of Vaccine Safety," to identify short- and long-term strategies for integrating genomics into vaccine safety.
- The Brighton Collaboration completed and published 23 case definitions and two general guidelines for use in immunization safety surveillance and research.

Improved Efficiency: The Section 317 Program underwent a program assessment in 2002. The assessment gave the Section 317 Program high marks for its design, function, and success in achieving dramatic disease reduction through childhood immunization. The assessment found that the program would be improved by a more specific mechanism to link successful outcomes to program processes and budgets. Subsequent to the assessment, CDC's national immunization program initiated the vaccine management business improvement project (VMBIP) to revamp the entire vaccine distribution and ordering process and enhance the efficiency and accountability of vaccine management systems. In September 2006, CDC awarded a national centralized vaccine distribution contract to increase the efficiency, visibility, and management of publicly purchased vaccines by centralizing and consolidating vaccine inventory and distribution. The efficiencies gained from consolidation of vaccine depots include improved management of vaccine inventory through use of distribution best practices and increased visibility of the location of vaccines throughout the public vaccine supply chain, thereby enhancing CDC's ability to address public health emergencies such as vaccine shortages, supplying emergency vaccine needs due to outbreaks, and natural disasters.

- The program has met its targets for this measure. As of July 1, 2008, all 64 immunization program grantees have successfully transitioned distribution to the centralized distributor, and the number of depots has been reduced by 98 percent (from 396 depots to eight).

American Recovery and Reinvestment Act of 2009

The American Recovery and Reinvestment Act (ARRA) of 2009 provided a one-time, time-limited appropriation of $300,000,000 to the Section 317 Immunization Program. This funding provides a historic opportunity to make the benefits of vaccination available to more Americans by providing a 40 percent increase in Section 317 Immunization funding over the two-year funding period:

- Making recommended vaccines available by providing program operations grants and CDC-purchased vaccines to all existing Section 317 Immunization Programs[1] through established formula.
- Providing additional program operations grants and CDC-purchased vaccines to selected Section 317 Immunization Programs through a competitive application process to conduct time-limited projects to: 1) improve access to the childhood vaccine series and influenza vaccination through school-located immunization programs; and, 2) demonstrate innovative delivery strategies in the community to increase influenza vaccination across the lifespan and zoster vaccination for seniors.
- Providing additional operations grants to selected Section 317 Immunization Programs through a competitive application process to develop plans that would enable health

[1] Section 317 grantees are all 50 States, Washington DC, 5 urban areas, the U.S. Territories, and selected Pacific Island nations.

departments to bill private insurance for immunization services provided to insurance plan members.
- Increasing public awareness and knowledge about the benefits and risks of vaccines and vaccine preventable diseases through existing CDC contracts, grants and cooperative agreements for communications campaigns and materials, provider education and tools, and public engagement.
- Strengthening the evidence base for current vaccine policies and programs using existing contracts, grants and cooperative agreements for time limited assessments of vaccine preventable disease burden trends and vaccine effectiveness, filling critical gaps in vaccine coverage assessment capability, improving monitoring of vaccination trends and vaccine safety, and short-term training for state public health laboratories.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2000	$373,882,000
FY 2001	$446,028,000
FY 2002	$493,567,000
FY 2003	$502,765,000
FY 2004	$468,789,000
FY 2005	$493,032,000
FY 2006	$517,199,000
FY 2007	$512,804,000
FY 2008	$527,359,000
FY 2009	$557,359,000
FY 2009 Recovery Act	$300,000,000

BUDGET REQUEST

CDC's FY 2010 request includes $558,468,000 for Section 317 Immunization Program activities, an increase of $1,109,000 above the FY 2009 Omnibus for pay increases. This includes:

- $496,847,000 for the Section 317 Program vaccine purchase and state operations and infrastructure grants, and
- $61,621,000 for program operations activities.

The Section 317 Program budget will be used to continue efforts to plan, develop, and maintain a public health infrastructure that helps assure high immunization coverage levels and low incidence of vaccine-preventable diseases. The Section 317 Program budget will continue to provide vaccines to underinsured children and adolescents not served by the VFC program and to uninsured and underinsured adults. In addition, the Section 317 Program budget will support immunization infrastructure activities including vaccine safety surveillance and research activities.

The following are a few of the program's key outputs:

- The number of grantees achieving 80 percent on the 4:3:1:3:3:1 series (four (4) doses DTP or DTaP, three (3) doses Polio, one (1) dose MMR, three (3) doses Hib, three (3) doses Hepatitis B vaccine, and one (1) dose of varicella) has increased from one grantee in 2002 to 12 grantees in 2006 and 2007. One of the major challenges in achieving this target is the number of new vaccines developed, licensed, and recommended for routine use for children or adolescents since 2000, as well as the expansion of routine recommendations for vaccine use (such as expansion of the routine recommendation for individuals of annual

influenza vaccination). With funding in FY 2010, an estimated 39 grantees will achieve an 80 percent level on the 4:3:1:3:3:1 series.

- The number of grantees using Section 317 Program funds to purchase vaccines for adults off the federal adult vaccine contract has increased from 43 grantees in 2004 to 51 in 2008. Grantees prioritize Section 317 Program funds to meet the needs of priority populations who primarily seek vaccination at local health departments. Through this program, states and grantees have broad decision-making ability as to which ages, life stages, high-risk groups, or diseases will be targeted. However, historically, the vast majority of funds have been devoted to vaccinating children. Vaccines are provided to uninsured and underinsured adults as funding is available. With FY 2010 funding, an estimated 48 grantees will continue to use Section 317 funds to purchase vaccines for adults.
- The number of children able to be fully vaccinated with Section 317 Program funds is based on the amount of 317 vaccine purchase funding available divided by the least expensive cost to fully vaccinate a child with all routinely recommended vaccines. Consequently, the number of children represents the maximum number of children that can be vaccinated with Section 317 Program funds. Though the available funding has increased since 2004, the number of children able to be vaccinated has decreased due to the dramatic increase in the cost to vaccinate; from $472 in 2004 to a current cost of $1,105 for males and $1,405 for females (reflects the recommendation for adolescent girls to receive the human papillomavirus vaccine). With FY 2010 funding, an estimated 204,134 children will be fully vaccinated.

Adolescent vaccination is a new challenge facing the nation's immunization program. Since 2005, three new vaccines specifically for older children have been licensed and recommended in the United States. CDC is working to extend the successes of the childhood program to adolescents by working with partners to raise awareness about adolescent vaccination through communications campaigns, providing education to parents, adolescents and providers that serve adolescents, and expanding the number of VFC enrolled providers who serve adolescents. Another challenge for the immunization program is extending the success in childhood immunization to the adult population. In contrast to children, the burden of vaccine-preventable diseases in adults in the United States remains high. It is estimated that more than 42,000 U.S. adults die annually of vaccine-preventable diseases.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
1.E.1: Make vaccine distribution more efficient and improve availability of vaccine inventory by reducing the number of vaccine inventory depots in the U.S. (Efficiency)	FY 2008: 98% reduction (Target Exceeded)	98%	98%	Maintain
Long Term Objective 1.1: Reduce the number of indigenous cases of vaccine-preventable diseases.				
1.1.1a: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Paraytic Polio. [1] (Outcome)	FY 2007: 0 (Target Met)	0	0	Maintain
1.1.1b: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Rubella. [1] (Outcome)	FY 2007: 12 (Target Not Met)	5	0	-5
1.1.1c: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Measles. [1] (Outcome)	FY 2007: 14.0 (Target Exceeded)	25.0	0.0	-25
1.1.1d: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Haemophilus influenzae. [2] (Outcome)	FY 2007: 202.0 (Target Not Met but Improved)	75.0	0.0	-75
1.1.1e: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Diphtheria. [3] (Outcome)	FY 2007: 0.0 (Target Exceeded)	3.0	0.0	-3
1.1.1f: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Congenital rubella Syndrome. [4,5] (Outcome)	FY 2007: 0.0 (Target Exceeded)	2.0	0.0	-2
1.1.1g: Reduce or maintain the number of indigenous cases at 0 by 2010 for the following: Tetanus. [3] (Outcome)	FY 2007: 6.0 (Target Exceeded)	8.0	0.0	-8
1.1.2: Reduce the number of indigenous cases of mumps in persons of all ages from 666 (1998 baseline) to 0 by 2010. [5] (Outcome)	FY 2007: 800.0 (Target Not Met but Improved)	100.0	0.0	-100
1.1.3: Reduce the number of indigenous cases of pertussis among children under 7 years of age. (Outcome)	FY 2007: 3,106.0 (Target Not Met but Improved)	2,150.0	2,000.0	-150
Long Term Objective 1.4: Protect Americans from infectious disease – pneumococcal.				
1.4.1a: By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults 65 years and older to 42 per 100,000: Children under 5 years of age. (Outcome)	FY 2007: 21.9 (Target Exceeded)	46.0	46.0	Maintain
1.4.1b: By 2010, reduce the rates of invasive pneumococcal disease in children under 5 years of age to 46 per 100,000 and in adults 65 years and older to 42 per 100,000: Adults 65 years and older. (Outcome)	FY 2007: 39.2 (Target Exceeded)	42.0	42.0	Maintain

[1] All ages.
[2] Children under five years of age.
[3] Persons under 35 years of age.
[4] Children under one years of age. Result column indicates all cases – indigenous and imported.
[5] Result column indicates all cases – indigenous and imported.

OUTPUT TABLE

Key Output	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 1.2: Ensure that children and adolescents are appropriately vaccinated.				
1.2.1a: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 4 doses DTaP vaccine. (Output)	FY 2007: 85.0% (Target Not Met)	90.0%	90.0%	Maintain
1.2.1b: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses Hib vaccine. (Output)	FY 2007: 93.0% (Target Exceeded)	90.0%	90.0%	Maintain
1.2.1c: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 1 dose MMR vaccine. (Output)	FY 2007: 92.0% (Target Exceeded)	90.0%	90.0%	Maintain
1.2.1d: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses of hepatits B vaccine. (Output)	FY 2007: 93.0% (Target Exceeded)	90.0%	90.0%	Maintain
1.2.1e: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 3 doses polio vaccine. (Output)	FY 2007: 93.0% (Target Exceeded)	90.0%	90.0%	Maintain
1.2.1f: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 1 dose varicella vaccine. (Output)	FY 2007: 90.0% (Target Met)	90.0%	90.0%	Maintain
1.2.1g: Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for: 4 doses of pneumococcal conjugate vaccine (PCV7). (Output)	FY 2007: 75.0% (Target Not Met but Improved)	90.0%	90.0%	Maintain
1.2.2: Achieve or sustain immunization coverage of at least 90% in adolescents 13 to 15 years of age for: 1 dose of Td containing vaccine. (Output)	FY 2007: 69.0% (Target Not Met but Improved)	90.0%	90.0%	Maintain
Long Term Objective 1.3: Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.				
1.3.1a: Increase the rate of influenza and pneumococcal vaccination in persons 65 years of age and older to 90% by 2010: Influenza. (Output)	FY 2007: 67.0% (Target Not Met but Improved)	85.0%	90.0%	+5
1.3.1b: Increase the rate of influenza and pneumococcal vaccination in persons 65 years of age and older to 90% by 2010: Pneumococcal. (Output)	FY 2007: 58.0% (Target Not Met but Improved)	80.0%	90.0%	+10
1.3.2a: Increase the rate of vaccination among non-institutionalized high-risk adults aged 18 to 64 years to 60% by 2010 for: Influenza. (Output)	FY 2007: 36.0% (Target Exceeded)	40.0%	60.0%	+20
1.3.2b: Increase the rate of vaccination among non-institutionalized high-risk adults aged 18 to 64 years to 60% by 2010 for: Pneumococcal. (Output)	FY 2007: 24.0% (Target Exceeded)	35.0%	60.0%	+25
Long Term Objective 1.5: Improve vaccine safety surveillance.				
1.5.1: Improve capacity to conduct immunization safety studies by increasing the total population of managed care organization members from which the Vaccine Safety Datalink (VSD) data are derived annually to 13 million by 2010. (Output)	FY 2007: 9,000,000.0 (Target Not Met)	10,000,000.0	10,000,000.0	Maintain
Other Key Outputs	**Most Recent Result**	**FY 2009 Target**	**FY 2010 Target**	**FY 2010 +/- FY 2009**
1.A: # of grantees who have transitioned to CDC's centralized distribution contract	64	64	64	Maintain

Key Output	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
1.B: # of children able to be fully vaccinated with 317 funds[1]	208,223 (Target Not Met)	204,159	204,134	-25
1.C: # of grantees achieving 80% on the 4:3:1:3:3:1 series[1]	9/2009	36	40	+4
1.D: Number of grantees with 95% of the children participating in fully operational, population-based registries	8/2009	40	40	Maintain
1.E: # of grantees utilizing 317 grant funds to develop and/or maintain immunization information systems.	60	60	62	+2
1.F: # of grantees using 317 grant funds to purchase vaccines for adults off the federal adult vaccine contract.	51 (Target Exceeded)	55	55	Maintain
Appropriated Amount ($Million)[1]	$527.4	$527.4	$544.1	+$16.7

[1]FY 2008 Actual based on FY 2008 Enacted Vaccine Purchase Grant funding divided by 2008 Cost to Vaccinate (reflects new vaccine contract prices as of April 2008). FY 2009 based on Continuing Resolution funding level and FY 2010 based on FY 2010 Estimate provided in July 2008. Estimated cost to vaccinate for out-years based on FY 2008 cost to vaccinate plus inflation.

[2]The target for 2009 was changed from 42 to 37 due to the fact that additional data are available that enable the program to more accurately estimate this output. Now that 2006 data as well as preliminary data for 2007 are available, the program is able to offer more accurate estimates.

[3]FY 2007 Actual is based on preliminary 2007 data. Final data should be available by August 2008.

[4]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

[5] Data for FY 2003, 2005, and 2006 was revised to reflect data from the correct source, the National Health Interview Survey. Previous reports had erroneously cited data from the Behavioral Risk Factor Surveillance System (BRFSS).

STATE TABLES

FY 2010 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION FY 2010 DISCRETIONARY STATE/FORMULA GRANTS Section 317				
State/Territory/Grantee	FY 2008 Appropriation	FY 2009 Omnibus	FY 2010 President's Budget Request	FY 2010+/- FY 2009
Alabama	$6,375,267	$6,833,039	$6,833,039	$0
Alaska	$4,719,285	$4,915,167	$4,915,167	$0
Arizona	$8,481,185	$9,104,425	$9,104,425	$0
Arkansas	$3,908,653	$4,205,703	$4,205,703	$0
California	$48,416,853	$51,657,427	$51,657,427	$0
Colorado	$7,206,770	$7,616,269	$7,616,269	$0
Connecticut	$5,281,436	$5,624,853	$5,624,853	$0
Delaware	$1,256,759	$1,352,231	$1,352,231	$0
District of Columbia (DC)	$2,032,842	$2,221,951	$2,221,951	$0
Florida	$22,004,636	$23,145,656	$23,145,656	$0
Georgia	$14,518,382	$15,218,908	$15,218,908	$0
Hawaii	$2,560,906	$2,745,429	$2,745,429	$0
Idaho	$3,884,267	$4,065,785	$4,065,785	$0
Illinois	$5,879,718	$6,207,401	$6,207,401	$0
Indiana	$6,217,371	$6,514,986	$6,514,986	$0
Iowa	$4,461,371	$4,738,346	$4,738,346	$0
Kansas	$4,355,996	$4,598,035	$4,598,035	$0
Kentucky	$3,731,186	$4,092,422	$4,092,422	$0
Louisiana	$6,100,445	$6,272,519	$6,272,519	$0
Maine	$3,449,365	$3,645,953	$3,645,953	$0
Maryland	$5,753,935	$6,279,734	$6,279,734	$0
Massachusetts	$10,271,523	$10,736,783	$10,736,783	$0
Michigan	$16,743,694	$17,523,413	$17,523,413	$0
Minnesota	$7,249,131	$7,664,038	$7,664,038	$0
Mississippi	$4,088,380	$4,317,012	$4,317,012	$0
Missouri	$6,238,984	$6,521,554	$6,521,554	$0
Montana	$1,195,677	$1,287,567	$1,287,567	$0
Nebraska	$3,049,355	$3,246,412	$3,246,412	$0
Nevada	$3,883,263	$4,123,629	$4,123,629	$0
New Hampshire	$2,267,328	$2,395,034	$2,395,034	$0
New Jersey	$7,068,008	$7,582,477	$7,582,477	$0
New Mexico	$3,394,538	$3,611,947	$3,611,947	$0
New York	$11,386,362	$12,624,859	$12,624,859	$0
North Carolina	$8,986,948	$9,698,423	$9,698,423	$0
North Dakota	$1,959,233	$2,081,358	$2,081,358	$0
Ohio	$15,454,018	$16,276,616	$16,276,616	$0
Oklahoma	$3,988,707	$4,315,305	$4,315,305	$0
Oregon	$5,249,221	$5,617,852	$5,617,852	$0
Pennsylvania	$10,736,754	$11,449,860	$11,449,860	$0

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FY 2010 DISCRETIONARY STATE/FORMULA GRANTS
Section 317

State/Territory/Grantee	FY 2008 Appropriation	FY 2009 Omnibus	FY 2010 President's Budget Request	FY 2010+/- FY 2009
Rhode Island	$2,132,992	$2,279,639	$2,279,639	$0
South Carolina	$6,104,381	$6,414,827	$6,414,827	$0
South Dakota	$2,458,941	$2,560,400	$2,560,400	$0
Tennessee	$4,782,162	$5,084,195	$5,084,195	$0
Texas	$26,755,892	$28,378,550	$28,378,550	$0
Utah	$4,018,244	$4,295,312	$4,295,312	$0
Vermont	$2,718,297	$2,856,742	$2,856,742	$0
Virginia	$10,811,441	$11,306,770	$11,306,770	$0
Washington	$8,900,743	$9,452,232	$9,452,232	$0
West Virginia	$2,999,908	$3,204,208	$3,204,208	$0
Wisconsin	$10,820,136	$11,303,525	$11,303,525	$0
Wyoming	$1,270,068	$1,387,446	$1,387,446	$0
Chicago	$5,966,096	$6,496,468	$6,496,468	$0
Houston	$1,965,934	$2,254,515	$2,254,515	$0
New York City	$13,184,746	$14,190,771	$14,190,771	$0
Philadelphia	$2,340,755	$2,566,187	$2,566,187	$0
San Antonio	$2,500,350	$2,708,852	$2,708,852	$0
American Samoa	$456,816	$518,773	$518,773	$0
Guam	$878,849	$987,532	$987,532	$0
Marshall Islands	$1,410,262	$1,556,402	$1,556,402	$0
Micronesia	$1,810,129	$1,962,965	$1,962,965	$0
Northern Mariana Islands	$615,586	$686,274	$686,274	$0
Puerto Rico	$4,789,801	$5,231,087	$5,231,087	$0
Republic Of Palau	$572,231	$595,468	$595,468	$0
Virgin Islands	$1,595,574	$1,822,762	$1,822,762	$0
Total States/Cities/Territories	**$415,668,085**	**$442,232,279**	**$442,232,279**	**$0**
Other Adjustments [1]	$50,232,915	$53,668,721	$53,668,721	$0
Total Resources	**$465,901,000**	**$495,901,000**	**$495,901,000**	**$0**

[1] Other adjustments include vaccine that is inventory at the centralized distribution center but has not been ordered by immunization providers, funds for centralized vaccine distribution activities, vaccine data link, PHS evaluation, special projects, and program support services.

FY 2010 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION STATE/FORMULA GRANTS Vaccines for Children (VFC) Program				
State/Territory/Grantee	FY 2008 Appropriation	FY 2009 Omnibus	FY 2010 President's Budget Request	FY 2010+/- FY 2009
Alabama	$35,504,488	$43,755,059	$43,273,921	-$481,138
Alaska	$8,157,495	$9,825,591	$9,681,556	-$144,035
Arizona	$68,773,592	$84,933,509	$84,027,756	-$905,753
Arkansas	$26,812,299	$33,062,275	$32,701,769	-$360,505
California	$300,064,785	$371,375,742	$367,542,181	-$3,833,561
Colorado	$31,958,192	$39,360,979	$38,924,411	-$436,568
Connecticut	$24,160,377	$29,508,288	$29,141,657	-$366,630
Delaware	$7,125,333	$8,610,053	$8,488,317	-$121,736
District of Columbia (DC)	$7,597,167	$9,160,583	$9,027,899	-$132,684
Florida	$118,849,240	$146,424,207	$144,807,244	-$1,616,962
Georgia	$73,248,055	$90,242,047	$89,245,385	-$996,662
Hawaii	$9,784,499	$11,622,890	$11,426,227	-$196,663
Idaho	$14,662,193	$18,045,379	$17,843,148	-$202,231
Illinois	$65,928,895	$81,339,283	$80,459,059	-$880,224
Indiana	$42,737,243	$52,551,991	$51,955,681	-$596,310
Iowa	$15,395,251	$18,821,877	$18,591,035	-$230,842
Kansas	$15,637,824	$19,116,665	$18,881,925	-$234,741
Kentucky	$30,303,955	$37,435,602	$37,038,123	-$397,480
Louisiana	$51,154,991	$63,350,625	$62,702,754	-$647,871
Maine	$10,094,718	$12,118,201	$11,933,964	-$184,237
Maryland	$40,536,219	$50,165,620	$49,647,134	-$518,486
Massachusetts	$49,469,085	$60,988,222	$60,321,295	-$666,927
Michigan	$63,319,079	$77,990,332	$77,125,951	-$864,381
Minnesota	$22,530,032	$27,657,611	$27,336,406	-$321,206
Mississippi	$29,855,861	$36,890,077	$36,499,655	-$390,422
Missouri	$40,456,123	$49,910,339	$49,369,895	-$540,443
Montana	$6,138,587	$7,443,541	$7,342,467	-$101,074
Nebraska	$12,595,853	$15,493,349	$15,318,308	-$175,040
Nevada	$26,752,070	$32,872,668	$32,495,998	-$376,670
New Hampshire	$6,890,060	$8,308,919	$8,188,725	-$120,194
New Jersey	$55,800,848	$68,788,605	$68,035,467	-$753,138
New Mexico	$33,672,433	$41,446,295	$40,982,482	-$463,813
New York	$64,265,885	$78,570,764	$77,607,253	-$963,511
North Carolina	$100,582,950	$124,490,694	$123,206,260	-$1,284,434
North Dakota	$3,507,209	$4,228,170	$4,166,802	-$61,369
Ohio	$66,525,109	$82,336,105	$81,486,369	-$849,736
Oklahoma	$36,111,546	$44,371,418	$43,862,661	-$508,757
Oregon	$20,385,755	$24,835,842	$24,517,321	-$318,521
Pennsylvania	$56,654,630	$69,303,491	$68,459,708	-$843,782
Rhode Island	$12,601,041	$15,430,456	$15,245,149	-$185,307

FY 2010 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION STATE/FORMULA GRANTS Vaccines for Children (VFC) Program				
State/Territory/Grantee	FY 2008 Appropriation	FY 2009 Omnibus	FY 2010 President's Budget Request	FY 2010+/- FY 2009
South Carolina	$36,985,606	$45,402,595	$44,875,224	-$527,371
South Dakota	$8,898,656	$10,920,837	$10,793,521	-$127,315
Tennessee	$52,167,596	$64,436,929	$63,751,552	-$685,377
Texas	$244,673,915	$302,643,499	$299,491,458	-$3,152,041
Utah	$13,619,330	$16,543,003	$16,322,944	-$220,059
Vermont	$6,256,657	$7,459,045	$7,337,239	-$121,806
Virginia	$34,116,802	$42,200,642	$41,761,229	-$439,413
Washington	$75,781,608	$93,054,140	$91,977,491	-$1,076,649
West Virginia	$13,241,998	$16,285,073	$16,100,603	-$184,469
Wisconsin	$32,764,501	$40,421,639	$39,984,002	-$437,637
Wyoming	$4,961,913	$6,010,592	$5,927,989	-$82,602
Chicago	$38,785,497	$47,585,852	$47,028,954	-$556,898
Houston	$790,590	$657,101	$599,705	-$57,397
New York City	$106,790,007	$131,939,157	$130,541,028	-$1,398,129
Philadelphia	$21,781,090	$26,554,183	$26,216,570	-$337,613
San Antonio	$13,768,457	$16,832,627	$16,626,123	-$206,504
American Samoa	$612,936	$736,546	$725,469	-$11,077
Guam	$1,451,868	$1,670,973	$1,633,891	-$37,082
Northern Mariana Islands	$918,186	$1,087,369	$1,068,424	-$18,945
Puerto Rico	$31,301,668	$38,353,232	$37,896,325	-$456,907
Virgin Islands	$1,936,631	$2,020,880	$1,940,803	-$80,077
Total States/Cities/Territories	**$2,448,206,478**	**$3,014,999,275**	**$2,981,509,863**	**-$33,489,412**
Other Adjustments [1]	$271,495,431	$362,911,725	$342,261,137	($20,650,588)
Total Resources [2, 3, 4]	**$2,719,701,909**	**$3,377,911,000**	**$3,323,771,000**	**($54,140,000)**

[1] Other adjustments include vaccine that is in inventory at the centralized distribution center but has not been ordered by immunization providers, funds for centralized vaccine distribution activities, developing a new centralized vaccine ordering system, pediatric stockpile, influenza stockpile, stockpile storage and rotation, and program support services.

[2] Total resources for FY 2008 equal FY 2008 Obligations. Total resources for FY 2009 and FY 2010 are based on the OMB approved FY 2010 VFC President's Budget.

[3] At the FY 2010 President's Budget review (November 2008), OMB approved an increase in VFC funding from $2.8 billion in FY 2008 to $3.4 billion in FY 2009. The increase was largely due to additional funding for vaccine purchase to ensure that sufficient quantities of pediatric vaccines are available to immunize VFC vaccine-eligible children and adolescents.

[4] The FY 2010 estimate for the VFC program is $3.3 billion, a decrease of $54.1 million from the FY 2009 level. The decrease is mostly due to a decrease in funding for the vaccine stockpile, as well as for vaccine ordering and contract support for the VMBIP.

INFLUENZA

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$157,275,000	$158,689,000	$0	$158,992,000	+$303,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 3173, 317(a), 317(j), 317(j)(1)3, 317(k)(1), 317N3, 317S5, 319, 319C 1) 319E, 319F(2), 322, 325, 327, 340C, 352, 361-369, 2102 (6), 2102(7) 2125, 2126, 2127, Title XXI, 1928 of Social Security Act (42 USC 1396s); Immigration and Nationality Act §§ 212, 232; Pandemic and All-Hazards Preparedness Act (PAHPA) of 2006

FY 2010 Authorization……..……Indefinite

Allocation Methods……...Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Influenza remains a public health problem in the United States and throughout the world. The CDC influenza program provides public health prevention, preparedness, and response to limit illness and death from domestic and global influenza viruses. These include the following:[1]

- **Seasonal influenza** – Vaccine-preventable annual epidemics of influenza cause an estimated 200,000 hospitalizations and 36,000 deaths in the United States each year. Influenza viruses change from year to year, requiring annual updates to vaccines and diagnostic tests.
- **Novel influenza** – New and unusual strains of influenza emerge among birds, swine, and other animals, with occasional transmission of infection to humans. These are the viruses that have the potential to be the next pandemic strain. From November 2003 through March 2009, more than 410 human infections from avian influenza A/H5N1 virus worldwide have been reported by the World Health Organization (WHO); sixty-three percent of the cases resulted in death. In addition, over the last year, improved surveillance for novel infections has resulted in increased numbers of reported human infections from swine influenza in the United States.
- **Pandemic influenza** – A worldwide epidemic resulting from a novel influenza strain for which there is no immunity in humans is inevitable. If comprehensive plans and preparations are not in place, a severe pandemic, such as the one that occurred in 1918, would cause approximately 90 million infections and two million deaths[2] in the United States, along with

[1] Note: For additional information related to the influenza vaccination as part of CDC's comprehensive immunization activities, please refer to the Immunization Program section of this report.

[2] Congressional Budget Office. A Potential Influenza Pandemic: Possible Macroeconomic Effects and Policy Issues, Washington DC: 2005, revised 2006, p. 1 (http://www.cbo.gov/ftpdocs/69xx/doc6946/12-08-BirdFlu.pdf, accessed April 22, 2009)

unprecedented social and economic disruption. The goal of CDC's pandemic influenza preparedness program is to reduce the toll of disease and deaths.

The CDC influenza program began in 1956 with the establishment of national and international influenza surveillance. The program serves people of all ages in the United States and globally, with an emphasis on populations at high risk of complications, illness, and death from influenza.

The program collaborates with many governmental and non-governmental organizations and has made great progress to provide and support domestic and international disease surveillance; epidemiological and laboratory research; new diagnostic device development; state laboratory and prevention capacity; rapid response to influenza outbreaks; guidance for prevention of influenza disease; vaccine development; and the education and promotion of health information about influenza and its prevention.

The program's core seasonal and avian influenza activities also form a foundation for CDC's pandemic influenza preparedness activities. CDC currently works with international, federal, state and other partners to rapidly detect cases of infection due to novel influenza viruses with pandemic potential. In responding to an influenza pandemic, CDC would operate under the National Incident Management System providing the primary federal responsibilities for laboratory response, disease monitoring, and management of the Strategic National Stockpile. CDC would work with its partners to: (1) contain outbreaks due to these influenza viruses in the United States population; (2) prevent illness and death by delaying the introduction of these viruses into the United States population, and by reducing the transmission rates of pandemic viruses in the United States; and (3) assist state, local, territorial, and tribal nation (SLTT) partners in the management of influenza pandemic events in the United States.

CDC organizes and reports influenza accomplishments under six overarching goals. Some of these accomplishments are listed below.

1. Increase use and development of interventions known to prevent influenza illness in humans.

To reduce potential influenza illness and transmission among all age groups in the United States, CDC:

- Worked with partners to increase use, production, and distribution of annual influenza vaccine. (see table below)

Influenza Vaccine Production and Distribution for 2000/01 – 2007/08 Seasons

Influenza Season	Doses Produced (in millions)	Doses Distributed in Millions (%)[1,]
2000-2001	77.9	70.4 (90%)
2001-2002	87.7	77.7 (89%)
2002-2003	95.0	83.0 (87%)
2003-2004	86.9	83.1 (96%)
2004-2005	61.0	57.0 (93%)
2005-2006	88.1	81.1 (92%)
2006-2007	115.0	102.5 (89%)
2007-2008	140.6	112.8 (80%)
2008-2009	143 - 146 (projected)	n/a[2]

[1] Data provided by vaccine manufacturers. CDC does not have data on the number of influenza vaccine doses administered or not used each year.
[2] Doses for the 2008-2009 influenza season are produced and distributed into early 2009; therefore final data are not available at this time.

- Expanded recommendations by the Advisory Committee on Immunization Practices (ACIP) in February 2008 to include annual influenza vaccination for all children in the United States

six months through 18 years of age, representing an additional 30 million people recommended for vaccination. The recommendation is to be implemented no later than the 2009-2010 influenza season.

- Exhaustively tested 4,100 influenza viruses at CDC to provide the most effective vaccine possible for evaluation as potential vaccine candidates in collaboration with the Food and Drug Administration (FDA) and the World Health Organization (WHO). These viruses were collected through a network of CDC-supported surveillance laboratories that tested over 225,000 patients with influenza-like illness in 2007-08.
- Established a network of clinics performing continuous monitoring of vaccine effectiveness to improve the timely measurement of how effective the influenza vaccine is during the season and provided in-season estimates for the first time.
- Provided health officials and the public with up-to-date guidance about antiviral medications and their effectiveness by detecting and tracking the emergence of resistance to antiviral drugs in H1N1, H3N2, and other influenza viruses resulting in changes in drug treatment recommendations in 2006 and 2008. Conducted studies to understand how to improve the effectiveness of antiviral drugs in the United States and in international settings where avian influenza has emerged.
- Developed six H5N1 pandemic influenza vaccine candidates for use in manufacturing of pre-pandemic vaccines to ensure some potential protection from priority groups early in the next pandemic.

2. Decrease the time needed to detect and report cases of influenza virus infection.

To provide communities with improved tools to identify seasonal, novel, and potential pandemic influenza outbreaks, CDC:

- Supported training of health professionals in more than 90 laboratories in the United States and abroad to identify H5 and other influenza viruses using advanced technology rapid testing.
- Distributed reagents globally to more than 100 National Influenza Centers to diagnose seasonal and H5 avian influenza.
- Awarded approximately $33.5 million to develop new diagnostic testing devices for use in hospital laboratories and doctors' clinics that detect seasonal and potential pandemic viruses.
- Established the Influenza Reagent Resource to provide viruses and test kits for improving detection of influenza cases, as well as to promote research and development of new vaccines, antiviral drugs, and diagnostic tests.
- Expanded the network of reference laboratories capable of diagnosing H5N1 disease in the United States and globally by training more than 40 state public health laboratorians and conducting 25 trainings for international health professionals in coordination with the World Health Organization National Influenza Centers in Africa, Asia, and South America in FY 2008.
- Obtained FDA clearance for a CDC-developed high throughput molecular test to rapidly detect avian influenza. This collaboration among CDC, state health departments, and industry has served as a model to bring new molecular tests to broader availability.
- Distributed close to $50 million to over 35 countries and WHO Headquarters and Regional Offices and provided technical assistance to develop international capacity and support

development of pandemic planning; improved epidemiologic investigation and response capacity; laboratory infrastructure and testing; training; and risk communication.

- Initiated new cooperative agreements and surveillance projects with USDA and international partners to understand and improve prevention of influenza transmission at the human-animal interface.

To ensure coordinated international action to human infection by novel influenza viruses, CDC:

- Investigated H5N1 virus outbreaks among humans in six countries in collaboration with the WHO and the ministries of health in those countries.
- Developed protocols for rapid response training that were used to train epidemiologists and health care workers from more than 100 countries. Trained about 6,000 public health professionals from Asia, Africa, Central America, and South America. Developed containment training materials that have been piloted in three regional trainings in the WHO Regional Office for Africa (AFRO).

3. Improve the timeliness and accuracy of communications regarding seasonal, novel, and pandemic influenza.

To help ensure that communities are as ready as possible to provide public health information about influenza and its impact in the United States, CDC:

- Developed audience-centered communication materials for specific groups (e.g., at risk populations, physicians).
- Trained 1,161 participants during 22 training sessions and conducted one train the trainer session on crisis and emergency risk communication during FY 2008.
- Strengthened U.S. emergency communication infrastructure by developing risk communication materials (e.g., messages, checklists); expanded production and partnerships in media programming, including new media; expanded participants in the CDC risk communication network; and built readiness capacity for global partners to use risk communication principles and provide appropriate information and communication.
- Implemented public engagement demonstration projects with six states to better inform difficult decision-making about pandemic influenza response (e.g., containment measures, targeting vaccination) and to increase state capacity for incorporating public engagement in its decision-making.

4. Decrease the time to effectively identify causes, risk factors, and appropriate interventions regarding seasonal, novel, and pandemic influenza.

To reduce the entry/exit of infected persons at U.S. borders, CDC:

- Developed the North American Plan for Avian and Pandemic Influenza, in coordination with other federal agencies and counterparts in Mexico and Canada.
- Developed and refined entry and exit screening protocols for use during an emerging or accelerating influenza pandemic to reduce the entry/exit of infected persons at U.S. borders.
- Provided input into the development of a North American aviation entry screening concept of operations (CONOPS) document that outlines how Canada, Mexico, and the United States will perform screening under the continental concept during an emerging influenza pandemic.
- Led a full-scale exercise in November 2008 at Miami's international airport on the federal government's risk-based strategy to slow the spread of a future pandemic influenza virus

across U.S. borders. In addition, CDC partnered with the Department of Homeland Security on procedures for the implementation of a "do not board" list, a new tool designed to prohibit those with serious communicable diseases from flying into or out of the country.

- Worked with the Council of State and Territorial Epidemiologists to assess the effectiveness of community mitigation activities at the community, state, and federal levels. In addition, CDC reviewed 62 community mitigation operational plans for states and territories and provided feedback to states and territories and scoring to HHS.
- Supported eight university groups to conduct research on community use of non-pharmaceutical interventions to reduce and prevent influenza transmission.
- Developed improved interventions for reducing travel-related illnesses, including influenza, by working with the GeoSentinel Surveillance Network to improve the ability to rapidly detect and identify global disease threats including pandemic influenza and Travelers Health Research Centers.
- Strengthened international capability for limiting cross-border influenza infection by working with the Shoklo Malaria Research Unit to establish influenza testing capacity on the Thai-Burma border in Thailand and the University of Minnesota to complete avian influenza educational campaigns in Tanzania.
- Sponsored five research projects defining risk factors for transmission of novel viruses from animals to humans to reduce potential for novel animal influenza viruses to infect people.

5. Decrease the time needed to provide countermeasures for seasonal, avian, and pandemic influenza.

To help ensure that communities in the United States will have appropriate health protection to limit transmission of influenza illness as much as possible, CDC:

- Built Strategic National Stockpile (SNS) inventory to about 50 million antiviral regimens, 105.8 million N95 respirators, and 51.7 million surgical masks as of April 3, 2009. Procurement of additional items including personal protective equipment, antimicrobials, and ventilators has been initiated.
- Prepositioned over 250,000 antiviral regimens overseas in support of international containment to reduce the potential for influenza virus infections to reach the United States (coordinating with the Department of Defense and the Department of State).
- Conducted multiple drills, tabletop simulations, and major functional exercises both within CDC and with other federal and state partners to identify and minimize potential gaps in pandemic preparedness and response. Produced after-action reports that contributed to improvements in operational plans.
- Initiated early characterization of influenza viruses at CDC and selected state health departments to rapidly determine resistance to antiviral drugs for treating influenza. Information for 2008 led to changes in clinical recommendations for using Oseltamivir.

6. Decrease the time needed to restore health services and environmental safety to pre-event levels.

To address an unmet need in emergency mass critical care preparedness and to maximize the number of individuals who would have access to potential life-saving interventions, CDC:

- Provided leadership for the Task Force for Mass Critical Care, which has produced a framework, Definitive Care for the Critically Ill during a Disaster. The framework offers comprehensive guidance for clinicians, hospitals, and communities planning and

implementing a coordinated, uniform response to mass critical care at the local, state, and federal levels.

- Collaborated with the Association of State and Territorial Health Officials to develop guidance for state and local health departments to help ensure protection of at-risk populations during an influenza pandemic.
- Coordinated the development of a rapid assessment capability to provide information on the status of the healthcare system to decision makers during an emergency.
- Awarded $24 million to fund 55 projects in 29 state and local public health departments that could serve as innovative approaches to influenza pandemic preparedness. These projects represent seven areas in which CDC is seeking promising practices to address critical needs in pandemic influenza preparedness. Awardees are expected to develop successful approaches and employ practices that can be reproduced by other states and local public health organizations.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$2,710,000
FY 2006	$2,659,000
FY 2007	$72,626,000
FY 2008	$157,275,000
FY 2009	$158,689,000

BUDGET REQUEST

CDC's FY 2010 request includes $158,992,000 for the Influenza Program, an increase of $303,000 above the FY 2009 Omnibus for pay increases.

Beginning in FY 2009, CDC consolidated all funding for Influenza within the Immunization and Respiratory Diseases budget rather than displaying funding across several budget categories. This includes funding for pandemic, novel, and seasonal influenza activities.

CDC's Influenza Program funding works to prevent influenza infections; to minimize domestic and global illness, suffering, and death from seasonal influenza; to investigate and contain the spread of avian influenza; and to minimize the illness and death that will occur during the next influenza pandemic. Specifically, CDC will use FY 2010 influenza funding to achieve the following:

- Reduce the time between detection of an emerging pandemic strain and the development and administration of a vaccine that is well matched to the pandemic strain.
- Support state planning for appropriate administration of pandemic vaccine to priority groups and for timely and vigorous evaluation of the vaccine effectiveness and safety.
- Measure the burden and impact of influenza infection in developing countries to develop targeted vaccination interventions for preventing influenza-associated childhood illness and death.
- Improve vaccination coverage levels in the United States to achieve a 20 percent improvement in fully-vaccinated children 6 – 23 months in two years.
- Increase the timeliness and number of influenza viruses tested for antiviral resistance at CDC and in qualified laboratories.
- Reduce the time needed to detect seasonal and pandemic influenza in the United States,

including developing better tests to detect influenza viruses. In FY 2010, CDC strives to:

- Sustain sentinel physician reporters, establish new population-based sentinel systems, and increase the use of electronic data to provide early detection of increases in influenza.
- Build the capability to detect and report novel influenza virus infections at state and local levels, increasing the number of state and local health departments supported to build epidemiological and laboratory capacity for influenza.
- Expand the growing library of candidate vaccine viruses for H5, H7, H9 and other influenza viruses with pandemic potential. Provide reference viruses for vaccine strain selection; provide virus kits to vaccine, drug, and device makers; and distribute reagents for ongoing influenza surveillance for seasonal, avian, and other novel influenza virus infections in the United States and globally.
- Strengthen communication and coordination of surveillance with national and local animal health agencies to assure that risks to humans from influenza in animals are minimized.

- Further, reduce the time needed to detect seasonal and pandemic influenza internationally through development and maintenance of surveillance, diagnostic and rapid response capabilities.
  - Improve the capabilities of 33 countries that receive funding for international influenza assistance to recognize and contain potentially pandemic influenza viruses.
  - Support training and use of CDC laboratory methods for accurate and timely detection of potentially pandemic influenza virus infections. Increase the number of qualified laboratories capable of sub-typing influenza viruses in the United States and globally.
  - Train and exercise rapid response teams within funded countries to assure efficient and rapid investigations and interventions.
  - Sustain the network of CDC field staff and international public health partners to facilitate rapid communication and decision-making on emerging novel viruses and potential pandemic influenza events.
  - Improve communication and coordination of surveillance with international animal health organizations and key Ministries of Agriculture to enhance avian influenza control.
- Increase the timeliness and effectiveness of communications to help the public prepare for and respond to seasonal and pandemic influenza. CDC will use funding in FY 2010 to continue to strengthen risk communications by:
  - Identifying and filling critical gaps in the Nation's emergency communication infrastructure by developing information and communication with the target audience with a minimum of three vulnerable population groups, such as children, senior citizens, pregnant women, and people with chronic medical disorders.
  - Continuing to build readiness capacity in other countries by extending risk communication principles so officials can provide appropriate information and communication to their citizens. CDC anticipates increasing the number of Chinese health officials trained in risk communication principles and practice by 10 percent in FY 2010.

- Continuing to conduct an annual influenza vaccination communication campaign that promotes the benefits of annual vaccination and includes National Influenza Vaccination Week, which is aimed at raising awareness of the benefits of continuing vaccination throughout the entire influenza season.

- Improve strategies for community mitigation and antiviral drugs to reduce transmission by treating and preventing infection.
- Procure, develop, and test plans to distribute countermeasures such as antiviral drugs, masks, and respirators at the outset of a pandemic.
- Develop strategies for sustaining the medical care system during a pandemic.
- Strategies for FY 2010 include drills, tabletop simulations, and functional exercises coordinated with government and non-governmental organizations at local, state, federal, and international levels to identify and address gaps in preparedness and to clarify leadership roles and responsibilities.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective1.6: Protect Americans from infectious diseases – Influenza. [1]				
1.6.2: Increase the percentage of Pandemic Influenza Collaborative Agreement grantees (SLTTs) that meet the standard for surveillance and laboratory capability criteria. (Output)	FY 2008: 65.0 (Target Exceeded)	70.0	80.0	+10

[1] Based on the FY 2009 plan review, 67 percent of the grantees met the standard (i.e. No Major Gaps) for surveillance and laboratory capability criteria. This is based on the B1 score assessments for the 56 states/territories, along with the PHEP criteria evaluation for the other 6 cooperative agreement grantees.

HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
HIV/AIDS, Research and Domestic	$691,860,000	$691,860,000	$0	$744,914,000	+53,054,000
Viral Hepatitis	$17,582,000	$18,316,000	$0	$18,367,000	+51,000
Sexually Transmitted Diseases (STDs)	$152,329,000	$152,329,000	$0	$152,750,000	+421,000
Tuberculosis (TB)	$140,359,000	$143,870,000	$0	$144,268,000	+398,000
Total	$1,002,130,000	$1,006,375,000	$0	$1,060,299,000	+53,924,000

SUMMARY OF THE REQUEST

CDC maximizes public health and safety both nationally and internationally through the elimination, prevention, and control of diseases, disability, and death caused by HIV/AIDS, non-HIV retroviruses, viral hepatitis, STDs, TB, and non-tuberculosis mycobacteria. CDC works in collaboration with partners at the community, state, national, and international levels applying well-integrated, multidisciplinary programs of research, surveillance, risk factor and disease intervention, and evaluation. These efforts are guided by three overarching priorities:

- **Reducing Health Disparities –** Improving the health of populations disproportionately affected by HIV, viral hepatitis, STDs, TB, and other related diseases and conditions.
- **Encouraging Program Collaboration and Service Integration –** Striving to provide prevention services that are high quality, holistic, evidence-based, and comprehensive to appropriate populations at every interaction with the health care system.
- **Maximizing Global Synergies –** Cultivating partnerships in prevention and research to maximize health impact around the world.

CDC's FY 2010 request includes $1,060,299,000 for HIV/AIDS, viral hepatitis, STD, and TB, an increase of $53,924,000 above the FY 2009 Omnibus. This increase reflects $2,924,000 for pay increases and $51,000,000 for non-pay increases. CDC's FY 2010 request includes:

- $744,914,000 for the Domestic HIV/AIDS Prevention Program, an increase of $53,054,000 above the FY 2009 Omnibus, to focus on high-risk populations such as communities of color and men who have sex with men (MSM). CDC would also increase activities to track the epidemic, research and implement prevention interventions, and deliver technical assistance to HIV prevention partners through evidence-based interventions.
- $18,367,000 for the Viral Hepatitis Program to fund prevention education, surveillance, counseling, diagnosis, management, and treatment of acute and chronic viral hepatitis infections.
- $152,750,000 for the STD Program to support research, surveillance, policy development, and assistance to states, territories, and local health departments to prevent and control STDs.

- $144,268,000 for the TB program to support research, TB prevention and control services, as well as public information and education programs, and partner education, training, and clinical skills improvement activities to prevent, control, and eliminate TB.

These programs are among the Infectious Disease programs subject to reauthorization.

EFFICIENCY MEASURE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure 2.E.1				
2.E.1: Increase the efficiency of core HIV/AIDS surveillance as measured by the cost per estimated case of HIV/AIDS diagnosed each year. (Efficiency)	FY 2006: 882.0 (Target Exceeded)	775.0	650.0	-125

CDC supports HIV/AIDS surveillance in collaboration with state and territorial health departments as a key component of its HIV prevention efforts. HIV/AIDS case surveillance data provide information on what populations are most affected by HIV/AIDS and are used to guide prevention, treatment, and support programs at the local, state, and national levels. This measure reflects efficiencies that are being achieved in HIV surveillance nationally. While differing methods of HIV case surveillance have been implemented in different states, CDC recommends confidential, name-based surveillance of HIV infection as the best means of providing accurate, reliable, and unduplicated data. To monitor trends in the epidemic at a national level, CDC can only analyze data from states with mature, confidential, name-based HIV reporting systems. The number of states included in this analysis has risen over the years as additional states adopt confidential, name-based HIV reporting methods, and as those systems are implemented and stabilize. Because CDC provides technical and financial support to HIV and AIDS reporting systems regardless of the type of reporting used, funds allocated to states to conduct core case surveillance are not anticipated to rise dramatically with the adoption and maturation of confidential, name-based surveillance in more states.

DOMESTIC HIV/AIDS PREVENTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority*	$691,860,000	$691,860,000	$0	$744,914,000	+$53,054,000

*Includes up to $15,000,000 for the RWHATMA Early Diagnosis Program for 2009 and 2010.

AUTHORIZING LEGISLATION

PHSA §§ 301, 306, 307, 308(d), 310, 311, 317, 317(a), 317(e), 318, 318B, 327, 352, 1102, 2317, 2320, 2341, 2500, 2521- 2524; 2625, International authorities: P.L. 111-8, Section 213.

FY 2009 Authorization……..…Indefinite

Allocation Methods……..……..Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Formula Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC has provided leadership in preventing and controlling HIV infection since the first cases of AIDS were discovered in 1981. CDC's efforts are aimed at reducing the number of new infections in the U.S. each year, with special attention to those populations most affected by the disease, including communities of color and men who have sex with men (MSM) of all races. Other measurable goals of the HIV prevention program are to:

- Reduce HIV transmission rates;
- Reduce behaviors related to the acquisition of HIV;
- Increase the proportion of those who are infected who are aware of their infection; and
- Link those who are infected with effective prevention, care and treatment programs.

Considerable progress has been made in these areas over the past two decades. Perinatal AIDS cases have declined from almost 1,000 per year in the early 1990s to less than 40 per year today. The incidence of HIV has declined from a peak of approximately 130,000 cases per year in the mid-1980s to approximately 56,300 cases per year today. HIV transmission rates, which reflect the number of new HIV infections per 100 persons living with HIV/AIDS, have declined 89 percent from their peak in the mid-1980s (prior to HIV testing), and have declined 33 percent in the past decade (from 8 per 100 in 1997 to 5 per 100 today). The proportion of persons who are aware of their HIV infection increased from 75 percent in 2003 to 79 percent just 3 years later and racial disparities in HIV/AIDS diagnoses as measured by black: white rate ratios have declined. Furthermore, effective prevention interventions have been identified, developed, and adapted to the needs of populations most at risk today. Finally, effective systems have been developed and deployed to monitor the epidemic and related risk factors.

Despite the successes made in HIV/AIDS prevention, research and surveillance, challenges remain. An estimated 56,300 Americans are infected with HIV each year, at an estimated lifetime cost of more than $380,000 per person for direct medical care (Schackman, et al., *Medical Care,* 2006). In addition, costs due to disability and early death are significant as HIV frequently takes the lives of persons in their most productive years of life. Federal spending on HIV care and treatment was $12.3 billion in 2009. Approximately 21 percent of the 1.1 million Americans living with HIV are unaware of their HIV infection and unable to take advantage of treatments to preserve their health

and that of their partners. Certain subpopulations including men who have sex with men (MSM) and racial and ethnic minority populations remain at increased HIV risk. The availability of effective treatments may be leading to increasing complacency among persons at risk for HIV and issues of stigma and discrimination must continually be addressed.

To address these challenges and meet its prevention goals, CDC focuses on five key activities: surveillance; prevention research; capacity building and technical assistance; prevention intervention activities (including testing programs and other prevention activities carried out by state and local health departments and community-based organizations [CBOs]); and program evaluation and policy development. Approximately three quarters of CDC's funding for HIV prevention and surveillance serves racial and ethnic minority populations because communities of colora are disproportionately affected by the epidemic. A subset of these funds are allocated through the Minority AIDS Initiative (MAI) and have as their purpose the building of indigenous capacity to address the epidemic in communities of color. The vast majority of CDC's domestic HIV/AIDS funding is spent extramurally through cooperative agreements to state and local health departments and non-governmental organizations, including CBOs.

Surveillance

CDC carefully monitors the status of HIV and AIDS by race, risk group, and gender, enabling communities to base public health strategies on the best possible understanding of the epidemic. Data from CDC's surveillance has revealed the disproportionately high rates of HIV/AIDS among African-Americans and Hispanics, leading to special programs to reduce these disparities in health. CDC's surveillance program includes HIV and AIDS case reporting and systems to estimate HIV incidence and monitor trends in risk behaviors and provision of care. These activities are conducted in conjunction with state and local health departments. Recent accomplishments include the following:

- The expansion of confidential, name-based HIV case surveillance. By April 2008, all 50 states, District of Columbia, and 5 territories, have adopted confidential, name-based HIV case surveillance. Today, 34 of those states have systems sufficiently mature to allow analysis of trends. These 34 states account for two thirds of the estimated AIDS cases in the nation.
- The release of new HIV incidence estimates. These estimates, which are from a first-of-its-kind system to directly measure new HIV infections, provide the clearest picture of the epidemic in the U.S. to date and improve CDC's ability to focus prevention efforts on those most at risk.
- The initiation of behavioral surveillance for the three groups at highest risk for acquiring HIV infection: MSM, Injection Drug Users (IDUs), and high-risk heterosexuals.

Prevention Research

CDC conducts biomedical and behavioral research to better understand the complex factors that lead to HIV infection and to identify effective approaches to prevent infection. Priorities for HIV research include research related to diagnostic tests, biomedical interventions such as microbicides, and behavioral research to develop improved interventions for the highest risk populations and to eliminate health disparities. Examples include the following:

- Safe In the City, a multi-site trial of a waiting room video intervention, demonstrated a reduction in new STDs among clinic patients exposed to the video.
- The Collaborative Injection Drug Users Study III/Drug Users Intervention Trial, a multi-site study funded by CDC to evaluate primary prevention for IDUs was shown to produce a 76

percent decline in injection risk compared to the baseline. Declines were also shown for sexual risk behaviors.

- Research funded through the MAI to identify effective behavioral interventions to reduce risk of HIV among African-American and Hispanic MSM. Through the MAI, CDC also supports an assessment of determinants of HIV risk among African American and Hispanic women.

Capacity Building and Technical Assistance

CDC works to ensure that organizations implementing HIV prevention programs at the state and local level are equipped with the information and training necessary to implement effective programs and build long-term capacity for prevention in their communities. To build the capacity of state, local, and CBO partners to prevent HIV, CDC 1) supports national meetings and satellite broadcasts as a forum for sharing new ideas and best practices; 2) funds non-governmental organizations to provide training and materials; 3) provides direct technical assistance to CBOs and health departments; and 4) synthesizes and disseminates information on science-based interventions. Many of these efforts are aimed at building capacity for prevention services for racial and ethnic minority populations and are supported through the MAI.

Over the past five years, CDC has conducted trainings on effective behavioral interventions for HIV prevention. Of an estimated 1,800 community CBOs in the United States, 1,743 have received training through the Diffusion of Effective Behavioral Interventions (DEBI) program, reaching more than 95 percent of CBOs in the nation. Additionally, 380 state and local health departments have received DEBI trainings and more than 200 capacity building assistance providers have been trained on over twelve interventions. Also, 653 participants from Prevention Training Centers and Universities have been trained.

In FY 2008, CDC published the Updated Compendium of Evidenced-Based Interventions, which includes a total of 57 evidence-based individual and group-level interventions. These interventions meet CDC's rigorous effectiveness criteria. Descriptions of these interventions, including target population, methods, and findings are available on CDC's website.

Support for Interventions

The primary component in CDC's fight against HIV/AIDS is the support and funding of HIV prevention programs at the national, state, and local levels. Programs consist of interventions intended to eliminate or reduce risky behavior and improve the health of the people served. CDC provides funding to state and local health departments as well as to CBOs to conduct HIV prevention programs with at-risk uninfected populations and persons living with HIV/AIDS in a variety of settings across the nation. CDC supports over 140 CBOs directly through its core funding and through the MAI. In addition to those CBOs directly funded by CDC, many more are indirectly funded through CDC's grants to state and local health departments. All prevention programs funded by CDC are designed to meet the cultural needs, expectations, and values of the populations they serve. In addition, CDC helps to ensure that available prevention funding goes to those who need it the most by involving affected communities in the HIV prevention community planning process. Through the community planning process, community members prioritize populations to be served. This plan guides the allocation of health department prevention resources.

Key prevention strategies include the following:

- HIV Prevention Counseling, Testing, and Referral Services – CDC issues guidelines that are used for counseling, testing, and referral services in traditional and non-traditional settings, and provides financial support for counseling and testing services provided at publicly funded clinics. Studies have shown these efforts to be cost-effective.

- Partner Services (PS) – CDC issues recommendations on conducting PS and provides funding to grantees to ensure that PS is a high priority and that services are offered to HIV-infected persons. Several studies have shown partner services to be cost effective. One found the average cost per newly identified HIV infection to range from $1,500 to $1,750.
- Prevention for Positives – CDC supports prevention services for persons living with HIV infection to help them protect their own health and avoid transmitting the virus to others. In addition, CDC encourages grantees to work with the primary health care clinics in their communities to integrate HIV prevention services into care and treatment services.
- Health Education and Risk Reduction (HE/RR) Activities – CDC develops health education materials, supports focused health communications campaigns, and provides funding for state and local health departments and CBOs to offer HE/RR services for those most at-risk of transmitting or acquiring HIV infection.
- Perinatal Transmission Prevention – CDC provides funding for state and local health departments to work with health-care providers to promote routine, universal HIV screening of all pregnant women. In addition, CDC grantees work with organizations involved in prenatal and postnatal care for HIV-infected women to ensure that appropriate HIV prevention counseling, testing, and therapies are provided to reduce the risk of perinatal transmission.

Recent initiatives to support HIV prevention interventions include the following:

- The Act Against AIDS Leadership Initiative – a five-year, multi-faceted communication campaign designed to contribute to CDC's goal of reducing HIV incidence in the United States. The campaign is one component of CDC's HIV prevention efforts and will help nationwide programs refocus attention on the severity of the HIV crisis, break through complacency around the disease at both the individual and societal level, and ensure all Americans have access to the basic facts about the current HIV epidemic.
- The Domestic HIV Testing Program – Initial funding in 2007 supported testing in 23 jurisdictions with the highest burden of HIV among African Americans. In 2008, two additional jurisdictions were added and CDC supported related programs as directed by Congress, including funding for the Early Diagnosis Grant program (mandated by the RWHATMA of 2006).

Program Evaluation and Policy Development

CDC develops policies and recommendations to guide HIV prevention programs across the nation and supports monitoring and evaluation to ensure that programs are effectively implemented. All HIV programs funded by CDC are required to develop evaluation plans and activities, establish performance indicators, and target activities to those persons living with HIV/AIDS and those at highest risk for HIV acquisition and transmission.

- CDC's Program Evaluation and Monitoring System (PEMS) has been launched to improve CDC's ability to monitor, evaluate, and coordinate HIV prevention programs and ensure that timely and verifiable data are available for use by both grantees and CDC.
- CDC continues to promote the uptake of its recently released recommendations for routine HIV testing. To this end, CDC has worked closely with professional medical associations and other federal agencies to encourage them to conduct and support HIV screening in health care settings. CDC is providing technical assistance to organizations to develop implementation guidance specific to certain health care settings, including community health centers, emergency departments, substance abuse treatment centers, and correctional facilities.

FUNDING HISTORY TABLE

Fiscal Year	Research and Domestic HIV Prevention (Infectious Disease)	Other Domestic HIV Prevention	Global AIDS Program[3]	CDC-Wide HIV Total[4]
2000	$564,458,000	$87,706,000	$35,000,000	$687,164,000
2001	$653,462,000	$96,199,000	$104,527,000	$854,188,000
2002	$689,169,000	$96,038,000	$168,720,000	$953,927,000
2003[1]	$699,620,000	$93,977,000	$182,569,000	$976,166,000
2004[1,2]	$667,940,000	$70,032,000	$266,864,000	$1,004,836,000
2005	$662,267,000	$69,438,000	$123,830,000	$855,535,000
2006[5]	$651,657,000	$64,008,000	$122,560,000	$838,225,000
2007	$695,454,000	$62,802,000	$120,985,000	$879,241,000
2008	$691,860,000	$40,223,000	$118,863,000	$850,946,000
2009	$691,860,000	$40,223,000	$118,863,000	$850,946,000
2010	$744,914,000	$40,223,000	$118,979,000	$904,116,000

[1] Global AIDS amounts include funding for the Prevention of Mother to Child HIV Transmission initiative, which was transferred to the Department of State Office of the Global AIDS Coordinator in 2005.

[2] In FY 2004, CDC's budget was restructured to separate actual program costs from the administration and management of those programs. Funding levels are not comparable to those of previous years. Also in that year, funding for the HIV lab activities was moved from the Infectious Disease budget activity to the Research and Domestic HIV Prevention sub-line in the HIV, STD and TB prevention budget activity.

[3] Amount for Global AIDS Program does not include PEPFAR funding.

[4] From 2000 to 2003 CDC-wide HIV/AIDS funding is comprised of specific activities within the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and the National Center for Infectious Diseases (NCID). CDC-wide HIV/AIDS amounts shown for 2004 to 2007 are comprised of activities conducted by NCHHSTP, other parts of the Coordinating Center for Infectious Diseases, NCCDPHP, and the National Center for Birth Defects and Developmental Disabilities (NCBDDD). For the 2010 budget submission, funds supporting hemophilia/HIV activities in NCBDDDP and for oral health/HIV, BRFSS/HIV, and Safe Motherhood/HIV activities in NCCDPHP have been removed from the HIV-wide table. FY 2008 and FY 2009 figures have been adjusted to become comparable to FY 2010 figures.

[5] In 2006, HIV/AIDS Basic Research was moved from the Infectious Disease budget activity to the CDC Research and Domestic HIV Prevention sub-line under HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

BUDGET REQUEST

CDC's FY 2010 request includes $744,914,000 for Domestic HIV/AIDS prevention activities, an increase of $53,054,000 above the FY 2009 Omnibus. This increase reflects $2,054,000 for pay increases and $51,000,000 for non-pay increases. CDC will utilize the non-pay increases as follows:

- $5 million - Expand its work to promote program collaboration and service integration to prevent HIV, STDs, viral hepatitis, and TB. An integrated approach to prevention will achieve the greatest impact in reducing disease transmission, reducing health disparities, and preserving the health of those who are living with these conditions because these conditions affect similar populations and coinfection can facilitate and accelerate their spread.
- $27 million - Increase the reach of HIV testing with an emphasis on gay and bisexual men of all races/ethnicities, African Americans, and Hispanics by doing the following:
    - Awarding funds to state and local health departments to test up to 600,000 persons with HIV and identify up to 6,000 new HIV infections per year, with an emphasis on African Americans, Hispanics and gay and bisexual men of all races and ethnicities. Health departments will be directed to allocate approximately 50 percent of their awards to CBOs in their jurisdiction. This effort will build upon and expand the Domestic HIV Testing Initiative, begun in FY 2007.
- $11 million - Expand efforts to link HIV infected persons to medical care and prevention services by awarding funds to state and local health departments to do the following:

- Provide and evaluate active referral and linkage to care or other supportive services to at least 5,000 people living with HIV/AIDS or their partners; and
- Support the delivery and evaluation of behavioral interventions to more than 2,000 newly and previously diagnosed people living with HIV.

- $4 million - Increase the capacity of health departments and CBOs to deliver effective evidence-based HIV prevention interventions to high-risk populations such as communities of color and MSM of all races. CDC would reduce by 50 percent the backlog of organizations currently on waiting lists to receive training in effective HIV prevention interventions through CDC's Diffusion of Effective Behavioral Interventions (DEBI) program.
- $2.5 million - Strengthen the ability of health departments to monitor critical aspects of the HIV/AIDS epidemic in their local jurisdictions and report these data to CDC for national surveillance. This will also increase CDC's ability to manage HIV surveillance data and improve timely reporting of these data.
- $1.5 million - Support CDC's ability to collect data on the performance of HIV testing and other prevention programs, and monitor and publicly report on the progress of such programs.

In FY 2010, CDC will continue to work to reduce new HIV infections, reduce behaviors associated with HIV transmission and acquisition, increase knowledge of HIV infection, and link infected persons to needed prevention, care, and treatment services. Emphasis will continue to be placed on ensuring that persons have the opportunity to get tested for HIV, to learn of their infection, and receive supportive prevention interventions. In addition, CDC will continue to emphasize prevention for those most affected by HIV/AIDS, especially racial and ethnic minority populations and MSM. MAI efforts to build the indigenous capacity of racial and ethnic minority communities to address the epidemic will continue to be supported. CDC will also support efforts to integrate services for HIV, viral hepatitis, STD, and TB prevention. Finally, CDC will continue to build the systems needed to monitor the epidemic, strengthen prevention programs and capacity of grantees to deliver effective prevention services, and evaluate our efforts.

Surveillance

In conjunction with state and local health departments, CDC will continue to conduct HIV and AIDS surveillance nationwide to monitor the course of the epidemic and target prevention efforts. In FY 2010, CDC will:

- Fund 65 areas for HIV/AIDS surveillance. Data from this system will provide national estimates of HIV/AIDS, help local areas describe and plan for HIV prevention programs, and guide the allocation of more than $2 billion in federal funding for treatment, prevention, and housing assistance programs.
- Fund approximately 22 areas to estimate HIV incidence. This system utilizes newly available laboratory technology to ascertain new infections among all those reported through routine HIV case surveillance.
- Fund approximately 19 cities to conduct surveillance for behavioral risks for HIV infection in at-risk populations. Data from the first cycle among MSM has shown high prevalence of HIV among African-American MSM, high rates of risk behaviors including use of crystal meth and other drugs among all MSM, and growing use of the Internet to meet sex partners. Data about risk behaviors among IDU reveal continued high risk among this population; approximately one-third still engage in needle sharing behaviours, approximately 60 percent engaged in unprotected vaginal sex, and only one quarter have received HIV prevention behavioral interventions. Data from the next cycle will address heterosexual risks.

- Support the Medical Monitoring Project (MMP) to assess provision of care and risk behaviors among HIV infected persons who are receiving medical care. MMP is a nationally representative, population-based surveillance system designed to assess clinical outcomes, behaviors, and the quality of care for persons living with HIV.

Prevention Research

In FY 2010, CDC will sustain research to better understand the complex factors that lead to HIV infection and to identify effective approaches to prevent infection.

- Funding will support research on new biomedical interventions including microbicides and pre-exposure prophylaxis (PrEP) to prevent HIV infection. CDC is participating in clinical trials of the pre-exposure prophylactic use of antiretroviral medications designed to answer important questions about the safety and efficacy of these antiretroviral medications for use in preventing HIV infection.
- CDC is supporting six sites to test new behavioral interventions for minority MSM. An additional four sites are being funded to develop interventions for methamphetamine-using MSM.

Capacity Building and Technical Assistance

CDC will continue to build the capacity of its state and CBO partners to prevent HIV through training, technical assistance, and synthesis and dissemination of science-based interventions. In FY 2010, CDC plans to support fewer but larger grant awards for about 27 capacity building assistance (CBA) providers.

- CDC will continue to train providers each year to implement science-based interventions for high-risk populations including those infected with HIV and racial and ethnic minority populations. With the increase requested in 2010, CDC will reduce by 50 percent the backlog in training requests by training an extra 500 organizations in 2010, and additional organizations in 2011.
- In 2009, CDC is implementing a new comprehensive CBA program announcement to provide more focused CBA for CDC funded health departments and CBOs. The new program announcement was based on extensive input from grantees. The last funding announcement covered a five year period, during which grantees did not receive increases to cover such things as increased personnel expenses. In the recompetition, CDC is reducing the number of grantees to be funded, while providing larger grant awards to each grantee to better cover operating costs.
- CDC will begin to provide training to health departments and CBOs on nine new interventions that meet CDC's rigorous criteria of effectiveness. These include d-up!, an intervention developed by and for black MSM, and Modelo de Intervención Psychomédica, developed in Puerto Rico for MSM.

Prevention Intervention Activities

In FY 2010, CDC will provide funding to state and local health departments as well as directly-funded CBOs to conduct HIV prevention programs with at-risk populations in a variety of settings across the nation.

- CDC will continue to support expanded HIV testing in the jurisdictions with the highest number of AIDS cases among African Americans and extend this effort to better address the needs of Hispanics and gay and bisexual men. The program will be refined and recompeted in 2010, drawing on lessons learned from the first funding cycle. The program aims to increase the proportion of those who are aware of their infection.

- CDC will also continue to implement targeted programs to address HIV/AIDS among those populations hardest hit by the epidemic, including African Americans. New strategic partnerships addressing Hispanics and MSM will also be supported.
- CDC will continue to directly support community-based programs serving young MSM, as well as community-based programs in Puerto Rico and the Virgin Islands. CDC's main program supporting CBOs will be re-competed. Lessons learned from the current funding cycle will be incorporated in the new program. CDC plans to slightly reduce the number of grantees supported in FY 2010 compared to FY 2009 because the cost of supporting grantees has been increasing. CDC will also continue to indirectly support many more CBOs, through the state and local health departments.

Program Evaluation and Policy Development

In fiscal years 2009 and 2010, CDC will continue to develop evidence-based recommendations to support and guide HIV prevention programs such as the recently released *Guidelines for Prevention and Treatment of Opportunistic Infections Among HIV-Infected Adults and Adolescents*. CDC will also continue to require rigorous evaluation of HIV prevention activities. The implementation of the Program Evaluation and Monitory System (PEMS) will improve CDC's ability to monitor, evaluate, and coordinate prevention programs of grantees.

- CDC will increase the percentage of HIV prevention program grantees using PEMS to monitor program implementation. When fully implemented, PEMS will be used by all health departments and CBOs funded through CDC HIV prevention cooperative agreements and will provide quantitative data to show program progress toward meeting implementation goals.
- CDC will continue to work with health-care providers to implement routine HIV screening in health-care settings.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 2.1: Decrease the annual HIV incidence rate.				
2.1.1: Decrease the annual HIV incidence. [1] (Outcome)	FY 2006: 56,300 (Baseline)	NA	NA	NA
2.1.2: Decrease the number of pediatric AIDS cases. (Outcome)	FY 2007: 28 (Target Exceeded)	<75	<75	Maintain
2.1.3: Reduce the black:white rate ratio of HIV/AIDS diagnoses. (Outcome)	FY 2007: 8.51:1 (Target Not Met)	8.2:1	8.2:1	Maintain
2.1.4: Reduce the Hispanic:white rate ratio of HIV/AIDS diagnoses. (Outcome)	FY 2007: 3.46:1 (Target Met)	3.3:1	3.3:1	Maintain
2.1.5: Increase the number of states with mature, name-based HIV surveillance systems. (Output)	FY 2007: 34 (Target Met)	37	46	+9
2.1.6: Increase the percentage of HIV prevention program grantees using Program Evaluation and Monitoring System (PEMS) to monitor program implementation. (Output)	FY 2007: 67.0 % (Target Exceeded)	65.0 %	90.0 %	+25.0 %
2.1.7: Increase the number of evidence-based prevention interventions that are packaged and available for use in the field by prevention program grantees. (Output)	FY 2007: 16 (Target Exceeded)	20	20	Maintain
2.1.8: Increase the number of agencies trained each year to implement Diffusion of Effective Behavior Interventions (DEBIs). (Output)	FY 2008: 980 (Target Exceeded)	1,100	1,500	+400
Long Term Objective 2.2: Decrease the rate of HIV transmission by HIV-infected persons.				
2.2.1: Decrease the rate of HIV transmission by HIV-infected persons. (Outcome) [2]	FY 2006: 5%	N/A	N/A	N/A
2.2.2: Decrease risky sexual and drug using behaviors among persons at risk for transmitting HIV. [2] (Outcome)	TBD 11/2009	11/2010	11/2011	N/A
Long Term Objective 2.3: Decrease risky sexual and drug using behaviors among persons at risk for acquiring HIV.				
2.3.1: Decrease risky sexual and drug-using behaviors among persons at risk for acquiring HIV. (Outcome)	FY 2004: 47% for MSM (Baseline)	IDU - TBD	HRH - TBD	N/A
2.3.2: Increase the proportion of persons at risk for HIV who received HIV prevention interventions. (Outcome)	FY 2004: 18.9% for MSM (Baseline)	IDU - TBD	HRH - TBD	N/A
Long Term Objective 2.4: Increase the proportion of HIV-infected people in the United States who know they are infected.				
2.4.2: Increase the proportion of persons with HIV-positive test results from publicly funded counseling and testing sites who receive their test results. (Outcome)	FY 2006: 83.0 % (Target Unmet)	90.0 %	90.0 %	Maintain
2.4.3: Increase the proportion of people with HIV diagnosed before progression to AIDS. (Outcome)	FY 2007: 82.2 % (Target Exceeded)	80.0 %	80.0 %	Maintain

[1] CDC will need three years of data (2006-09) to inform target setting. CDC anticipates setting targets for FY 2011 in August 2010.

[2] Long-term outcome measure with no annual targets.

OUTPUT TABLE

Key Outputs*	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
2.A : Areas funded for HIV prevention	FY 2008: 65	65	65	Maintain
2.B : Areas funded for HIV/AIDS surveillance	FY 2008: 65	65	65	Maintain
2.C: Number of areas funded to estimate HIV incidence	FY 2008: 25	25	22	- 3
2.D: Number of jurisdictions to conduct surveillance for behavioral risks for HIV infection in high-risk groups	FY 2008: 21	21	19	- 2
2.E: Number of capacity building assistance providers supporting minority CBOs	FY 2008: 31	27	27	Maintain
2.F: Number of CBOs funded to support community level interventions	FY 2008: 162	147	145	- 2
2.G: Number of jurisdictions funded with enhanced testing activities	FY 2008: 25	25	25	Maintain
2.H: Number of HIV tests supported through the HIV testing initiative*	NA**	1,000,000	1,200,000	Maintain
2.I: Minority postdoctoral fellowships	FY 2008: 3	3	3	Maintain

*The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.
** FY 2008 actuals are still being assessed.

STATE TABLE

DISCRETIONARY STATE/FORMULA GRANTS HIV/AIDS PREVENTION AND SURVEILLANCE PROGRAMS FOR STATE AND LOCAL HEALTH DEPARTMENTS			
State/Territory/Grantee	**FY 2008 Prevention Projects**	**FY 2008 Case Surveillance**	**Total***
Alabama	$2,129,587	$855,835	$2,985,422
Alaska	$1,417,619	$120,010	$1,537,629
Arizona	$3,028,369	$630,733	$3,659,102
Arkansas	$1,582,922	$215,333	$1,798,255
California	$13,618,189	$2,503,358	$16,121,547
Colorado	$4,387,622	$1,483,874	$5,871,496
Connecticut	$6,260,601	$992,965	$7,253,566
Delaware	$1,888,920	$218,628	$2,107,548
District of Columbia	$5,736,854	$1,757,516	$7,494,370
Florida	$19,255,996	$3,278,335	$22,534,331
Georgia	$8,090,047	$1,235,185	$9,325,232
Hawaii	$2,041,255	$175,975	$2,217,230
Idaho	$883,103	$69,747	$952,850
Illinois	$4,068,878	$729,058	$4,797,936
Indiana	$2,508,313	$758,488	$3,266,801
Iowa	$1,649,372	$176,112	$1,825,484
Kansas	$1,617,269	$143,735	$1,761,004
Kentucky	$1,921,570	$133,063	$2,054,633
Louisiana	$5,227,602	$1,479,984	$6,707,586
Maine	$1,613,073	$105,487	$1,718,560
Maryland	$9,737,986	$1,749,181	$11,487,167
Massachusetts	$8,655,094	$1,096,037	$9,751,131
Michigan	$6,386,659	$1,701,840	$8,088,499
Minnesota	$3,171,739	$257,870	$3,429,609
Mississippi	$1,835,920	$334,518	$2,170,438
Missouri	$3,737,842	$1,161,182	$4,899,024
Montana	$1,263,843	$66,893	$1,330,736
Nebraska	$1,205,605	$142,515	$1,348,120
Nevada	$2,756,285	$785,703	$3,541,988
New Hampshire	$1,598,713	$93,099	$1,691,812
New Jersey	$13,192,984	$3,372,243	$16,565,227
New Mexico	$2,270,963	$234,483	$2,505,446
New York	$26,785,716	$2,733,243	$29,518,959
North Carolina	$4,208,066	$792,412	$5,000,478
North Dakota	$672,678	$63,329	$736,007
Ohio	$5,206,904	$911,402	$6,118,306
Oklahoma	$2,434,358	$484,092	$2,918,450
Oregon	$3,018,171	$291,031	$3,309,202
Pennsylvania	$4,377,928	$616,209	$4,994,137

DISCRETIONARY STATE/FORMULA GRANTS HIV/AIDS PREVENTION AND SURVEILLANCE PROGRAMS FOR STATE AND LOCAL HEALTH DEPARTMENTS			
State/Territory/Grantee	**FY 2008 Prevention Projects**	**FY 2008 Case Surveillance**	**Total***
Rhode Island	$1,642,131	$224,293	$1,866,424
South Carolina	$4,460,943	$809,337	$5,270,280
South Dakota	$642,291	$61,003	$703,294
Tennessee	$3,913,051	$942,399	$4,855,450
Texas	$12,936,907	$2,229,005	$15,165,912
Utah	$1,071,870	$177,801	$1,249,671
Vermont	$1,460,681	$84,325	$1,545,006
Virginia	$4,938,495	$827,536	$5,766,031
Washington	$3,337,579	$1,704,245	$5,041,824
West Virginia	$1,684,759	$208,934	$1,893,693
Wisconsin	$2,788,528	$399,453	$3,187,981
Wyoming	$787,249	$61,819	$849,068
Chicago	$5,443,889	$1,433,107	$6,876,996
Houston	$5,092,037	$1,705,603	$6,797,640
Los Angeles	$12,888,698	$2,369,850	$15,258,548
New York City	$21,281,593	$3,968,220	$25,249,813
Philadelphia	$6,327,782	$1,212,151	$7,539,933
San Francisco	$9,005,739	$1,849,740	$10,855,479
American Samoa	$174,435	$6,719	$181,154
Guam	$499,622	$22,975	$522,597
Marshall Islands	$122,518	$17,672	$140,190
Micronesia	$212,866	$17,273	$230,139
Northern Mariana Islands	$192,386	$22,712	$215,098
Palau	$235,697	$22,091	$257,788
Puerto Rico	$4,051,694	$1,136,524	$5,188,218
Virgin Islands	$407,698	$120,495	$528,193
Total States/Cities/Territories	**$297,045,753**	**$55,585,985**	**$352,631,738**

* Amounts reflect new funding only. Approximately $3 million in unobligated funds was also awarded to supplement the new funds.

Additional Components:

	Number of Grantees		Number of Grantees
Incidence Surveillance:	34	Direct Assistance:	10
Behavioral Surveillance:	24	ALOHA:	5
EPI/EVAL TA:	20	Name-Based Reporting	2
Perinatal Prevention	15	STARHS:	1

VIRAL HEPATITIS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$17,582,000	$18,316,000	$0	$18,367,000	+$51,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 306, 307, 308(d), 310, 311, 317, 317(a), 317N

FY 2009 Authorization……...Indefinite

Allocation Methods…..Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC is a national and global leader in viral hepatitis prevention and control. In 2007, the Division of Viral Hepatitis joined NCHHSTP, creating new opportunities for integration of primary and secondary prevention methods and programs directed to populations at risk for HIV, STDs, and viral hepatitis.

Nearly 1.4 million Americans live with chronic HBV infection and 3.2 million live with HCV infection. Viral hepatitis is the cause of most chronic liver disease. Hepatitis C alone is the leading cause of liver transplantation. Chronic viral hepatitis contributes to health disparities. Approximately one in twelve Asian-Americans is living with chronic hepatitis B, and hepatitis B-associated liver cancer is a leading cause of cancer deaths in this population. Mortality from hepatitis C is two times higher for African Americans than white Americans. Many people living with chronic viral hepatitis are not aware of their infection and as a result may unknowingly transmit infection to others.

CDC is active in the areas of 1) prevention research, 2) public health surveillance, 3) education and training, and 4) policy and program development, with a particular focus on the most common forms of viral hepatitis in the United States: hepatitis A virus (HAV), hepatitis B virus (HBV), and hepatitis C virus (HCV). CDC remains vigilant for the emergence of rare or previously unrecognized forms of viral hepatitis. These viruses are transmitted through multiple routes and each virus requires specific prevention strategies. All hepatitis viruses can cause acute illness, ranging from mild cases characterized by nausea, malaise, abdominal pain, and jaundice to severe disease and death from liver failure. HBV and HCV also can cause a chronic infection that can result in premature death from liver disease and liver cancer.

Key objectives of CDC's viral hepatitis program include:

- Reducing the rate of new cases of hepatitis A and hepatitis B;
- Increasing the proportion of infected people who are aware of their chronic HBV and HCV infection; and
- Improving surveillance for acute and chronic viral hepatitis.

CDC has made great strides in achieving these objectives:

- Hepatitis A incidence has decreased by approximately 88 percent nationwide. The 2007 rate of 1.0 new case per 100,000 population was the lowest ever recorded.

- Childhood immunization and perinatal screening programs have produced a similar reduction in new cases of hepatitis B. The 2007 rate of 1.5 new cases of acute hepatitis B per 100,000 population was the lowest rate ever recorded, and rates among children aged less than 15 years have decreased 98 percent since 1990.
- Targeted prevention efforts have yielded a decline in hepatitis C incidence of approximately 80 percent since the late 1980s. Blood donor screening has virtually eliminated transfusion-associated cases of HCV infection, which are now estimated to occur less than once per 2 million transfused units of blood.

Epidemiology and surveillance activities

- CDC responds to disease outbreaks by deploying field investigators and conducting rapid laboratory serologic and genetic testing to identify sources of infection and to direct control strategies.
- CDC monitors acute and chronic infections, including helping states monitor chronic HBV and HCV infections, investigate disease outbreaks, and detect cases of rare or new causes of viral hepatitis. CDC encourages states to report chronic cases of HBV and HCV but not all states are able to do so.

Education, training and program collaboration

- CDC supports adult viral hepatitis prevention coordinators in state and local health departments to help facilitate:
    - Integrated viral hepatitis vaccination and screening;
    - Education of public health and clinical care providers; and
    - Identification of resources for adult hepatitis A and B vaccination to improve coverage among vulnerable populations.
- CDC is creating effective immunization strategies to meet the national goal of eliminating HBV transmission in the United States.
- CDC is implementing the national strategy for prevention and control of hepatitis C.
- CDC is educating health care and public health professionals to improve identification of those at risk for chronic infection, as well as ensuring appropriate counseling, diagnosis, management, and treatment.
- In 2008, CDC published Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection, which compiles and updates previous recommendations. Testing is now recommended for new populations, which include individuals born in places with HBV prevalence greater than 2 percent, men who have sex with men (MSM), and injection drug users (IDUs), For the first time, the Recommendations provide guidance on management of chronically infected persons.

Laboratory Research

- CDC conducts research to detect viral changes that threaten the effectiveness of hepatitis B vaccination and the response to antiviral therapies for those with chronic hepatitis.
- CDC is incorporating new technologies to improve screening for viral hepatitis.

FUNDING HISTORY TABLE*

FISCAL YEAR	AMOUNT
FY 2005	$17,912,000
FY 2006	$17,578,000
FY 2007	$17,354,000
FY 2008	$17,582,000
FY 2009	$18,316,000

*Additional funding for hepatitis control is provided in the Food Safety and the Emerging Infections activities.

BUDGET REQUEST

CDC's FY 2010 request includes $18,367,000 for Viral Hepatitis, an increase of $51,000 above the FY 2009 Omnibus for pay increases. In FY 2009, CDC is funding viral hepatitis prevention and control activities in 55 state and local health departments. CDC will fund 50 states and local health departments in FY 2010.

Epidemiology and Surveillance Activities

CDC will continue to consult with local, state, national, and international authorities to monitor and investigate cases of acute and chronic viral hepatitis. CDC's hepatitis laboratory provides state-of-the-art serologic and molecular testing to support surveillance and investigation of disease outbreaks.

- CDC will help state and local health departments and international authorities investigate outbreaks of hepatitis to better understand modes of transmission and disease outcomes, and to develop policies and programs to improve vaccination, screening, and other methods of preventing viral hepatitis.
- CDC will conduct long term studies to address care and treatment of acute and chronic viral hepatitis, including drug resistance.
- CDC will fund at least five viral hepatitis surveillance sites to ensure adequate surveillance for viral hepatitis.

Education, Training, and Program Collaboration

CDC will continue to fund projects to educate communities at risk for viral hepatitis, and to train providers to prevent new infections and disease.

CDC continues to promote integration of complementary strategies for prevention of viral hepatitis, HIV/AIDS, STDs, and TB. We will continue to focus on integrating viral hepatitis screening and immunization into HIV/AIDS and STD prevention programs.

Laboratory Research

CDC will continue to conduct and support laboratory studies related to the epidemiology, molecular epidemiology, and natural history of acute and chronic infections with hepatitis viruses and liver disease. These studies will include diagnostic approaches to identify infections with hepatitis viruses, effectiveness of current vaccines, and new methods to prevent infection and disease. CDC's laboratory shares state-of-the-art methods for detecting hepatitis viruses and preventing disease with state and local partners.

New Initiatives

- Assist state and local health departments to implement new CDC guidelines for testing for chronic HBV infection and public health management of chronically infected persons and

their contacts (*MMWR*, September 19, 2008). Activities include developing prevention programs, outreach to minority communities at risk for hepatitis B; developing and implementing programs to expand availability of hepatitis B testing, and facilitating linkage to care of persons with chronic HBV infection, and training providers to deliver hepatitis B prevention services.

- Improve prevention of HBV and HCV transmission among people receiving health care. Of particular concern are patients undergoing procedure in outpatient and residential care facilities. Since 1998, CDC has detected 33 outbreaks of transmission of HBV and HCV in healthcare settings outside of hospitals, including clinics and long term care facilities. The outbreaks were detected in 15 states and resulted in 450 persons acquiring HBV or HCV infection. Related to these outbreaks, more than 60,000 patients in the United States were potentially exposed to HBV and HCV due to failures of basic infection control in healthcare settings outside hospitals. Currently, CDC and its partners are addressing this important patient safety problem by improving viral hepatitis surveillance and outbreak response, including support for health departments to thoroughly investigate all individuals identified to have HBV or HCV infection to assess their possible links to health care settings and long term care facilities, and improvement of injection safety practices through provider education, licensure, and oversight.
- Assist state and local health departments in improving hepatitis B vaccine coverage for at risk adults by increasing resources for purchase of hepatitis B-containing vaccines. CDC studies have shown that cost of vaccination is a major barrier to the immunization of at risk adults; increased quantities of vaccine are important components of CDC's adult hepatitis B immunization initiative.
- Evaluate and implement rapid tests for HCV infection. A high proportion of persons with chronic HCV infection have not been tested. New point-of-care technologies now becoming available offer promise for increasing access to HCV testing and rapid identification of HIV-HCV co-infection. Cost savings will also be achieved by promoting integration of HCV and HIV testing for persons at high risk, thus avoiding program duplication and increasing opportunities for unified care and prevention services.
- Assist state and local health departments to develop effective viral hepatitis surveillance programs to assess the full burden of hepatitis in their communities, detect outbreaks, and target interventions to persons in greatest need. Surveillance data also form the basis for forecasting future health care costs due to viral hepatitis, related chronic liver disease, and cancer.
- Ensure that all infants born to HBV-infected mothers are protected from HBV infection. CDC is helping state and local health departments to improve identification and case management of HBV-infected pregnant women and their infants. CDC is also considering the role of antiviral therapy of HBV-infected pregnant women to further reduce the risk of mother to infant HBV transmission.
- Monitor implementation of CDC guidelines for hepatitis A immunization of children and adults.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 2.6: Reduce the rates of viral hepatitis in the United States.				
2.6.1: Reduce the rate of new cases of hepatitis A (per 100,000 population) [1]. (Outcome)	FY 2007: 1.0 (Target Exceeded)	2.4	2.3	-0.1
2.6.2: Reduce the rate of new cases of hepatitis B (per 100,000 population) [2]. (Outcome)	FY 2007: 1.5 (Target Exceeded)	1.8	1.7	-0.1
2.6.3: Increase the proportion of individuals knowing their hepatitis C virus infection status. [3] (Outcome)	FY 2004: 50.0 (Baseline)	N/A	N/A	N/A
2.6.4: Increase the number of areas reporting chronic hepatitis C virus infections to CDC to 50 states and New York City and District of Columbia. (Output)	FY 2007: 33.0 (Trend data)	35.0	37.0	+2

[1] Target is consistent with Healthy People 2010 goals for hepatitis A. Additional funding to support hepatitis A outbreak response and vaccination is provided in the food safety and immunization budget lines.
[2] Additional funding to support hepatitis B control and immunization is provided in the Emerging Infections line.
[3] The proportion of individuals knowing their infection is assessed by an NHANES module which is not conducted annually.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
2.J: Number of states or cities funded for enhanced viral hepatitis surveillance	FY 2008: 7	7	7	Maintain
2.K: Number of states or cities funded for viral hepatitis prevention activities	FY 2008: 55	55	55	Maintain
Appropriated Amount ($ Million)[1]	$17.6	$18.3	$18.3	$0

* The Division of Viral Hepatitis was transferred to NCHHSTP in Fiscal Year 2007
[1] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount

SEXUALLY TRANSMITTED DISEASES (STDS)

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$152,329,000	$152,329,000	$0	$152,750,000	+$421,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 306, 307, 308(d), 310, 311, 317, 317(a), 317P, 318, 318A, 322, 325, 327, 352, Tuskegee Health Benefits: P.L. 103-333

FY2009 Authorization …….…….…… Indefinite

Allocation Methods……..…….. Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Formula Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Grant programs to states to prevent and control STDs were first authorized in the National Venereal Disease Control Act of 1938. In 1957, the program was transferred to CDC where it evolved to address changing demographics in the U.S., changes in the disease burden, and changing prevention modalities. For instance, in the early 1990s, a program to reduce STD-related infertility was implemented after trials demonstrated that screening of young women for chlamydia could reduce high rates of disease in this population. The primary authorizing language for CDC's STD Prevention Program is section 318 of the Public Health Service Act. Infertility prevention activities are authorized under section 318A, and human papillomavirus (HPV)-related activities are authorized under section 317P.

STDs remain a "hidden epidemic" in the United States, with about 19 million new infections each year. They are among the most costly and preventable diseases in the U.S., mainly affecting adolescents and young adults, and are the source of some of the most profound racial disparities in health. CDC supports STD prevention and control. The program's overarching long-term goal is to reduce the rates of non-HIV STDs in the U.S.

This goal is accomplished by the following:

- Monitoring disease trends using national and local data to focus and assess current prevention activities;
- Conducting behavioral, clinical, and health services research and program evaluation to provide a scientific base for improving program efforts;
- Providing education and training through guideline development, 10 regional STD/HIV Prevention Training Centers, and programs to ensure that health care professionals are prepared to provide optimal STD treatment, care, and prevention services;
- Building national partnerships for STD prevention to educate health professionals, the public, and policymakers about the importance of STD prevention and the impact of STDs on the health of Americans, particularly women and infants, adolescents, and minority populations; and,
- Providing financial, direct personnel, and technical assistance to state and local health departments to deliver clinical and prevention services.

About 74 percent of CDC's STD prevention funds are allocated through Comprehensive STD Prevention Systems (CSPS) grants to state, local, and territorial health departments, promoting a community-wide, science-based, interdisciplinary systems approach to STD prevention as recommended by the Institute of Medicine (IOM) in its report, *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*. Two foci are syphilis elimination (SE) and infertility prevention. CDC also supports special surveillance studies for HPV and herpes simplex 2 (HSV-2); supports epidemiologic, behavioral, laboratory and health services research on a variety of STDs; provides program support, training, and health communications for national STD prevention programs; and develops recommendations for HPV vaccines and implementation issues pertinent to such vaccines.

- CDC in collaboration with the National Coalition of STD Directors and their partners published Guidelines for Internet-based STD and HIV Prevention to assist health departments and Community Based Organizations (CBOs) in using the Internet to provide STD prevention services, such as partner services.
- In 2008, CDC released findings from the Safe in the City trial, which tested a short video intervention for STD clinic patients. Exposure to the video in clinic waiting rooms was associated with an almost 10 percent decrease in new STDs.

Infertility Prevention Program

The national Infertility Prevention Program, a collaboration between CDC and the Office of Population Affairs, supports chlamydia screening and treatment services for low-income, sexually active women attending family planning service providers, sexually transmitted disease clinics, and other women's health care clinics through cooperative agreements. Screening is necessary because chlamydia is usually asymptomatic and, if untreated, can cause severe health consequences for females, including pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. Up to 40 percent of females with untreated chlamydia infections develop PID, and 20 percent of those may become infertile. CDC also conducts research to identify the biological and behavioral determinants of chlamydia transmission and assess the feasibility, acceptability, and cost-effectiveness of chlamydia screening for males. CDC supports screening programs in all 65 STD project areas. CDC recommends annual screening of all sexually active women 25 years and younger for chlamydia.

- Between 1988 and 2007, screening programs supported by CDC in HHS Region 10 (serving Alaska, Idaho, Oregon and Washington) have demonstrated a decline in chlamydia positivity of 52 percent (from 11.1 percent to 5.8 percent) among 15 to 24-year-old women in participating family planning clinics.
- In 2007, the median state-specific prevalence among women 15 to 24 years of age screened in family planning clinics was 6.9 percent.
- Chlamydia screening has been ranked by the National Commission on Prevention Priorities as one of the top five most cost-effective and under-utilized preventive services recommended by the U.S. Preventive Services Task Force (USPSTF).

Syphilis Elimination

To capitalize on a decade of declining rates of syphilis, in 1999, CDC launched its National Plan to Eliminate Syphilis from the United States. The plan was designed to end the sustained transmission of the disease in the U.S. by focusing efforts on the populations most affected by syphilis—heterosexual minority populations, particularly African Americans. In these populations, substantial progress has been made in reducing the burden of syphilis, yet overall syphilis rates have been on the rise, largely because of increasing rates of syphilis among men who have sex with men (MSM).

CDC provides additional funding through a component of the CSPS to a limited number of jurisdictions to address syphilis. Funding is based on a formula that uses reported syphilis cases and rates. CDC, with its partners, has:

- Reduced the reported rate of primary and secondary syphilis among females by 45 percent, from 2.0 cases per 100,000 population in 1999 to 1.1 cases per 100,000 population in 2007;
- Reduced the reported rate of congenital syphilis by 28 percent, from 14.5 cases per 100,000 live births in 1999 to 10.5 cases per 100,000 live births in 2007;
- Decreased black: white ratio of reported syphilis from 28.6:1 in 1999 to 7.9:1 in 2007; and
- Published new recommendations for Partner Services (PS) programs, which emphasize the need to conduct PS for all persons diagnosed with syphilis.

Human Papillomavirus (HPV) and other STDs

CDC also supports developing recommendations for HPV vaccines and addresses implementation issues pertinent to such vaccines, including monitoring HPV vaccine impact through new surveillance programs. In addition, CDC supports special surveillance studies for HPV and HSV-2; epidemiologic, behavioral, laboratory and health services research on a variety of STDs; and program support, training and health communications for STD prevention programs nationally. Accomplishments include:

- Developed HPV Web pages with materials in English and Spanish, targeted to the general public, patients, health educators, and health care providers;
- Initiated monitoring of cervical cancer precursors (CIN 2/3) and associated HPV types to begin to assess the impact of the HPV vaccine;
- Collected and analyzed HPV prevalence and surveillance information for the U.S. population using NHANES and published results;
- Initiated studies to monitor impact of HPV vaccine on anogenital warts;
- Initiated studies to monitor behavioral impact of HPV vaccine (Pap testing, sexual behavior and sexual health care seeking); and
- Conducted and published cost-effectiveness analysis of HPV vaccination of 12-year-old girls in the U.S.

STD/HIV Training Centers

The National Network of STD/HIV Prevention Training Centers (PTCs) is a CDC-funded group of 10 regional centers created in partnership with health departments and universities. The PTCs are dedicated to increasing the knowledge and skills of health professionals in the areas of sexual and reproductive health. The National Network provides health professionals with a spectrum of state-of-the-art educational opportunities including experiential learning with an emphasis on prevention.

- From April 2007 to March 2008 35,403 students have been trained, 16,411 course hours have been provided and 1,147 training events have occurred.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$159,633,000
FY 2006	$157,201,000
FY 2007	$155,037,000
FY 2008	$152,329,000
FY 2009	$152,329,000

BUDGET REQUEST

CDC's FY 2010 request includes $152,750,000 for Sexually Transmitted Disease, an increase of $421,000 above the FY 2009 Omnibus for pay increases. CDC will continue its STD prevention and control activities in conjunction with state and local health departments. Some key activities, objectives, and targets that will guide activities in FY 2010 are:

STD Prevention

CDC will continue to support state, local, and territorial health departments through the CSPS. These grants support community and individual behavior change interventions; ensure medical, laboratory services, and partner services; conduct surveillance and data management; provide training and professional development or ensure that local health departments do so; and ensure a documented STD outbreak response plan.

- In 2010, CDC will provide technical and financial assistance to health departments for STD prevention activities. Reported cases of nationally-notifiable STDs have leveled or increased in recent years, putting intense pressure on state and local health departments to address these STDs with diminished state and local funding and national funding that has remained level.

Because STDs are increasingly diagnosed in the private sector, in 2010, CDC will broaden its efforts to include new partnerships with professional organizations, private health care providers, and the general public, while maintaining its support and work within the public sector.

- In 2007, 74 percent of Chlamydia cases, 64 percent of gonorrhea cases, and 66 percent of primary and secondary syphilis cases were reported from non-STD clinic sources.

Drug resistance is an increasingly important concern in the treatment and prevention of gonorrhea. In FY 2009 and FY 2010, CDC will continue to monitor the presence of drug resistant gonorrhea through the Gonoccocal Isolates Surveillance Project (GISP), a model national sentinel surveillance system that monitors antimicrobial resistance to *Neisseria gonorrhoeae* in the United States. CDC will also work with the National Institutes of Health and others to identify potential treatments for resistant infections.

- In April 2007, CDC revised its gonorrhea treatment guidelines, no longer recommending that fluoroquinolones be used to treat gonorrhea in the U.S. With the loss of fluoroquinolones, recommended gonorrhea treatments are limited to a single class of antibiotics, cephalosporins. At the same time, local and state surveillance capacity for monitoring resistant gonorrhea has diminished over time with the increasing use of nucleic acid amplification tests, as fewer U.S. laboratories are conducting culture and susceptibility testing.

Infertility Prevention

The Infertility Prevention Program will continue to be supported as part of CSPS in FY 2010. The Infertility Prevention Program provides funding and technical assistance to state and local STD

prevention programs and regional infertility programs to ensure clinical services including chlamydia and gonorrhea screening and treatment of young, sexually active women and their sexual partners; support laboratory testing; and develop surveillance and data management systems to ensure collection of all CDC core data elements.

Chlamydia screening is ranked as a highly-cost effective clinical preventive service with a low utilization rate (less than 50 percent adherence to guidance in the private sector). CDC has set a priority to increase chlamydia screening rates nationally and has developed an initiative to engage partners in the private sector on this important reproductive health issue. In FY 2009 and FY 2010, CDC will continue to pursue important elements of the initiative, including:

- Collaborating with the Partnership for Prevention, a national nonprofit organization, to promote the use of high-impact preventive services, including chlamydia screening;
- Conducting research to address barriers to screening, the role of partner services; and,
- Continued collaboration with a wide range of partners in the private sector through the National Chlamydia Coalition, a partnership of national organizations with common interest in elevating the importance of Chlamydia screening and treatment, and increasing screening rates among adolescents and young women, initiated by CDC in FY 2008.

In FY 2010, CDC will fund 65 state and local STD prevention programs (through Comprehensive STD Prevention Program) and 10 regional infertility programs, with the following targets for FY 2010:

- Limit the increase in the prevalence of chlamydia among high-risk women under age 25 to 15.1 percent,
- Limit the increase in the prevalence of chlamydia among women under age 25 in publicly funded family planning clinics to 7.4 percent, and,
- Limit the increase in the incidence of gonorrhea in women aged 15 to 44 to 296 per 100,000 population.

In FY 2009, CDC is undertaking policy initiatives to assist STD prevention programs with implementation of Expedited Partner Therapy (EPT), the practice of providing treatment to partners of persons diagnosed with a STD without clinical examination or encounter with those partners.

Syphilis Elimination

CDC will continue to support the Syphilis Elimination Effort (SEE) efforts in FY 2010 through the CSPS grants. Through SEE, CDC supports enhanced surveillance, community involvement and partnerships, rapid outbreak response capabilities, and enhanced health promotion in designated syphilis High Morbidity Areas. These areas are defined as a CSPS project area that has in a single year a minimum of 100 primary and secondary (P&S) syphilis cases or a P&S case rate > 2.2/100,000 population, with a minimum of 60 P&S cases.

CDC plans to fund 33 syphilis elimination programs and award 15 percent of funds to project areas to support non-governmental organizations serving affected populations in FY 2010.

- To be more responsive to the evolving syphilis epidemic, wide variation in project area funding, and overall level funding, in 2008, CDC implemented a new SEE funding formula. The formula includes a base award for all high morbidity areas plus additional funding on the basis of the project area's proportion of total P&S cases in the previous two years. The formula also includes provision for project areas which have decreased their morbidity below the threshold to transition from SE funding over a two-year period after falling below

the threshold. Based on the time/morbidity threshold, the number of project areas and composition of the project areas can change on an annual basis.

To improve monitoring of syphilis elimination activities and progress toward meeting elimination objectives, CDC provides guidance for Evidence-based Action Planning (EBAP) for SEE. SEE programs are required to use an evidence-based action plan to guide the collection of information on the target populations, interventions provided, resources allocated, and outcomes to facilitate program assessment, improve effectiveness, and inform decisions about future program development. The following target for FY 2010 is:

- To increase the number of SEE activities that are monitored using the EBAP process to 80 percent.

Other Activities

In 2010, CDC will continue to conduct Human Papillomavirus (HPV) surveillance and evaluate vaccination impact.

- CDC has undertaken a number of projects to monitor the impact of HPV vaccination, including the following:
    - Monitoring cervical intraepithelial neoplasia, grade 2/3 (CIN 2/3) by establishing a network of geographically diverse sentinel sites from well-defined populations;
    - Monitoring changes in anogenital warts; and
    - Monitoring the behavioral impact of the HPV vaccine (e.g., Pap testing and sexual behavior).

  These projects inform vaccine policies to improve uptake and implementation and yield population-based data on benefits and limitations of the vaccine program.

Also in FY 2010, CDC plans to fund 10 STD/HIV regional prevention training centers. Training courses focus on such topics as HIV/AIDS, adolescent health, racial and sexual minorities, correctional health, substance abuse, and women's health.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 2.7: Reduce the rates of non-HIV sexually transmitted diseases (STDs) in the United States.				
2.7.1: Reduce pelvic inflammatory disease in the U.S. (Outcome)	FY 2007: 146,000.0 (Target Not In Place)	N/A	168,000	N/A
2.7.2: Reduce the prevalence of chlamydia among high-risk women under age 25. (Outcome)	FY 2007: 13.2% (Target Not Met)	14.1%	15.1%	+1
2.7.3: Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics. (Outcome)	FY 2007: 6.9 (Target Not Met)	7.0	7.4	+0.4
2.7.4: Reduce the incidence of gonorrhea in women aged 15 to 44 (per 100,000 population). (Outcome)	FY 2007: 290 (Target Not Met)	293	296	+3
2.7.5: Eliminate syphilis in the U.S. (Outcome)	FY 2007: 3.8/100,000 (Target Not In Place)	N/A	2.2/100,000	N/A
2.7.6a: Reduce the incidence of P&S syphilis: in men (per 100,000 population). (Outcome)	FY 2007: 6.6 (Target Not Met)	6.4	7.2	+0.8
2.7.6b: Reduce the incidence of P&S syphilis: in women (per 100,000 population). (Outcome)	FY 2007: 1.1 (Target Not Met)	1.1	1.2	+0.1
2.7.7: Reduce the incidence of congenital syphilis per 100,000 live births. (Outcome)	FY 2007: 10.5 (Target Not Met)	8.9	9.4	+0.5
2.7.8: Reduce the racial disparity of P&S syphilis (reported ratio is black:white). (Outcome)	FY 2007: 7.1:1 (Target Not Met)	6.3:1	6.7:1	+0.4

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
2.L: Technical and financial assistance to grantees for STD Prevention	65	65	65	Maintain
2.M: Syphilis Elimination Programs Funded	42	33	33	Maintain
2.N: Regional Infertility Programs Funded	10	10	10	Maintain
2.O: STD/HIV Regional Prevention Training Centers Funded	10	10	10	Maintain
2.P: Percent of Syphilis elimination funds awarded to project areas to support organizations serving affected populations	15	15	15	Maintain
Appropriated Amount ($ Million)[1]	$152.3	$152.3	$152.3	$0

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

COMPREHENSIVE SEXUALLY TRANSMITTED DISEASES (STD) PREVENTION PROGRAM	
State/Territory/Grantee	FY 2008 Actual*
Alabama	$2,033,392
Alaska	$427,698
Arizona	$1,674,803
Arkansas	$1,106,106
California	$5,953,612
Colorado	$1,286,683
Connecticut	$1,143,292
Delaware	$545,355
District of Columbia	$2,133,057
Florida	$5,994,273
Georgia	$4,582,584
Hawaii	$385,352
Idaho	$424,253
Illinois	$2,216,529
Indiana	$1,788,523
Iowa	$771,626
Kansas	$841,764
Kentucky	$1,045,820
Louisiana	$2,148,070
Maine	$259,731
Maryland	$1,549,880
Massachusetts	$1,540,588
Michigan	$2,784,297
Minnesota	$1,059,326
Mississippi	$1,202,801
Missouri	$2,209,458
Montana	$310,383
Nebraska	$458,262
Nevada	$785,940
New Hampshire	$260,967
New Jersey	$3,032,877
New Mexico	$970,067
New York	$3,013,229
North Carolina	$4,076,634
North Dakota	$264,085
Ohio	$3,379,902
Oklahoma	$1,109,336
Oregon	$1,174,946
Pennsylvania	$2,543,269
Rhode Island	$ 405,601

COMPREHENSIVE SEXUALLY TRANSMITTED DISEASES (STD) PREVENTION PROGRAM	
State/Territory/Grantee	FY 2008 Actual*
South Carolina	$1,858,416
South Dakota	$292,269
Tennessee	$2,655,590
Texas	$7,424,447
Utah	$481,402
Vermont	$179,732
Virginia	$2,035,915
Washington	$2,829,878
West Virginia	$724,167
Wisconsin	$1,401,519
Wyoming	$266,601
Baltimore	$2,325,586
Chicago	$3,807,928
Los Angeles	$4,520,713
New York City	$8,027,861
Philadelphia	$3,386,170
San Francisco	$1,824,237
American Samoa	$20,025
Guam	$117,077
Marshall Islands	$53,545
Micronesia	$37,295
Northern Mariana Islands	$115,445
Palau	$43,609
Puerto Rico	$1,595,787
Virgin Islands	$128,814
Total States/Cities/Territories	**$115,048,398**

*Amounts reflect new funding only. $7,982,448 in unobligated funds was also awarded to supplement the new funds.

COMPREHENSIVE SEXUALLY TRANSMITTED DISEASES (STD) PREVENTION PROGRAM	
State/Territory/Grantee	FY 2008 Actual*
Alabama	$2,033,392
Alaska	$427,698
Arizona	$1,674,803
Arkansas	$1,106,106
California	$5,953,612
Colorado	$1,286,683
Connecticut	$1,143,292
Delaware	$545,355
District of Columbia	$2,133,057
Florida	$5,994,273
Georgia	$4,582,584
Hawaii	$385,352
Idaho	$424,253
Illinois	$2,216,529
Indiana	$1,788,523
Iowa	$771,626
Kansas	$841,764
Kentucky	$1,045,820
Louisiana	$2,148,070
Maine	$259,731
Maryland	$1,549,880
Massachusetts	$1,540,588
Michigan	$2,784,297
Minnesota	$1,059,326
Mississippi	$1,202,801
Missouri	$2,209,458
Montana	$310,383
Nebraska	$458,262
Nevada	$785,940
New Hampshire	$260,967
New Jersey	$3,032,877
New Mexico	$970,067
New York	$3,013,229
North Carolina	$4,076,634
North Dakota	$264,085
Ohio	$3,379,902
Oklahoma	$1,109,336
Oregon	$1,174,946
Pennsylvania	$2,543,269
Rhode Island	$ 405,601
South Carolina	$1,858,416
South Dakota	$292,269

COMPREHENSIVE SEXUALLY TRANSMITTED DISEASES (STD) PREVENTION PROGRAM	
State/Territory/Grantee	**FY 2008 Actual***
Tennessee	$2,655,590
Texas	$7,424,447
Utah	$481,402
Vermont	$179,732
Virginia	$2,035,915
Washington	$2,829,878
West Virginia	$724,167
Wisconsin	$1,401,519
Wyoming	$266,601
Baltimore	$2,325,586
Chicago	$3,807,928
Los Angeles	$4,520,713
New York City	$8,027,861
Philadelphia	$3,386,170
San Francisco	$1,824,237
American Samoa	$20,025
Guam	$117,077
Marshall Islands	$53,545
Micronesia	$37,295
Northern Mariana Islands	$115,445
Palau	$43,609
Puerto Rico	$1,595,787
Virgin Islands	$128,814
Total States/Cities/Territories	**$115,048,398**

*Amounts reflect new funding only. $7,982,448 in unobligated funds was also awarded to supplement the new funds.

TUBERCULOSIS (TB)

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$140,359,000	$143,870,000	$0	$144,268,000	+$398,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 306, 307, 308(d), 310, 311, 317, 317(a), 317E

FY 2009 Authorization…….... Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Formula Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

The Public Health Service has supported efforts to control TB in the U.S. since the early 20th century, and programs to support TB control in the States were transferred to CDC in 1960. These programs were so successful that by 1972, TB was no longer thought to be a threat, and categorical funding for TB was eliminated. However, several factors, including an increase in homelessness and the HIV epidemic, led to a resurgence of TB in the late 1980s, and, with it, multi-drug resistant (MDR) TB. Intensive efforts lowered TB incidence in the United States, and in 2007, CDC reported the lowest number of U.S. cases (13,299) since it began reporting these data in 1953. Since the 1992 TB resurgence peak in the United States, the number of TB cases reported annually has decreased by 50 percent. In addition, the case rate is the lowest ever, at 4.4 cases per 100,000 population.

However, the rate of decline in U.S. cases has slowed from an annual average decline of 7.3 percent for 1993 through 2000 to an annual average decline of 3.8 percent for 2000 through 2007, partly because of increasing rates among foreign-born persons, continued disparities among racial and ethnic groups, and sporadic local outbreaks. Moreover, the high global burden of TB disease, widespread development of drug resistant strains, and lack of better tools for TB diagnosis and treatment call for increased effort with international partners to reduce TB.

Success in eliminating TB ultimately depends on (1) rapid identification and treatment-to-cure of TB cases; (2) ability to provide appropriate, effective drug regimens; (3) treating the patients' close contacts; (4) treating persons with latent infection who are at high risk of developing the disease; (5) maintaining timely, complete local, state, and national TB information systems to monitor elimination efforts; and (6) helping to control the spread of TB globally.

CDC provides leadership and assistance domestically and internationally to prevent, control, and eliminate TB. CDC's national TB program provides grants to states and other entities for prevention and control services; supports programmatically relevant clinical and epidemiologic studies to treat and control TB; sponsors public information and education programs; and supports education and training to improve clinical skills for persons treating TB patients.

State TB Control Programs

CDC funds 68 cooperative agreements with state and local health departments (in 2008, approximately one-third of the funds were awarded based on a formula) for TB prevention and control, including technical and financial assistance, laboratory support, model centers, and health

care worker training. CDC works with 41 state and local TB advisory committees that represent patients and providers.

Recent accomplishments include:

- Achieved continued reductions in TB morbidity in the U.S., even in the wake of high global burden of disease. In 2007, 26 states met the definition for low incidence (less than or equal to 3.5 cases per 100,000 population), similar to 2006;
- Ensured that over 82.7 percent of TB patients received a curative course of treatment within 12 months of diagnosis (some patients require more than 12 months of treatment) and conducted contact investigations to identify persons who may have been exposed to people with active TB; and
- Delivered training to pubic health laboratorians and developed performance indicators for TB control programs.

Applied Clinical and Epidemiologic TB Research

CDC collaborates through contracts and interagency agreements with the Veterans Administration and other partners to maintain a consortium for TB clinical trials research. CDC also supports the Tuberculosis Epidemiologic Studies Consortium to strengthen TB epidemiological, behavioral, economic, laboratory, and operational research capacity within states, cities, and academic institutions. This research has yielded the following results that can be used in guiding future prevention activities:

- A study among persons having latent tuberculosis infection (LTBI) in the United States and Canada found that less than half (47.1 percent) of persons who had accepted treatment failed to complete their recommended course of therapy. Risk factors for not completing therapy included being placed on a 9-month treatment regimen, residence in a congregate setting, injection drug use, being less than 15 years of age, and employment at a health care facility. Shorter regimens and interventions targeting residents of congregate settings, injection drug users and employees of health care facilities would increase completion rates.
- Analysis of the epidemiology of TB among foreign-born persons revealed that rates of TB disease varies based on the amount of time that elapsed since the person entered the United States, their age at U.S. entry, and country of birth. Annual TB case rates among foreign-born persons decline with increasing time since U.S. entry, but rates never decline to the level of U.S.-born persons. Case rates are highest for persons born in sub-Saharan Africa and Southeast Asia. These data will help define efforts for targeting interventions to populations at highest risk for developing TB disease.

Global Partnerships

CDC provides leadership and technical assistance in infection control, epidemiology, surveillance (including drug resistance surveys); program and laboratory services development; monitoring and evaluation; operations research and training; improving diagnostic services; and identifying clinical factors important to TB outcomes. These efforts build upon the successful program to control TB in the United States. CDC collaborates with U.S. partners to reduce TB in high-burden countries by developing guidelines, recommendations, and policies.

- Over the past three years, CDC has been supporting TB control efforts in more than 35 countries through partnerships with USAID, PEPFAR, WHO, the International Union Against TB and Lung Disease, and other nongovernmental partners to address TB and TB/HIV. CDC provides technical assistance in program activities, operational research, surveillance, infection control, and laboratory capacity.

- CDC is a founding member of the Stop TB Partnership, a global effort of more than 500 governmental and non-governmental organizations, housed by the WHO. Members of the Stop TB Partnership work towards achieving the 2006 to 2015 Millennium Development Goals of reducing global TB deaths by 50 percent and the number of persons suffering from TB by 50 percent.
- In addition, CDC coordinates with WHO and foreign governments to assess TB cases and prevent the spread of TB through international travel.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$138,811,000
FY 2006	$136,697,000
FY 2007	$134,668,000
FY 2008	$140,359,000
FY 2009	$143,870,000

BUDGET REQUEST

CDC's FY 2010 request includes $144,268,000 for TB, an increase of $398,000 above the FY 2009 Omnibus for pay increases. In FY 2010, CDC will continue its TB control activities in conjunction with state and local health departments to provide financial and technical assistance to conduct TB prevention and control activities including TB lab support. CDC will enter a new cycle of funding for state and local health departments and will allocate resources based on a plan developed with input from state TB controllers and other national partners regarding the structure of this program. In FY 2010, CDC will allocate 45 percent of prevention and control and laboratory funding by formulas that include key factors contributing to the complexity of jurisdictions' TB caseloads. CDC expects implementation of these recommendations to lessen the disparity in funding across jurisdictions and, ultimately, to improve TB control in the U.S.

Key targets for TB prevention and control in FY 2010 include:

- Decrease the rate of cases of TB among U.S.-born persons to 1.9 per 100,000 population;
- Increase the percentage of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment to greater than 87.5 percent; and
- Increase the percentage of contacts of infectious cases that are placed on treatment for latent TB infection and complete a treatment regimen to be equal to or greater than 43 percent.

Fifty states will participate in the TB Genotyping Network, which allows health officials to detect outbreaks almost immediately by analyzing the fingerprints of individual TB strains from across the nation.

CDC will maintain support to applied clinical and epidemiologic TB research partners through activities such as the following:

- CDC recently examined the efficacy of two blood tests for the detection of TB infection in an effort to increase completed treatment of latent infection in those most at risk to progress to TB disease.
- CDC explored the use of isoniazid (INH) in treating a highly INH-resistant TB strain to determine the most effective and safe way to address this common drug resistance.

- In FY 2010, CDC will fund two TB research consortia, continuing research in improved drug regimens for persons with HIV infection, for children with TB, and for persons with drug-resistant TB. CDC will also continue funding to identify outbreaks based on genotyping data and social determinants of health.
- CDC will continue to support its international partners in the global effort to eliminate TB.
- HHS and CDC recently improved the overseas TB screening program by requiring the use of automated culturing, drug-susceptibility testing, and TB drug treatment according to US standards. The new program has been codified and published under the title, *2007 Technical Instructions for Tuberculosis Screening and Treatment.*
- CDC is also working to decrease the importation of TB through the implementation of the Electronic Disease Notification (EDN) project, a web-based system that centralizes data sent to U.S. quarantine stations and notifies the quarantine stations of newly arriving immigrants and refugees recently cured of TB or latently infected with *M. tuberculosis*. EDN is currently established in Alabama, Arizona, Colorado, Hawaii, Maryland, Michigan, Ohio, Rhode Island, Washington, Texas, Florida (includes four counties), New York City and New York State, Illinois, Minnesota, Virginia, Massachusetts, and Georgia.
- CDC is also building program and laboratory capacity for TB control programs in the Pacific Island jurisdictions by improving coordination at the regional reference laboratory, improving the local capacity to conduct more specific TB diagnostic tests, and improving procedures for specimen shipping.
- CDC staff provides ongoing technical assistance to foreign countries with a high burden of TB and to those having a strategic interest for TB control efforts in the United States; at least 75 such technical assistance visits were made in FY 2007.
- Integration of infectious diseases for TB-infected persons is being supported. For example, the Illinois Department of Health has implemented a study to provide hepatitis B and C testing for patients undergoing treatment for latent TB and active TB.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 2.8: Decrease the rate of cases of TB among U.S.-born persons in the United States.				
2.8.1: Decrease the rate of cases of TB among U.S.-born persons (per 100,000 population). (Outcome)	FY 2007: 2.1 (Target Met)	1.8	1.9	+0.1
2.8.2: Increase the percentage of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months). (Outcome)	FY 2005: 82.7% (Target Not In Place)	>88.0%	>87.5%	-0.5
2.8.3: Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results. (Outcome)	FY 2007: 94.6% (Target Not Met but Improved)	>95.0%	>95.0%	Maintain
2.8.4: Increase the percentage of contacts of infectious (Acid-Fast Bacillus (AFB) smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen. (Outcome)	FY 2005: 43.5% (Target Not Met but Improved)	43.0%	43.0%	Maintain

OUTPUT TABLE

Key Outputs	Most Recent Result (FY 2008)	FY 2009 Omnibus	FY 2010 Target	FY 2010 +/- FY 2009
2.Q: Number of cities, states, and territories provided financial and technical aid to conduct TB prevention and control activities and collect TB surveillance data	68	68	68	Maintain
2.R: Number of research consortia funded	2	2	2	Maintain
2.S: Number of studies funded under the TB Clinical Trials Consortia[2]	2	2	TBD	N/A
2.T: Number of new task orders funded under the TB Epidemiologic Studies Consortia[3]	3	2	0	-3
2.U: Number of communications disseminated via CD-ROM	11,200	11,200	11,200	Maintain
2.V: Number of state public health laboratories participating in the TB Genotyping Network	50	50	50	Maintain
Appropriated Amount ($ Million)[1]	$140.4	$143.9		$143.9

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.
[2] Funding for this activity is being recompeted and the number of new projects will be announced at the beginning of FY 2010.
[3] Funding for this activity is being recompeted for FY 2011 so fewer studies will be initiated in FY 2009 and FY 2010.

STATE FUNDING TABLE

FY 2010 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION TUBERCULOSIS (TB) ELIMINATION & LABORATORY PROGRAM FOR STATE/LOCAL HEALTH DEPARTMENTS			
State/City/Territory	Prevention & Control Base**	Laboratory Base**	Total
Alabama	$959,711	$118,351	$1,078,062
Alaska	$282,895	$124,264	$407,159
Arizona	$1,054,630	$118,309	$1,172,939
Arkansas	$451,933	$108,730	$560,663
California	$7,567,976	$304,608	$7,872,584
Colorado	$449,435	$79,240	$528,675
Connecticut	$528,688	$82,338	$611,026
D.C.	$755,099	$27,299	$782,398
Delaware	$182,202	$68,816	$251,018
Florida *	$6,852,105	$357,607	$7,209,712
Georgia	$2,278,095	$235,936	$2,514,031
Hawaii	$790,137	$83,378	$873,515
Idaho	$142,344	$34,499	$176,843
Illinois	$1,042,296	$225,340	$1,267,636
Indiana	$554,100	$98,609	$652,709
Iowa	$273,882	$117,944	$391,826
Kansas	$349,675	$47,915	$397,590
Kentucky	$727,249	$100,013	$827,262
Louisiana	$1,196,436	$138,229	$1,334,665
Maine	$106,104	$72,247	$178,351
Maryland	$963,704	$186,068	$1,149,772
Massachusetts	$1,410,134	$143,368	$1,553,502
Michigan	$689,088	$138,922	$828,010
Minnesota	$875,801	$127,918	$1,003,719
Mississippi	$739,312	$68,254	$807,566
Missouri	$546,097	$82,406	$628,503
Montana	$88,865	$32,924	$121,789
Nebraska	$173,796	$37,161	$210,957
Nevada	$421,626	$72,227	$493,853
New Hampshire	$178,650	$80,472	$259,122
New Jersey *	$4,335,223	$133,041	$4,468,264
New Mexico	$299,925	$63,719	$363,644
New York State1	$2,542,689	$188,418	$2,731,107
North Carolina	$1,665,820	$164,217	$1,830,037
North Dakota	$114,478	$51,504	$165,982
Ohio	$1,053,981	$69,570	$1,123,551
Oklahoma	$636,288	$147,740	$784,028
Oregon	$554,036	$136,115	$690,151
Pennsylvania	$733,775	$82,851	$816,626

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
TUBERCULOSIS (TB) ELIMINATION & LABORATORY PROGRAM
FOR STATE/LOCAL HEALTH DEPARTMENTS

State/City/Territory	Prevention & Control Base**	Laboratory Base**	Total
Rhode Island*	$373,835	$67,574	$441,409
South Carolina	$1,156,669	$76,830	$1,233,499
South Dakota	$209,899	$24,537	$234,436
Tennessee*	$1,410,029	$121,634	$1,531,663
Texas *	$6,562,843	$429,093	$6,991,936
Utah	$276,861	$43,309	$320,170
Vermont	$109,146	$27,374	$136,520
Virginia	$1,130,611	$113,091	$1,243,702
Washington	$1,328,368	$123,581	$1,451,949
West Virginia	$271,694	$64,759	$336,453
Wisconsin	$352,543	$54,021	$406,564
Wyoming	$159,906	$31,216	$191,122
Baltimore	$575,399	$-	$575,399
Chicago	$2,011,357	$-	$2,011,357
Detroit	$509,017	$-	$509,017
Houston	$2,214,752	$180,541	$2,395,293
Los Angeles	$4,626,505	$294,352	$4,920,857
New York City	$10,370,869	$707,534	$11,078,403
Philadelphia	$830,460	$121,772	$952,232
San Diego *	$1,578,170	$151,672	$1,729,842
San Francisco *	$2,661,761	$137,090	$2,798,851
American Samoa	$79,587	$18,820	$98,407
Guam	$331,276	$81,997	$413,273
Marshall Islands	$102,131	$25,244	$127,375
Micronesia*	$241,641	$31,187	$272,828
N. Marianas*	$310,715	$17,994	$328,709
Palau	$113,291	$14,544	$127,835
Puerto Rico	$536,624	$126,459	$663,083
Virgin Islands	$71,164	$-	$71,164
Total States/Cities/Territories	$85,075,403	$7,636,792	$92,712,195

Note: In addition, grantees received a total of $5,137,141 in carryover, including supplements. Totals also include HIV/TB coinfection funds.

* Grantee received funding from one or more of the following supplements: Outbreak support ($268,007), supplemental funding ($39,550). Regional Training and Medical Consultation Centers ($5,789,539)

** Includes funding to all grantees for human resource development.

ZOONOTIC, VECTORBORNE, AND ENTERIC DISEASES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$67,846,000	$67,978,000	$0	$73,122,000	+$5,144,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317P, 317R, 317S, 319, 319E, 319F, 319G, 327, 352, 361-363, 1102, Immigration and Nationality Act §§ 212, 232

FY 2009 Authorization ……...Indefinite

Allocation Methods……Direct Federal/Intramural; Contracts; and Competitive Grants/Cooperative Agreements

BUDGET REQUEST

The intersection of multiple factors has created a new epidemiological era characterized by increases in emerging and reemerging infectious diseases. These include zoonotic diseases transmitted from animals to humans such as SARS, plague, hantavirus and influenza; vectorborne diseases carried by mosquitoes and ticks such as illnesses caused by West Nile virus, Lyme disease, dengue and malaria; foodborne illnesses including those caused by E. coli and Salmonella; and waterborne disease challenges like chlorine-resistant pathogens and recreational water contamination. Longstanding endemic infections, including neglected tropical diseases, continue to have an enormous impact on the health and well-being of billions of people throughout the world. These and other threats demonstrate that animals, people, and the environment are inextricably linked, that animal health strategies impact public health, and that the strategies to protect both should be coordinated.

CDC has brought together similarly focused programs in the National Center for Zoonotic, Vectorborne and Enteric Diseases (NCZVED). Providing national and international scientific and programmatic leadership in these areas, CDC identifies, investigates, diagnoses, treats, and prevents these important diseases. Gaining a better understanding of these diseases and the ecologies from which they have emerged requires extensive interaction and collaboration among professionals from multiple disciplines, not only across CDC and the traditional public health community, but also among agricultural, wildlife, companion animal, and environmental agencies and organizations. Greater progress in prevention and control of infectious diseases will require a broader focus to address human health as interconnected to the health of animals and the environment. This has implications for how CDC conducts and focuses its work, as well as how CDC will work with partners in these efforts.

CDC's FY 2010 request includes $73,122,000 for Zoonotic, Vectorborne and Enteric Diseases an increase of $5,144,000 above the FY 2009 Omnibus. This increase reflects $1,144,000 for pay increases and $4,000,000 for non-pay increases.

The Zoonotic, Vectorborne and Enteric disease budget supports the following programs and activities:

- The vectorborne disease program supports a national coordinated plan for the detection and control of West Nile virus and other medically important arboviruses such as chikungunya, dengue and Japanese encephalitis. Activities encompass grants and cooperative

agreements to states for surveillance, working with partners on prevention practices and programs, and conducting epidemiological and laboratory research. CDC developed and implemented strategies and protocols that resulted in screening the entire U.S. blood supply for WNV contamination beginning in July 2003. In 2008, all blood donations were screened for WNV.

- The Lyme disease program conducts laboratory and epidemiological research targeted at the prevention, detection and control of Lyme disease. CDC works with state health departments to evaluate the national surveillance case definition for Lyme disease. CDC also works with the Infectious Disease Society of America to develop a physician education program for Lyme disease diagnosis and treatment.
- CDC's food safety programs support collaborative surveillance systems, working with state and local partners as well as USDA and FDA. In addition, CDC conducts laboratory and epidemiologic research, and responds to foodborne disease outbreaks. In fiscal year 2008, food safety investigations included outbreaks of botulism caused by pasteurized carrot juice and canned chili sauce, of *E. coli* O157 infections caused by leafy greens, ground beef, and pepperoni pizza, and of Salmonella infections caused by peanut butter and peanut butter containing products, tomatoes, peppers, vegan snacks, dry dog food, and poultry pot pies. This data is now being used to evaluate how the burden of foodborne illness can be attributed to specific food commodities.
- CDC's prion disease program centers upon laboratory and epidemiological research conducted at CDC with partners such as the National Prion Disease Pathology Surveillance Center and state health departments. CDC maintains the national surveillance of human prion diseases that includes investigations of suspected cases of variant Creutzfeldt-Jakob disease (CJD - human mad cow disease) and other prion diseases of public health importance. CDC continues to support studies with many partners to assess the risk of prion diseases among licensed hunters in Wyoming and Colorado who may be exposed to chronic wasting disease (CWD), a group of over 6000 US recipients of pituitary-derived human growth hormone and recipients of blood from donors who subsequently developed CJD.
- CDC's chronic fatigue syndrome (CFS) program supports laboratory and epidemiological research both at CDC and with partner organizations. Measurable outcomes of the research program include: changes in CFS-related knowledge, attitudes and beliefs of the biomedical research community, health care providers, and the general population; the reduction in CFS-specific population morbidity; identification of pathways involved in CFS, which are amenable to clinical intervention; and the development of an evidence-base for the evaluation, diagnosis, and treatment of CFS. In November 2008, CDC convened an external peer review panel that concluded: "the CDC team currently leads the world in both the breadth and depth of their research into CFS."
- CDC's special pathogens program supports laboratory and epidemiological research for diseases such as Rift Valley fever, Hantavirus and Marburg viruses, as well as the global outbreak response for these and other emerging infections. In 2008, CDC responded to several global outbreaks including Rift Valley fever in Madagascar and Marburg viruses in Uganda. This work has translated into collaborations with other governmental partners to support Rift Valley fever diagnostics and to investigate the epidemiology of this virus. In addition, CDC is also continuing its investigation on the potential animal reservoirs for Marburg viruses in Uganda. CDC is establishing and equipping viral hemorrhagic fever diagnostic laboratory in Entebbe, Uganda, and continues to provide training as well as scientific and reagent support for its operation.

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Vectorborne Diseases

CDC's vectorborne disease program, which includes arboviral diseases, was expanded in 1999 when West Nile virus (WNV) was first identified in New York City. This program seeks to reduce the burden of disease caused by WNV and other medically important arboviruses including: chikungunya, dengue and Japanese encephalitis. In collaboration with other partners, CDC defines disease etiology, ecology and pathogenesis to develop methods and strategies for disease diagnosis, surveillance, prevention and control. CDC also provides diagnostic reference consultation, epidemiologic consultation and epidemic aid to a myriad of partners including state and local health departments, other components of CDC, other Federal agencies and national and international health organizations. As a World Health Organization Collaborating Center for Reference and Research on Arboviruses, CDC also provides technical expertise and assistance in professional training activities to national and international health workers and scientists for West Nile virus, as well as other arthropod-borne viruses.

In order to prepare for the potential introduction, establishment and spread of medically important arboviruses new to the United States, CDC has taken action to increase clinician and public health system awareness, develop diagnostic assays, and to engage in discussions with collaborative public health partners about developing regional detection and response contingencies.

CDC provides funding for both intramural and extramural programs for prevention and control activities nationally and internationally. These activities are funded through a variety of cooperative agreements, grants, interagency agreements and contracts. CDC partners with federal, state, tribal and local agencies, vector and mosquito control associations, universities and many in private industry to identify and develop mosquito-borne disease control, prevention practices and programs. National funding provides support to all states, some large cities/counties and Puerto Rico to assist in the development of comprehensive, long-term disease monitoring, prevention, and control programs.

A major component of these funding initiatives is the national arbovirus surveillance real-time data collection electronic disease monitoring system known as ArboNet. ArboNet is coordinated by CDC and integrates human, equine and other veterinary species, avian, and mosquito reports from state health departments. In addition to capturing surveillance data for domestic arboviruses, ArboNet has the capacity to detect exotic arboviruses such as chikungunya virus that may be imported into the U.S. Other initiatives include the support of a collaborative project with the Association of State and Territorial Health Officials (ASTHO) to distribute, evaluate and revise the guidelines entitled *Public Health Confronts the Mosquito: Developing Sustainable State and Local Mosquito Control Programs,* originally developed in 2004. This collaboration is developing guidance for states on the implementation of emergency vector control following natural disasters.

Extramural support for international activities includes projects such as the following:

- A collaborative study with the Medical Entomology Research and Training Unit/Guatemala (MERTU/G) and the Ministries of Health and Agriculture in El Salvador and Guatemala to establish a sustainable early warning system to detect human and equine arboviruses as they circulate in the region;
- A collaboration between CDC and the Pan American Health Organization (PAHO) to develop and implement programs to strengthen WNV and other arboviral surveillance and laboratory diagnosis capabilities in Latin American countries;
- A cooperative agreement with the Chinese Ministry of Health to conduct surveillance activities and to determine the distribution of arboviruses and the burden of disease in

China. Activities also aide in the development of expertise to plan and implement routine arboviral surveillance; and

- Support for a project to determine the functional outcome for survivors of Nipah virus and Japanese encephalitis in Bangladesh.

Some of CDC's accomplishments for Vectorborne Disease include:

- CDC collaborated with Fort Dodge Animal Health to develop the world's first licensed DNA vaccine. The vaccine, which protects horses from WNV, was licensed in 2005. The technology is now in clinical trials for humans. To further expand the use of the WNV DNA vaccine, CDC tested the efficacy of the vaccine in multivalent formulations with Japanese encephalitis virus and dengue virus DNA vaccines through a contract with the Southwest Foundation for Biomedical Research.
- CDC developed and implemented programs to strengthen WNV and other medically important arboviral disease surveillance and laboratory diagnosis capabilities. Such efforts included the enhancement of regional capabilities to detect and respond to the potential importation of Chikungunya virus in the Americas. In December 2008, CDC and PAHO conducted a workshop in Puerto Rico to provide flavivirus and chikungunya diagnostic training to Central and South American country representatives.
- CDC provided laboratory training to all state health departments on medically important arboviral disease diagnosis to establish rapid diagnostic testing in laboratories throughout the U. S. and the Caribbean. CDC developed standardized diagnostic protocols for antiviral antibody and viral nucleic acid detection in clinical specimens, permitting rapid diagnosis of arboviral disease infection. In 2007, Puerto Rico detected WNV activity for the first time. CDC support allowed health officials to accurately and rapidly detect this outbreak, and to determine that WNV transmission activity continued in 2008.

Lyme Disease

CDC's Lyme disease program formally began in 1989. Currently, CDC conducts national surveillance of Lyme disease and multidisciplinary public health-oriented research aimed at developing effective disease prevention and control measures for vectorborne bacterial zoonoses, including Lyme disease. CDC's intramural Lyme disease program provides laboratory diagnostic reference consultation, technical assistance, outbreak response, and epidemiologic consultation, upon request, to state and local health departments, other components of CDC, federal agencies and national and international health organizations.

In 2008, approximately half of CDC's budget for Lyme disease was awarded as extramural funding. These funds were used for a variety of projects aimed at identifying areas of increased Lyme disease risk, understanding laboratory practices in endemic areas, developing a physician education program, improving diagnostics, increasing awareness and outreach, innovative research, and evaluating interventions for tick control and community-based prevention.

CDC continued financial support in 2008 for Lyme disease surveillance in 12 states where the disease is highly endemic. Sites included: Connecticut, Maine, Massachusetts, Maryland, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and Wisconsin.

In addition, CDC research has demonstrated that natural products from Alaska yellow cedar effectively repel and kill ticks that transmit Lyme disease. A cooperative agreement with the Connecticut Agricultural Experiment Station, started in 2008, will examine the efficacy of natural

forest products for tick control, as well as bio-friendly fungal preparations for use as a tick control agent.

Through a cooperative agreement with Freehold Township Health Department in New Jersey, CDC is conducting field trials of doxycycline-treated rodent bait boxes which have shown 100 percent efficacy in eliminating Lyme disease in the reservoir rodent population. This cooperative agreement is also testing natural forest products for tick control.

Food Safety

CDC's food safety program activities were consolidated in a Food Safety Initiative in 1998, seeking to address the public health challenge of foodborne diseases. According to CDC estimates, each year 76 million U.S. citizens suffer from foodborne illnesses, 325,000 are hospitalized and approximately 5,000 die. The economic burden of these diseases is estimated to be greater than $6 billion annually. More than 1,000 foodborne disease outbreaks occur each year in the U.S., each making groups of people ill and requiring public health and food industry resources to investigate and control the outbreak.

CDC plays a critical and unique role in food safety, as a monitoring, investigative and advisory agency. CDC's programs are independent from regulatory agencies, although closely collaborated. CDC coordinates an integrated national surveillance network to detect and report human cases of foodborne illness. Connecting care providers, laboratories, local and state health departments with CDC, this network enables quick adaptation to new challenges and response to emergencies. CDC's principle activities are to:

- maintain national surveillance for specific diseases, including those that are often foodborne to detect any increase in cases that would require public health action;
- investigate foodborne diseases to identify new problems and prevent future incidence of disease;
- apply scientific advances to improve national surveillance and investigative capacity;
- provide independent scientific guidance to regulatory authorities;
- monitor the effectiveness of regulations and other prevention strategies; and
- train the public health scientists of the future, at federal, state and local levels.

CDC's food safety program supports critical activities in State health departments in all 50 states, as well as activities at CDC. Funds to state and large city health departments are distributed through CDC's Emerging Infections Program (EIP) and the Epidemiology and Laboratory Capacity Building Program (ELC) cooperative agreements. The Food Safety Program improves the health of the entire U.S. population, as every one is at risk for foodborne illness.

CDC investigates and consults on outbreaks of foodborne and diarrheal diseases in collaboration with States, providing epidemiologic assistance, laboratory support and expert consultation on large, severe or unusual events. In collaboration with local, state and territorial partners, and USDA and FDA, CDC helps develop and promote prevention strategies for foodborne and waterborne diseases in consultation with the food industry. CDC also provides up-to-date foodborne disease outbreak investigation and surveillance training for teams composed of local and state epidemiologists, laboratorians, environmental health and other public health professionals. To date, more than 1,150 public health professionals have been trained.

Robust foodborne disease surveillance is essential for detecting deliberate contamination of the food supply. The cornerstone of CDC's Food Safety Program is the building and enhancement of collaborative surveillance networks that monitor outbreaks. The growth of these systems enables

outbreaks to be detected and investigations to be conducted more quickly. These surveillance networks also help to identify new points of control and prevention and document the health burden and sources of these infections.

Some of CDC's Food Safety activities and accomplishments include:

PulseNet

PulseNet is the national network for fingerprinting bacterial foodborne pathogens and works in collaboration with public health laboratories in all 50 states, FDA, and USDA facilitating early recognition and investigation of outbreaks. States receive CDC PulseNet funding through the ELC and EIP cooperative agreements. Through surveillance with state partners, CDC has identified and investigated large multistate outbreaks of E. coli O157, Salmonella infections and botulism, which led to potential illnesses being avoided by notifying the public and by concerted FDA, USDA, state, and local control measures. A cost benefit study using Colorado data published in 2000 concluded that the Colorado PulseNet system would recover all its costs if it averted as few as five cases of E. coli O157:H7 annually. (Elbasha et al. Emerging Infectious Diseases 2000; 6:293-7) CDC now has more than 300,000 "fingerprints" in the national databases for eight pathogens and more are being added by state partners each year

FoodNet

FoodNet is a network of enhanced surveillance that provides detailed data on individual cases of foodborne illness, the organisms that cause disease and the foods or other exposures that are sources of the infections outside of the outbreak setting. In collaboration with USDA and FDA in 10 states, FoodNet provides the most comprehensive information available on the trends of foodborne illness as well as progress towards national goals for controlling and preventing these diseases. FoodNet data is being used to revise the general estimate of burden of illness for the U.S. CDC will continue to provide assistance to the World Health Organization (WHO) as it leads an international effort to determine the global burden of foodborne disease.

OutbreakNet

OutbreakNet is the national network of public health officials in local and state health departments and federal agencies who investigate outbreaks of enteric diseases. In addition to collaborating on foodborne outbreak investigations, state OutbreakNet members report findings of their outbreak investigations to CDC through the National Outbreak Reporting System (NORS). This system serves as a national web-based reporting system with advanced data security and management functions. Each year, CDC leads about 20 investigations and provides extensive consultation to states and local health departments on approximately 80 other investigations.

CaliciNet

CaliciNet is a national electronic surveillance network of local and state public health and food regulatory agency laboratories coordinated by CDC to rapidly identify and genotype norovirus strains implicated in multistate outbreaks. CDC organized the first CaliciNet workshop in 2008 with public health scientists from 22 states. The CaliciNet database allows a better understanding of the molecular epidemiology of noroviruses, including the emergence of new strains, and the identification and evaluation of specific control measures, such as control of contaminated foods.

CIFOR

The Council to Improve Foodborne Outbreak Response (CIFOR) is a CDC-funded collaboration of seven associations and three federal agencies to identify and address barriers to rapid foodborne disease outbreak detection, investigation, reporting, control and prevention. CIFOR's goal is to improve performance and coordination of local, state, and federal public health agencies involved in

foodborne disease outbreaks, epidemiology, environmental health, laboratory science and regulatory affairs.

DPDx

DPDx assists and strengthens the laboratory diagnosis of parasitic diseases in the U.S. by providing online diagnostic consultation (telediagnosis) for over 100 parasitic diseases, as well as education, diagnostic materials, and laboratory protocols to improve parasite identification through internet-based tools and training workshops. DPDx has decreased the time from specimen submission to result reporting from days to hours, and has at the same time decreased the cost of providing diagnostic assistance.

Select other Food Safety activities and accomplishments include the following:

Hepatitis

CDC provides technical support, consultation and analysis to state and local health departments to characterize the disease burden from hepatitis A. CDC also identifies and monitors risk factors for infection and their trends, detect and investigate transmission and outbreaks, and evaluate the effectiveness of prevention programs.

The Safe Water System

CDC has continued to expand the collaborative CDC Safe Water System (SWS), now in more than 26 countries, empowering families in developing countries to make their drinking water safe through a variety of public and private partnerships. The SWS program in Myanmar played a critical role in the public health response to preventing waterborne disease epidemics among affected populations. The SWS is increasingly incorporated in the cholera response activities of Ministries of Health in Africa, and multinational NGOs such as the Red Cross and CARE International. Last year, enough water treatment solution was sold by our partners to treat over 12 billion liters of water. Through technical assistance, a public private partnership with Proctor and Gamble led to a simple product approved for use in the U.S. and distributed throughout the developing world to make muddy, contaminated water drinkable.

Prion Disease

Prion diseases, or transmissible spongiform encephalopathies, are a family of rare, progressive, invariably fatal, neurodegenerative disorders that affect both humans and animals. CDC's activities in surveillance and investigation of human prion diseases began in the 1980s and were greatly enhanced shortly after the announcement by British health authorities in March 1996 of the emergence of what we now recognize as a new prion disease called variant Creutzfeldt-Jakob disease (vCJD). vCJD has been etiologically linked to the ongoing international outbreak of bovine spongiform encephalopathy (BSE), commonly known as Mad Cow Disease.

Through competitive cooperative agreements, CDC, in concert with the American Association of Neuropathologists, established and continues to support the National Prion Disease Pathology Surveillance Center (NPDPSC) at Case Western Reserve University. The NPDPSC provides diagnostic services for physicians and health authorities to assist in the work-up of suspected cases of human prion disease in the U.S. The resulting information is used to help monitor the occurrence of prion diseases, to better determine the incidence and type of human cases and to aid investigations of possible cases. A key purpose of these activities is to provide early warning of the emergence of any new human prion disease in the United States, including vCJD and possibly a human form of the chronic wasting disease (CWD) found in deer, elk and moose. Concerns about CWD as a possible zoonotic disease persist as more states confirm the existence of this disease among their deer and elk. In 2009, CWD was confirmed in animals in eleven states and two Canadian provinces.

Ongoing research studies in CDC's Prion Disease Program include:

- The Wyoming Department of Health and the Colorado Department of the Environment program to monitor the incidence of prion disease among licensed hunters who may be exposed to CWD;
- The American Red Cross program to determine the risk of transfusion transmission of the agents of the classic forms of vCJD, the types of human prion disease endemic in the U.S. Importance of this study has recently increased as the United Kingdom reports that vCJD is readily transmitted through blood transfusions; and,
- The National Institutes of Health and the Food and Drug Administration to continue monitoring the risk of CJD among persons who received pituitary-derived human growth hormone through the National Hormone and Pituitary Program between 1963 and 1985.

Chronic Fatigue Syndrome (CFS)

Chronic fatigue syndrome (CFS) is a complex medical and public health concern, which poses unique challenges. Currently, there are no characteristic clinical signs or laboratory markers of this condition and the pathophysiology remains underdeveloped. CDC research shows that between one and four million adults in the U.S. suffer from CFS. An estimated 25 percent of those affected are unemployed or receive disability, yet fewer than half have consulted a physician. The CDC CFS research program designs, implements and evaluates programs to reduce morbidity associated with CFS. The CDC research strategy includes:

- surveillance to estimate prevalence, incidence, economic impact, access to and utilization of health care, and provider/public knowledge, attitudes, and beliefs;
- case-control studies to identify demographic, clinical, behavioral, and laboratory risk factors;
- in-hospital studies to define the pathophysiology and associated risk factors;
- laboratory-based genetic, epigenetic, gene expression, and proteomics assays to identify pathways involved in the pathophysiology;
- mathematical modeling to relate clinical and laboratory studies; and,
- education of health care providers and the general public to change knowledge, attitudes and beliefs.

In November 2008, CDC convened an external peer review panel to evaluate the research and professional education components of the CFS program. The panel noted that the CDC currently leads the world in the breadth and depth of research into CFS and has highlighted the public health importance of the issue. The panel further noted that CDC is uniquely positioned to lead the establishment of research and educational networks, both nationally and internationally. The panel report included valuable recommendations relating to CDC's CFS research and educational programs. CDC has started working to implement these recommendations beginning with the development of a strategic plan to drive the program's research, prevention, and control activities for the next five years.

Special Pathogens

CDC's Special Pathogens program first received direct funding in 1993 after the first recorded hantavirus outbreak in the U.S. The program provides reagents, technical advice, response teams and epidemiological investigations both in the U.S. and globally in order to improve diagnostic and reagent capability for hantaviruses and other hemorrhagic fever viruses and for the prevention and control of highly hazardous viral diseases. Additionally, through its laboratory work that includes

obtaining complete genome sequences of representative strains, CDC has developed more sensitive assays for detecting and characterizing these pathogens. CDC also provides primary isolation, identification and characterization of highly hazardous disease agents that require biosafety level three or four laboratory conditions for their safe handling and has the ability to rapidly deploy a field diagnostic laboratory anywhere in the world.

Select CDC Special Pathogen Accomplishments include:

- In 2008, CDC responded to outbreaks of Rift Valley fever in Madagascar. This work has translated into collaborations with governmental partners to support Rift Valley fever diagnostics and to investigate the epidemiology of this virus in Madagascar.
- CDC is continuing its investigation on the potential animal reservoir(s) for Marburg viruses in Uganda. In 2008, CDC was able to isolate several Marburg viruses from bats collected in a Ugandan mine in 2007 and also conducted investigation of a cave where a Dutch tourist was reported to have been exposed to Marburg. Marburg viruses were isolated from the same species of bats. These results are not only scientifically very important, confirming the role of bats as a reservoir of Marburg virus, but also enable public health officials to inform resident populations and tourist of the risks poised by bats. With the help of CDC, the Ugandan Ministry of Health has begun an information campaign with these messages. CDC has also worked toward establishing, equipping and training a viral hemorrhagic fever diagnostic laboratory in Entebbe, Uganda, and continues to provide scientific and reagent support for its operation.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$85,140,000
FY 2006	$87,797,000
FY 2007	$69,052,000
FY 2008	$67,846,000
FY 2009	$67,978,000

BUDGET REQUEST

CDC's FY 2010 request includes $73,122,000 for Zoonotic, Vectorborne and Enteric Diseases an increase of $5,144,000 above the FY 2009 Omnibus. This increase reflects $1,144,000 for pay increases and $4,000,000 for non-pay increases.

	FY 2008 ENACTED	FY 2009 LEVEL	FY 2010 REQUEST
Vectorborne Diseases*^	$26,299,000	$26,299,000	$26,717,000
Food Safety*	$22,520,000	$22,520,000	$26,668,000
Prion Disease*	5,256,000	$5,388,000	$5,474,000
Chronic Fatigue Syndrome (CFS)*	$4,750,000	$4,750,000	$4,825,000
Total	$67,846,000	$67,978,000	$73,122,000

*Non-Add Lines
^Formerly named West Nile Virus

Vectorborne Disease

The Vectorborne Disease program will continue to focus on four main goals in fiscal year 2010:

- disease surveillance and outbreak response;
- applied research to develop diagnostic tests, drugs, vaccines, and surveillance and prevention tools;
- public health infrastructure and training; and
- disease prevention and control.

CDC's Vectorborne disease program has resulted in a dramatic increase in local, state and national capacities in the identification and response to outbreaks of arboviral pathogens. Federal funds have been used by public health officials to leverage state funding in support of enhanced expertise in vectorborne diseases in 57 state and large local health departments.

In addition, CDC has investigated international arboviral outbreaks, and has developed specific surveillance and control projects in Latin America, China, India and Kenya. These projects help inform national arboviral prevention and control efforts, and strengthen CDC's capacity and readiness to respond to future introductions of other exotic arboviral pathogens in the U.S.

The key challenge is to maintain the newly acquired local, state and national expertise in vectorborne viral diseases. As the diseases become more endemic in the U.S., maintenance of this expertise is critical to CDC's capacity to respond to WNV and other arboviral outbreaks nationally and internationally, and is directly tied to the nation's preparedness goals. Other challenges include maintaining intramural research programs which have fostered the development of vaccines, rapid diagnostic assays, novel methods for mosquito control, improved approaches to predict arboviral outbreaks, new prophylactic and therapeutic antiviral agents, improved methods for identification of viruses in ecological specimens such as mosquitoes and birds, and an enhanced capacity to respond to national and international arboviral outbreaks.

Lyme Disease

The overall goal of the Lyme Disease program is to develop a more sustainable and consistent surveillance system, improve diagnostic tests, and develop more effective prevention methods that will ultimately lead to a reduction in the number of Lyme disease cases. To achieve these goals, CDC will consolidate multiple cooperative agreements and will initiate research contracts. The funds will support the following:

- Applied laboratory and epidemiologic research conducted at CDC and with partner organizations to enhance diagnostic and surveillance capabilities as well as to conduct research aimed at advancing new methods for Lyme disease prevention.

- Field evaluation and industry collaboration aimed at licensing natural product insecticides for tick control, as well as field evaluation of novel reservoir-targeted oral vaccines for Lyme disease and the evaluation of antibiotic bait formulations used for elimination of Lyme disease spirochetes in animal reservoirs.
- Research studies for determining the cause of Lyme disease like illness acquired in regions of the U.S. where the Lyme disease agent has not been detected in humans by culture or serology.

Food Safety

CDC's FY 2010 request includes an increase of $4,507,000 for the President's Food Safety Initiative.

Diseases spread by contaminated foods continue to challenge the public health. Though some human illnesses have declined over time, others have not, and gaps in the food safety system still need to be closed. New investments are critical to increase the timeliness of detecting and responding to outbreaks from food and other sources, to decrease the burden on our health care system, and to begin to restore public confidence in our food supply. This investment will enhance food safety efforts at local and state levels to detect more outbreaks sooner, with faster and more comprehensive laboratory and epidemiological surveillance and initial assessment of possible foodborne illness. Significant resources will be provided to the states to improve efforts. CDC will expand public health laboratory capacity by developing and deploying better methods for identifying, characterizing and sub-typing foodborne pathogens so more microbes are tested faster. CDC will also develop and deploy new epidemiological tools, including computer-based tools, to make outbreak detection and investigation faster and more systematic at local, state and national levels.

These tools and methods will initially be deployed in four states creating a Sentinel OutbreakNet System. This system, coordinated by CDC, will assess and refine standardized laboratory and epidemiological approaches to better detect and investigate foodborne outbreaks. As we implement and refine this new state-based system, we will also focus on how to scale up this system for eventual deployment across the US.

The FY 2010 request will also continue to expand CDC's investigation, research and response to foodborne and diarrheal diseases including laboratory surveillance and epidemic aid, and consultation on events that are naturally occurring or result from acts of bioterrorism.

Funding will continue to support CDC's enhanced collaborative surveillance networks, including FoodNet, PulseNet, OutbreakNet, and CaliciNet. Funds will be used to make improvements and enhancements related to speed, completeness and reliability of the data collected through these systems. In particular, FY 2010 funding will be used for the following:

- To enhance the National Outbreak Reporting System (NORS) to include outbreaks of enteric diseases due to contaminated water, person to person, and animal contact; to collect a wide variety of data on the incidence of foodborne illnesses and associated pathogens; and to collect data on patient, physician, and laboratory behaviors related to these illnesses.
- To assist CDC in working with CIFOR partners to complete comprehensive foodborne outbreak response guidelines and an on-line repository of outbreak response tools and other resources for state and local health departments and federal agencies.
- To continue epidemiologic and laboratory research related to food safety. Specific projects supported with FY 2010 funds include the development and refinement of second generation PulseNet methods for quicker identification of disease clusters and outbreaks

and identification of risk factors associated with foodborne illness using FoodNet case-control studies.

- To expand communication with many partners and stakeholders in food safety including other public health agencies, consumers, academic researchers, and industry.

Key challenges related to the detection, prevention, and control of foodborne diseases include identifying new and emerging pathogens that may appear in the food supply, as well as new foods not previously recognized as sources of infection. An additional challenge will be enhancing the capacities of local and state health departments to rapidly detect and respond to outbreaks of foodborne illness, with more efficacious methods and tools. To address these challenges, CDC plans to build partnerships with external Centers of Excellence to investigate the ecologies that spread contamination. CDC is also working to better identify foodborne disease caused by infected food handlers, such as hepatitis A and Norovirus, and to assess the effectiveness of interventions and response. CDC is enhancing partnerships with regulatory agencies and the food industry to develop, evaluate and improve new prevention strategies. CDC is strengthening international networks to identify and investigate multinational outbreaks, and to improve health and sanitation in other countries.

CDC is building on its food safety accomplishments and performance, and will be making enhancements on specific control measures for foodborne diseases in FY 2010. In FY 2010, interagency dialogue will continue to increase development and application of effective prevention strategies for E. coli O157 in produce and other foods to decrease these rates in the future. Rates of infection with Salmonella have not changed significantly since 1996. This may reflect ongoing or increasing Salmonella contamination in poultry and fresh produce. In FY 2010, new interagency efforts in research and interventions to improve the effectiveness of food safety measures for Salmonella will continue.

Prion Disease

In FY 2010, Prion disease funding will support the following:

- Basic and applied laboratory and epidemiologic research conducted at CDC and with partner organizations, and
- Enhancement of surveillance for chronic wasting disease, and to conduct research on improved diagnostic assays for human prion disease. This will result in a better understanding of the impact of prion diseases and reduction of exposure risks.

Heightened surveillance for human prion disease is critical, given the documented continuing occurrence of bovine spongiform encephalopathy (BSE), commonly known as mad cow disease, in Canada and the opening of the border to the importation of younger Canadian cattle in July 2005 and of older Canadian cattle in November 2007.

Chronic Fatigue Syndrome

FY 2010 funds will support population-based surveillance, evaluation of a pilot patient registry, enhanced provider education, and laboratory-based clinical research to clarify pathways involved in the pathophysiology of CFS. Activities in FY 2010 are designed to better understand the disease burden and economic impact of CFS, improve access to and utilization of health care by those with the illness, improve evaluation and management of CFS by providers, improve classification of cases and identify targets for therapeutic interventions.

Special Pathogens

The funds will support basic and applied laboratory and epidemiologic research conducted at CDC and with partner organizations as well as CDC's response to outbreaks of special pathogens globally. Activities include: research into the pathogenic mechanisms of Hantaviruses and other hemorrhagic fever viruses and the development of sensitive and specific rapid assays for detecting viruses.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 3.1: Protect Americans from infectious diseases – foodborne illnesses.				
3.1.1a: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Campylobacter. (Outcome)	FY 2007: 12.79 (Target Exceeded)	13.25	12.30	-0.95
3.1.1b: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Escherichia coli O157:H7 (Outcome)	FY 2007: 1.20 (Target Exceeded)	1.08	1.00	-0.08
3.1.1c: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Listeria monocytogenes. (Outcome)	FY 2007: 0.27 (Target Exceeded)	0.27	0.23	-0.04
3.1.1d: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Salmonella species. (Outcome)	FY 2007: 14.92 (Target Not Met)	07.31	6.80	-0.51
Measure	**Most Recent Result**	**FY 2009 Target**	**FY 2010 Target**	**FY 2010 +/- FY 2009**
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3.1.1c: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Listeria monocytogenes. (Outcome)	FY 2007: 0.27 (Target Exceeded)	0.27	0.23	-0.04
3.1.1d: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Salmonella species. (Outcome)	FY 2007: 14.92 (Target Not Met)	07.31	6.80	-0.51
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3.1.1c: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Listeria monocytogenes. (Outcome)	FY 2007: 0.27 (Target Exceeded)	0.27	0.23	-0.04
3.1.1d: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Salmonella species. (Outcome)	FY 2007: 14.92 (Target Not Met)	07.31	6.80	-0.51
Measure	**Most Recent Result**	**FY 2009 Target**	**FY 2010 Target**	**FY 2010 +/- FY 2009**
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3.1.1d: By 2010, reduce the incidence of infection with four key foodborne pathogens by 50%: Salmonella species. (Outcome)	FY 2007: 14.92 (Target Not Met)	07.31	6.80	-0.51

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
3.E.1: Enhance detection and control of foodborne outbreaks by increasing the number of foodborne isolates identified, fingerprinted and electronically submitted to CDC's computerized national database networks with annual level funding. (Efficiency)	FY 2008: 39,888.0 (Target Exceeded)	35,276.0	35,276.0	Maintain
Appropriated Amount ($ Million)[1]	**$22.5**	**$22.4**	**$23.0**	+$0.6

[1] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PREPAREDNESS, DETECTION, AND CONTROL OF INFECTIOUS DISEASES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$149,925,000	$157,426,000	$0	$168,741,000	+$11,315,000
Emerging Infectious Diseases*	$130,281,000	$130,28,000	$0	$141,383,000	+$11,102,000

*This is a non-add budget line. Funding for the FY09 Emerging Infectious Diseases is an estimate. This line was not specifically appropriated.

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 311, 317, 317G, 319, 319D, 322, 325, 327, 352, 361-369, 1222, 1182, Immigration and Nationality Act §§ 212, 232, Refugee Health Act §§ 412

FY2009 Authorization…….Indefinite

Allocation Methods……...Direct Federal/Intramural; Contract; and Competitive Grant/Cooperative Agreement.

BUDGET REQUEST

The threat of infectious diseases to public health is constantly emerging and evolving. CDC protects populations domestically and globally through leadership, partnerships, capacity building and the use of quality systems, standards and practices. This work requires highly specialized laboratory personnel, tools and public health infrastructure, including a well-trained workforce. CDC partners with national and global organizations to conduct coordinate and support infectious disease surveillance, research and prevention. CDC coordinates activities related to vulnerable populations, healthcare quality, quarantine, research, surveillance, emerging infectious diseases and laboratory services. CDC programs also lead the improvement of domestic and international laboratory practices in clinical and public health laboratories through a quality systems approach. The preparedness, control and control program is essential to providing critical and support to the global and domestic public health infrastructure.

CDC's FY 2010 request includes $168,741,000 for Preparedness, Detection and Control of Infectious Diseases an increase of $11,315,000 above the FY 2009 Omnibus. This increase reflects $1,315,000 for pay increases and $10,000,000 for non-pay increases.

CDC's budget for Preparedness, Detection and Control of Infectious Disease supports the following activities:

- $16,919,000 for CDC's Antimicrobial Resistance program supports activities related to monitoring antimicrobial use, health provider education, and reduce the spread of antimicrobial resistance in traditional healthcare settings like hospitals and long-term care facilities, outpatient surgery clinics and other ambulatory care facilities. Program highlights include CDC's Emerging Infections Program's (EIP) Active Bacterial Core surveillance (ABCs) and Get Smart Campaigns.
- $2,725,000 for CDC's Patient Safety program activities promote healthcare quality and expand public health infection control and prevention programs. The chief goal of CDC's patient safety program is the prevention of healthcare-associated infections (HAIs) such as Methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile. CDC's efforts support key surveillance systems namely the National Healthcare Safety Network (NHSN) and the National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance (NEISS-CADES).

- $141,383,000 CDC's Emerging Infectious Disease Program protects the public from the potential devastating spread of emerging infectious diseases. CDC's activities support infectious disease laboratories, surveillance systems, epidemiological investigations and enhance responsiveness, detection and control of infectious diseases. Key program highlights include the Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases Cooperative Agreement supports state and local health departments to improve their ability to detect and control infectious disease outbreaks and the Emerging Infections Program (EIP) is a national resource for assessing the public health impact of emerging infections and evaluating methods for their prevention and control.

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Antimicrobial Resistance

CDC's antimicrobial resistance program provides a multi-faceted approach to the prevention and control of this evolving public health concern. Since the inception of the program in 1996, CDC has focused heavily on epidemiologic and laboratory research, surveillance, capacity building and outbreak assistance. To guide and inform prevention efforts, CDC partners with state and local health departments in continued research efforts for the identification of risk factors and control measures. Through grants and cooperative agreements, CDC helps to improve the epidemiologic and laboratory capacity for state health departments. This important support enables the better detection, monitoring and prevention of antimicrobial resistant infections. Collaboration with various public and private entities has aided CDC in the development and dissemination of best practices guidelines for healthcare facilities and professionals. These activities, combined with effective education and communication tools assist in outbreak response and remain central to CDC's approach to preventing antimicrobial resistance. Key program activities and accomplishments include the following:

Surveillance Systems

CDC's Emerging Infections Program's (EIP) Active Bacterial Core surveillance (ABCs) provides detailed estimates of serious infections affecting persons of all ages in the United States. ABCs is an active, laboratory and population-based surveillance system for invasive bacterial infections. Conducted in ten EIP sites, ABCs monitors a population that varies by pathogen and ranges from 19 to 40 million persons under surveillance. ABCs tracks information important to CDC in the detection of antibiotic resistance, monitors invasive infections including drug resistant Streptococcus pneumoniae, MRSA and Clostridium difficile, as well as vaccine effectiveness.

In 2008, ABCs identified the emergence of Neisseria meningitidis antimicrobial resistance to one of the main antibiotics used to prevent infections among close contacts of infected individuals. Due to the quick detection of the transmission of the resistant strain, CDC recommended that this antibiotic not be used to protect close contacts in specific parts of the country, thus preventing an increased public health risk. ABCs currently monitors 12 percent of the U.S. population.

Surveillance for antimicrobial resistant Neisseria meningitidis was enhanced through a new surveillance system called MeningNet. The use of MeningNet allows the monitoring of an additional 50 percent of the U.S. population and continues to grow in its breadth. Health departments using MeningNet that lack adequate testing capacity are able to send meningococcal isolates to CDC for antimicrobial resistance testing. They also send epidemiologic information on the cases including information on recent antibiotic use. Between ABCs and MeningNet, nearly two thirds of the U.S. population is under surveillance for antimicrobial resistant meningococcal disease.

Get Smart Campaigns

Since 2000, CDC has provided funding and technical assistance to state and local health departments through the Epidemiology and Laboratory Capacity for Infectious Diseases Cooperative Agreement (ELC). The intent of this cooperative agreement is to develop, implement and evaluate local campaigns promoting appropriate antibiotic use in the community. CDC's public health campaign: Get Smart: Know When Antibiotics Work, involves an alliance of partners working to reduce inappropriate antibiotic use and reduce the spread of resistance to antibiotics used to treat upper respiratory infections. The campaign contributed to a 25 percent reduction in antimicrobial use per outpatient visit for presumed viral infections. Today, nearly 1,000 campaign partners and 16 funded state-based programs work in conjunction with the Get Smart campaign. Such partnerships include the development of educational curricula for medical students and residents, delivering multicultural outreach, disseminating educational materials and media campaign resources, developing guidelines for appropriate antibiotic use and implementing innovative community initiatives.

CDC also monitors changes over time in antimicrobial resistance of enteric bacteria to determine the burden of resistant disease. The National Antimicrobial Resistance Monitoring System for Enteric Bacteria (NARMS) is a powerful tool used jointly by CDC, the Food and Drug Administration's Center for Veterinary Medicine and all 50 state health departments to develop interventions to reduce the burden of illness. *Get Smart: Know When Antibiotics Work on the Farm*, works to promote appropriate antibiotic use in veterinary medicine and animal agriculture. *Get Smart on the Farm* follows the World Health Organization's definition of appropriate use of antibiotics as a use of antibiotics, which maximizes therapeutic effect and minimizes the development of antimicrobial resistance.

Other select accomplishments of CDC's Antimicrobial Resistance Programs include:

- ABCs pneumococcal data continues to track ongoing changes in the disease burden and serotype distribution following the introduction of a pediatric vaccine in 2000. This information is being used to determine which pneumococcal serotypes to include in new vaccine formulations. The recent emergence of a new multidrug resistant strain of pneumococcus, which is not covered by the pediatric vaccine, underscores the importance CDC's appropriate antibiotic use programs, as well as the need for the development of next generation vaccines.
- CDC's Extramural Grant Program in Applied Research on Antimicrobial Resistance has awarded more than $14 million to combat the growing issues of resistance including the development of new interpretive criteria for susceptibility testing of bacterial pathogens and the characterization of the spread of MRSA strains using a variety of molecular and biochemical techniques.
- CDC co-chairs the U.S. Interagency Task Force on Antimicrobial Resistance, which developed A Public Health Action Plan to Combat Antimicrobial Resistance Part I: Domestic Issues to focus federal efforts on the problem of antimicrobial resistance. The Task Force's seventh annual report was released in 2008. A revised Action Plan has been developed and will be available for public comment.

Patient Safety

The chief goal of CDC's patient safety program is the prevention of healthcare-associated infections (HAIs). CDC estimates that approximately 1.7 million healthcare-associated infections occur annually, attributable to 99,000 associated deaths. In the hospital setting, HAIs are among the most common adverse events. Medical errors and other preventable events are estimated to cost $20 billion in direct healthcare expenditures each year. In response, CDC has expanded public

health infection control and prevention programs with academic medical centers, federal, state and local health agencies as well as within the private sector.

National Healthcare Safety Network

The National Healthcare Safety Network (NHSN) is an important tool to improve patient safety in the United States. Through this network, CDC monitors infections, antimicrobial resistance and other adverse events in hospitals around the country. As of March 2009, there are over 2,000 hospitals participating in NHSN including sites in all 50 states, Puerto Rico and the District of Columbia, including 19 states with mandatory reporting using NHSN. NHSN assists the 35 states that currently have or are considering legislation to mandate public disclosure of healthcare-associated infections data.

Planned expansions for NHSN include providing technical assistance to states, supporting states as they increase the number of healthcare facilities participating in NHSN and increasing the types of infections collected by each facility. This will enable electronic messaging and electronic document transition, thus reducing the administrative burden for healthcare facilities and assisting states with data validation.

Selected accomplishments of CDC's work with NHSN include:

- In 2009, CDC introduced a new module for NHSN for the reporting of multidrug-resistant organisms, including MRSA and Clostridium difficile infection. The module collects both process measures, such as adherence to guidelines and procedures, as well as outcome measures, such as rates of infection. CDC also added a new module for healthcare worker influenza vaccination tracking.
- Through program assessment, CDC has documented reductions in the rate of central line associated bloodstream infections in medical/surgical ICU patients. In 2007, results from the NHSN reported a rate of 1.8 infections per 1000 central line-days, which exceeded its target of 3.54 infections per 1000 central line-days. An estimated 250,000 central line associated bloodstream infections occur each year with each episode having a marginal cost of $25,000 to the healthcare system. The estimated attributable mortality is 12-25 percent for each infection. Thus, reductions in central line associated bloodstream infections can result in significant savings in cost and patient lives.
- CDC is working to develop clinical document architecture (CDA) for electronic reporting to NHSN and has completed a CDA pilot project for reporting of bloodstream infections using implementation guidance developed for CDA. CDC is currently developing a tool that will enable hospitals to import CDA records into NHSN to enable use of CDA for reporting of healthcare-associated infections to NHSN. CDC is in the process of conducting a pilot to demonstrate the readiness to use implementation guidance and the import tool to report surgical site infections.

Outbreak Response and Injection Safety

CDC serves as both national and global leader in the investigation and control of outbreaks of healthcare-associated infections. Investigations are initiated at the request of state or local health departments, with a close partnership in control and follow-up activities. Information from these investigations not only serves to control the immediate problem, but also have a direct impact on future prevention of healthcare-associated infections nationwide. Experience from investigations also contributes to the refinement of infection control guidelines and improvements in tracking of healthcare associated infections.

CDC is using its infection-safety resources to ensure that infection control measures are adhered to broadly. In conjunction with the Centers for Medicare and Medicaid Services on the expansion of

their quality care survey tool CDC seeks to improve hepatitis surveillance. In addition, CDC plans to develop a provider and patient education campaign to identify new and existing methods to decrease disease transmission through injections.

CDC's key accomplishments in outbreak response and injection safety include:

- Over one million multi-dose vials of heparin are sold per month in the United States. In 2008, CDC led a large investigation into the adverse events found in 40 facilities in 13 states that were associated with the use of heparin, which is commonly used before many surgeries. The national investigation resulted in identification of a contaminated ingredient in the heparin, and recall of the contaminated products. By alerting public health authorities and healthcare clinicians to the danger posed, future adverse events have been prevented, lives have been saved and excess healthcare costs averted.
- In Nevada in 2008, CDC investigated an outbreak of hepatitis in an endoscopy clinic that resulted not only in the transmission of hepatitis to patients, but also in the largest required notification of patients to date, with over 40,000 patients having to be notified that they should be tested. CDC found that basic safe practices were being violated, discovering reuse of syringes and improper use of medicine vials. CDC worked with the state health department, bureau of licensing, and Centers for Medicare and Medicaid Services to address the problems at this clinic, to survey all the other clinics in the state, and to provide needed training and education.

National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance (NEISS-CADES)

CDC supports and coordinates the National Electronic Injury Surveillance System – Cooperative Adverse Drug Event Surveillance (NEISS-CADES) project that provides timely, detailed and nationally representative data on the problem of serious adverse drug events (ADEs) from medications used in non-hospital settings. In collaboration with Food and Drug Administration (FDA) and the Consumer Protection Agency, CDC's scientific contributions fill a unique niche and data gap.

This data has been critical in moving prevention efforts forward with particular impact on older adults and children. For example, CDC published a large study on the causes of emergency department visits for adults over age 65, and found that there are 177,000 visits per year from older people with an adverse drug event. CDC found that three drugs accounted for one-third of those visits- warfarin, insulin, and digoxin.

CDC also found that of the estimated 7,000 children that have adverse drug events from cough and cold medicine, most of these were in preschool aged children, and most of these were from unsupervised ingestions. (Schaefer MK, et al., Pediatrics 2008;121:783-787). FDA and the manufacturers of these products now recommend that these medicines should not be used in children less than four years old. These changes may prevent thousands of emergency department visits each year. CDC will continue to monitor and work to improve the safety of these and other children's medicines.

CDC produced the first detailed national estimates of ADEs treated in hospital emergency departments, showing that over 700,000 individuals are treated in emergency departments for ADEs each year. Findings have helped identify high-risk patient groups, medications and circumstances so that safety efforts can be focused to provide the greatest benefit to the greatest number of Americans at reasonable cost.

Other notable Patient Safety activities include the following:

- CDC supports and manages the Prevention Epicenter Program cooperative agreement, working directly with the Epicenter investigators to coordinate and supervise a wide range of scientific project activities to detect and prevent healthcare-associated infections. Through the research conducted by the Epicenter Program, CDC demonstrated that C. difficile infection was found in multiple institutions in rooms housing patients with the infection, more than in other areas of the hospital environment, suggesting that prevention strategies such as cleaning and disinfecting should first be targeted to rooms where infected or colonized patients are located.
- CDC collaborated with the Centers for Medicare and Medicaid Services to conduct a pilot survey to assess injection safety and basic infection control practices in ambulatory surgical centers (ASC) in three states. At the invitation of the state health departments, CDC assisted with the training of state department of health ASC survey teams in the use of the infection control survey instrument. CDC accompanied teams on several ASC surveys, helped assure optimal evaluation of infection control practices, assisted with the interpretation of findings and provided clarification regarding appropriate infection control practices, including corrective actions, as needed. CDC is currently evaluating the data from the survey.
- CDC is working with states on the development of their state-based HAI-reduction plans and will provide technical assistance in the implementation of these plans.

Emerging Infectious Diseases

In an effort to protect the public from the potential devastating spread of emerging infectious diseases, in 1994 Congress began appropriating funds to CDC for the revitalization of the U.S. capacity to protect the public from infectious disease threats. Although modern advances have conquered many diseases, new infections such as avian influenza, SARS, monkeypox, and West Nile virus are constantly surfacing. Moreover, other known diseases re-emerge in drug-resistant forms, including MRSA, malaria and tuberculosis. Many of these infections, both known and newly emerging, first appear overseas, highlighting the importance for continued vigilance beyond our borders. Deaths from infectious illnesses in the U.S. average approximately 170,000 per year. Understanding the ability of pathogens to mutate and spread into previously unknown habitats, mortality rates caused by these infections have the potential increase significantly. Keeping in mind these chief concerns, CDC's emerging infectious disease program focuses on: capacity building, surveillance, health communication, outbreak response and research to prevent and control the spread of emerging diseases. The following sections highlight key activities and accomplishments in each of these program areas.

Building Capacity

The Epidemiology and Laboratory Capacity (ELC) for Infectious Diseases Cooperative Agreement supports state and local health departments to improve their ability to detect and control infectious disease outbreaks. It provides funds through cooperative agreements and technical assistance to all 50 states, six large local health departments: Chicago, Houston, Los Angeles County, New York City, Philadelphia, and Washington DC, as well as two territories Palau and Puerto Rico.

The Emerging Infections Program (EIP) is a national resource for assessing the public health impact of emerging infections and evaluating methods for their prevention and control. EIPs are funded in California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New Mexico, New York, Oregon and Tennessee. EIP funds a broad range of activities including: surveillance, health communication, outbreak response and research. These programs work together to build and enhance national, state and local public health capacity to rapidly detect and effectively respond to infectious disease outbreaks.

Emerging Infectious Diseases funding also supports CDC laboratories, research grants to academic and other partners, including international partnerships. This program is essential because it provides critical support and improvements to the public health infrastructure.

Surveillance

CDC plays an important leadership role in diagnostic development, a core laboratory function intimately linked to CDC disease surveillance capacity. In the last five years, advances in molecular techniques have provided the basis for dramatic improvements in bacterial pathogen detection and characterization. New technologies have led to improved reference panels for bacterial pathogens like pertussis and bacterial meningitis, as well as a number of other respiratory diseases. These assays are not only essential to ensure CDC laboratories remain state of the art but also allow new technologies to be transferred to state health departments. These important components help to standardize and enhance the domestic laboratory work that is essential for disease detection and prevention efforts in the U.S. International partners also seek CDC's guidance in standardizing and upgrading laboratory assays. CDC supports enhanced hepatitis B surveillance activities in seven local health departments to monitor the health impact of new vaccination strategies, identify missed opportunities, and move towards the elimination of hepatitis B.

CDC monitors viral and bacterial pathogens some of which are vaccine preventable and others that are not-vaccine preventable. This surveillance permits the tracking of emerging or re-emerging diseases. This information is important to CDC in not only identifying new and emerging pathogens but also in detecting strains resistant to antibiotics, monitoring vaccine effectiveness, and informing the development of new vaccines.

Health Communications

CDC develops and disseminates national guidelines for prevention of healthcare-associated infections and antimicrobial resistance in conjunction with the federal Healthcare Infection Control Practices Advisory Committee (HICPAC). In 2008, HICPAC developed new guidelines on prevention of catheter-associated urinary tract infections. They also advised CDC and HHS regarding metrics for measuring multidrug resistant organisms like MRSA and C-difficile and published a commissioned report on electronic health records. In addition, CDC and HICPAC evaluated and prioritized recommendations from four key CDC guidelines that account for over 80 percent of all healthcare-associated infections: the prevention of catheter-associated urinary tract infections (CAUTI), surgical site infections (SSI), intravascular catheter-related bloodstream infections (BSI), and ventilator-associated pneumonia (VAP).

CDC supports the Emerging Infectious Diseases (EID) journal, which represents the scientific communication component of CDC's efforts to address emerging infections. According to the Institute of Scientific Information's impact factor rankings, EID consistently ranked in the top 5 out of 50 journals in the infectious disease category each year from 2001 to 2007.

The 2010 edition of the CDC Health Information for International Travel will be published in May 2009. This new edition offers a new focus and layout designed to make the publication an essential tool for the travel health provider.

Outbreak Response

- CDC has conducted Guinea worm disease (GWD) case searches, surveillance assessments and programmatic research as part of the World Health Organization (WHO) Collaborating Center for Research, Training, and Eradication of Dracunculiasis in 11 countries since 2003. Sites of these projects include: Benin, Chad, Ethiopia, Ghana, Liberia, Mali, Mauritania, Nigeria, Sierra Leone, Togo and Uganda. A total of 9,585 Guinea worm disease cases were reported in 2007 from five endemic countries, down from 3.5 million cases in 20 endemic countries in the mid-1980s.
- Analysis by CDC showed that Legionella was responsible for less than 50 percent of disease outbreaks associated with drinking water during 2005 and 2006. Culture of Legionella from water samples is difficult, and few laboratories can adequately detect the bacteria; bad results can allow outbreaks to go undetected and delay control measures. To address this issue CDC launched the Environmental Legionella Isolation Techniques Evaluation (ELITE) Program. This program tests the proficiency of applicant laboratories and offers CDC certification and inclusion in a publically-available listing for those that pass.
- CDC conducted over 50 transfusion and transplant investigations in 2008. More than half of all U.S. states and territories were involved in suspected transfusion and transplant related disease transmission including infections such as HIV, hepatitis C, Lymphocytic Choriomeningitis (LCMV), tuberculosis, chagas, babesoisis, and anaplasmosis.
- CDC identified 39 cases of imported falciparum malaria among newly arrived refugees and documented the beneficial impact of switching from overseas presumptive treatment with sulfadoxine-pyrimethamine, a suboptimal regimen in use at the time of the outbreak, to treatment with a newer class of drug (artemether-lumefantrine). As a result, the overseas intervention (presumptive treatment with artemether-lumefantrine) was permanently adopted as a new part of routine practice for U.S.-bound refugees resettling from malarious regions of Africa. Over the years, this intervention is expected to prevent hundreds to thousands of cases of malaria among refugees.

Research

- CDC documented the emergence of non-vaccine type replacement disease from invasive Streptococcus pneumoniae infections among rural Alaska Native children following introduction of pneumococcal conjugate vaccine (PCV7) in 2001. The implications are considerable as this finding identified limitations of the current vaccine. CDC is participating in the early introduction of a new vaccine, PCV13, which covers six additional pneumococcal types. CDC led the public health response to a newly approved blood donation screening testing in the U.S. for serological evidence of infection with Trypanosoma cruzi, the parasite that causes Chagas disease by:
    - Issuing clinical management guidelines for those who test positive;
    - Providing anti-parasitic drugs to patients who test positive (these drugs are only available through an Investigational New Drug protocol through CDC);
    - Providing laboratory testing to deferred blood donors and other patients to guide clinical management; and
    - Providing health communication and health educational materials to the public, clinicians, state health departments, and industry since there is little expertise in the U.S. related to Chagas disease.
- CDC consulted on 39 outbreaks of cryptosporidiosis in 2007/2008. Since 2004, CDC has detected a 198 percent increase in case reports and a four-fold increase in outbreaks of

cryptosporidiosis. These outbreaks have sickened thousands of individuals and taxed the capacity of state and local health departments to respond to this emerging pathogen. Most of these outbreaks have been associated with use of swimming pools, which are vulnerable to the emergence of Cryptosporidium, a chlorine-resistant pathogen. CDC has engaged state partners to investigate the reasons for the increase, implement and evaluate effective prevention measures, and develop and refine laboratory methods needed for further investigations.

- In 2008, CDC funded the Prevention Epicenters to refine and validate methods of estimating burden of MRSA and vancomycin-resistant enterococci (VRE) infection in the United States by comparing electronic code data, lab data, and medical record review data from a large health system serving both adults and children.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	119,827,000
FY 2006	124,368,000
FY 2007	152,591,000
FY 2008	149,925,000
FY 2009	157,426,000

BUDGET REQUEST

CDC's FY 2010 request includes $168,741,000 for Preparedness, Detection and Control of Infectious Diseases an increase of $11,315,000 above the FY 2009 Omnibus. This increase reflects $1,315,000 for pay increases and $10,000,000 for non-pay increases.

Specifically, this funding will utilize:

- $16,919,000 for Antimicrobial Resistance to support activities related to monitoring antimicrobial use, health provider education, and reduce the spread of antimicrobial resistance in traditional healthcare settings like hospitals and long-term care facilities, outpatient surgery clinics and other ambulatory care facilities.
- $2,725,000 for Patient Safety to promote healthcare quality and patient safety and expand public health infection control and prevention programs with academic medical centers, federal, state, and local health agencies, and private sector consortia.
- $141,383,000 for Emerging Infectious Diseases, an increase of $11,102,000 above the FY 2009 Omnibus to support the CDC's infectious disease laboratories, surveillance systems, epidemiological investigations, enhancing responsiveness, detection and control of infectious diseases. The additional resources will provide sustainability to CDC's infectious diseases laboratories enabling CDC to:
    - $1,500,000 to perform diagnostic analysis of specimens that are received from around the world;
    - $1,000,000 to develop and produce reagents to have readily available for preparedness;
    - $1,500,000 to address infectious disease requirements in State and local health departments;
    - $1,000,000 to further develop new diagnostic tests;
    - $5,000,000 to respond and control infectious diseases regardless if they are viral, bacterial, parasitic and/or acquired while in a hospital or other health care setting; and

- $1,102,000 for pay increases.

Antimicrobial Resistance

Funds will support CDC's investigation, research and response to antimicrobial resistant diseases including laboratory surveillance, epidemic aid and consultation on events that are naturally occurring, and the Get Smart campaigns. All funds are allocated to discrete projects, cooperative agreements, grants or interagency agreements. Funds will support:

- Activities to reduce the spread of antimicrobial resistance through:
  - Improved monitoring of drug resistance and antimicrobial use;
  - Improved prescription practices by healthcare providers and educating the public about health problems associated with inappropriate use of antimicrobial agents; and
  - Improved infection control practices to prevent the transmission of drug-resistant infections in traditional healthcare settings such as hospitals, long-term care facilities, outpatient surgery clinics, and other ambulatory care facilities.
- Demonstration projects in two local Pittsburgh hospitals have resulted in a less than 50 percent reduction in healthcare-associated MRSA infection rates over the last three years. These efforts have led to an expanded effort to include the U.S. Department of Veterans Affairs Healthcare System, regional hospital groups in Pennsylvania and Maryland, a Robert Wood Johnson Foundation initiative in 4 states, and a national initiative by the Voluntary Hospital Association (VHA) involving 120 hospitals. These collaborative efforts to implement and evaluate a multi-faceted strategy for prevention of MRSA in healthcare settings will continue.
- The Active Bacterial Core surveillance (ABCs) program - ABCs pneumococcal data describing changes in serotype distributions and resistance patterns will continue to be used to determine which pneumococcal serotypes will be included in new vaccine formulations and the impact of those vaccines. The recent emergence of a new multidrug resistant strain of pneumococcus, which is not covered by the pediatric vaccine, underscores the importance CDC's appropriate antibiotic use programs, as well as the need for the development of next generation vaccines.

Patient Safety

Funds will support activities to prevent healthcare associated infections through:

- Interagency collaboration - CDC will continue to work with HHS Operating Divisions to develop goals and plans for this initiative, including CMS and AHRQ. CDC's activities will include developing goals and plans in conjunction with other agencies, and implementing prevention and surveillance activities to carry out the plan.
- National Healthcare Safety Network (NHSN) activities – CDC is expanding training for hospitals and states via web based instructional resources (i.e., webcasts), analytic and statistical staff, and user support including a state user's group. In addition to hospital-associated infections, NHSN is being expanded rapidly to also accommodate needs for reporting from long term care facilities, ambulatory facilities and small rural hospitals.
- CDC efforts in outpatient settings - CDC will continue its efforts in eliminating healthcare-associated infections in outpatient settings. CDC has seen a drastic increase in outbreak investigations in these settings. Assessment of infection control practices in these settings, and education and oversight in these settings, is greatly needed. CDC will work to assess

the scope of the problem, to provide education to public and providers, and to augment surveillance and infection control survey capacity in these settings.

Emerging Infectious Diseases

Funds will support the CDC's infectious disease laboratories, surveillance systems, epidemiological investigations, enhancing responsiveness, detection and control of infectious diseases. These resources will be a stepping stone in addressing infectious diseases that are either vaccine preventable diseases; travel through various routes of disease transmission (human and/or animal); are sexually transmitted diseases or the capacity to respond to an event.

CDC will supply state public health laboratories with critical reagents for a wide variety of laboratory tests and proficiency testing materials to ensure the laboratory tests are performed properly. Without this assistance, state laboratories would not be able to provide confirmation of a disease that poses a public heath threat from a more routine disease. By developing diagnostic tools to detect new and unknown respiratory pathogens and using these tools during outbreak investigations and in epidemiologic research, CDC will continue to build and enhance the nation's public health response capacity.

Funding will continue to support efforts that contribute to international, national, state, and local public health capacity to rapidly detect and effectively respond to infectious disease outbreaks include the following:

- Supporting the ELC and EIP programs for infectious diseases to enhance state and local capacity to identify and respond to infectious diseases.
- Providing laboratory proficiency testing to eight international laboratories in six International Emerging Infections Program (IEIP) sites in China, Bangladesh, Egypt, Guatemala, Kenya and Thailand to ensure laboratory capability to test for respiratory pathogens of public health significance.
- Conducting epidemiological studies and developing cutting-edge laboratory tools for rapidly detecting new and re-emerging infectious diseases, serving as the national and international reference laboratories for emerging novel or unusual bacterial pathogens and respiratory viruses, enteroviruses, gastroenteroviruses, and other viral pathogens.
- Working to reduce water-borne diseases by optimization of processing and extraction methods for detecting pathogens in environmental sample; developing standardized national molecular typing methods for waterborne parasites (such as Cryptosporidium); establishing CryptoNet, a system of standardized detection and comparison of Cryptosporidium isolates around the world; and developing molecular typing methods for free-living amoeba (such as Acathamoeba, Naegleria).
- Implementing a comprehensive electronic disease notification system in all 50 states to communicate with both national and international partners about diseases and disease outbreaks occurring among mobile populations such as immigrants and refugees entering the United States.
- Providing leadership for the Arctic Human Health Initiative, an international collaboration which is bringing visibility and focus to the unique and changing health priorities of the Arctic regions. These challenges include health effects of environmental contaminants, global climate change, rapidly changing social and economic parameters, changing patterns of chronic diseases, high rates of injuries and continuing health disparities that exist between the indigenous and non-indigenous residents of the Arctic.

- Working with partners to develop an enhanced communication and collaboration network among public health and clinical laboratories for emergency preparedness and public health surveillance. Activities in 2008 included (1) expansion of the Laboratory Outreach and Communication System (LOCS) to include border countries; (2) transition of the National Laboratory Database concept to a National Laboratory System Information Service (NLSIS) permitting broader access and enhancing state public health laboratory/clinical laboratory capacity to detect emerging diseases.
- Continuing CDC's Model Performance Evaluation Program, which provides healthcare facilities with testing samples that mimic patient specimens to test for HIV using rapid testing methods and Mycobacterium tuberculosis drug susceptibility, in addition to periodic laboratory practice questionnaires. Approximately 1089 domestic and 244 international laboratories in 97 countries are enrolled, including 29 laboratories in the President's Emergency Plan for AIDS Relief (PEPFAR) countries.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 4.1: Reduce the spread of antimicrobial resistance.				
4.1.1: Decrease the number of antibiotic courses prescribed for ear infections in children under 5 years of age per 100 children. (Outcome)	FY 2006: 51.0 (Target Not Met but Improved)	55.0	50.0	-5

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 4.2: Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare.				
4.2.1: Reduce the rate of central line associated bloodstream infections in medical/surgical ICU patients. (Outcome)	FY 2007: 1.80 (Target Exceeded)	3.19	3.19	Maintain
4.2.2: The estimated number of cases of invasive MRSA infection. (Outcome)	FY 2006: 104,228 cases (Target Not In Place)	095,126 cases	092,272 cases	-2,854

* The reporting date for results for this performance measure has been changed to February 2008 due to a delay in data results. Subsequent dates for reporting have been changed accordingly.

** The National Nosocomial Infections Surveillance (NNIS) System transitioned to the National Healthcare Safety Network (NHSN) during 2005 and the web-enabled reporting tool was not available until late that year. Specific reporting problems and lack of reporting capability lead to significant under-reporting during that year. Therefore, no results are listed for 2005. These problems were resolved and 2006 data are accurate

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
4.A: Number of state/local health departments, healthcare systems funded for surveillance, prevention, control of antimicrobial resistance	FY 2007: 49	48	48	Maintain
4.B: Number of sites in the National Healthcare Safety Network to report healthcare based reporting of adverse health events and errors	FY 2007: 1,000	2,000	2,500	+ 500
4.C: Number of domestic/global surveillance networks for emerging infectious diseases.	FY 2007: 5	5	5	Maintain
4.D: Number of EIP network sites	FY 2007: 11	10	10	Maintain

[1] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

EPIDEMIOLOGY AND LABORATORY CAPACITY FOR INFECTIOUS DISEASES (ELC)	
State/Territory/Grantee	**FY 2008 Actual**
Alabama	$746,663
Alaska	$647,127
Arizona	$1,057,598
Arkansas	$702,904
California	$2,677,163
Colorado	$1,305,984
Connecticut	$609,481
Delaware	$635,521
Florida	$814,997
Georgia	$748,730
Hawaii	$988,888
Idaho	$737,152
Illinois	$939,552
Indiana	$617,160
Iowa	$1,249,854
Kansas	$757,011
Kentucky	$532,531
Louisiana	$1,563,539
Maine	$704,528
Maryland	$781,009
Massachusetts	$1,040,821
Michigan	$1,732,005
Minnesota	$1,174,972
Mississippi	$1,457,241
Missouri	$1,044,268
Montana	$628,161
Nebraska	$976,836
Nevada	$575,128
New Hampshire	$682,654
New Jersey	$961,894
New Mexico	$746,517
New York	$1557812
North Carolina	$763,517
North Dakota	$853,369
Ohio	$1,160,143
Oklahoma	$548,518
Oregon	$774,414
Pennsylvania	$912,969
Rhode Island	$777,740
South Carolina	$787,209

EPIDEMIOLOGY AND LABORATORY CAPACITY FOR INFECTIOUS DISEASES (ELC)	
State/Territory/Grantee	**FY 2008 Actual**
South Dakota	$736,124
Tennessee	$751,174
Texas	$1,148,784
Utah	$970,847
Vermont	$699,093
Virginia	$1,078,676
Washington	$1,182,573
West Virginia	$807,365
Wisconsin	$1,066,616
Wyoming	$896,682
Chicago	$491,856
Houston	$883,510
Los Angeles County	$724,412
New York City	$1,319,053
Philadelphia	$406,530
Washington DC	$263,294
Palau	$109,841
Puerto Rico	$284,186
Total States/Cities/Territories	**$51,794,196**

HEALTH PROMOTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
BUDGET AUTHORITY	$961,193,000	$1,019,708,000	$0	$1,038,255,000	+$18,547,000
FTES	1,032	1,097	0	1,097	0

SUMMARY OF THE REQUEST

CDC's Health Promotion activities support critical efforts particularly related to wellness, chronic disease prevention, genomics and population health, disabilities, birth defects and other reproductive outcomes, and adverse consequences of hereditary conditions. The specific budget categories within Health Promotion budget activity are 1) Chronic Disease Prevention, Health Promotion, and Genomics and Disease Prevention and 2) Birth Defects, Developmental Disabilities, Disability and Health activities.

CDC's FY 2010 request includes $1,038,255,000, an increase of $18,547,000 above the FY 2009 Omnibus. This increase reflects $2,447,000 for pay increases and $17,600,000 for non-pay increases.

- $896,239,000 for the Chronic Disease Prevention and Health Promotion program, an increase of $14,553,000 above the FY 2009 Omnibus. These funds are used to prevent and delay onset of chronic disease by enhancing potential for a full, satisfying, and productive life for people in all communities. Activities include prevention and management of heart disease and stroke, obesity and overweight, and cancer; promotion of maternal, infant, and adolescent health, healthy personal behaviors, and integrating genomics into public health research and programs. Chronic diseases are among the most prevalent, costly, and preventable of all health problems.
- $142,016,000 for Birth Defects, Developmental Disability, and Disability and Health, an increase of $3,994,000 above the FY 2009 Omnibus. Funds for this activity are used to identify the causes of birth defects and developmental disabilities, helping children to develop and reach their full potential, and promoting the health and well-being among people of all ages with and without disabilities.

The coordination of activities in the Health Promotion budget activity assures the efficient interaction among its component programs and other CDC programs on cross-cutting health issues. For example, CDC's support of the Surgeon General's Family History Initiative draws on the expertise of chronic disease, genomics, and birth defects and promotes the health of the public through each of these areas. All activities within the Health Promotion budget activity work together to foster cross-cutting health promotion programs and enhance the potential for full, productive living.

CHRONIC DISEASE PREVENTION, HEALTH PROMOTION, AND GENOMICS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Heart Disease and Stroke	$50,101,000	$54,096,000	$0	$54,221,000	+$125,000
Diabetes	$62,711,000	$65,847,000	$0	$65,998,000	+$151,000
Cancer Prevention and Control	$309,486,000	$340,300,000	$0	$341,081,000	+$781,000
Arthritis and Other Chronic Diseases	$23,915,000	$25,245,000	$0	$25,303,000	+$58,000
Tobacco	$104,164,000	$106,164,000	$0	$106,408,000	+$244,000
Nutrition, Physical Activity, and Obesity	$42,191,000	$44,300,000	$0	$44,402,000	+$102,000
Emerging Issues	$21,678,000	$21,241,000	$0	$19,787,000	-$1,454,000
BRFSS	$7,299,000	$7,300,000	$0	$7,316,000	+$16,000
School Health	$54,323,000	$57,636,000	$0	$62,780,000	+$5,144,000
Safe Motherhood/Infant Health	$42,347,000	$44,777,000	$0	$49,891,000	+$5,114,000
Oral Health	$12,422,000	$13,044,000	$0	$13,074,000	+$30,000
Prevention Centers	$29,131,000	$31,132,000	$0	$31,203,000	+$71,000
Community Health (Steps & REACH	$59,018,000	$58,324,000	$0	$62,467,000	+$4,143,000
Genomics	$12,093,000	$12,280,000	$0	$12,308,000	+$28,000
Demonstration Project for Teen Pregnancy	$2,948,000	$0	$0	$0	$0
Total	$833,827,000	$881,686,000	$0	$896,239,000	+$14,553,000

SUMMARY OF THE REQUEST

CDC works to prevent the onset of chronic diseases; identify early the presence of chronic diseases and associated complications and reduce progression of the basic chronic condition or associated complications; improve the care and management of those impacted by chronic diseases; and promote healthy behavior choices through education, community, and societal policies to reduce the burden of chronic diseases.

Seven out of every ten American deaths are from chronic diseases each year. About one-fourth of people with chronic conditions have one or more daily activity limitations. These conditions account for approximately 75 percent of the health care costs annually in the U.S.[3] The number of children and youth in the U.S. with a chronic health condition has increased dramatically since the 1960s,

[3] Anderson G. Chronic conditions: making the case for ongoing care. Baltimore, MD: John Hopkins University; 2004

when only two percent had an activity limitation due to a chronic health condition, compared to more than seven percent, or five million children and youth in 2004. Although chronic diseases are among the most prevalent and costly health problems, they are also among the most preventable.

CDC's FY 2010 request includes 896,239,000, an increase of $14,553,000 above the FY 2009 Omnibus. This increase reflects $2,053,000 for pay increases and $12,500,000 for non-pay increases. This includes:

- $54,221,000 for Heart Disease and Stroke, an increase of $125,000 above the FY 2009 Omnibus, to fund 44 state-based Heart Disease and Stroke Prevention Programs, four multi-state Stroke Networks in areas of higher stroke burden, and six states to carry out the Paul Coverdell National Acute Stroke Registry. CDC will also conduct activities to develop surveillance capacity for heart disease and stroke prevention and to standardize and improve the evaluation of policy and systems change.
- $65,998,000 for Diabetes, an increase of $151,000 above the FY 2009 Omnibus, to fund 59 State-based and territorial Diabetes Prevention and Control Programs, the National Diabetes Education Program, and 5 to 12 states for the primary prevention of diabetes. CDC will also continue six childhood diabetes surveillance systems and fund 16 health education programs targeting minority populations.
- $341,081,000 for Cancer Prevention and Control, an increase of $781,000 above the FY 2009 Omnibus, to continue to support all states through the National Breast and Cervical Cancer Early Detection program; 48 central cancer registries through the National Program of Cancer Registries; 65 states for Comprehensive Cancer Control Programs; and will further its nation wide colorectal screening program by funding up to 20 screening programs with a focus on integrating colorectal cancer screening with other chronic disease programs. CDC will also continue ongoing activities in the early detection, prevention, and education for ovarian, prostate, blood, gynecologic, and skin cancers.
- $25,303,000 for Arthritis, Rheumatic and Other Conditions, an increase of $58,000 above the FY 2009 Omnibus' to continue to support 12 State-based Arthritis Programs and to emphasize expansion of evidence-based interventions available for state programs serving people with arthritis. CDC will also support the ongoing work of the four state lupus registries, which are developing the first reliable epidemiologic data on the prevalence and incidence of diagnosed lupus in the U.S.
- $106,408,000 for Tobacco, an increase of $244,000 above the FY 2009 Omnibus, to fund 50 State-based National Tobacco Prevention Control programs and to support the National Network of Tobacco Use Cessation Quitlines. CDC will continue to advance the science base of tobacco control by conducting and coordinating research, surveillance, and evaluation activities related to tobacco and its impact on health.
- $44,402,000 for Nutrition, Physical Activity and Obesity, an increase of $102,000 above the FY 2009 Omnibus, to fund 25 states for Nutrition and Physical Activity programs to implement interventions that include policies, environmental changes, and social and behavioral approaches to slow the progression of obesity and other chronic diseases.
- $19,787,000 for Emerging Issues in Chronic Diseases, a decrease of $1,454,000 below the FY 2009 Omnibus. CDC will continue to increase public awareness, promote education and communication, and conduct research to address public health issues related to epilepsy; support CDC's Alzheimer's Disease and Healthy Aging Program; continue to develop a kidney disease surveillance, epidemiology, and a health outcomes research program; and continue to support national, state, and local organizations for Vision Screening Education and Glaucoma through CDC's Vision Health Initiative. CDC will also address excessive

alcohol consumption and conduct surveillance and monitoring on youth exposure to alcohol advertising.

- $7,316,000 for the Behavioral Risk Factor Surveillance System, an increase of $16,000 above the FY 2009 Omnibus, to support the ongoing surveillance of critical health problems and health-related behaviors at the state and local level.
- $62,780,000 for School Health, an increase of $5,144,000 above the FY 2009 Omnibus, to continue support for Coordinated School Health programs. CDC expects to fund 32 state education agencies and one tribal organization to establish a partnership with their states health agency to focus on reducing tobacco use, poor nutrition, and physical inactivity, and 49 state education agencies and 16 local education agencies to support HIV prevention activities in schools. CDC will continue to support the Healthy Passages study, a multi-year study that follows a group of fifth-grade students through age 20 to improve our understanding of what factors help keep children healthy.
- $49,891,000 for Safe Motherhood/Infant Health, an increase of $5,114,000 above the FY 2009 Omnibus, to continue to fund 39 Pregnancy Risk Assessment Monitoring System (PRAMS) projects in states to improve the health of mothers and infants and expand research in preterm birth and infant mortality. CDC will also continue to fund 17 teen pregnancy prevention programs through national organizations and state teen pregnancy prevention coalitions and conduct research projects to promote reproductive and infant health.
- $13,074,000 for Oral Health, an increase of $30,000 above the FY 2009 Omnibus, to fund 16 states to support capacity-building for oral health prevention programs to expand coverage of community water fluoridation, increase the number of children receiving dental sealants, and reduce levels of untreated tooth decay.
- $31,203,000 for the Prevention Research Centers, an increase of $71,000 above the FY 2009 Omnibus, to fund 35 Prevention Research Centers to conduct applied research and practice in chronic disease prevention and control, involving community members and local institutions.
- $62,467,000 for Community Health, an increase of $4,143,000 above the FY 2009 Omnibus, to support innovative community-based strategies for chronic disease prevention and disparities reduction through the Healthy Communities and Racial and Ethic Approaches to Community Health (REACH) programs. Funding will support 70 communities through the Healthy Communities Program and 18 Centers of Excellence and 22 Action Communities in the Elimination of Health Disparities within the REACH program. CDC will also fund 12 to 15 additional REACH communities for two year planning grants.
- $12,308,000 for Genomics, an increase of $28,000 above the FY 2009 Omnibus, to continue work toward the translation of genomic discoveries into opportunities for public health and preventive medicine, which support the President's Healthier U.S. Initiative and the Secretary's Personalized Health Care Initiative.

In 2006, CDC's Chronic Disease Prevention and Health Promotion program underwent a program assessment. The assessment found that the program was moderately effective for a clear and unique mission, effective surveillance systems, challenging but realistic quantifiable targets for long term and annual performance measures, commitments from partners, and for all aspects of program management.

EFFICIENCY MEASURE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.E.1: Number of financial actions (such as project carryover funds requests from grantees and grantee project re-budgeting) that delay the implementation of grantee and partners' activities. (Efficiency)	FY 2008: 424 (Target Exceeded)	406.0	394.0	-12

HEART DISEASE AND STROKE

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$50,101,000	$54,096,000	$0	$54,221,000	+$125,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311

FY 2009 Authorization…….....Indefinite

Allocation Methods……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Heart disease and stroke are respectively the nation's first and third leading causes of death for both women and men, and account for more than 35 percent of all deaths. More than 80 million Americans currently live with a cardiovascular disease. For example, coronary heart disease is a leading cause of disability in the U.S. workforce. Stroke alone accounts for disability in more than one million Americans. More than seven million hospitalizations each year are because of cardiovascular diseases. In 2009, the direct medical costs of cardiovascular disease are estimated to be almost $314 billion.[4]

In 1998, CDC began providing states with financial and programmatic assistance to develop, implement, and evaluate cardiovascular disease prevention and control programs. CDC supports achievement of the Healthy People 2010 goal for heart disease and stroke prevention in its four distinct but complementary parts: 1) prevention of risk factors; 2) detection and treatment of risk factors; 3) early identification and treatment of heart attacks and strokes; and, 4) prevention of recurrent cardiovascular events. To reach this goal, CDC's heart disease and stroke prevention efforts have expanded over the years to include the implementation of science-based public health programs, research and surveillance activities, the development and application of evaluation procedures, the development of tools to be used by states and communities, expanding partnership initiatives, and addressing health disparities.

Heart disease and stroke prevention activities focus on adults and older adults, with special attention given to higher-risk populations. The program also carries out the Mississippi Delta Health Initiative and is continuing a partnership with the Indian Health Service to address heart disease and stroke prevention among rural American Indians/Alaska Natives.

Heart disease and stroke prevention activities and accomplishments include the following:

State Heart Disease and Stroke Prevention Programs (funded since 1998 through cooperative agreements awarded competitively)

In FY 2008, 14 states received funding for Basic Implementation programs. Activities for these programs include implementing population-based interventions that address priority populations and settings. Examples of interventions include promoting heart healthy and stroke-free work site

[4] Lloyd-Jones *et al*. Heart Disease and Stroke Statistics – 2009 Update: A Report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. *Circulation*. 2009; 119; e1-e161

policies and promoting emergency medical services training and protocols related to heart attacks and stroke.

- The 14 Basic Implementation states are: Arkansas, Florida, Georgia, Maine, Massachusetts, Missouri, Montana, New York, North Carolina, South Carolina, Utah, Virginia, Washington State, and West Virginia.

In FY 2008, 27 states and the District of Columbia received funding for Capacity Building programs, which prepares these states for program implementation through activities such as identifying priority populations and developing a comprehensive state plan. Capacity Building funding helps state health departments develop the human and technical capacity to properly address heart disease and stroke.

- The 28 Capacity Building programs are: Alabama, Alaska, Arizona, California, Colorado, Connecticut, the District of Columbia, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Jersey, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, Tennessee, Texas, and Wisconsin.
- In FY 2008, seven of the Capacity Building states (Kansas, Michigan, Nebraska, Ohio, Rhode Island, Texas, and Wisconsin) also received optional funding for a demonstration intervention activity.

The Heart Disease and Stroke Prevention Program has identified high-impact points of intervention to stem the tide of cardiovascular disease. Examples include the following:

<u>Controlling high blood pressure</u>

- Almost 90 percent of middle-age Americans will develop high blood pressure in their lifetime. Controlling high blood pressure is very important, as a 12 to 13 point drop in high blood pressure can reduce cardiovascular disease deaths by 25 percent. Control of high blood pressure appears to be improving, with 36 percent of all hypertensive American adults controlling their blood pressure in 2003-2004, up from 32 percent at the turn of the century. However, this indicates that in the most recent comprehensive figures, nearly 65 percent of those with high blood pressure still did not have it under control.
- The Utah Department of Health has partnered with two managed care organizations to improve blood pressure control among Utah residents. These efforts included the development of a care model that served as the basis for continuing medical education for health care professionals throughout the state. In addition, the Utah Heart Disease and Stroke Prevention Program distributed guidelines on how to manage high blood pressure to residents. It also developed self-management kits in English and Spanish with tools for tracking blood pressure, an information guide, a brochure about dietary approaches, and a video explaining high blood pressure and the importance of control. As a result, one of the managed care organizations reported that blood pressure control improved 47 percent among its overall membership from 2004 to 2007.

<u>Addressing cholesterol</u>

In an era of increasing obesity, CDC hopes to keep high cholesterol prevalence from increasing. In the past several years, the prevalence of high cholesterol among U.S. adults has remained around 17 percent.

- In 2005-2006, CDC funded three states (Arkansas, Kansas, and Washington) to conduct statewide surveys of cholesterol and blood pressure measurements. In addition to increasing scientific capacity, the data collected can now be used to provide these states

guidance for developing more effective cholesterol control strategies. More recently, CDC has funded Oklahoma to begin this same process.

Addressing heart disease and stroke mortality

Because of continuing public health and clinical efforts, age-adjusted death rates continue to drop for both ischemic heart disease and stroke.

- For example, in 2000, 187 of every 100,000 people died of heart disease and 61 of every 100,000 people died of stroke; but, by 2004, those numbers dropped to 150 deaths per 100,000 people for ischemic heart disease and 50 deaths per 100,000 people for stroke.
- Washington State's Heart Disease and Stroke Prevention Program collaborated with the state's Emergency Cardiac and Stroke Workgroup to develop recommendations addressing prevention and care in pre-hospital, emergency department, hospital, and rehabilitation settings. These recommendations, which will improve quality of care and therefore reduce mortality and long-term morbidity, are now being implemented.

The Paul Coverdell National Acute Stroke Registry

Through this registry, which began in 2001, CDC competitively funds states through cooperative agreements to measure, track, and improve the quality and delivery of stroke care.

- From 2004-2007, four states (Georgia, Illinois, Massachusetts, and North Carolina) were funded and were able to collect and track over 56,969 patient cases from 195 participating hospitals.
- Georgia, Massachusetts, and North Carolina, funded by the Coverdell Registry since 2004, have initiated or adopted statewide stroke care legislation to reduce mortality and otherwise improve patient outcomes.
- In FY 2007 Coverdell Registry funding was expanded to six states (Georgia, Massachusetts, Michigan, Minnesota, North Carolina and Ohio). These states were also funded in FY 2008. Currently, 189 hospitals are participating in the Coverdell Registry.
- Data collected through the Paul Coverdell National Acute Stroke Registry pilot phase (2001-2004) indicated a great need for improvement in quality of stroke care. Between January 2005 and June 2008, the rate of adherence to lipid testing improved from 63 to 81 percent, Deep Vein Thrombosis (DVT) prophylaxis improved from 78 to 91 percent, smoking cessation counseling improved from 60 to 91 percent, and the appropriate use of tPA (thrombolytic therapy) improved from 31 to 55 percent.

Other CDC Heart Disease and Stroke Prevention-related Activities

Monitoring and Surveillance

CDC helps states and communities track trends in heart disease, stroke, and their risk factors. By analyzing and publicizing this data, public health strategies can be better developed and implemented according to recognized health needs. For the first time, CDC was able to report the state-by-state prevalence rates of both heart disease and stroke in 2007. CDC is also developing a website to be released in 2009 that will serve as a repository and systematically generate cardiovascular disease surveillance data from about 15 sources. Users will be able to monitor trends and generate maps to inform planning, implementation, and evaluation of prevention measures.

Translating Science into Practice

CDC engages in applied research and research translation to support sound, evidence-based practice in heart disease and stroke prevention. From its research, CDC develops and disseminates many products and tools that cardiovascular disease prevention programs can use and apply in various public health settings. Many tools and resources are available on the internet. One recent example is the Atlas of Stroke Hospitalizations among Medicare Beneficiaries (2008), the fifth in a series of CDC atlases related to cardiovascular disease. These county-level maps provide additional support to states to monitor and improve the quality of care for stroke.

Evaluation

CDC not only provides technical assistance to help states evaluate their programs, but it also works on innovative evaluation research projects in heart disease and stroke prevention. One example is a study of primary stroke center legislation and implementation to include the effect of legislation on rural emergency response and economic evaluation on the cost of hypertension.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$44,618,000
FY 2006	$44,237,000
FY 2007	$43,562,000
FY 2008	$50,101,000
FY 2009	$54,096,000

BUDGET REQUEST

CDC's FY 2010 request includes $54,221,000 for Heart Disease and Stroke, an increase of $125,000 above the FY 2009 Omnibus for pay increases.

CDC received $1.5 million additional funding in FY 2009 for the Delta Health Initiative. CDC funded activities in chronic disease prevention will roughly double in Northwest Mississippi. With the additional $2.5 million in non-Delta Health funding for Heart Disease and Stroke in FY 2009, CDC will fund two additional states for Heart Disease and Stroke Prevention Programs. Also, as recommended by Congress, CDC will engage in work to reduce sodium levels in foods.

In FY 2010, CDC will continue its heart disease and stroke prevention activities in conjunction with state health departments, as well as with other governmental and non-governmental organizations. Some key heart disease and stroke prevention activities and priorities in FY 2010 will include the following:

- CDC will fund an estimated 44 State Heart Disease and Stroke Prevention Programs, including 43 states and the District of Columbia, for approximately $35 million.
    - Priorities for all states include: increasing control of high blood pressure; increasing control of high cholesterol; increasing the public's knowledge of signs and symptoms of heart attack and stroke and the importance of calling 9-1-1; improving emergency response, improving quality of heart disease and stroke care; and eliminating health disparities in heart disease and stroke.
    - One important activity for CDC in addressing the priorities listed above is providing continuing technical assistance to states in heart disease and stroke prevention. In addition to the currently funded states, the remaining non-funded states will also be able to receive technical assistance from CDC.

- In FY 2010, CDC's goal is to increase the age-adjusted proportion of persons age 18+ with high blood pressure who have it controlled (<140/90) to 59 percent as compared to the goal of 50 percent in 2008.
- In FY 2010, CDC will also fund four multi-state Stroke Networks in areas of higher stroke burden (such as the Southeast). These Networks will focus on increasing stroke awareness and improving the impact of public health interventions across state lines.
- CDC will spend approximately $4.4 million on the Paul Coverdell National Acute Stroke Registry, which now funds six states (GA, MA, MI, MN, NC, and OH). An important activity will be addressing the gaps between clinical practice and clinical guidelines and promoting growth of quality improvement in stroke care in hospitals and emergency medical services.

Other Heart Disease and Stroke activities and priorities for FY 2010

With the FY 2010 budget:

- CDC intends to develop more surveillance capacity. Current heart disease and stroke prevention efforts are limited by the available health tracking systems (surveillance). Surveillance efforts have not been able to adequately track progress towards the National Healthy People 2010 Heart Disease and Stroke Prevention Goals in a comprehensive and systematic manner. Likewise, not all heart disease and stroke prevention program priorities (such as improvement in emergency response) can currently be tracked systematically. Additionally, having a more complete set of data would allow CDC to better tailor its program efforts to achieve maximum public health impact.
- CDC plans to standardize and improve the evaluation of policy and systems change. Being able to better evaluate efforts is important because many heart disease and stroke prevention programs attempt to change policies and environments in settings such as the workplace and health care systems.
- CDC will continue a wide range of other activities, including heart disease-based registries such as the Cardiac Arrest Registry to Enhance Survival Program to improve emergency response and the quality of care for sudden cardiac arrest.

Beyond the heart disease and stroke prevention program described, there are many other CDC programs whose efforts support the prevention of cardiovascular disease. Some of these are diabetes, nutrition and physical activity, school health, tobacco, The Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN), and community health programs such as REACH U.S.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.4: Reduce death and disability due to heart disease and stroke.				
5.4.2: Increase the age-adjusted proportion of persons age 18+ with high blood pressure who have it controlled (<140/90). *(Outcome)* [1]	FY 2004: 36% (Target Not Met)	N/A	59%	N/A
5.4.3: Maintain the age-adjusted proportion of persons age 20+ with high total cholesterol (>=240mg/dL) at no higher than its current rate. *(Outcome)* [1]	FY 2006: 16% (Target Exceeded)	N/A	17%	N/A

[1] The data source for this measure is the National Health and Nutrition Survey (NHANES), which provided data on a biennial basis. Therefore, no targets are set for FY 2009.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A: States funded for capacity-building CVD prevention programs (includes DC).	FY 2008: 28	30	30	Maintain
5.B: States funded for basic implementation CVD prevention programs.	FY 2008: 14	14	14	Maintain
5.C: Surveillance and research studies describing the CVD burden and developing effective intervention strategies.	FY 2008: 31	31	31	Maintain
5.D: State health departments funded for ongoing state stroke registries to assess stroke treatment and improve the quality of care for acute stroke patients.	FY 2008: 6	6	6	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

DIABETES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$62,711,000	$65,847,000	$0	$65,998,000	+$151,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311

FY 2009 Authorization……..…….Indefinite

Allocation Methods…….…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

In 1975, the congressionally appointed National Commission on Diabetes recommended CDC establish a program for diabetes education and control. In 1977, this recommendation resulted in the establishment of the National Diabetes Prevention and Control Program. The mission of CDC's Diabetes program is to eliminate the preventable burden of diabetes through leadership, research, programs, and policies that translate science into practice. CDC's diabetes activities are based on the prevailing science for diabetes prevention and control which demonstrates that many of the serious diabetes-related complications, such as blindness, kidney failure, and lower-limb amputations, may be prevented.

CDC's primary functions related to diabetes include:

- Defining the diabetes burden through the use of public health surveillance;
- Conducting applied translational research;
- Developing and maintain state-based diabetes and prevention programs; and
- Supporting the National Diabetes Education Program.

State Based Diabetes Prevention and Control Programs

Through this national program, CDC provides financial support and technical assistance to Diabetes Prevention and Control Programs (DPCPs) in all 50 states, the District of Columbia, seven U.S. territories (America Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands), and one former U.S. territory (Palau). The program supports DPCPs in providing leadership within the state diabetes public health system to bring about community and health system changes that (1) increase quality of life for persons with and at risk for diabetes, and (2) eliminate diabetes-related health disparities in high risk racial and ethnic populations.

In FY 2009, CDC funded 59 cooperative agreements for state-based and territorial diabetes prevention and control programs. These programs establish a diabetes presence in the state health departments, support basic programmatic and surveillance functions, and develop and evaluate small scaled diabetes projects. Additionally, programs develop and promote diabetes care standards for adoption in health care delivery settings; help state Medicaid programs develop and monitor quality outcome measures for diabetes care; launch public and physician education campaigns to promote improved understanding and regular use of tests to determine average blood sugar levels; and involve communities in diabetes control activities, such as walking programs.

The DPCPs are on the front line of health promotion. They utilize a variety of resources, strategies and partnerships to lead state-wide efforts in diabetes prevention and control. Some examples of specific state accomplishments include the following:

- CDC funds the Alaska DPCP to support dissemination of a proven chronic disease self-management program. Additional arthritis funding was provided to expand the reach of the initiative, and the Living Well Alaska program was created. Staff collaborated with Stanford University to train 37 master trainers in 2006, who in turn facilitated participant workshops reaching a total of 114 participants. Since 2006, the program has been conducted in nine different community health centers and two senior citizen centers across the state with promising results. An additional master trainer program will be conducted in 2008–2009, which is expected to generate 50 new course leaders. Through participation in these trainings, health care providers and patients alike are increasing their competencies related to self-management of chronic diseases.
- In 1999, the North Dakota DPCP contracted with Blue Cross Blue Shield (BCBS) of North Dakota to develop a Diabetes Management and Quality Improvement Initiative. As part of this initiative, quarterly provider reports were sent to almost 600 physicians detailing their adherence to diabetes standards of care for each of their patients. Since the initiation of the Diabetes Care Provider Report, the percentage of providers who documented that their patients received all five preventive care measures has increased from 13 percent to 45 percent. As a result, BCBS expanded the program to include other chronic diseases, conducting a chronic disease management pilot at one of the largest clinics in the state. Significant findings of the pilot include:
    - A 24 percent decrease in emergency department visits;
    - Up to a 15 percent improvement on ambulatory care measures, including A1C, lipid, and microalbumin tests, and eye exams; and
    - A cost savings of about $530/patient.
- In 2009, the DPCP will partner with BCBS to expand this program statewide, including all primary care physicians who are able to provide a similar Medical Home system of care. The project, called MediQhome, will include all patients cared for by the participating providers—not just those insured by BCBS. The expanded project is projected to cover up to 80 percent of all patients in the state.

Diabetes Primary Prevention Initiative (DPPI)

The DPPI is a collaboration between CDC, state grantees, and contractors with the purpose of creating a plan of action to make recommendations for federal, state, and local public health surveillance, interventions and tools for type 2 diabetes primary prevention. The DPPI specifically addresses surveillance and intervention initiatives. Surveillance efforts include testing several new Behavioral Risk Factor Surveillance System (BRFSS) and Health Styles questions to assess the awareness and estimated prevalence of prediabetes among U. S. adults.

Since FY 2005, CDC has funded DCPCs in California, Massachusetts, Michigan, Minnesota, and Washington to develop and disseminate a conceptual framework for planning and implementation of diabetes prevention interventions in collaboration with their partners. FY 2009 marks the close-out year for all five funded states. Pilot interventions focused on approaches that identify people with pre-diabetes and engage them in preventive strategies in community settings. This focus includes engaging at-risk populations to adapt lifestyle behaviors aimed at reducing modifiable risk factors for type 2 diabetes. They have also been effective in building capacity to address pre-diabetes within health systems or organizations; establishing new or strengthened partnerships among key stakeholders in the field of type 2 diabetes prevention; and promoting peer support

attained during group delivery of lifestyle education, to help sustain behavior change related to healthy eating and daily physical activity.

In FY 2009, CDC will bring together a group of experts to discuss and develop practical approaches to expand and sustain clinical and community-based partnerships for the prevention of type 2 diabetes. These discussions with colleagues in the clinical, insurance, industry, purchaser and payer, academic, and public health communities will set the context and frame further conversations with and for policymakers as we explore critical issues related to reimbursement and sustainability of primary prevention activities for type 2 diabetes.

SEARCH for Diabetes in Youth (Childhood Diabetes Surveillance Systems)

In FY 2000, CDC and NIH funded the first phase of the SEARCH for Diabetes in Youth Study, a multi center epidemiological study, conducted in six geographically dispersed populations to examine the status of diabetes among U.S. children and adolescents,. The study aims to identify how many children/youth under the age of 20 have diabetes (prevalence) and how many children/youth develop diabetes each year (incidence).

In 2001, approximately 3.5 million children less than 20 years of age were under surveillance at the six SEARCH centers to estimate how many children or young people had DM (prevalent cases). Since 2002, approximately 5.5 million children less than 20 years of age (approximately 6 percent), each year have been under surveillance at the SEARCH centers to estimate how many children/youth develop diabetes (incidence cases) per year.

SEARCH provides the foundation for childhood diabetes surveillance efforts in public health, clinic, and research settings. SEARCH data is important to ultimately design and implement public health efforts to prevent type 1, once prevention strategies are identified, and type 2 diabetes in youth.

In FY 2009, CDC is continuing to fund six SEARCH for Diabetes in Youth research centers to continue work regarding the natural history, risk factors of diabetes complications, quality of care and quality of life issues in order to help design and implement interventions that can reduce the risk for both acute and chronic diabetes complications in children and adolescents.

Health Education Programs Targeting Minority Populations

In FY 2009, CDC is funding 19 grantees for health education programs targeting minority populations through the Native Diabetes Wellness Program and the National Diabetes Education Program.

The Native Diabetes Wellness Program works with community and national partners to eliminate the gaps in health equity that are so starkly revealed by diabetes in American Indian and Alaska Native (AI/AN) communities. Holding a vision of Healthy Communities, Healthy Nations, Indian Country Free of Diabetes, and social justice as its founding principles, the Wellness Program strives to find, adapt, share, and evaluate what works specific to diabetes wellness in AI/AN communities. Interventions include policy changes that affect community members across multiple generations, including school-menu and vending-machine options, communitywide health promotion messages, and the extension of walking trails. In 2008, CDC awarded five-year cooperative agreements to 11 tribes and tribal organizations. Selected grantees are: The Cherokee Nation, Santee Sioux Nations, Standing Rock Sioux Tribe, Indian Health Care Resource Center of Tulsa, Inc., Salish Kootenal College, Prairie Band Potawatomi Nation, Sault Ste Marie Tribe of Chippewa Indians, Southeast Alaska Regional Health Consortium, Aleutian Pribilof Islands Assoc., Inc., Nooksack Indian Tribe, and Catawba Cultural Preservation Project. Selected grantees focus includes: 1) support community use of traditional foods and sustainable ecological approaches for diabetes prevention and health promotion in American Indian and Alaska Native communities; and 2) engage communities in identifying and sharing the stories of healthy traditional ways of eating,

being active, and communicating health information and support for diabetes prevention and wellness.

The National Diabetes Education Program (NDEP) is the leading federal government public education program that promotes diabetes prevention and control. Launched in 1997, the NDEP is a joint initiative of CDC and NIH, with the goal of reducing illness and deaths associated with diabetes and its complications. As part of this outreach, in FY 2005, NDEP awarded funding to eight national organizations to cover a project period of five years: the Association of American Indian Physicians, Black Women's Health Imperative, Khmer Health Advocates, National Alliance for Hispanic Health, National Association of School Nurses, National Latina Health Network, National Medical Association, and Papa Ola Lokahi. These national minority organizations (NMOs) offer access to high-risk populations through a community-based approach and trusted delivery system channels. All of the NMOs work to establish coalitions and partnerships with ongoing diabetes education programs to improve the capacity of local health care providers to provide competent, appropriate diabetes information and to develop evaluation plans to monitor and measure accomplishments.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$63,457,000
FY 2006	$62,763,000
FY 2007	$61,831,000
FY 2008	$62,711,000
FY 2009	$65,847,000

BUDGET REQUEST

CDC's FY 2010 request includes $65,998,000 for Diabetes, an increase of $151,000 above the FY 2009 Omnibus for pay increases.

In FY 2010, CDC will continue to fund:

- 59 Diabetes Prevention and Control Programs;
- Six childhood diabetes surveillance systems;
- Five to 12 state based pilot projects for the primary prevention of diabetes; and
- 19 health education programs targeting minority populations.

An open competition for CDC support to state and territorial based diabetes prevention and control programs (DPCPs) will be held in FY 2009. CDC is exploring ways to incorporate lessons learned from the Diabetes Primary Prevention Initiative into all state programs.

State and territorial diabetes prevention and control programs are faced with several key challenges including the following:

- Prevalence and incidence of diabetes has increased rapidly since the 1990s. Part of the projected growth is due to aging and survival. However, continued increases in prevalence of diabetes itself or obesity will of course exacerbate this trend. The growth in diabetes is apparent in all age groups, both sexes, all racial/ethnic groups, and across the adult populations of all states.
- Despite improvements, diabetes care remains suboptimal; risk factors for complications are too prevalent; rates of complications and death are too high; and disadvantaged populations are disproportionately affected.

In order to measure CDC's impact in reducing the impact of diabetes-related complications, the Diabetes programs looks at two key objectives:

- Blood-glucose control is critical for managing diabetes and preventing diabetes-related complications such as cardiovascular disease, retinopathy, nephropathy, and neuropathy. By FY 2009, CDC aims to increase the age-adjusted percentage of persons with diabetes, age 18 and older who receive an A1c test at least two times per year, to 74 percent. The FY 2010 target is 75 percent.
- End Stage Renal Disease (ESRD) is a complicated and disabling condition and one of the most expensive conditions for which the federal government provides financial coverage. Diabetes mellitus is presently the most common cause of ESRD in the U.S., accounting for approximately 45 percent of all cases of ESRD. For decades, ESRD incidence was increasing. Since the late 1990's, the rates have declined. The 2002 baseline rate is 231.7 per 100,000 people with diabetes. As those with diabetes live longer, the incidence of ESRD is likely to increase. CDC aims to maintain the rate of incidence of ESRD per 100,000 diabetic populations at no higher than its current rate.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.3: Prevent diabetes and its complications.				
5.3.2: Increase the age-adjusted percentage of persons with diabetes age 18+ who receive an A1C test at least two times per year. *(Outcome)*	FY 2007: 69.6% (Target Not Met but Improved)	74.0%	75.0%	+1

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.H: Number of state based Diabetes Prevention and Control Programs (including DC)	N/A	51[1]	51	Maintain
5.G : Number of territories/jurisdiction funded for Diabetes Control Programs	8	8	8	Maintain
5.I: Health education programs/ community interventions targeting minority populations	16	16	16	Maintain
5.J: Number of childhood diabetes surveillance systems	6	6	6	Maintain
5.K: Number of state-based pilot projects for the primary prevention of diabetes	5	5-12	5-12	Maintain

[1] In FY 2009, CDC will no longer distinguish between capacity-building and basic implementation programs.

STATE TABLE

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS STATE BASED DIABETES PREVENTION AND CONTROL PROGRAMS	
State/Territory/Grantee	FY 2008 Actual
Systems-Based Diabetes Prevention and Control	
Alabama	$304,833
Alaska	$477,405
Arizona	$256,270
Arkansas	$459,856
California	$1,161,118
Colorado	$530,450
Connecticut	$272,460
Delaware	$434,968
District of Columbia	$273,837
Florida	$666,596
Georgia	$364,105
Hawaii	$320,987
Idaho	$371,315
Illinois	$888,845
Indiana	$316,705
Iowa	$252,971
Kansas	$748,667
Kentucky	$678,785
Louisiana	$170,271
Maine	$370,800
Maryland	$306,130
Massachusetts	$1,070,134
Michigan	$1,037,448
Minnesota	$1,105,758
Mississippi	$305,847
Missouri	$477,404
Montana	$652,936
Nebraska	$315,279
Nevada	$371,215
New Hampshire	$324,083
New Jersey	$500,312
New Mexico	$477,404
New York	$954,809
North Carolina	$866,902
North Dakota	$277,585
Ohio	$717,817
Oklahoma	$256,037

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS STATE BASED DIABETES PREVENTION AND CONTROL PROGRAMS	
State/Territory/Grantee	**FY 2008 Actual**
Oregon	$834,062
Pennsylvania	$545,933
Rhode Island	$835,292
South Carolina	$689,585
South Dakota	$299,162
Tennessee	$280,880
Texas	$945,620
Utah	$928,756
Vermont	$272,336
Virginia	$371,312
Washington	$1,029,792
West Virginia	$912,235
Wisconsin	$891,699
Wyoming	$291,735
American Samoa	$58,378
Guam	$200,000
Marshall Islands	$86,301
Micronesia	$144,200
Northern Mariana Islands	$72,478
Palau	$73,754
Puerto Rico	$249,828
Virgin Islands	$212,180

CANCER PREVENTION AND CONTROL

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Breast and Cervical Cancer	$200,832,000	$205,853,000	$0	$206,326,000	+$473,000
Cancer Registries	$46,366,000	$46,366,000	$0	$46,472,000	+$106,000
Colorectal Cancer	$13,974,000	$38,974,000	$0	$39,063,000	+$89,000
Comprehensive Cancer	$16,348,000	$16,348,000	$0	$16,386,000	+$38,000
Ovarian Cancer	$5,269,000	$5,402,000	$0	$5,414,000	+$12,000
Johanna's law	$6,466,000	$6,791,000	$0	$6,807,000	+$16,000
Prostate Cancer	$13,245,000	$13,245,000	$0	$13,275,000	+$30,000
Skin Cancer	$1,876,000	$1,876,000	$0	$1,880,000	+$4,000
Geraldine Ferraro Cancer Education Program	$4,331,000	$4,666,000	$0	$4,677,000	+$11,000
Cancer Survivorship Resource Center	$779,000	$779,000	$0	$781,000	+$2,000
Total	$309,486,000	$340,300,000	$0	$341,081,000	+$781,000

AUTHORIZING LEGISLATION

FY 2009 Authorization …… Indefinite

Allocation Methods……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

CDC's Cancer Prevention and Control program provides national leadership in developing and implementing a comprehensive approach to cancer control, from primary prevention to end-of-life palliative care. The program's cancer prevention and control initiatives are centered on risk reduction, early detection, treatment, survivorship, and reducing or eliminating health disparities. CDC works with partners, including state, tribal, and territorial health agencies, voluntary and professional organizations, academia, other federal agencies, and the private sector to conduct a wide range of activities in public health oncology.

Breast and Cervical Cancer

National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

In 1991, the NBCCEDP was established in response to the Breast and Cervical Cancer Mortality Prevention Act of 1990 (Public Law 101-354). The NBCCEDP provides clinical breast examinations, mammograms, pelvic examinations, and Pap tests, as well as diagnostic follow-up for women with abnormal screening results. Individuals diagnosed with cancer are referred to treatment and other resources by the state Medicaid program. Within its 68 funded programs, the

NBCCEDP provides free or low-cost breast and cervical cancer screening and diagnosis to low-income, uninsured, and underinsured women, with special attention to women 50-64 years of age, women who have not been screened within the last five years or more, and certain racial and ethnic minority groups.

In FY 2008, CDC funded 50 states, the District of Columbia, five U.S. territories, and 12 American Indian/Alaska Native tribes or tribal organizations, to provide clinical screening and diagnostic services to medically underserved women.

- Sixty percent of funds are used for clinical services and the remaining 40 percent for public health infrastructure to support the screening program.
- CDC works with an array of partners, including the American Cancer Society, Avon Foundation, and Susan. G. Komen for the Cure, to increase cancer awareness and access to breast and cervical cancer early detection and treatment services.
- Since its inception in 1991, the NBCCEDP has served over 3.3 million women, provided more than 8.0 million screening examinations, and diagnosed 37,117 breast cancers, 2,324 invasive cervical cancers, and 121,500 premalignant cervical lesions, of which 42 percent were high grade. In collaboration with NBCCEDP and its partners, CDC is moving closer to its goals of increasing the percentage of women age 40 and older who have had a mammogram within the previous two years and reducing the age-adjusted rate of breast cancer mortality per 100,000 population.

In 2007, the NBCCEDP:

- Screened 295,338 women for breast cancers;
- Detected 3,962 breast cancers;
- Screened 318,220 women for cervical cancer using the Pap test; and,
- Found 4,996 high-grade and invasive cervical lesions.

In recent years, the national screening program has contributed to the notable decline in breast and cervical cancer deaths by providing access to screening services, increasing breast and cervical cancer awareness and education, and inherently changing health-seeking behaviors in women for whom screening services are not otherwise available or accessible.

CDC estimates that approximately 15 percent of eligible women are served by the National Breast and Cervical Cancer Early Detection Program (NBCCEDP).

WISEWOMAN

The Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program grew out of the same legislation that created the NBCCEDP. WISEWOMAN provides low-income, underinsured or uninsured 40 to 64 year old women with the knowledge, skills, and opportunities to improve diet, physical activity, and other lifestyle behaviors to prevent, delay, and control cardiovascular and other chronic diseases. In 1995, CDC launched WISEWOMAN demonstration projects in three states: Massachusetts, North Carolina, and Arizona. These projects demonstrated that offering screening tests for chronic disease risk factors to women was feasible and well-accepted by health care providers and participants. Thereafter, the WISEWOMAN program gradually expanded to fund 15 projects in 14 states by 2007.

In FY 2008, the first of a new five-year funding cycle, CDC is funding 21 WISEWOMAN programs in 19 state health departments and two tribal organizations. All programs provide health screenings and lifestyle interventions to prevent heart disease and stroke as well as other chronic diseases.

Health screenings include assessments for high blood pressure, cholesterol, tobacco use, and other chronic disease risk factors.

- From 2000 to mid-2008, WISEWOMAN reached over 84,000 low-income women across America and identified 7,674 new cases of previously undiagnosed hypertension, 7,928 new cases of undiagnosed high cholesterol, and 1,140 new cases of undiagnosed diabetes. These women would have been unaware of their risk factors if not for this program. WISEWOMAN has also provided more than 210,000 lifestyle interventions during that time.
- With the right tools and information, women who participate in WISEWOMAN are more likely to quit smoking and make other healthy lifestyle choices. Tobacco quitline referrals and smoking cessation interventions offered through WISEWOMAN have contributed to an average seven percent quit rate among smokers after one year. Also, within a year after the first screening of participants, average blood pressure and cholesterol levels have decreased significantly, while the five year risk for developing a cardiovascular disease has fallen by an average of eight percent.
- Due to its success in reducing risk for chronic diseases, WISEWOMAN was found very cost-effective in a study conducted in 2006. In the study, WISEWOMAN extended women's lives at a cost of $4,400 per estimated year of life saved, as opposed to a much higher bypass surgery expense of $26,000 per estimated year of life saved.

Cancer Registries

Established in 1992, CDC's National Program of Cancer Registries (NPCR) improves health agencies' ability to report on cancer trends, assess program impact, participate in research, and respond to reports of suspected increases in cancer occurrence. NPCR supports 48 population-based central cancer registries with funding, technical assistance, standards for data collection and use, and training.

In FY 2008, CDC supported registries in 45 States, the District of Columbia, Puerto Rico and the U.S. Pacific Island jurisdictions, representing 96 percent of the U.S. population. CDC also supports registries in several U.S. territories. In FY 2007, the U.S. Pacific Island Nations received first-time funding for the planning of a Pacific Regional Central Cancer Registry (PRCCR). Member nations of the proposed PRCCR are American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau.

NPCR also provides support for establishing computerized reporting and data-processing systems. The registries submit state cancer data to CDC annually, enabling CDC to assist state cancer registries in improving their data. The availability of regional and national data facilitates studies of rare cancers, cancer in children, the quality of cancer care, and the burden of cancer among the underserved populations, and specific racial and ethnic minority populations.

Program accomplishments include the following:

- CDC, NCI, NAACCR, and ACS collaborate to produce the *Annual Report to the Nation on the Status of Cancer*, a seminal publication which includes an update of cancer death rates, incidence rates, and trends in the U.S. The most recent *Annual Report to the Nation on the Status of Cancer, 1975-2005, Featuring Trends in Lung Cancer, Tobacco use, and Tobacco Control* was published online in November 2008 and in the December 2, 2008 issue of the *Journal of National Cancer Institute.*
    - According to the *Annual Report to the Nation*, although the decrease in overall cancer incidence and death rates is encouraging, large state and regional differences in lung

cancer trends among women underscore the need to maintain and strengthen many state tobacco control programs.

- In FY 2008, CDC collaborated with several states and NCI for two special monographs which use combined cancer incidence data from the CDC's National Program of Cancer Registries (NPCR) and the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. The AI/AN Supplement enhanced by record linkages with the Indian Health Service addresses site-specific cancers of interest, risk factors among AI/AN, and methods used by the collaborating authors to improve racial classification in cancer registries. The supplement was published in September 2008. The supplement entitled, "Accessing Burden of Human Papillomavirus (HPV)-Associated Cancers in the United States" allows examination of data prior to licensure of the HPV vaccine and characterization of cancers, including rare cancers which have previously shown to be correlated with HPV. The ACS and academia also collaborated in this project and the supplement was published in November 2008.

Colorectal Cancer

Colorectal cancer is the second leading cause of cancer-related death in the nation. In 2004, CDC found that 53,580 people in the U.S. died of colorectal cancer, according to the *U.S. Cancer Statistics: 2004 Incidence and Mortality* report, which includes incidence data for approximately 98 percent of the U.S. population and mortality data for the entire country. Further, in 2004, 145,083 people in the U.S. were diagnosed with colorectal cancer.

CDC promotes colorectal cancer through the following key initiatives:

- In FY 2009, CDC provides funding to 16 state programs (AR, CA, CO, CT, IA, KN, KY, LA, ME, MA, NY, NC, OH, OR, SC and UT) to implement specific colorectal cancer strategies identified in their statewide cancer control plans through the National Comprehensive Cancer Control Program. Each state receives an average funding award of $170,000 per program.
- In FY 2005, CDC initiated a three-year Colorectal Cancer Screening Demonstration Program in five states to provide colorectal cancer screening and diagnostic services to under or uninsured men and women 50 years or older. Since 2005, the five community based programs have screened approximately 4,000 men and women. Twelve individuals have been diagnosed with cancer, with treatment initiated. Additionally, in 450 individuals, pre-cancerous polyps were identified and removed, representing 450 cancers prevented. In 2008, CDC convened a series of in-person meetings with state health departments, Comprehensive Cancer Control Program Directors and State Chairpersons, nationally recognized clinical experts, health economists, and other federal heatlh agencies to obtain key stakeholder input on CDC's role in supporting colorectal cancer screening programs. Findings from the demonstration program are being used to inform the development of a nationwide screening effort. With the increase in appropriated funds for FY 2009, CDC will launch a nationwide screening effort in 2009. A funding announcement is under open competition and 20 new programs will be selected to participate in the new screening program.
- CDC continues to support *Screen for Life: National Colorectal Cancer Action Campaign* to inform the public about the importance of colorectal cancer screening for men and women of all racial and ethnic groups who are 50 years or older. Campaign materials include print and broadcast public service announcements, fact sheets, and brochures.

- Additionally, CDC supports epidemiologic, surveillance, and behavioral science research designed to expand the knowledge base and guide future interventions and inform policies, programs and campaigns related to colorectal cancer control.

Comprehensive Cancer

National Comprehensive Cancer Control Program (NCCCP)

The NCCCP supports the establishment of 65 broad-based Comprehensive Cancer Control (CCC) coalitions in collaboration with public health agencies in all states, the District of Columbia, tribes/tribal organizations, and six U.S. Pacific Island Jurisdictions and Puerto Rico. Comprehensive cancer control is an innovative systems approach designed to reduce the cancer burden through prevention, early detection, better treatment and enhanced survivorship. The 65 CCC programs, through the development and dissemination of state/tribal/territorial CCC plans, provide a blueprint to encourage healthy lifestyles, promote recommended cancer screening guidelines and tests, increase access to quality cancer care, and improve quality of life for cancer survivors. Funding supports provider education programs about cancers or their associated risk factors; establishment or expansion of communication campaigns, strategies and community-based initiatives to educate priority populations about prevention and/or control of selected cancers, technical assistance, legislative education, and training.

In FY 2008, 64 of the 65 programs were implementing the goals and objectives in their CCC plans. Funding for implementation of the CCC plans averages about $250,000 annually.

Program accomplishments include the following:

- The Alaska Native Tribal Health Consortium has brought together several programs focused on reducing the morbidity, mortality, and occurrence of cancer to address colorectal cancer within the Native Alaskan population. Current impact is a coming together of various federal, state, and private agencies and organizations to reach a population and address a health disparity. Future impact may be the reduction of colorectal cancer within the Native Alaskan population.
- New Mexico: The New Mexico Dept of Health Cancer Program and various NM pueblos have developed and implemented culturally appropriate cancer control programs. American Indian Men's Health Day, conducted in partnership with the Albuquerque Area Indian Health Board, provided culturally appropriate prostate cancer screening information (informed decision making) as part of a program addressing overall men's health issues.
- The Montana Comprehensive Cancer Control Program has developed strong working relationships with all seven tribal governments and five Urban Indian Health Centers located within the state. All government-to-government communications are coordinated through the Governor’s Office and Office of Indian Affairs.
- South Puget Intertribal Planning Agency: Prior to establishing tribal cancer support groups as an activity of the Comprehensive Cancer Control Program Subcommittee on Survivorship, we found no evidence (through community surveys and interviews) of cancer survivors or their loved ones attending support groups. Since winter of 2008, cancer support groups have been established at each of the five tribes in our program. Each support group meets once per month with an average of 30 participants per meeting. Cancer specific topics and cancer support topics are discussed at each meeting. Three of the tribes have utilized telehealth to connect with a trainer from the University of Washington. As new cancers are diagnosed at our tribes, we are discovering that the Cancer Support Groups are a much needed resource and support for the newly diagnosed and their loved ones.

- In early 2008, Utah gained sponsorship for a "Cancer Screening Saves Live" license plate bill. This bill would enable the citizens of Utah to purchase a license plate with the "Cancer Screening Saves Lives" message and $35 from every sale would go to the Utah Department of Health for cancer education programs.

Gynecologic Cancer

In FY 2006, CDC received funding to develop a national gynecologic cancer campaign to raise awareness of consumers, providers, and program planners about health issues and concerns related to gynecologic cancers.

CDC, in collaboration with HHS' Office of Women's Health, developed a national campaign to increase awareness of gynecologic cancers by:

- Providing information about five gynecologic cancers: cervical, ovarian, vulvar, uterine, and vaginal;
- Developing materials that convey the messages that many cancers are curable if detected early and treated appropriately; and,
- Educating women and health care professionals about the signs and symptoms of specific gynecologic cancers, screening tests (if available), risk factors and prevention strategies.

CDC convened a panel of experts in March 2007 to provide recommendations for campaign messages and development strategies. With feedback from the meeting, CDC established a general framework for development of the awareness campaign. CDC developed messages intended for specific audience segments. Initial messages are targeted to women between the ages of 40 to 60. CDC developed consumer-oriented materials that include the following:

- A campaign identity and logo that provides the opportunity for the tailoring and adaptation for each of the individual gynecologic cancers;
- A Gynecologic Cancer section on CDC's website; and
- Consumer/patient fact sheets on ovarian, cervical, uterine, and vaginal and vulvar cancers which are also posted on CDC's website.

Ovarian Cancer

Since 2000, CDC has developed public health activities aimed at reducing ovarian cancer morbidity and mortality. CDC currently supports seven cancer projects in California, Florida, Michigan, New York, Pennsylvania, Texas, and West Virginia through the NCCCP and Ovarian Cancer funds. These projects are working to develop ovarian cancer health messages for the general public and health care providers. The average award for ovarian projects funded through NCCCP is $100,000.

With approximately $450,000, the CDC supports specific ovarian cancer research activities at CDC's Prevention Research Centers. The primary objective of these studies is to identify factors that distinguish women diagnosed with ovarian cancer at stages one and two from those diagnosed at a later stage. Another objective is to examine the barriers to ovarian cancer diagnosis and treatment. Data collection and analysis are ongoing at the Prevention Research Centers.

CDC has initiated a number of projects, including studies of ways in which women decide to seek medical care for nonspecific symptoms, risk perception and use of ovarian cancer screening among women at different levels of risk, clinical practice in the follow-up of ovarian masses, and, ovarian cancer treatment patterns and outcomes. Additionally, CDC funds education programs in Alabama, Colorado, and West Virginia.

In 2006, CDC partnered with the Gynecologic Cancer Foundation to sponsor ovarian courses to ascertain unmet public health needs, resulting in a CDC convened workshop "Identifying Public Health Opportunities to Reduce the Burden of Ovarian Cancer." Attendees included leaders from state health departments and ovarian cancer advocacy groups, as well as physicians and scientists from federal agencies, medical centers, and cancer treatment programs. Information developed at this workshop is being used to guide several CDC ovarian cancer research and health communication activities.

CDC completed a study of women who died of ovarian cancer within three managed care organizations. The study consisted of a retrospective medical record review for the 6 months before death from ovarian cancer between 1995 and 2000. Results from this study have contributed to the understanding of end-of-life care for women dying of ovarian cancer, including pain management, health care utilization, social support, and hospice use.

Prostate Cancer

Since 2000, CDC has developed public health activities aimed at reducing prostate cancer morbidity and mortality. CDC currently supports 10 cancer projects in Alabama, Louisiana, Massachusetts, Michigan, Minnesota, New Jersey, North Carolina, Pennsylvania, Texas, and Washington through the NCCCP and Prostate Cancer funding. The average award for prostate projects funded through NCCCP is $187,000.

Currently, CDC is working to enhance prostate cancer data in cancer registries, especially information on the stage of the disease at the time of diagnosis, the quality of care, and the race and ethnicity of men diagnosed with prostate cancer. This information is used to advance research on delivery of appropriate public health approaches.

In addition, CDC is conducting research to determine whether screening for prostate cancer reduces mortality and to explore knowledge and awareness regarding prostate cancer screening among men and health providers.

Program accomplishments are:

- CDC developed key awareness materials that include *Prostate Cancer Screening: A Decision Guide*, which presents a balanced approach to the pros and cons of prostate cancer screening and enables men, their families, and physicians to make a decision that is right for them. CDC also created a version of the decision guide specifically for African American and Hispanic men and a web-based slide presentation, *Screening for Prostate Cancer: Sharing the Decision*, designed to inform primary care physicians about potential benefits and risks of prostate cancer screening and how clinicians can help each man make the best choice.
- To expand its series of educational materials about prostate cancer screening, CDC developed a CD-ROM that foster dialogue between patients and physicians, and help men age 50 years and older make informed decisions about prostate cancer screening. It features interactive tools, various medical and public health perspectives on prostate cancer screening, and different conclusions patients might reach about screening after weighing all of the issues.

Skin Cancer

Since 1994, CDC has provided leadership for nationwide efforts to reduce illness and death caused by skin cancer, the most common form of cancer in the U.S. The message of CDC's Skin Cancer Primary Prevention and Education Initiative is: "When in the sun, seek shade, cover up, get a hat, wear sunglasses, and use sunscreen."

CDC currently supports nine cancer projects in California, Florida, Idaho, Maine, Nebraska, New Jersey, New York, and Washington through the NCCCP and Skin Cancer funding to implement skin cancer activities outlined in the states' Comprehensive Cancer Control plans. The average award for skin cancer projects funded through NCCCP is $52,000.

CDC also provides a total of approximately $650,000 through the CDC's Division of Adolescent and School Health to three state education agencies working in collaboration with the state's departments of public health to conduct demonstration projects implementing the Guidelines for School Programs to Prevent Skin Cancer.

CDC and a group of skin cancer experts met to discuss common measures of sun protection and tanning behaviors, with an aim of developing a consensus-based set of core items to measure indoor and sunless tanning use. After reaching a consensus, the core measures were cognitively tested and revised. The recommendations were published in the February 2008 edition of the *Archives of Dermatology*.

CDC continues to work with other federal agencies and the independent Task Force on Community Preventive Services to review studies of community-based interventions targeting skin cancer prevention. Recommended interventions are published in the Guide to Community Preventive Services. This publication describes proven strategies that communities can use as they plan and implement programs to prevent skin cancer.

- CDC promotes and disseminates "Shade Planning for America's Schools," a manual to help schools create and maintain a physical environment that supports sun safety by ensuring that school grounds have adequate shade.
- CDC works with many national organizations and other federal agencies on skin cancer prevention and control. CDC is an active member of the National Council on Skin Cancer Prevention as well as a member of the Federal Council on Skin Cancer Prevention, which promotes sun-protection behaviors among federal employees, their families, and agency constituents.

Geraldine Ferraro Cancer Education Program

Since 2000, CDC has worked to: raise awareness about leukemia, lymphoma, and multiple myeloma; to improve the quality of blood cancer data and; implement programs to educate the public and health care providers about hematologic cancers. In May 2002, the Hematological Cancer Research Investment and Education Act was signed into law, which included the Geraldine Ferraro Cancer Education Program. The program was implemented in FY 2004 and funded blood cancer information and education activities for patients and the public.

CDC funds public and private, nonprofit and for-profit national organizations to increase awareness of, and education about, hematologic cancers. This program is designed to provide information to patients, their family members, friends, caregivers, and health care providers. Nine cooperative agreements are funded through this program: 1) Patient Advocate Foundation; 2) the Leukemia and Lymphoma Society; 3) National Marrow Donor Program; 4) Multiple Myeloma Research Foundation; 5) the Lymphoma Research Foundation; 6) the Education Network to Advance Cancer Clinical Trials; 7) Sibling Survivors Education and Information; 8) Oregon Health and Science University; and, 9) the National Coalition for Cancer Survivorship.

Through a competitive process, CDC awarded funding to the University of Colorado at Denver-Health Science Center to design a Web site about hematologic cancers. The site offers free professional training courses to nurses, pharmacists, primary care physicians, hematologists, and oncologists, concerning the diagnosis and treatment of hematologic cancers; and provides clinical consultation services online.

CDC continues to conduct research on quality of data reported to the NPCR and to collaborate with the NCI's Office of Cancer Survivorship (OCS) to support research into survivorship of hematologic malignancies.

Program accomplishments include:

- The nine hematologic grantees collaborate to promote and disseminate new resources and materials for each other. These partnerships and efforts allow grantees to reach hematologic cancer patients, family members, friends, caregivers, and providers.
- The National Coalition for Cancer Survivorship (NCCS) is working to expand the award-winning Cancer Survival Toolbox (CST) program - a program that provides information and education, including self-advocacy skills, to people diagnosed with multiple myeloma, adult leukemia, and non-Hodgkin lymphoma. Also, NCCS is addressing the needs of key underserved audiences by refining the CST and its distribution channels to African American, Latino, and American Indian populations.
- The Education Network to Advance Cancer Clinical Trials, Inc. (ENACCT) is conducting a pilot project aimed at educating newly diagnosed/newly recurred patients about treatment options, including clinical trial treatment options. In addition, ENACCT aims to increase awareness of support services, enhance cultural competency skills of clinical trial investigators and their teams, and disseminate information about clinical trial services.

Cancer Survivorship Resource Center

Cancer is the second leading cause of death in the U.S., causing one of every four deaths each year. Due to advances in the early detection and treatment of cancer, an increasing number of people are living many years after diagnosis. Today, approximately 65 percent of people diagnosed with cancer are expected to live at least five years after diagnosis.

In 2004, CDC and the Lance Armstrong Foundation (LAF), along with nearly 100 experts in cancer survivorship and public health, released A *National Action Plan for Cancer Survivorship: Advancing Public Health Strategies*. This collaboration articulated goals, activities, and resources to address issues facing the growing number of cancer survivors in the U.S. CDC has joined forces with many national organizations, states, tribes, territories and Pacific Island Jurisdictions to address several of the cancer survivorship "priority needs" cited in the Action Plan. This work includes efforts to understand and improve quality of life and end-of-life support for cancer patients, their families, friends, and caregivers, as well as initiatives to increase survivorship in underserved populations.

CDC's survivorship partners include:

- The Patient Advocate Foundation, which provides case management to cancer survivors to ensure that their finances, employment, and medical treatments are not interrupted by poor or slow insurance reimbursement or employment status;
- The National Marrow Donor Program is providing new education and resources to the transplant survivorship community through partnerships. It is also expanding survivorship programs and resources to focus on medically underserved communities and increasing access to existing programs and resources for hematologic cancer survivors
- SuperSibs! provides support services to siblings of children with cancer, their families, and educators. They also honor and recognize siblings of children diagnosed with cancer by disseminating tailor-made information and education packages that encourage open communication, catharsis, and support among parents, friends, teachers and children.

- States, tribes and tribal organizations, and territories which conduct CCC Leadership Institute seminars designed to help cancer control leaders complete and implement comprehensive cancer control plans in states, tribes and tribal organizations, and territories.

CDC funds the National Organization Strategies for Prevention, Early Detection or Survivorship of Cancer in Underserved Populations. Nine organizations are funded through a five-year agreement from 2007 through 2012, to develop health programs and cancer prevention and control infrastructure enhancement to deliver cancer education and awareness activities for individuals who may be underserved, uninsured or underinsured, at risk, or are members of racial or ethnic minorities.

CDC assists these established programs in developing and disseminating national, state, and community-based comprehensive information on cancer prevention, early detection, or survivorship.

Program accomplishments include:

- CDC developed cancer survivorship questions for inclusion in population-based national surveys such as the Behavioral Risk Factor Surveillance System and the National Health Interview Survey to assess the burden on cancer survivors and to plan, implement, and evaluate cancer control strategies.
- CDC helped fund and promote the Lance Armstrong Foundation's two addenda to the National Action Plan for Cancer Survivorship: 1) A National Action Plan for Cancer Survivorship: African American Priorities; and, 2) A National Action Plan for Cancer Survivorship: Native American Priorities.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$309,704,000
FY 2006	$306,197,000
FY 2007	$301,434,000
FY 2008	$309,486,000
FY 2009	$340,300,000

BUDGET REQUEST

CDC's FY 2010 request includes $341,081,000 for Cancer Prevention and Control, $781,000 above the FY 2009 Omnibus for pay increases.

Breast and Cervical Cancer

National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

CDC's FY 2010 request includes $206,326,000 for the Breast and Cervical Cancer program, $473,000 above the FY 2009 Omnibus.

CDC will continue to support the 68 programs funded through the National Breast and Cervical Cancer Early Detection Program. CDC is required to award 80 percent of the appropriations to grantees, resulting in approximately $160,000,000 awarded to states to support screening programs. Additionally, NBCCEDP appropriations support the WISEWOMAN program providing $19,015,000 in funding for FY 2010.

Mammography screening every two years extends life for women aged 65 or older at a cost of about $36,924 per year of life saved. Cervical cancer screening every three years extends life at a

cost of about $5,392 per year of life saved. Increased screening significantly reduces breast and cervical cancer mortality.

WISEWOMAN

CDC's FY 2010 request includes $19,573,000 for WISEWOMAN, $45,000 above the FY 2009 Omnibus.

National Program of Cancer Registries

CDC's FY 2010 request includes $46,472,000 for Cancer Registries, $106,000 above the FY 2009 Omnibus.

CDC will continue support for the NPCR–Cancer Surveillance System (NPCR–CSS), implemented to improve the quality of state cancer registries' data and provide a resource for national and state cancer incidence information. In December 2007, DCPC published its sixth annual report, U.S. Cancer Statistics: 2004 Incidence and Mortality, on cancer incidence and mortality complied from data submitted by NPCR and SEER program registries. Plans include preparation and publication of the U.S. Cancer Statistics: 2005 Incidence and Mortality report in FY 2009.

Other projects include additional evaluation of specific cancer registry data items, such as race and ethnicity, stage-at-diagnosis, and treatment data, as well as special studies focusing on patterns of care for cancer patients; a project to model and implement the transfer of standards-based healthcare facility and physician office electronic health records data into cancer registry systems: a pilot to transmit cancer pathology data using the College of American Pathologists (CAP) Cancer Checklists in the HL7 message format; and additional information technology (IT) projects to enhance registry operations.

CDC also will continue special data linkages with the Indian Health Service Patient Database to help registries more accurately describe the burden of cancer among Native Americans.

At each level of investment, CDC will pursue implementation of electronic data reporting to the fullest extent possible.

Colorectal Cancer

CDC's FY 2010 request includes $39,063,000 for Colorectal Cancer, $89,000 above the FY 2009 Omnibus.

CDC will further its nationwide screening efforts by continuing to fund 20 screening programs with a focus on integrating colorectal cancer screening with other chronic disease programs.

Approximately $1,875,000 is projected to continue to support the Screen for Life campaign to inform the public about the importance of colorectal cancer screening.

National Comprehensive Cancer Control Program (NCCCP)

CDC's FY 2010 request includes $16,386,000 for the NCCCP, $38,000 above the FY 2009 Omnibus.

The NCCCP has formally launched 67 comprehensive cancer control plans. The plans serve as a guide to assist organizations in implementation of comprehensive cancer control strategies for the next three to five years.

CDC will continue to offer ongoing technical assistance to programs developing and implementing CCC plans. CDC will continue to provide support to help initiate and enhance CCC program activities; support partnerships that strengthen the national framework for CCC; broaden awareness of the CCC concept and its benefits; and conduct research and surveillance activities that will develop and evaluate comprehensive approaches to cancer prevention and control. Collectively,

these activities will improve the health of people in every stage of life, one of CDC's health protection goals.

By 2010, through coordinated actions of CCC Programs and Coalitions, it is expected that: 1) twelve states will be successful in receiving funds in addition to CDC funding to implement CCC in their state; 2) five states will have received 501c3 status; 3) fifteen states will have received significant involvement of state leadership; 4) twelve states will have identified policy changes supporting cancer control; and, 5) six states will report decreases in the tobacco related behaviors of their population.

Gynecologic Cancer

CDC's FY 2010 request includes $6,807,000 Gynecologic Cancer, $16,000 above the FY 2009 Omnibus.

CDC will continue activities focused on increasing awareness of gynecologic cancer.

Ovarian Cancer

CDC's FY 2010 request includes $5,414,000 for Ovarian Cancer, $12,000 above the FY 2009 Omnibus.

CDC will continue its support of ovarian cancer research activities in the Prevention Research Centers. CDC also will develop health communication messages to provide appropriate education and information about ovarian cancer to physicians and other health care providers.

Prostate Cancer

CDC's FY 2010 request includes $13,275,000 for Prostate Cancer, $30,000 above the FY 2009 Omnibus.

CDC will continue to support prostate cancer research and education and awareness activities. In FY 2010, CDC will support intramural and extramural awareness and research efforts by expanding research about prostate cancer screening and treatment options. Other awareness activities include enhancing prostate cancer data in cancer registries, developing materials that explore how best to communicate information about prostate cancer, and how to promote informed decision making related to prostate cancer, and disseminating CDC's informed decision-making materials nationwide.

Skin Cancer

CDC's FY 2010 request includes $1,880,000 for Skin Cancer, $4,000 above the FY 2009 Omnibus.

Skin cancer can be prevented and treated if detected early. CDC will continue to support epidemiologic, behavioral science, and surveillance research efforts designed to expand knowledge about skin cancer prevention and control, including the collection of information on sun-protection behaviors and attitudes and its developing monitoring systems to track national trends on this data. Findings will be used to better target and evaluate skin cancer prevention efforts.

CDC will continue to work with national organizations and other federal agencies to enhance prevention research on skin cancer prevention and control.

Geraldine Ferraro Cancer Education Program

CDC's FY 2010 request includes $4,677,000 for the Geraldine Ferraro Cancer Education program, $11,000 above the FY 2009 Omnibus.

CDC will continue to support hematologic cancer education efforts. CDC will fund public and private, nonprofit and for profit national organizations to increase the awareness and education of hematologic cancers, as well as create and deliver educational outreach programs for underserved

patients and families with blood cancers. CDC will work to improve the quality of hematologic cancer data, and will implement programs to educate the general public about leukemia, lymphoma, and multiple myeloma.

CDC will continue to support hematologic grantees efforts to increase blood cancer awareness, support blood cancer research to improve the quality of data, and implement programs to educate the general public about leukemia, lymphoma, and multiple myeloma.

Cancer Survivorship Resource Center

CDC's FY 2010 request includes $781,000 for the Cancer Survivorship Resource Center, $2,000 above the FY 2009 Omnibus.

CDC will continue to conduct survivorship town hall sessions to educate bone marrow and stem cell transplant survivors on their unique health needs through the National Marrow Donor Program. Also, CDC plans to develop a series of educational and outreach materials to improve knowledge, attitudes, and behaviors regarding cancer survivorship among African Americans, American Indians and Native Alaskans, Spanish speaking, and rural Americans through the Lance Armstrong Foundation. CDC will continue to fund nine organizations working on survivorship issues.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.1: Reduce death and disability due to cancer.				
5.1.1: Reduce the age-adjusted annual rate of breast cancer mortality per 100,000 female population. *(Outcome)* [1]	N/A	N/A	N/A	N/A
5.1.2: Increase the percentage of women age 40+ who have had a mammogram within the previous two years. *(Outcome)*	FY 2006: 76.6% (Target Not In Place)	N/A	78.0%	N/A
5.1.3: Percent of women 40 years of age and older diagnosed with breast cancer whose cancer was diagnosed at in situ or localized stage. *(Output)*	FY 2005: 67% (Target Not In Place)	68%	68%	Maintain
5.1.4: Decrease the age-adjusted rate of invasive cervical cancer per 100,000 women ages 20+ screened through the NBCCEDP (excludes invasive cervical cancer diagnosed on the initial program screen). *(Outcome)*	FY 2006: 15.0 (Target Not In Place)	14.0	13.0	-1

[1] This is a long-tem measure with a 1999 baseline of 26.6/100,000 women and a FY 2015 target of 21.3/100,000 women.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.L : Programs funded for Comprehensive Cancer Control (includes 7 tribes and tribal organizations, the District of Columbia and 6 U.S. Associated Pacific Islands/territories & Puerto Rico)	FY 2008: 65	65	65	Maintain
5.M: Cancer Registry states/territories with capacity-building programs	FY 2008: 1	1	1	Maintain
5.N : Cancer Registry states/territories with basic implementation programs	FY 2008: 47	47	47	Maintain
5.O: Cancer Registry Programs submitting data to the NPCR Cancer Surveillance System	FY 2008: 48	48	48	Maintain
5.P: Education campaign to promote colorectal cancer screening	FY 2008: 1	1	1	Maintain
5.Q: Colorectal Cancer Screening Demonstration Program (five community-based pilot programs – *transitioning to 5.Q.1 below)*	FY 2008: 1	1	0	- 1
5.Q.1: Colorectal Screening Programs	N/A	20	20	Maintain
5.R: Number of breast and cervical cancer screening programs	FY 2008: 68	68	68	Maintain
5.S: Number of states, territories, AI/AN tribes provided consultation and scientific expertise to support screening programs	FY 2008: 68	68	68	Maintain
5.T: Number of cooperative agreements to national partners and professional societies to promote cancer prevention	FY 2008: 17	17	17	Maintain
5.U: WISEWOMAN programs funded to support early detection of chronic diseases and their associated risk factors	FY 2008: 21	21	21	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS BREAST AND CERVICAL CANCER		
State/Territory/Grantee	FY 2007 Actual	FY 2008 Actual
Alabama	$3,040,000	$2,993,047
Alaska	$2,577,743	$2,512,294
Arizona	$2,236,262	$2,258,625
Arkansas	$2,613,989	$2613,989
California	$5,749,828	$5,749,828
Colorado	$4,152,003	$3,902,841
Connecticut	$1,368,894	$1,331,455
Delaware	$1,143,982	$1,126,313
District of Columbia	$561,203	$498,856
Florida	$4,530,026	$4,620,627
Georgia	$4,115,137	$4,156,288
Hawaii	$1,176,054	$1,176,054
Idaho	$1,791,835	$1,791,835
Illinois	$5,611,948	$5,611,948
Indiana	$2,050,000	$2,050,000
Iowa	$2,771,720	$2,709,021
Kansas	$2,358,323	$2,358,323
Kentucky	$2,329,409	$2,352,703
Louisiana	$1,326,106	$1,365,889
Maine	$1,811,194	$1,811,194
Maryland	$4,472,788	$4,472,788
Massachusetts	$3,262,100	$2,643,117
Michigan	$8,910,324	$8,821,221
Minnesota	$4,607,500	$4,536,337
Mississippi	$1,826,213	$1,862,737
Missouri	$2,987,889	$2,987,889
Montana	$2,209,628	$2,209,628
Nebraska	$2,956,766	$2,956,766
Nevada	$2,529,397	$2,529,397
New Hampshire	$1,576,252	$1,560,646
New Jersey	$2,970,748	$2,911,333
New Mexico	$3,379,120	$3,326,930
New York	$7,473,530	$7,548,265
North Carolina	$3,400,000	$3,400,000
North Dakota	$1,313,000	$1,313,000
Ohio	$4,327,387	$4,174,478
Oklahoma	$1,652,112	$1,652,112
Oregon	$2,260,000	$2,260,000
Pennsylvania	$2,376,000	$2,399,730
Rhode Island	$1,553,736	1,553,736

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS BREAST AND CERVICAL CANCER		
State/Territory/Grantee	FY 2007 Actual	FY 2008 Actual
South Carolina	$3,267,000	$3,234,330
South Dakota	$804,072	$804,072
Tennessee	$1,157,757	$1,192,490
Texas	$6,286,794	$6,475,398
Utah	$2,078,503	$2,078,503
Vermont	$1,102,825	$1,102,825
Virginia	$2,436,731	$2,509,833
Washington	$4,333,665	$4,333,665
West Virginia	$4,150,118	$4,150,118
Wisconsin	$3,357,722	$3,305,862
Wyoming	$658,380	$648,211
Indian Tribes	$7,343,841	$7,350,261
American Samoa	$212,908	$212,908
Guam	$323,253	$323,253
Marshall Islands	$0	$0
Micronesia	$0	$0
Northern Mariana Islands	$490,654	$490,653
Palau	$570,693	$560,749
Puerto Rico	$0	$0
University of Puerto Rice Medical Science	$150,525	$342,423
Virgin Islands	$0	$0
Total States/Cities/Territories	**$158,085,587**	**$157,226,794**

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS NATIONAL COMPREHENSIVE CANCER CONTROL PROGRAM		
State/Territory/Grantee	FY 2007 Actual	FY 2008 Actual
Alabama	$255,000	$300,000
Alaska	$255,000	$259,192
Arizona	$250,000	$275,000
Arkansas	$250,000	$250,000
California	$0	$0
Public Health Institute	$225,000	$281,000
Colorado	$255,000	$306,000
Connecticut	$225,000	$225,000
Delaware	$255,000	$255,000
District of Columbia	$250,000	$180,000
Florida	$225,000	$225,000
Georgia	$250,000	$200,000
Hawaii	$255,000	$255,000
Idaho	$255,000	$255,000
Illinois	$225,000	$200,000
Indiana	$255,000	$255,000
Iowa	$255,000	$255,000
Kansas	$255,000	$255,000
Kentucky		
University of Kentucky	$255,000	$297,435
Louisiana	$255,000	$255,000
Maine	$255,000	$282,244
Maryland	$255,000	$252,843
Massachusetts	$250,000	$300,023
Michigan	$250,000	$275,000
Minnesota	$255,000	$300,000
Mississippi	$225,000	$250,000
Missouri	$255,000	$200,000
Montana	$250,000	$250,000
Nebraska	$255,000	$255,000
Nevada	$250,000	$220,000
New Hampshire	$250,000	$260,000
New Jersey	$250,000	$250,000
New Mexico	$255,000	$255,000
New York	$255,000	$300,000
North Carolina	$255,000	$255,000
North Dakota	$250,000	$265,000
Ohio	$255,000	$265,000
Oklahoma	$250,000	$,225,000
Oregon	$250,000	$250,000
Pennsylvania	$255,000	$255,000

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS NATIONAL COMPREHENSIVE CANCER CONTROL PROGRAM		
State/Territory/Grantee	**FY 2007 Actual**	**FY 2008 Actual**
Rhode Island	$225,000	$249,801
South Carolina	$255,000	$255,000
South Dakota	$200,000	$,200,011
Tennessee	$250,000	$300,000
Texas	$255,000	$254,280
Utah	$250,000	$300,000
Vermont	$255,000	$265,137
Virginia	$255,000	$255,000
Washington	$255,000	$255,000
West Virginia	$250,000	$290,000
Wisconsin	$250,000	$251,602
Wyoming	$255,000	$279,500
Indian Tribes	$1,590,484	$1,630,474
American Samoa	$200,000	$225,000
Guam	$200,000	$200,000
Marshall Islands	$200,000	$199,646
Micronesia	$458,998	$472,502
Northern Mariana Islands	$200,000	$200,000
Palau	$200,000	$225,000
Puerto Rico	$105,000	$249,926
Virgin Islands	$0	$0
Total States/Cities/Territories	**$15,839,482**	**$16,506,616**

ARTHRITIS, RHEUMATIC AND OTHER CONDITIONS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Arthritis	$13,037,000	$13,287,000	$0	$13,318,000	+$31,000
Epilepsy	$7,766,000	$7,958,000	$0	$7,976,000	+$18,000
National Lupus Patient Registry	$3,112,000	$4,000,000	$0	$4,009,000	+$9,000
Total	$23,915,000	$25,245,000	$0	$25,303,000	+$58,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 310, 311, and 317

FY 2009 Authorization……...…….Indefinite

Allocation Methods……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Arthritis

The long term goal of the CDC Arthritis Program is to reduce pain and disability and improve quality of life among people affected by arthritis. The national program seeks to accomplish this through improving the science base, measuring the burden of arthritis, reaching the public with interventions and health information, making policy and systems changes, and building state arthritis programs. CDC's Arthritis Program was established in 1999.

About 46 million U.S. adults have arthritis (21 percent of the U.S. population) with 18.9 million Americans suffering activity limitations because of arthritis. In the working age population (18-64), work limitations attributable to arthritis affect about 1 in 20 working-age adults and nearly one third of all people with arthritis. Arthritis results in $81 billion in medical costs each year.

A 1995 cost-effectiveness analysis of the *Arthritis Foundation Self-Help Program* found that the intervention, which cost on average $78 per initial program participant, saved $267 ($425 in 2007 dollars) by resulting in fewer doctor visits and by reducing pain over four years. These savings remained even when costs varied widely. Another analysis of the program showed that over four years individual savings were 4–5 times greater than the cost of the program, on the basis of reduced visits to physicians.

Extramural Activities:

State arthritis programs educate the public about how to manage and reduce pain from arthritis; work with partners to implement activities from their state action plans; conduct surveillance activities to monitor the burden of the disease; and implement evidence-based interventions to reduce the impact of arthritis in selected populations. In FY 2008, CDC funded 12 state health departments (average award of approximately $500,000 per year) to conduct public health activities for arthritis. Under the new funding cycle, FY 2008 – FY 2011, CDC will continue to emphasize expansion of evidence-based programs, expand the number of interventions available, and support broader public health efforts by funding each state program at a higher level.

During the last funding cycle, states established arthritis action plans and began implementing evidence-based interventions. All states provided access to physical activity and/or self-

management programs to priority populations of people with arthritis and many have implemented the CDC-developed health communication campaign to encourage physical activity.

Program accomplishments include the following:

- Evaluation of the health communications campaign—*Physical Activity: The Arthritis Pain Reliever*—showed significant changes even six months after the campaign. A 2004 study showed that knowledge about arthritis and exercise improved. Participation in moderate physical activity increased by 10 percentage points, from 74 percent to 84 percent.
- In Minnesota, program activities led to a 229 percent increase in the number of new participants in the evidence-based Arthritis Foundation Self-Help Program.
- In Tennessee, state efforts have brought evidenced-based interventions to approximately 8,500 people with arthritis, as reported at the 2007 grantee meeting.

Other CDC funded arthritis activities include a cooperative agreement with the Arthritis Foundation to increase the amount and quality of information available for people affected by arthritis, and to expand the reach of evidence-based programs, extramural research projects, and health education campaigns for people with arthritis.

CDC's extramural intervention research has contributed to the development of new evidence-based interventions, as well as evaluations of existing interventions for effects on arthritis-related outcomes, such as pain and function. For example, the Arthritis Self-Help Program has improved quality of life for people with arthritis. More widespread use of the course can save money and reduce the burden of arthritis. The course, disseminated by the Arthritis Foundation, teaches people how to manage arthritis and lessen its effects and has been shown to reduce pain by 20 percent and physician visits by 40 percent.

Intramural activities:

CDC continues to document the burden of arthritis and provide data for targeting programs to those most affected through continued data collection in major national surveys and analyses that are published in peer reviewed journals.

- *Estimating the lifetime risk of symptomatic knee osteoarthritis* A newly published CDC study reported that a person's lifetime risk for developing symptomatic knee osteoarthritis (OA) by age 85 is nearly one in two, or 46 percent. The study authors also found that nearly 2 of 3 obese adults will develop painful knee osteoarthritis during their lifetime. The study provides what are likely the first lifetime risk estimates of knee osteoarthritis in the United States. Knee osteoarthritis—a common form of arthritis that wears away the cartilage cushioning the knee joint—is a leading cause of arthritis disability. In 2006, $18 billion were spent on hospital costs associated with total knee replacements;
- *Estimating the prevalence of childhood arthritis.* Considerable disagreement exists among experts about what constitutes a clinical case of childhood arthritis and how many cases exist. In December 2007, the first-ever data-based estimate of the prevalence of childhood arthritis and synthetic estimates for each state were published in a peer review journal. It is estimated that 294,000 or one in every 250 children nationwide have arthritis, resulting in an estimated 827,000 doctor visits each year; and
- *Estimating the impact of arthritis on work.* CDC published data showing that approximately 1 in 20 working age U.S. adults (18-64 years), or nearly seven million Americans, report being limited in some aspect of work for pay (amount, type or ability to work) because of arthritis. State-based estimates were also published with estimates as high as 1 in 7 workers with limitations in some states.

Epilepsy

Epilepsy is a chronic neurological condition affecting about 2.5 million people in the U.S. CDC has built a program to address public health issues related to epilepsy which focuses on increasing public awareness and knowledge, improving care; self-management; improving communication and combating stigma; promoting partnerships, and establishing data to track epilepsy-related incidence and prevalence, health disparities, access to care, and burden of illness. CDC is also conducting primary prevention research to enable screening and treatment of high-risk immigrant populations diagnosed with cysticercosis (pork tape worm) and neurocysticercosis which commonly manifests as epilepsy.

CDC collaborates with partners to improve public awareness and promote education and communication at local and national levels. Programs focus on law enforcement and emergency medical responders; school-based students and staff; seniors, unemployed and underemployed adults, and underserved minorities living with epilepsy. For example,

- More than 40,000 students have participated in *Seizures and You: Take Charge of the Facts*, an educational program that raises awareness about epilepsy in middle and high schools.

Lupus

The goal of CDC's Lupus Registries is to estimate the prevalence and incidence of diagnosed lupus in selected geographic areas in order to inform national estimates. CDC currently funds lupus registries in Georgia and Michigan. CDC-supported lupus registries are developing the first reliable epidemiologic data on the prevalence and incidence of diagnosed lupus in the US.

The registries will provide important information about the impact of lupus, which disproportionately affects minorities and women, with national implications for monitoring the incidence and prevalence of the disease and better characterizing individuals with this severe condition. This information is vital so that public health practitioners can target interventions to those most in need.

In FY 2008, CDC increased funding to the Georgia and Michigan sites, enabling them to accelerate their medical record reviews and aim for completion in 2010. Both registries are in localities with large African American populations, a group disproportionately impacted by lupus.

With the increase in FY 2009 funds, CDC is accelerating the completion of the two existing registries and funding two new sites in California and New York City to address epidemiological gaps among Hispanics and Asians. CDC is also accelerating the current investigation into using Indian Health Service data for assessing lupus among American Indian/Alaska Natives. Based on experience to date, CDC and the scientific community believe that four total sites, plus work with IHS and other federal data sources, will provide reliable prevalence estimates for all subgroups of interest.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$22,145,000
FY 2006	$21,995,000
FY 2007	$21,661,000
FY 2008	$23,915,000
FY 2009	$25,245,000

BUDGET REQUEST

CDC's FY 2010 request includes $25,303,000 for Arthritis, Rheumatic and Other Conditions, an increase of $58,000 above the FY 2009 Omnibus for pay increases.

Over the past five years, state health departments have successfully used CDC funding to build arthritis capabilities in state health departments, including collaboration with partners, increasing public awareness, improving their ability to monitor the burden of arthritis, and delivering evidence-based interventions on a limited scale.

Arthritis

CDC's FY 2010 request includes $13,318,000 for Arthritis, an increase of $31,000 above the FY 2009 Omnibus.

In spring 2007, CDC convened national experts to advise on future program directions. The panel made several important consensus recommendations:

- Fund state programs at higher levels to address arthritis through broader public health efforts.
- Continue to emphasize expansion of evidence-based interventions, and expand the number of evidence-based interventions available for state programs serving people with arthritis.
- Create and expand innovative partnerships at the local, state, and national level.
- Consider national campaigns, health communications and marketing, and policy interventions.

An open competition for CDC support for state-based arthritis programs was held in FY 2008. Consensus recommendations from the expert panel have been incorporated into planning this open competition, which maintains CDC's investment in state programs while maximizing state-wide impact of funded programs. CDC now funds state programs at high levels, per the recommendations. With the FY 2010 baseline budget, CDC will continue to support more robust programs in fewer states. CDC will continue to work closely with grantees and on extramural research to improve and increase self-management attitudes and behaviors among persons with arthritis through a systems approach.

By FY 2012, CDC aims to increase the number of adults with doctor-diagnosed arthritis who have had effective, evidence-based arthritis education as an integral part of the management of their condition by 300,000 individuals through its state arthritis program.

Epilepsy

CDC's FY 2010 request includes $7,976,000 for Epilepsy, an increase of $18,000 above the FY 2009 Omnibus.

CDC's Epilepsy Program will use state surveillance data to expand its study on the prevalence of self-reported epilepsy in selected state populations. The program will also continue intramural and extramural research activities to better understand the epidemiology of epilepsy, specifically the incidence and prevalence of epilepsy in diverse populations in the U.S., including potentially underserved communities; risk factors and the severity of epilepsy in these communities; health disparities and factors contributing to health disparities among people with epilepsy; and process and outcome measures that may be used to define optimum care in epilepsy.

The Epilepsy Program will continue to collaborate with the national Epilepsy Foundation to provide education and awareness programs for diverse racial and ethnic communities, students and staff of middle schools and high schools, police and emergency responders, older adults with epilepsy and

their care givers, and adults with epilepsy who are entering the workplace. In addition, strategies will be developed to address such issues as epilepsy and cognition, sudden unexplained death in epilepsy, and traumatic brain injury and post traumatic epilepsy in veterans.

Lupus

CDC's FY 2010 request includes $4,009,000 for Lupus, an increase of $9,000 above the FY 2009 Omnibus, to support the ongoing work of the Lupus registries. These registries are developing the first reliable epidemiologic U.S. data on the prevalence and incidence of diagnosed lupus in Caucasians and African Americans (the existing Georgia and Michigan lupus registries), in Hispanics and Asians (the two new lupus registries in the planning phase), and in American Indians/Alaska Natives (the IHS data analyses).

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.V : States funded for capacity building arthritis programs	FY 2008: 12	12	12	Maintain
5.W: Number of population-based registries to define and monitor the incidence and prevalence of lupus	FY 2008: 4	4	4	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

TOBACCO

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$104,164,000	$106,164,000	$0	$106,408,000	+$244,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, Comprehensive Smoking Education Act of 1984, Comprehensive Smokeless Tobacco Health Education Act of 1986

PHSA 301, 307, 310, 311, 317, 317D, 317C, 317H, 317K, 317K(a), 317K(b), 317L, 317M, 327, 340D, 352, 391, 399B-399D, 399F, 399H-399L, 399W-399Z, 419C, 1102, 1501-1510, 1702(a)(2), 1702(a)(3), 1702(4)(A) and 1702(4)(C), 1703(a)(1), 1703(a)(2), 1703(a)(3), 1703(a)(4), 1703(c), 1704(1), 1704(2), 1704(3), 1706, Comprehensive Smoking Education Act of 1984, Comprehensive Smokeless Tobacco Health Education Act of 1986, Fertility Clinic Success Rate and Certification Act of 1992, Asthmatic Schoolchildren's Treatment and Health Management Act of 2004, Benign Brain Tumor Cancer Registries Amendment Act, Breast and Cervical Cancer Mortality Prevention Act, Prematurity Research Expansion and Education for Mothers who Deliver Infants Early Act (S. 707)

FY 2009 Authorization……..…….Indefinite

Allocation Methods……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Originally created in 1964 by the Public Health Service as the National Clearinghouse on Tobacco, the Office on Smoking and Health (CDC) was officially established within the Office of the Assistant Secretary of Health in 1978. The Comprehensive Smoking Education Act of 1984 established many of the current roles and responsibilities of CDC. In addition, CDC has several congressional mandates such as maintaining the information clearinghouse on tobacco, managing and supporting the Interagency Committee on Smoking and Health, maintaining the confidential cigarette and smokeless ingredient lists, and producing Surgeon General's Reports on the health consequences of tobacco. The office's authority was transferred to CDC in 1986.

The mission of CDC's tobacco control program is to develop, conduct, and support strategic efforts to protect the public's health from the harmful effects of tobacco use. Goals are to:

- Prevent tobacco use among youth and young adults;
- Promote tobacco use cessation among adults and youth;
- Eliminate exposure to secondhand smoke; and
- Identify and eliminate tobacco-related health disparities.

To accomplish these goals, CDC works in close partnership with local, state, national, and international leaders to:

- Expand the science base of effective tobacco control;
- Build sustainable capacity and infrastructure for comprehensive tobacco control programs;
- Communicate timely, relevant information to constituents, policy makers, and the public;

- Coordinate policy, partnerships, and other strategic initiatives to support tobacco control priorities; and
- Foster global tobacco control through surveillance, capacity building, and information exchange.

Comprehensive statewide tobacco control programs have been shown to be effective in reducing the prevalence of tobacco use. Through the National Tobacco Control Program (NTCP), CDC funds all 50 states, seven territories, and the District of Columbia through cooperative agreements. The purpose of NTCP is to build and maintain tobacco control programs within state and territorial health departments for a coordinated national program to reduce the health and economic burden of tobacco use.

CDC's cooperative agreements also fund national networks to reduce tobacco use among priority populations including African Americans, American Indians/Alaska Natives, Asian Americans/Pacific Islanders, Hispanics/Latinos, lesbian/gay/bisexual/transgender individuals, and persons with low socioeconomic status. CDC also provides funding to six tribal support centers to support American Indian and Alaska Native (AI/AN) tribes and tribal organizations to lead regional efforts to prevent and reduce the use of tobacco and exposure to secondhand smoke (capacity program), and/or to conduct evaluation and implementation of culturally relevant and community competent tobacco control and prevention strategies for use with broader AI/AN populations in addition to continuing regional capacity building efforts (implementation program). In addition, CDC provides grants to 22 states for coordinated school health programs in which one of their priorities is to help prevent tobacco use among youth. CDC also supports state capacity and access to cessation services by funding states to maintain or enhance existing state based quitlines to help smokers quit.

In support of the performance assessment in 2006, the program developed three evaluation measures related to consumption, cotinine (cotinine is the primary proximate metabolite of nicotine and the most specific and preferred biomarker of exposure to secondhand smoke), and lung cancer:

Consumption

CDC aims to reduce per capita cigarette consumption in the U.S. per adult aged 18 and older. Since 1964, the U.S. Surgeon General's reports on smoking and health have concluded that smoking is a primary cause of lung cancer. National trends in per capita cigarette consumption are strongly correlated with national trends in lung cancer mortality rates and consumption trends are recommended as a primary surveillance indicator for lung cancer control efforts. In 2005, annual per capita cigarette consumption among adults aged 18 and older was 1716, a more than five percent decrease from 2004.

Program Activities

- CDC supports the National Network of Tobacco Use Cessation Quitlines. CDC continues its support of the National Network of Tobacco Use Cessation Quitlines, a collaborative effort between CDC, the National Cancer Institute's (NCI) Cancer Information Service (CIS), the North American Quitline Consortium (NAQC), and state tobacco control programs. In 2007, a total of 471,764 calls were routed by the national quitline portal number, 1-800-QUIT-NOW, and from January through November 30, 2008, 1-800-QUIT-NOW received 540,319 calls.

- CDC provides technical assistance and training to help states plan, establish, and evaluate their tobacco control programs.
    - New York has established a comprehensive, aggressive, and effective tobacco control program built on a foundation of community partnerships throughout the state that utilized evidence-based strategies from CDC's Guide to Community Preventive Services. CDC has provided guidance to New York, helping initiate program efforts with a workshop on Community Guide recommendations and through continued consultation. Over the past eight years, the program has successfully implemented strong smoke-free legislation, maintained support for taxes to keep the price of tobacco high, worked to increase access to effective cessation services and motivate smokers to quit, and worked to change social norms around tobacco use in the community. The program has also published four evaluation reports that monitor progress and provide recommendations for strengthening impact. As a result of these sustained and evidence-based programmatic efforts, adult smoking rates are declining faster in New York than in the rest of the nation, where overall prevalence numbers appear to have stalled.
    - The Alaska Department of Health and Social Services has implemented a comprehensive tobacco control program based upon CDC's Best Practices for Comprehensive Tobacco Control Programs—2007 guidance document. Program components include counter-marketing, community based programs, youth and school programs, eliminating exposure to secondhand smoke, eliminating health disparities, cessation, and evaluation. The program includes a free quit line for all Alaskans (1-888-842-QUIT) that includes individualized quit plans, personal quit coaches, and nicotine replacement therapy. CDC played a role in the state's success by providing technical assistance and guidance that enabled the state to frame a message linking this decrease in prevalence to effective and well funded comprehensive programs. CDC also provided extensive assistance to the Alaska program focused on the updated edition of Best Practices. As a result, not only did prevalence decrease, but the program and its partners were able to effectively educate policymakers on the health consequences of tobacco use and the need for additional funding. During the last legislative session, the state legislature approved an additional $1 million for the program. Additionally, while smoking rates are still high among Alaska Native adults, they have dropped significantly among Alaska Native youth.

Cotinine/Secondhand Smoke Exposure

CDC aims to reduce the proportion of children aged three to eleven who are exposed to secondhand smoke from 55 percent to 45 percent.

Secondhand smoke has been determined to be a known human carcinogen. Since 1986, the U.S. Surgeon General's reports have concluded that exposure to secondhand smoke causes lung cancer and heart disease in nonsmoking adults and sudden infant death syndrome (SIDS), acute respiratory infections, ear problems, more frequent and severe asthma attacks, respiratory symptoms, and slowed lung growth in children. Cotinine is the primary proximate metabolite of nicotine and the most specific and preferred biomarker of exposure to secondhand smoke.

More than 126 million nonsmoking Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces. Children are more heavily exposed to secondhand smoke than adults. Almost 60 percent of U.S. children aged three to eleven years—or almost 22 million children—are exposed to secondhand smoke. About 25 percent of children in this

age group live with at least one smoker, as compared to only about seven percent of nonsmoking adults.

In addition to its goal of eliminating exposure to secondhand smoke, NTCP also develops health communication campaigns aimed at informing the public about the health risks associated with secondhand smoke and reducing disparities in these exposures.

CDC continues to extend and maximize the impact of the 2006 Surgeon General's Report, *The Health Consequences of Involuntary Exposure to Tobacco Smoke*, by collaborating with its partners to publish and present studies expanding the science base on secondhand smoke, to work with the news media to keep secondhand smoke in the news, to provide technical assistance to states as they implement and evaluate smoke-free laws, and to disseminate information on secondhand smoke.

- An article was published in the January 2, 2009 edition of *Morbidity and Mortality Weekly Report* by researchers from Pueblo, Colorado and CDC on a 41 percent decline in hospitalizations for acute myocardial infarction in the city of Pueblo, Colorado three years after the implementation of a smoke-free ordinance. These findings provide the first evidence that reductions in heart attack admissions after a smoking ban can be sustained during a three year period and suggest that smoke-free policies should be considered an important component of interventions to prevent heart disease morbidity and mortality.

Lung Cancer

CDC aims to reduce the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 population.

Cancer is the second leading cause of death among all Americans. Lung, trachea, and bronchus cancers account for 13 percent of all cancer diagnoses and 29 percent of all cancer deaths. Since 1964, the U.S. Surgeon General's reports on smoking and health have concluded that smoking is a primary cause of lung cancer. Since 1986, they have concluded that exposure to secondhand smoke causes lung cancer in nonsmokers.

- Research shows that the more states spend on comprehensive tobacco control programs, the greater the reductions in smoking—and the longer states invest in state programs, the greater and faster these reductions in smoking will occur. To this end, CDC prepared *Best Practices for Comprehensive Tobacco Control Programs—2007*. This guidance document, which updates the 1999 original, describes an integrated budget structure for implementing interventions proven to be effective and includes recommended levels of annual state investment required to prevent tobacco use initiation among youth and young adults; promote cessation among adults and young people; eliminate exposure to secondhand smoke; and identify and eliminate tobacco-related disparities. If states sustained their individual recommended level of investment for 5 years there would be more than five million fewer smokers nationwide. As a result, hundreds of thousands of premature tobacco-related deaths would be prevented.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$104,345,000
FY 2006	$104,169,000
FY 2007	$102,016,000
FY 2008	$104,164,000
FY 2009	$106,164,000

BUDGET REQUEST

CDC's FY 2010 request includes $106,408,000 for Tobacco, an increase of $244,000 above the FY 2009 Omnibus for pay increases.

CDC will continue its Tobacco prevention and control activities in conjunction with state and local health departments. Key activities, objectives, and targets that will guide activities in FY 2010 include the following:

- Through the National Tobacco Prevention and Control (NTCP) program, CDC will continue to support state, local, and territorial health department efforts to prevent initiation of tobacco use among youth and young adults, promote tobacco use cessation among adults and youth, eliminate exposure to secondhand smoke, and identify and eliminate tobacco-related disparities.
- CDC will continue all of its existing activities aimed at: 1) reducing per capita cigarette consumption in the U.S. per adult aged 18 and older; 2) reducing the proportion of children aged 3 to 11 who are exposed to secondhand smoke; and, 3) reducing the age-adjusted annual rate of trachea, bronchus, and lung cancer mortality per 100,000 population.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.2: Reduce death and disability among adults due to tobacco use.				
5.2.2: Reduce per capita cigarette consumption in the U.S. per adult age 18+. *(Outcome)*	FY 2005: 1,716.0 (Target Not In Place)	1,558.0	1,511.0	-47
Long Term Objective 5.6: Improve youth and adolescent health by helping communities create and environment that fosters a culture of wellness and encourages healthy choices.				
5.6.3: Reduce the proportion of children aged 3 to 11 who are exposed to second-hand smoke[5]. *(Outcome)*	FY 2006: 50.8% (Target Not In Place)	N/A	45.0%	N/A

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.X: Number of state tobacco prevention and control programs (includes DC)	51	51	51	Maintain
5.Y: Tobacco Cessation Quitlines – States/ Territories/ Tribes funded to maintain and enhance existing quitlines	56	56	56	Maintain
5.Z: Number of cooperative agreements for tobacco prevention with key organizations with access to diverse population	15	15	15	Maintain
5.A.A: Scientific, technical, and public inquiry response on tobacco use	50,000	50,000	50,000	Maintain
5.A.B: Total state health departments and other organizations (e.g., local health departments) requesting advertising campaign materials through the Media Campaign Resource Center	250	250	250	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

[5] The 2001 – 2002 baseline for this measure is 55%.

STATE TABLE

DISCRETIONARY STATE/FORMULA GRANTS CHRONIC DISEASE PREV. & HEALTH PROMOTION PROGRAMS: TOBACCO	
State/Territory/Grantee	FY 2008 Actual*
Alabama	$1,093,612.50
Alaska	$952,411.50
Arizona	$347,402.25
Arkansas	$910,356.75
California	$409,030.50
Colorado	$1,093,114.50
Connecticut	$889,342.50
Delaware	$551,845.50
District of Columbia	$438,258.00
Florida	$705,864.75
Georgia	$902,042.25
Hawaii	$763,562.25
Idaho	$940,746.00
Illinois	$972,977.25
Indiana	$855,123.75
Iowa	$833,760.75
Kansas	$1,026,428.25
Kentucky	$939,063.75
Louisiana	$907,922.25
Maine	$794,967.75
Maryland	$993,391.50
Massachusetts	$1,284,492.00
Michigan	$1,374,750.00
Minnesota	$988,675.50
Mississippi	$445,575.75
Missouri	$953,316.75
Montana	$793,875.00
Nebraska	$1,022,754.75
Nevada	$707,071.50
New Hampshire	$858,559.50
New Jersey	$1,050,686.25
New Mexico	$940,566.75
New York	$1,544,470.50
North Carolina	$1,378,252.50
North Dakota	$952,597.50
Ohio	$1,126,656.00
Oklahoma	$1,093,549.50
Oregon	$901,929.75
Pennsylvania	$1,062,933.75

DISCRETIONARY STATE/FORMULA GRANTS CHRONIC DISEASE PREV. & HEALTH PROMOTION PROGRAMS: TOBACCO	
State/Territory/Grantee	**FY 2008 Actual***
Rhode Island	$949,655.25
South Carolina	$1,003,689.75
South Dakota	$793,726.50
Tennessee	$1,056,097.50
Texas	$801,732.75
Utah	$1,001,838.00
Vermont	$939,747.00
Virginia	$879,582.00
Washington	$1,163,229.75
West Virginia	$965,109.00
Wisconsin	$981,706.50
Wyoming	$854,998.50
American Samoa	$114,811.50
Guam	$170,250.00
Marshall Islands	$0
Micronesia	$174,233.25
Northern Mariana Islands	$134,781.00
Palau	$108,354.00
Puerto Rico	$340,210.50
Virgin Islands	$129,387.00
Total States/Cities/Territories	$48,365,077.50

*FY 2008 Funding based on nine months, instead of twelve.

NUTRITION, PHYSICAL ACTIVITY AND OBESITY

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$42,191,000	$44,300,000	$0	$44,402,000	+$102,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317C, 317D, 317H, 317K, 317K(a), 317K(b), 317L, 317M, 330E, 399B-399D, 399F, 399H-399L, 399W-399Z, 1102, 1501-1510, 1509, 1701, 1702, 1703, 1704, 1706

FY 2009 Authorization ……..….Indefinite

Allocation Methods…….....Direct
Federal/Intramural and Competitive Grants/Cooperative Agreements

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Poor nutrition, physical inactivity, and unhealthy weight not only increase the risk of many diseases and health conditions, they also have a major economic impact. In 2000 alone, the cost of obesity in the U.S. exceeded $100 billion.[6]

CDC's Nutrition, Physical Activity, and Obesity (NPAO) program was established to prevent and control obesity and other chronic diseases by supporting state health departments in developing and implementing nutrition and physical activity interventions. Nutrition and physical activity are critical components of a healthy lifestyle, maintenance of a healthy weight, and the prevention of chronic diseases. Improving lifestyle behaviors requires change at multiple levels of the socio-ecological model. Activities of the Nutrition, Physical Activity and Obesity program include: 1) state plan implementation including, intervention development, policy implementation, and partnership development to support implementation of population based interventions; 2) surveillance; 3) evaluation, 4) policy and environmental change initiatives; 5) providing technical assistance, training, and dissemination strategies; and, 6) behavior change, e.g., translation of research to practice, communication, social marketing.

CDC's Nutrition, Physical Activity, and Obesity Program has the following impact objectives:

- Increase the number, reach, and quality of policies and standards set in place to support healthful eating and physical activity in various settings.
- Increase access to and use of environments to support healthful eating and physical activity in various settings.
- Increase the number, reach, and quality of social and behavioral approaches that complement policy and environmental strategies to promote healthful eating and physical activity.

[6] U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001].

CDC funding is used by states via a cooperative agreement to hire staff with expertise in public health nutrition and physical activity, build broad-based coalitions, plan statewide nutrition and physical activity programs, and implement population-based strategies such as policy-level change, environmental change, and social marketing. States promote strategies to address principal target areas, including increasing physical activity, consumption of fruits and vegetables, and breastfeeding; decreasing TV-viewing time; and decreasing consumption of sugar sweetened beverages and energy dense foods.

One example of how states use this funding is Michigan's Building Healthy Communities Project which is a program designed to improve the environment and change policies to make it easier for residents to be healthy. The project expanded from an initial state-funded competitive grant to seven local public health departments to a wider partnership that now includes 16 local public health departments. Local health departments were funded, staff was trained and technical assistance was provided to plan and implement evidence-based policy and environmental changes to support physical activity and healthy eating.

Overall, the Building Healthy Communities Project achieved significant success in creating and enhancing places for Michigan citizens to enjoy healthy lifestyles. Examples of these changes are establishing farmers markets, building walking and biking trails and health promotion and education. This project helped local coalitions leverage close to a million and a half dollars in additional funding to support their work. Joining state and private funding streams has led to a more comprehensive community project. Examples of policy and built-environment changes for the project include:

- 11 trails covering 58.6 miles were created or enhanced with benches, lighting, and signage.
- 7 parks were enhanced with amenities such as new equipment, benches, and lighting.
- 14,000 walking maps were provided to residents.
- 129 community fitness classes were conducted.
- 5 new farmers market locations opened. All markets have ability to process Electronic Benefits Transfer transactions for food stamp recipients.
- 7 new school and community gardens were created.
- 5,000 Senior Project FRESH coupon books were distributed to low-income seniors to redeem for fresh fruits and vegetables.

To continue to build the capacity of local public health departments to be leaders of healthy change in their communities, the Michigan Nutrition, Physical Activity and Obesity Program will play a pivotal role in the expansion of this project in fiscal year 2009 through funding, training and technical assistance to up to 25 of the state's 45 local public health departments.

In FY 2008 a new funding opportunity announcement by the Nutrition, Physical Activity and Obesity Program, was issued to all states to support implementation of a state-wide program to prevent obesity and other chronic diseases. Twenty-three states (AR, CA, CO, GA, IN, IA, MA, MI, MN, MT, NE, NH, NJ, NY, NC, RI, SC, TN, TX, UT, WA, WV, WI) were funded to accomplish the program goals, with a total funding amount of approximately $17.4 million (average award of $750,000).

In addition to the state-wide programs, DNPAO has accomplished a number of other activities in support of our mission to increase physical activity and improve nutrition in the United States.

Physical Activity Guidelines for Americans

The Physical Activity Guidelines for Americans are the most comprehensive of their kind. They are based on the first systematic review of scientific research about physical activity and health in more than a decade. A 13-member advisory committee appointed in April 2007 by Secretary Leavitt reviewed research and produced an extensive report.

Web Site and Communication Activities

CDC's Nutrition, Physical Activity and Obesity web site is the third most popular area of CDC's internet site, attracting 2,828,858 page views in September 2008 alone. The Adult BMI Calculator continues to be the most popular page, averaging over one-half million pages viewed each month. CDC launched three major additions to the Nutrition, Physical Activity and Obesity web site in FY 2008 including Nutrition Basics, Healthy Weight, and Physical Activity for Everyone, and completed a fourth, Lean Works, which will be launched April 6, 2009.

Developing Innovative Partnerships

- The Healthy Eating Active Living Convergence Partnership (CP) seeks to change policies and environments to achieve the vision of healthy people living in healthy places CP is currently focused on transportation and food systems as powerful leverage points to develop active living environments and improve access to healthy foods, both of which are important obesity prevention and control strategies. In late 2008, CDC will co-sponsor a Transportation and Public Health meeting and in 2009 will co-sponsor a Food Systems and Public Health meeting.
- The National Collaboration on Childhood Obesity Research (NCCOR) was initiated in 2008 to achieve coordination across research funding organizations to accelerate the pace of research, reduce redundancy, ensure focused initiatives in the areas of greatest need, and build capacity for complex research projects encompassing socio-cultural, economic, environmental, and policy initiatives to influence eating and physical activity.
- The Planning Committee has already achieved two milestones: 1) finalized NCCOR's mission statement, membership criteria and membership; and 2) contracted with Academy for Educational Development as the coordinating center to assist in the development and implementation of the Collaborative, including soliciting preliminary commitments for funds from each organization for operations, communications, and initial projects. Development of a research agenda focused on priority areas for collaboration is underway. Identifying specific projects for immediate initiation while the longer-term joint research agenda is being developed, is a high priority in order to build momentum and achieve early impact.
- In partnership with the Produce for Better Health Foundation, CDC co-chairs the National Fruit and Vegetable Alliance (NFVA), a comprehensive national partnership that seeks to increase the amount of fruits and vegetables consumed by Americans. As the lead federal agency and health authority for the NFVA, CDC is responsible for promoting and managing the licensing of state agencies to use the Fruits & Veggies – More Matters™ brand. CDC also provides services to support products promotable, to review licensed states' materials, and to support sublicensing and development of September Fruit and Vegetables month 'Get Smart' tip sheets. Through funding and technical assistance to the Association of State and Territorial Public Health Nutrition Directors, CDC supports the Council of Fruit and Vegetable Nutrition Coordinators.

Physical Activity Policy Research Network (PAPRN)

The Physical Activity Policy Research Network (PAPRN) seeks to increase the quality and quantity of physical activity policy research by identifying relevant policies and their determinants, describing the process of successful policy implementation, and assessing policy outcomes. Established in 2004 as a thematic network of the Prevention Research Centers (PRC) program, PAPRN originally consisted of four PRC member centers, one coordinating/member, and CDC technical advisors. As the network has matured and its reputation grown, membership has expanded to include policy researchers from eight additional universities who have joined as affiliate members with no financial support from CDC. PAPRN now collaborates with other policy research networks (e.g. the European network -- Health Enhancing Physical Activity) and has expanded beyond research into developing policy briefs and providing direct technical assistance to states. Currently, PAPRN is in the process of: 1) conducting a comprehensive needs assessment for state programs regarding physical activity policy; 2) performing a content analysis of federal and state legislation on physical education in schools; 3) analyzing bicycle/pedestrian master plans in 10 states; and 4) editing a special issue of the Journal of Physical Activity and Health, which features seven PAPRN studies with accompanying policy briefs.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$41,930,000
FY 2006	$41,280,000
FY 2007	$40,590,000
FY 2008	$42,191,000
FY 2009	$44,300,000

BUDGET REQUEST

CDC's FY 2010 request includes $44,402,000, an increase of $102,000 above the FY2009 Omnibus for pay increases.

In FY 2010, CDC will fund 25 states to implement state-wide programs to prevent obesity through activities such as population-based interventions, evaluation, surveillance, policy and environmental change, and translation of research to practice.

Promoting regular physical activity and healthy eating by creating policies and an environment that support these behaviors are essential to reducing the epidemic of obesity. CDC's Nutrition, Physical Activity, and Obesity Program is the mechanism by which states are supported in accomplishing these tasks.

The impact objectives will continue to be accomplished by partnering with states to implement and evaluate the following policy and environmental strategies:

- Increase access and availability of whole, nutritious foods, such as fresh fruits and vegetables;
- Limit food and beverage advertising, especially that aimed at children and adolescents;
- Increase access to and opportunities for recreation;
- Implement transportation policies that promote active transportation options, such as walking and biking;
- Identify effective land use and design policies and standards that increase access and opportunities for health eating and active living; and,
- Address personal safety concerns (as a barrier to physical activity).

CDC has a long-term objective to reduce the rate of growth of obesity through nutrition and physical activity interventions. CDC has gathered baseline data for measures relating to obesity rates and physical activity.

- In FY 2004, CDC reported that the estimated average age adjusted annual rate of increase in obesity rates among adults aged 18 and older was 0.64. In FY 2014, CDC's aims to reach 0.16.
- In FY 2004, CDC reported that 24.4 percent of adults aged 18 and older engage in no leisure-time physical activity. In FY 2014, CDC aims to lower this number to 21.5 percent.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.5: Reduce the rate of growth of obesity through nutrition and physical activity interventions.				
5.5.1: Reduce the age-adjusted percentage of adults age 18+ who engage in no leisure-time physical activity. *(Outcome)* [1]	FY 2004: 24.36% (Baseline)	N/A	N/A	N/A
5.5.2: Slow the estimated average age-adjusted annual rate of increase in obesity rates among adults age 18+. *(Outcome)* [1]	FY 2004: 0.64 average increase per year (Baseline)	N/A	N/A	N/A

[1] These measures serve as long-term outcomes with FY 2014 targets

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.C: Number of states implementing intervention programs for nutrition/PA/obesity	FY 2008: 23 (Target Not In Place)	25	25	Maintain

[1] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$7,299,000	$7,300,000	$0	$7,316,000	+$16,000

AUTHORIZING LEGISLATION

Public Health Service Act §§ 301, 304, 310, 311, and 317

FY 2009 Authorization……..……..……..……..Indefinite

Allocation Method……..…Direct Federal/Intramural; Competitive Cooperative Agreements; and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

The Behavioral Risk Factor Surveillance System (BRFSS) is a coordinated system used by CDC and state health departments to track data related to all of CDC's state-based Chronic Disease Prevention and Health Promotion programs and used to track state, local, and national trends in chronic disease prevention and health promotion. The BRFSS, established in 1984, is CDC's system for measuring and tracking state- and local-level data on chronic disease, health promotion, and other critical health problems and health-related behaviors in the non-institutionalized U.S. adult population, 18 years and older, as well as a selected set of variables on children under age 18 in many states.

BRFSS is funded in all 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. Extramural cooperative agreement funds are awarded to conduct surveillance activities at the state level. It is the largest continuously conducted telephone-based surveillance system in the world, with more than 430,000 interviews annually. States are funded to collect ongoing information on behaviors that place health at risk, medical conditions, access to health care, and use of health care services, as well as a number of special projects such as the asthma callback survey, a panel survey designed to gain additional information from respondents with diagnosed asthma or other restrictive airway diseases.

BRFSS data are used to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs. BRFSS data are a critical part of public health response to local, state and national health problems. Examples include the following:

Early Identification of the Obesity Epidemic: In 1991, four states reported obesity prevalence rates of 15 to 19 percent and no state reported rates higher than 19 percent. In 2007, only one state had a prevalence of obesity less than 20 percent. Thirty states had obesity prevalence rates equal or greater than 25 percent, including three states with obesity rates higher than 30 percent.

- BRFSS trend data detected a state-by-state epidemic by identifying those areas of the country facing a critical obesity problem faster than any national data set and continues to monitor the obesity epidemic at the state level.

Flu Vaccine Monitoring: BRFSS data guided developers of national and state public awareness messages about the shortage of influenza vaccine during the 2004-2005 flu season and aided in prioritizing the distribution of limited vaccine supplies.

- By the end of the flu season, BRFSS data showed that coverage among adults in priority groups nearly reached that of previous years, whereas coverage among adults in non-priority groups was approximately half of the 2003-2004 flu season.

Colorectal Cancer Screening Coverage: The availability of BRFSS data that demonstrated the positive impact of mandatory insurance coverage for colorectal cancer screenings prompted legislative change in New Mexico. Citing BRFSS data, which showed that colorectal cancer screening rates were significantly better in states with mandatory coverage, New Mexico's state legislature passed a law to address cost as a barrier screening. The law now requires health insurance providers to pay for colorectoral cancer screening for New Mexico residents age 50 and older.

In-depth Analyses: BRFSS in-depth analyses provide vital information to public health officials including:

- Small area analysis – providing metropolitan/micropolitan area and county data in SMART BRFSS and other small-area analysis;
- Analysis by age group and specific populations as a service for other programs and organizations, such as estimates for older Americans for the recent Healthy Aging Report Card, AARP,, mammography coverage among women of appropriate age, folic acid consumption among women of childbearing age, flu vaccine coverage among priority groups, etc; and
- Disparities analysis by ethnic group for planning and evaluation in states and in CDC.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$6,602,000
FY 2006	$6,504,000
FY 2007	$6,418,000
FY 2008	$7,299,000
FY 2009	$7,300,000

BUDGET REQUEST

CDC's FY 2010 request includes $7,316,000 for BRFSS, an increase of $16,000 above the FY 2009 Omnibus for pay increases.

In FY 2010, CDC will continue to fund 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam to collect behavioral risk factor data. CDC projects that there will be approximately 400,000 interviews conducted through BRFSS.

States and local areas will use BRFSS data to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs. For many risk factors and conditions, BRFSS is the only source of state-level data. A wide range of public health officials, researchers, and key decision makers at all levels rely on the ongoing availability of BRFSS data.

A key challenge for BRFSS is managing an increasingly complex surveillance system that serves the needs of multiple programs while adapting to changes in communications technology, societal behaviors, and population diversity. To address these challenges, CDC maintains an ongoing program of improvement and adaptation that involves designing and conducting innovative pilot studies to advance the current BRFSS methodology and provide a foundation for the

implementation of future methodologies (i.e. use of cell phone and address-based sampling and multilingual surveillance).

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.D: States and territories funded for conducting surveillance	FY 2008: 54	54	54	Maintain

STATE TABLE

DISCRETIONARY STATE/FORMULA GRANTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM	
State/Territory/Grantee	FY 2008 Actual
Alabama	$202,166
Alaska	$219,369
Arizona	$119,011
Arkansas	$151,622
California (Public Health Institute)[7]	$266,319
Colorado	$273,412
Connecticut	$239,622
Delaware	$100,883
District of Columbia	$196,301
Florida	$201,043
Georgia	$179,982
Hawaii	$181,310
Idaho	$209,664
Illinois	$202,000
Indiana	$52,437
Iowa	$219,035
Kansas	$197,249
Kentucky	$215,428
Louisiana	$155,337
Maine	$169,626
Maryland	$128,257
Massachusetts	$220,383
Michigan	$194,336
Minnesota	$213,418
Mississippi	$212,416
Missouri	$178,974
Montana	$230,904
Nebraska	$167,569
Nevada	$194,988
New Hampshire	$202,432
New Jersey	$189,471
New Mexico	$235,597
New York	$147,929
North Carolina	$192,316
North Dakota	$145,743
Ohio	$195,365
Oklahoma	$146,477

[7] In California, CDC funds the Public Health Institute, an independent, non-profit organization, which conducts the survey for the state.

DISCRETIONARY STATE/FORMULA GRANTS BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM	
Oregon	$264,632
Pennsylvania	$113,394
Rhode Island	$216,867
South Carolina	$211,414
South Dakota	$154,286
Tennessee	$113,751
Texas	$218,086
Utah	$198,023
Vermont	$172,844
Virginia	$179,649
Washington	$282,486
West Virginia	$114,798
Wisconsin	$193,095
Wyoming	$205,159
American Samoa	$0
Guam	$74,050
Marshall Islands	$0
Micronesia	$0
Northern Mariana Islands	$0
Palau	$0
Puerto Rico	$210,341
Virgin Islands	$185,193
Total States/Cities/Territories	**$10,056,459** [8]

[8] Totals include funding for nine months based on a cost extension provided to the states until a new cooperative agreement period begins in April, 2009

EMERGING ISSUES IN CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Alzheimer's Disease	$1,576,000	$1,688,000	$0	$1,692,000	+$4,000
Community Health Promotion	$6,412,000	$6,453,000	$0	$6,468,000	+$15,000
Chronic Kidney Disease	$1,965,000	$2,025,000	$0	$2,030,000	+$5,000
Visual Screening Education	$2,389,000	$3,222,000	$0	$3,229,000	+$7,000
Glaucoma	$3,344,000	$3,511,000	$0	$3,519,000	+$8,000
Inflammatory Bowel Disease	$667,000	$684,000	$0	$686,000	+$2,000
Interstitial Cystitis	$658,000	$658,000	$0	$660,000	+$2,000
Mind-Body Institute	$1,719,000	$1,500,000	$0	$0	-$1,500,000
Pioneering Healthier Communities	$2,948,000	$0	$0	$0	$0
Excessive Alcohol Use	$0	$1,500,000	$0	$1,503,000	+$3,000
Total	$21,678,000	$21,241,000	$0	$19,787,000	-$1,454,000

[1] Behavior Risk Factor Surveillance System and information is discussed in its own, separate narrative
[2] Pioneering Healthy Communities activities are discussed in the Community Health narrative

AUTHORIZING LEGISLATION

FY 2009 Authorization……...……Indefinite

Allocation Methods……..……....Direct Federal/Intramural; Contracts; and Competitive Cooperative Agreements

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

In order to keep pace with emerging issues in chronic disease prevention and health promotion and to use the most advanced science in new public health approaches and new analytic methods, CDC undertakes early scientific and programmatic work in emerging and cross-cutting chronic disease and health promotion issues. CDC defines the extent and public health impact of emerging issues, develops the scientific basis for public health solutions, and establishes effective interventions and public health responses.

Areas addressed include the leading causes of death for which new public health approaches are becoming available, areas where new information about how public health can reduce disease burden are now available, and emerging, cutting-edge analytic approaches that will shape how public health responds to chronic disease problems in the future.

Healthy Aging and Alzheimer's Disease

Alzheimer's disease is our nation's sixth leading cause of death. Maintaining cognitive health and concern about Alzheimer's disease are among the top issues affecting older adults and are of high public concern. This concern will continue to grow as the U.S. population ages. CDC has begun to formulate and act on a public health response to Alzheimer's disease with the long term goal of maintaining and improving the cognitive performance and function of adults. In FY 2007, CDC created The Healthy Brain Initiative: A National Public Health Roadmap to Maintaining Cognitive Health. The Roadmap identifies and prioritizes recommendations concerning education and communication at local and national levels, as well as strategies to address the burden of cognitive impairment through surveillance, prevention research, and policy needs and capabilities.

CDC is preparing for the aging of the U.S. population by examining the health needs of older adults. CDC's Healthy Aging program monitors trends in the health of the older American population in order to guide program planning throughout public health; it provides high-quality health information to public health and aging professionals and links the public health and aging services networks at the national, state, and local levels.

The program also partners with the health care system to enhance communication and promote the broader use of clinical preventive services in older adults, and works to translate and disseminate effective prevention research findings to communities.

Examples of recent accomplishments include;

- The release of the monograph "Assuring Healthy Caregivers. A Public Health Approach to Translating Research into Practice: The RE-AIM Framework" which tackles the challenge of translating evidence-based caregiver interventions into real-world settings;
- SENIOR (State-based Examples of Network Innovation, Opportunity and Replication) grants to effectively implement health promotion and chronic disease prevention programs for older adults through joint efforts of the public health and aging services networks; and
- A systematic review to identify physical activity interventions related to cognitive health with evidence of high effectiveness that can be used in the public health community.

Approaches to Health Promotion

Approaches to Health Promotion include innovative scientific research on emerging and cross-cutting chronic disease issues and approaches. The activities define the extent and public health impact of emerging issues and develop the scientific basis for new approaches to public health solutions for issues such as excessive alcohol consumption, sleep, and syndemics, a new science for understanding the mutually reinforcing connections that exist among afflictions (for example, diabetes, obesity, and asthma). The activities also include the development of new public health tools such as community health indicators for chronic disease and health promotion. Highlights of activities include:

- Sleep: CDC is collaborating with the National Sleep Foundation to foster public health awareness of sleep disorders. This collaboration includes the support of the National Sleep Awareness Roundtable (NSART), surveillance of sleep and sleep disorders, and publication of educational brochures and tools. Four task forces have been formed to develop a National Sleep Action Plan that will address the following objectives: 1) increase public and professional awareness about sleep health and the consequences of sleep deprivation; 2) promote science-based public policies to improve the sleep health of the nation; 3) advance basic, clinical, applied, and population-based research; and, 4) promote recognition of and access to care for people with sleep disorders.

- Syndemics: A CDC effort involving multiple units across the agency's National Center for Chronic Disease Prevention and Health Promotion is addressing questions about how local health and non-health factors affect the prospects for comprehensive chronic disease prevention, particularly in the most disadvantaged areas. The project is studying the contextual influences of these factors through system dynamics simulation models that trace intervention effects through major causal pathways that connect local capacity to health-related factors such as obesity, hypertension, high cholesterol, diabetes, heart disease, stroke, smoking, nutrition, physical activity, psychological stress, racism, media climate, and more.
- Excessive Alcohol Consumption: CDC's activities related to excessive alcohol consumption focus on improving public health surveillance of binge drinking and underage drinking and conducting epidemiological analyses, primarily through the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YRBSS), and assessing youth exposure to alcohol marketing on radio and in magazines. Working with the Guide to Community Preventive Services and partner agencies, CDC conducts systematic reviews on population-based interventions to prevent excessive alcohol consumption and alcohol-related health impacts.
    - With funds received in FY 2009, CDC will address excessive alcohol consumption by conducting public health surveillance and monitoring on youth exposure to alcohol advertising.

Chronic Kidney Disease

Chronic kidney disease (CKD) is our nation's ninth leading cause of death and is a serious and growing problem. CDC works closely with grantees and other partners to develop capacity for a kidney disease surveillance, epidemiology, health economics, and health outcomes research program. In collaboration with partners, CDC is examining the natural history of the disease; assessing its economic burden, examining the feasibility of establishing a national surveillance system, and facilitating the advancement of public health research in chronic kidney disease. In addition, CDC is working with partners to develop a state-based screening and demonstration project for detecting people with a high risk of developing chronic kidney disease. In 2007, CDC held an expert panel to discuss comprehensive public health strategies for preventing the development and progression of chronic kidney disease. The proceedings and a journal supplement were prepared for publication in peer reviewed journals in fall 2008. Both the proceedings, recommendations and supplement from the expert panel meeting are currently in press and will be published around World Kidney Day in Spring, 2009.

Blindness and Vision Impairment

Blindness and vision impairment are major public health problems causing a substantial human and economic toll on individuals and society. More than 3.4 million Americans aged 40 years and older are either blind or are visually impaired and millions more are at risk for developing vision impairment and blindness.

CDC's Vision Health Initiative addresses public health issues related to vision loss prevention and eye health promotion which focuses on enhancing national and state specific surveillance systems, epidemiology, health economics, and a health outcomes research program. CDC published "Improving the Nation's Vision Health: A Coordinated Approach". This report provides a platform for discussion and a logic model intended to produce long term outcomes. As of 2008, 22 states have data related to eye conditions and access to eye care. These data have generated reports on state-specific estimates of eye diseases and access to eye care and helped develop new public-private partnerships and the creation of state-level community vision coalitions. Research

highlights include estimates of the levels of self-reported access of eye care services in the nation, using the National Health Interview Survey, and building a cost-effective model to test interventions and a project eye diseases among people with diabetes through 2050.

In FY 2008, CDC awarded a three-year cooperative agreement to Prevent Blindness America (PBA) to lead a comprehensive public health effort toward the development of an integrative approach to vision loss prevention and eye health promotion. PBA is working closely with academia, state health departments, and their own network of affiliates to examine intervention models for identifying and managing individuals at high risk for vision disorders.

Inflammatory Bowel Disease

To better understand the natural history of inflammatory bowel disease (IBD) and factors that predict the course of the disease, CDC epidemiologists are working in conjunction with the Crohn's & Colitis Foundation of America and a large health maintenance organization. Current projects include examining provider variation in the treatment of Crohn's disease, disparities in mortality for IBD patients, disparities in surveillance for colorectal cancer associated with IBD, and variation in outcomes in relation to race. The study of pediatric variation in IBD and the natural history of IBD among children are being conducted as well. Findings from this study are expected to add to the understanding of the prevalence and incidence of IBD in the U.S., the impact of the disease on the health of affected persons, the practice variations in the management of IBD, and the impact of various clinical practices on the outcome of the disease.

Interstitial Cystitis

CDC funds a five-year cooperative agreement with the Interstitial Cystitis Association (ICA), a voluntary non-profit IC patient and health care provider national organization, to develop, implement, and evaluate a national health promotion and education campaign to increase the general public and health care provider awareness and education of IC. Market analysis has identified strategies for developing specific health promotion messages for the general public and health care providers on IC. Health promotion campaign messages are being disseminated through the following activities: developing and producing specific health promotion materials; refining the ICA web site to update health information and improve user friendliness; developing specific media outreach and health provider outreach tool-kits; and developing and implementing a comprehensive dissemination plan.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$18,505,000
FY 2006	$19,744,000
FY 2007	$19,391,000
FY 2008	$21,678,000
FY 2009	$21,241,000

BUDGET REQUEST

CDC's FY 2010 request includes $19,787,000 for Emerging Issues in Chronic Disease Prevention and Health Promotion, a decrease of $1,454,000 below the FY 2009 Omnibus.

CDC will continue to advance science and effective public health response in emerging areas of chronic disease prevention and health promotion, define the burden of emerging conditions, identify high-impact opportunities for public health intervention, and develop and disseminate effective interventions and public health responses. CDC will also assess trends, the impact of trends (such as the aging of the U.S. population), and future threats in chronic disease and health promotion so

that CDC and the public health community can prepare for the chronic disease issues of the future. Examples of planned activities are included below.

Healthy Aging and Alzheimer's Disease

CDC's FY 2010 request includes $1,692,000, an increase of $4,000 above the FY 2009 Omnibus.

CDC's Healthy Aging Program will take a comprehensive approach to develop a set of questions for use in a population-based surveillance system that assesses and monitors the public's beliefs about the burden of cognitive decline. These data will lay the groundwork for advancing public health's understanding of the perceived burden of cognitive decline among American adults.

A special issue of "The Gerontologist" will include peer-reviewed articles highlighting the formative research conducted by the Healthy Aging Research Network on the perceptions of the public and health care providers about cognitive health and impairment.

Approaches to Health Promotion

CDC's FY 2010 request includes $6,468,000 for Approaches to Health Promotion, an increase of $15,000 above the FY 2009 Omnibus.

FY 2010 activities will include improving national and state surveillance and monitoring the public health burden of sleep loss and sleep disorders, improving surveillance of binge drinking and underage drinking, reviewing population-based strategies to reduce excessive alcohol consumption and its related harms, and developing the scientific basis for new approaches to public health, such as the innovative methods used in syndemics.

Chronic Kidney Disease (CKD)

CDC's FY 2010 request includes $2,030,000 for Chronic Kidney Disease, an increase of $5,000 above the FY 2009 Omnibus.

In FY 2010, CDC will continue to fund a cooperative agreement with university partners to develop a national surveillance system for CKD. In addition, CDC will continue funding a cooperative agreement with the National Kidney Foundation to test a screening program for identifying people at high risk of developing CKD and follow-up to examine how their care can be improved over time to prevent progression to kidney failure. CDC is currently implementing demonstration projects at eight sites in four states (NY, CA, MN, and FL) to look at detection of individuals at highest risk of developing CKD.

Blindness and Vision Impairment

CDC's FY 2010 request includes $6,748,000 for CDC's Vision programs an increase of $15,000 above the FY 2009 Omnibus.

CDC's Vision Health Initiative (VHI) is designed to promote vision health and quality of life for all populations, throughout all life stages, by preventing and controlling eye disease, eye injury, and vision loss resulting in disability. In FY 2010, CDC will continue to build a vision health program to address issues related to vision loss prevention and eye health promotion. CDC will also continue to fund Prevent Blindness America to develop, deliver, and evaluate a comprehensive vision screening program.

A major challenge facing VHI is that prevalence of vision loss and eye diseases resulting in disability is expected to increase in the future due to the aging of the population and to the increase in chronic diseases affecting vision and eye health such as diabetes. In addition, eye care remains suboptimal, especially among high risk populations.

Inflammatory Bowel Disease

CDC's FY 2010 request includes $686,000 for Inflammatory Bowel Disease, an increase of $2,000 above the FY 2009 Omnibus.

The program will continue to collaborate with the Crohn's and Colitis Foundation of America to investigate the natural history of inflammatory bowel disease (IBD), factors that predict the course of the disease, and practice variations that impact treatment and management of the disease.

Interstitial Cystitis

CDC's FY 2010 request includes $660,000 for Interstitial Cystitis, an increase of $2,000 above the FY 2009 Omnibus.

The program will continue to collaborate with the Interstitial Cystitis Association to develop, implement, and evaluate a national health promotion and education campaign to increase the general public and health care provider awareness and education of IC.

Mind, Body Research program

CDC's FY 2010 request eliminates funding for the Mind, Body Research program.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.E: :Cooperative agreements with national health organizations to address emerging and cross-cutting issues in chronic disease prevention and health promotion.	FY 2008: 8	8	8	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

SCHOOL HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$54,323,000	$57,636,000	$0	$62,780,000	+$5,144,000

AUTHORIZING LEGISLATION

General Authority: PHSA §§ 301, 307, 310, 311, 317, 317K, 327, 340D, 352, 391, 1102, 1501-1510, 1706

FY 2009 Authorization……Indefinite

Allocation Methods……Direct Federal/Intramural; Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

In response to the rise of human immunodeficiency virus (HIV) infection in the United States, CDC launched a federal initiative to assist schools across the nation in providing effective education to prevent the spread of acquired immune deficiency syndrome (AIDS). In 1987, CDC funded 15 state education agencies (SEAs) and 12 local education agencies (LEAs) to coordinate activities to prevent the spread of HIV among adolescents. Since 1987, CDC's school health efforts have expanded to provide more focus on physical activity, nutrition, and tobacco use prevention and other priority health risk behaviors.

The prevalence of overweight among children aged 6 to 11 has more than doubled in the past 20 years, increasing from 6.5 percent in 1980 to 17 percent in 2006. The rate among adolescents 12 to 19 more than tripled, increasing from 5 percent to 17.6 percent. Children and adolescents who are overweight are more likely to be overweight or obese as adults. Overweight adults are at increased risk for heart disease, high blood pressure, stroke, diabetes, some types of cancer, and gallbladder disease.

Type two (2) diabetes, formerly known as adult onset diabetes, has become increasingly prevalent among children and adolescents as rates of overweight and obesity rise. A CDC study estimated that one in three American children born in 2000 will develop diabetes in their lifetime.

School health programs play a unique and important role in the lives of young people by improving their health knowledge, attitudes and skills, health behaviors and outcomes, educational outcomes, and social outcomes. Each school day is an opportunity for the nation's 56 million students to learn about health and practice the skills that promote healthy behaviors. CDC emphasizes a coordinated, comprehensive, and collaborative approach to school health. This approach focuses on strengthening the health infrastructure of state and local education agencies and schools to address critical health issues including obesity, asthma, HIV, STDs, and teen pregnancy prevention by building the capacity of funded partners to support science-based, cost-effective health programming. The program's mission is to promote the health and well being of children and adolescents so they become healthy and well-functioning adults. The goals to achieve this outcome are focused on reducing the rates of chronic diseases, HIV, other sexually transmitted diseases, and teen pregnancy. This goal is accomplished by:

- Monitoring priority health risk behaviors and school health programs and policies through systems such as the Youth Risk Behavior Surveillance System, the School Health Policies and Programs Study, and School Health Profiles;

- Analyzing research findings to develop guidelines for addressing priority health risk behaviors among students and developing tools such as the *School Health Index: A Self-Assessment and Planning Guide*, to help schools implement these guidelines;
- Enabling states, cities, and national organizations to develop, implement, and evaluate their own school health programs to improve the health, education, and well-being of young people;
- Evaluating the impact of interventions to improve programs; and
- Supporting *Healthy Passages*, a longitudinal study designed to provide a scientific basis for the development of policies and interventions to help keep children and adolescents healthy. This study will characterize the relative contribution of important factors that influence behaviors and outcomes over time.

Coordinated School Health Programs

CDC currently funds 22 state education agencies and one tribal government to establish a partnership with their state health agency to focus on reducing chronic disease risk factors such as tobacco use, poor nutrition, and physical inactivity. Grantees include the following: Arizona, Arkansas, California, Colorado, Connecticut, Idaho, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, North Carolina, North Dakota, Ohio, South Carolina, South Dakota, Washington, West Virginia, and Wisconsin and the Nez Perce Tribe.

- **Maine**: The Healthy Maine Partnerships funded 54 school health coordinators (SHCs) to organize health-related programs, policies, and services, including health and physical education classes, and school meal programs. From 2001–2006, among districts having SHCs
    - 75 percent increased time for regular physical activity for K–8 students.
    - 100 percent implemented policy changes improving more than one aspect of school nutrition, such as eliminating soft drinks and other foods of minimal nutritional value from vending machines.
    - 100 percent passed a tobacco-free school campus policy.
    - More than two-thirds of the school administrative units collectively leveraged more than $5 million for physical activity and nutrition programs
- **North Carolina**: The North Carolina Healthy Schools Initiative, partly funded through CDC's Division of Adolescent and School Health, supported the development and implementation of school policies designed to advance the state's anti-smoking campaign among youth. From 2000 to 2007, the percentage of school districts in the state that adopted 100 percent tobacco-free school (TFS) policies increased from 5 percent to 75 percent. Building on that momentum, the state legislature bolstered the campaign by passing legislation in 2007 mandating statewide TFS compliance. By July 2008, all of North Carolina's 115 school districts were 100 percent tobacco-free.

Capacity Building through National Non-Governmental Organizations (NGOs)

CDC funds 29 national non-governmental organizations (NGOs) to build the capacity of societal institutions that influence youth. These organizations implement activities that are directed toward building the capacity of CDC funded state, territorial, and large local school district programs, youth serving organizations, and other NGOs. The activities involve intensive training, follow-up support, technical assistance, and evaluation to fully integrate and sustain programs that promote healthy behaviors for the nation's youth.

- CDC funds the National Association of State Boards of Education (NASBE). In 2004, Congress passed the Child Nutrition and Women, Infants, and Children Reauthorization Act [Public Law 108-265], which included a new provision: all local education agencies (LEAs) participating in programs authorized by the National School Lunch Program or the Child Nutrition Act were to have established local wellness policies by the start of the 2006-2007 school year. NASBE/Center for Safe and Healthy Schools has compiled state strategies for supporting local wellness policies, documenting that at least 48 states have adopted new laws, regulations, or policies, or have developed guidance materials that specifically address the requirements of the wellness policies.

Monitoring Activities

CDC monitors priority health risk behaviors and school health programs and policies through the following systems:

- The Youth Risk Behavior Surveillance System (YRBSS) is conducted biennially and provides national, state, and local level data on the prevalence and trends of health-risk behaviors including behaviors that contribute to unintentional injuries and violence; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and STDs, including HIV infection; unhealthy dietary behaviors; and physical inactivity. State and local education agencies use data from YRBSS to inform policymakers about the need for interventions in their jurisdictions to help young people avoid risk behaviors.
- The School Health Profiles helps state and local education and health agencies monitor the current status of school health education; school health policies related to HIV/AIDS, tobacco use prevention, unintentional injuries and violence, physical activity, and food service; physical education; asthma management activities; and family and community involvement in school health programs. State and local education and health agencies conduct the survey biennially at the middle/junior high school and senior high school levels in their states or districts, respectively.
- The School Health Policies and Programs Study (SHPPS) is a national survey periodically conducted to assess school health policies and programs at the state, district, school, and classroom levels. SHPPS is used to monitor the status of the nation's school health policies and programs; describe the professional background of the personnel who deliver each component of the school health program; describe relationships between state and district policies and school health programs and practices; and identify factors that facilitate or impede delivery of effective school health programs.

According to the CDC's SHPPS 2006, only four percent of elementary schools, eight percent of middle schools, and two percent of high schools provide daily physical education for all grades for the entire school year. Overall, 22 percent of schools did not require students to take any physical education.

Other findings include the following:

- The percentage of schools that offered vegetables other than potatoes to students increased from 51 percent in 2000 to 71 percent in 2006.
- The percentage of states that required elementary schools to provide students with regularly scheduled recess increased from 4 percent in 2000 to 12 percent in 2006, and the percentage of districts with this requirement increased from 46 percent to 57 percent.
- The proportion of fully tobacco free secondary schools increased from 37 percent in 1994 to 46 percent in 2000. School health policies and programs have contributed to recent

decreases in health risk behaviors among high school students, including the decline in cigarette smoking rates from 36 percent in 1997 to 23 percent in 2005.

Guidelines and Tools for Schools

CDC synthesizes research findings to identify policies and practices that are most likely to be effective in promoting healthy behaviors among young people. Research-based recommendations for school health programs are featured in a series of publications called the CDC guidelines for school health programs. To date, these guidelines have addressed tobacco-use prevention, promotion of healthy eating and physical activity, prevention of unintentional injuries and violence, skin cancer prevention, and AIDS education.

The school health program model was used in the Lifestyle Education for Activity Program (LEAP) intervention. Schools implemented the intervention in physical education, health education, health services, family and community involvement, school environment, and health promotion for staff. After one academic year, participation in regular vigorous physical activity was higher among girls enrolled in the intervention schools than in the control schools.

- A tobacco use prevention program reduced the number of students who started smoking cigarettes during grades seven to nine by about 26 percent.
- Inner-city children who participated in a school breakfast program increased nutrient intake and were more likely to improve their academic and psychosocial functioning than those who did not participate in the program.

HIV/AIDS

CDC currently funds 49 state education agencies (average award $231,000); the District of Columbia; 16 local education agencies (average award $270,000); 6 territorial education agencies and 1 tribal government to implement effective policies, programs, and practices to avoid, prevent, and reduce sexual risk behaviors among students that contribute to HIV infection.

Data from the 2007 Youth Risk Behavior Surveillance Survey show that 65 percent of high school students had engaged in sexual intercourse by the time they graduated from high school and 22.4 percent had had sex with four or more partners. Data from the School Health Policies and Programs Study show from 2000 to 2006 the percent of high schools teaching about condom efficacy declined from 82.9 percent to 65.4 percent, and staff development (workshops, conferences, continuing education, graduate courses) on HIV prevention declined from 62.5 percent to 43.3 percent. In 2006, in schools that taught HIV prevention, the median number of hours of required instruction in middle schools and high schools was 1.5. and 2.2, respectively.

Each year, there are approximately 19 million new STD infections in the U.S. and almost half of them are among youth ages 15 to 24. Recent analysis of data from the 2003-2004 National Health and Nutrition Examination Survey found that one in four female adolescents ages 14 to 19 has at least one of the most common STDs (human papillomavirus (HPV), chlamydia, herpes simplex virus, and trichomoniasis). Among young African American women, 48 percent had at least one of the most common STDs. The presence of certain STDs can increase one's chances of contracting HIV two to five-fold.

STDs (including HIV) among youth result in substantial economic burden to our society. The total estimated burden of the nine million new cases of STDs that occurred among 15 to 24-year-olds in 2000 was $6.5 billion. HIV and HPV were by far the most costly STDs in terms of total estimated direct medical costs, accounting for 90 percent of the total burden ($5.9 billion).

Examples of activities and accomplishments from CDC funded programs include:

- **Florida:** In Florida, the Orange County Public Schools (OCPS) HIV prevention program has established partnerships with a number of community-based organizations to provide HIV prevention education programs for youth who are at disproportionate risk for HIV transmission—either because they engage in risky behaviors or because they live in an area of the county with a high prevalence of disease. As a result of these partnerships and continued OCPS efforts, the district has had great success in reaching at-risk youth with HIV/AIDS prevention information. Accomplishments between March 1, 2007, and February 28, 2008, included the following:
    - Ten community agencies were approved to give classroom presentations on prevention of HIV, STDs, and unintended teen pregnancy. More than 300 presentations were made, attended by more than 8,000 middle and high school students.
    - Project staff coordinated with various community agencies serving primarily minority populations to provide student and parent resources on HIV, STD and teen pregnancy prevention at health-related fairs and events attended by more than 4,700 people.
    - Project staff coordinated with Planned Parenthood of Greater Orlando, Inc., to provide risk-reduction presentations for high-risk youth at various sites, such as the Boys and Girls Club, PACE Center for Girls, Winter Park Community Center, and the Juvenile Detention Center.
- **Hawaii:** The Hawaii' Department of Education developed a culturally-relevant "HIV in Hawaii" video that features the stories of two Hawaiians who are HIV positive as well as interviews with local service providers. The video offers middle and high school students an opportunity to learn how HIV affects Hawaii and reinforces Hawaii's statewide HIV curriculum, "Positive Prevention", by encouraging compassion for those who are affected by HIV and breaking stereotypes of who is at risk. The video is also being used in adult support groups and as a training tool for teachers and medical professionals. Recently, the video was shown to third year pre-med students in the hopes of encouraging them to seek a specialty in HIV/AIDS medicine.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$56,746,001
FY 2006	$55,854,000
FY 2007	$54,789,000
FY 2008	$54,323,000
FY 2009	$57,636,000

BUDGET REQUEST

CDC's FY 2010 request includes $62,780,000 for School Health, an increase of $5,144,000 above the FY 2009 Omnibus. This increase reflects $144,000 for pay increases and $5,000,000 for non-pay increases.

Coordinated School Health Program

In FY 2010, CDC will fund 10 additional state education agencies (32 states and one tribe total) to assist these agencies in meeting the health and safety needs of their K-12 students. State agencies will be funded to build the capacity of schools and school districts to implement quality, cost-effective school health programs that research has shown increase both students' health-promoting behaviors – including being more physically active, eating better, and avoiding tobacco-

use – and have positive effects on academic performance. This funding will provide jobs for health and education professionals, stimulate increased professional development for education agency personnel, and support expanded partnerships between schools and the community to improve health programs delivered in school.

The following studies led by CDC's Division of Adolescent and School Health demonstrate how school health programs can be cost effective:

- An economic evaluation of school programs to prevent cigarette use among middle and high school students showed that for every dollar invested in school tobacco prevention programs, almost $20 in medical care costs would be saved.
- An economic analysis of a school-based obesity prevention program found that at an intervention cost of $33,677, or $14 per student per year, the program would prevent an estimated 1.9 percent of the female students from becoming overweight adults. As a result, society could expect to save an estimated $15,887 in medical costs and $25,104 in loss of productivity costs.

CDC will work with partners on data-driven decision making to develop, implement, and evaluate their own school health programs to improve the health, education, and well-being of young people. Funded partners will be asked to identify school level impact measures to assess the extent to which critical school health policies and practices are being implemented.

In FY 2010, CDC aims to increase the percentage of youth (grades 9 to12) who were active for at least 60 minutes per day for at least five of the preceding seven days to 40 percent.

HIV/AIDS

In FY 2010, CDC expects to fund 49 state education agencies; 18 local education agencies, including the District of Columbia; up to seven territorial education agencies; and up to two tribal governments with the following targets:

- Increase the proportion of adolescents (grades 9 to 12) who abstain from sexual intercourse or use condoms if currently sexually active to 89 percent.
- Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90 percent or greater.

Healthy Passages

The FY 2009 appropriation for School Health included $3,485,000 for Healthy Passages.

In FY 2010, CDC will continue to support Healthy Passages, a multi-year study that follows a group of fifth-grade students through age 20 to improve the understanding of what factors help keep children healthy. The results will provide information that can be used to develop effective policies and programs to improve the health and development of children, adolescents, and adults. Healthy Passages collects data on vigorous and moderate physical activity and participation on sports teams, as well as data on tobacco and substance use, diet, physical and mental health, injuries and violence, sexual behavior, family and peer relationships, and media exposure.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 5.6: Improve youth and adolescent health by helping communities create and environment that fosters a culture of wellness and encourages healthy choices.				
5.6.1: Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90% or greater.[1] *(Outcome)*	FY 2007: 89.5% (Target Not Met)	90.0%	N/A	N/A
5.6.2: Increase the proportion of adolescents (grades 9-12) who abstain from sexual intercourse or use condoms if currently sexually active.[1] *(Outcome)*	FY 2007: 86.7% (Target Not Met)	89.0%	N/A	N/A
5.6.4: Percentage of youth (grades 9-12) who were active for at least 60 minutes per day for at least five of the preceding seven days.[1] *(Outcome)*	FY 2007: 34.7% (Target Not Met)	35.8%	N/A	N/A

[1] The data source for this measure is the Youth Risk Behavior Surveillance System. Surveys are conducted on a biennial basis; therefore, no target is set for FY 2010.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.E : State education agencies and tribal governments working with state health departments to integrate prevention activities targeting tobacco use, sedentary lifestyles, poor eating habits into school health programs.	FY 2008: 23	23	33	+ 10
5.A.F : National Non-Governmental Organization providing capacity building assistance to education and health agencies, community organizations, and agencies serving youth at highest risk.	FY 2008: 29	29	29	Maintain
5.A.G : State, territory, and local education agencies and tribal governments working with state health departments to implement HIV education prevention in schools.	FY 2008: 73	73	73	Maintain
5.A.H : State and local education agencies that conduct the Youth Risk Behavior Surveillance System (YRBSS) to collect information on six priority health-risk behaviors.	FY 2008: 61	61	61	Maintain
5.A.I: Guidelines, tools, and resources to assist education agencies, health departments, and community organizations in the implementation of school health programs.	FY 2008: 13	15	16	+ 1

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS IMPROVING HEALTH AND EDUCATIONAL OUTCOMES OF YOUNG PEOPLE	
State/Territory/Local/Tribal Government Grantee	FY 2008 Actual (HIV)
Alabama	$271,602
Alaska	$232,651
Arizona	$285,000
Arkansas	$278,599
California	$314,824
Colorado	$243822
Connecticut	$252,831
Delaware	$249,158
District of Columbia	$292,309
Florida	$306,540
Georgia	$250,502
Hawaii	$259,984
Idaho	$232,392
Illinois	$325,881
Indiana	$257,845
Iowa	$229,677
Kansas	$257,997
Kentucky	$284,250
Louisiana	$283,883
Maine	$231,948
Maryland	$276,733
Massachusetts	$294,912
Michigan	$293,241
Minnesota	$220,000
Mississippi	$287,525
Missouri	$259,223
Montana	$257,658
Nebraska	$239,979
Nevada	$273,186
New Hampshire	$232,683
New Jersey	$289,690
New Mexico	$282,800
New York	$335,000
North Carolina	$332,333
North Dakota	$235,000
Ohio	$221,427
Oklahoma	$248,575
Oregon	$256,567
Pennsylvania	$304,750
Rhode Island	$294,471

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS IMPROVING HEALTH AND EDUCATIONAL OUTCOMES OF YOUNG PEOPLE	
State/Territory/Local/Tribal Government Grantee	**FY 2008 Actual (HIV)**
South Carolina	$316,262
South Dakota	$270,000
Tennessee	$290,000
Texas	$332,032
Utah	$0
Vermont	$244,541
Virginia	$233,000
Washington	$225,000
West Virginia	$259,308
Wisconsin	$289,897
Wyoming	$225,000
Baltimore City	$287,993
Broward County, Fla.	$308,882
Chicago	$340,000
Detroit	$285,845
Houston	$323,856
Los Angeles	$389,742
Memphis City	$284,387
Miami-Dade County, Fla.	$337,791
New York City	$390,000
Newark, NJ	$250,000
Orange County, Fla.	$285,435
Palm Beach County, Fla.	$283,509
Philadelphia	$288,718
San Diego	$289,259
San Francisco	$272,676
Seattle Public Schools	$289,457
American Samoa	$101,318
Guam	$101,800
Marshall Islands	$100,000
Northern Mariana Islands	$102,500
Palau	$95,000
Puerto Rico	$205,000
Cherokee Nation Health Service	$105,000
Total States/Cities/Territories/Tribal Governments	$19,180,656

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS IMPROVING HEALTH AND EDUCATIONAL OUTCOMES OF YOUNG PEOPLE	
State/Territory/Tribal Government Grantee	FY 2008 Actual (Non-HIV)
Alabama	0
Alaska	0
Arizona	$460,000
Arkansas	$423,899
California	$474,416
Colorado	$359,827
Connecticut	$359,927
Delaware	0
District of Columbia	0
Florida	0
Georgia	0
Hawaii	0
Idaho	$359,997
Illinois	0
Indiana	0
Iowa	0
Kansas	0
Kentucky	$410,000
Louisiana	0
Maine	$359,557
Maryland	0
Massachusetts	$374,874
Michigan	$475,000
Minnesota	$360,000
Mississippi	$409,701
Missouri	0
Montana	0
Nebraska	0
Nevada	0
New Hampshire	0
New Jersey	$409,999
New Mexico	0
New York	$460,000
North Carolina	$459,702
North Dakota	$360,000
Ohio	$409,527
Oklahoma	0
Oregon	0
Pennsylvania	0
Rhode Island	0
South Carolina	$424,645

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS IMPROVING HEALTH AND EDUCATIONAL OUTCOMES OF YOUNG PEOPLE	
State/Territory/Tribal Government Grantee	**FY 2008 Actual (Non-HIV)**
South Dakota	$425,000
Tennessee	0
Texas	0
Utah	0
Vermont	0
Virginia	0
Washington	$424,903
West Virginia	$409,935
Wisconsin	$424,923
Wyoming	0
Nez Perce Tribe	$275,097
Total States/Cities/Territories/Tribal Governments	$9,310,929

SAFE MOTHERHOOD AND INFANT HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$42,347,000	$44,777,000	$0	$49,891,000	+$5,114,000

AUTHORIZING LEGISLATION

This program is authorized under Sections 301, 307, 310, 311, 317K, and Public Law No: 109-450(Preemie Act)

FY 2009 Authorization……Indefinite

Allocation Method……..Competitive Cooperative Agreements, Contracts, and Direct Federal/Intramural

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

For over 40 years, CDC has promoted optimal reproductive and infant health and quality of life by informing public policy, health care practice, community practices, and individual behaviors through scientific and programmatic expertise, leadership, and support. The purpose of CDC's Safe Motherhood and Infant Health program is to promote safe motherhood before, during, and after pregnancy to include the physical, mental, cultural, and socioeconomic aspects that move beyond absence of disease to the well-being of the childbearing woman and her family. CDC works with partners throughout the nation and internationally to:

- Conduct epidemiologic, behavioral, demographic, and health services research;
- Support national and state-based surveillance systems to monitor trends and investigate health issues;
- Support development of research and programmatic activities within states and other jurisdictions;
- Provide technical assistance, consultation, and training worldwide; and,
- Translate research findings into health care practice, public health policy, and health promotion strategies.

Priority areas are infant health, maternal health, women's reproductive health, unintended and teen pregnancy prevention, and global reproductive health.

Safe Motherhood begins before conception with proper nutrition and a healthy lifestyle. It continues with appropriate prenatal care, the prevention of complications when possible, and the early and effective treatment of any complications. The ideal results are pregnancy at term, without complications, in a positive environment that supports the physical and emotional needs of the woman, infant, and family. CDC places special emphasis on serving populations with large health inequities.

CDC's efforts to promote safe motherhood and infant health are achieved through the following activities:

Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS was initiated in 1987 because infant mortality rates were no longer declining as rapidly as they had in prior years. In addition, the incidence of low birth weight infants had changed little in the

previous 20 years. PRAMS provides data for state health officials to use to improve the health of mothers and infants. PRAMS allows CDC and states to monitor changes in maternal and child health indicators (e.g., unintended pregnancy, prenatal care, breast-feeding, smoking, drinking, infant health). PRAMS supplements information from birth certificates by interviewing women who have delivered a live infant about their risk and protective behaviors before, during and immediately after their pregnancies to plan and review state maternal and infant health programs.

- Alaska PRAMS surveillance data covering 2004 through 2006 reflected that women who stated that they were unable to afford well-baby exams went from 5.1 to 23.4 percent. This PRAMS data was instrumental in the formulation and successful passing of Alaska State Senate Bill 170 requiring health care insurers in the state to provide policy coverage of well-baby exams. This bill was signed into law and became effective in September 2008.
- Oregon PRAMS data for 2004 showed that 90.4 percent of Oregon women initiated breastfeeding but only 49.1 percent were exclusively breastfeeding at 8 weeks. Among the women who reported that they were no longer breastfeeding at the time of the survey, 16.9 percent reported that going back to work or school was the reason they had stopped breastfeeding. In May 2007, Oregon passed House Bill 2372, the Return to Work and Breastfeeding Bill, which supported women who chose to breastfeed after they returned to work. The bill requires employers of 25 or more employees to provide a mother unpaid time and a private place to express milk every four hours during the work day.

In FY 2009, CDC is funding 37 states, New York City, and the South Dakota Tribal-State collaborative project to conduct PRAMS, representing 75 percent of the live births in the U.S. The average award for the cooperative agreements is $130,000.

Research on Preterm Birth

Prevention of infant mortality due to preterm birth and racial disparities have been identified as priority objectives of the Healthy People 2010 Objectives, CDC's Infant Life Stage Goal, a DHHS national public awareness campaign, and a 2006 Institute of Medicine report. Preterm birth rates have increased 28 percent over the past 20 years. CDC works to curb the growing problem of preterm delivery through a comprehensive prevention research agenda to identify women at risk and opportunities for prevention. This scope of work is implemented through a broad coalition of partnerships, focusing on both the social and biological factors causing preterm birth along with associated racial disparities. CDC conducts surveillance, research, and programs that focus on identifying social, clinical, and biological factors that cause preterm birth; identifying women at risk early in their pregnancy; translating new research discoveries to public health prevention; and expanding community-based prevention programs among minority women. The following examples provide a sampling of ongoing research initiatives in the area of preterm birth.

- CDC published a landmark scientific investigation demonstrating that preterm birth is the leading cause of infant death, accounting for over 36 percent of all infant deaths in the United States and 46 percent of deaths among infants of African American mothers. Moreover, two thirds of all infant deaths due to preterm birth were among infants less than 26 weeks gestation, underscoring the need for strengthened early prevention. As a result, new methods to monitor the burden of preterm birth on the U.S. infant mortality rate were implemented.
- CDC implemented a $2 million annual preterm birth prevention agenda that includes:
    - A Collaborative project with the state of California and the California Birth Defects Monitoring Program to expand capacity and research using a state-based biobank of mothers and infants to investigate genomic and other biomarkers, linked with

information on social risk factors, to identify women at risk for preterm birth and potential factors associated with racial disparities in preterm birth; and,

- A Cooperative agreement with the University of Cincinnati, Ohio to identify barriers to the expanded use of 17-alpha hydroxyprogesterone caproate for the prevention of preterm birth, and medicine that was recently found to be associated with a significant reduction of preterm birth among women with a history of prior preterm birth.

Maternal and Child Health Epidemiology Program

The mission of the Maternal and Child Health Epidemiology Program (MCH EPI) is to promote and improve the health and well-being of women, children, and families by building MCH epidemiology and data capacity at the state, local, and tribal levels to effectively use and apply epidemiologic research and scientific information to inform public health action. This mission is accomplished at all levels by developing MCH EPI leaders, promoting and supporting MCH EPI research, offering fellowships, promoting peer exchange to the field, and providing training and education.

In FY 2009, CDC is assigning 13 maternal and child health epidemiologists to state health departments and tribal organizations. States request assignees and provide partial funding for them using either state appropriated funds or maternal and child health block grant (Title V) funds.

Prevention Programs

About one-third of girls in the United States get pregnant before age 20. In 2006, 435,427 infants were born to mothers aged 15–19 years, a birth rate of 41.9 live births per 1,000 women in this age group. Although pregnancy and birth rates among girls aged 15–19 years have declined 34 percent since 1991, birth rates increased for the first time in 2006 (from 40.5/1,000 women in this age group in 2005 to 41.9/1,000 in 2006). It is too early to tell whether this increase is a trend or a one-time fluctuation in teen birth rates.

Major disparities exist in pregnancy. In 2006, the overall birth rate for 15– to 19– year-old females was 41.9/1,000, but—

- the rate was 83/1,000among Hispanics,
- 63.7/1,000 among non-Hispanic blacks,
- 54.7/1,000 among American Indian or Alaska Natives, and
- 26.6 /1,000 among non-Hispanic whites.

CDC supports the use of science-based and medically accurate material on teen pregnancy prevention through national organizations and state teen pregnancy prevention coalitions. CDC also supports efforts to promote reproductive health, including abstinence and the prevention of sexually transmitted diseases (STDs) and human immunodeficiency virus (HIV) infection. The following programs are in the third year of a five year project period:

- Since 2005, CDC has funded a five-year cooperative agreement with three national organizations, four Title X regional training organizations, and nine state teen pregnancy prevention coalitions. This partnership is designed to increase the capacity of local organizations to select, implement, and evaluate a science-based approach to prevent teen pregnancy, HIV infection, and STDs in their communities. It builds on the successes of a previous three-year project called Coalition Capacity Building to Prevent Teen Pregnancy. Recipients focus on youth in areas of greatest need in rural, urban, and tribal areas in nine states (CO, HI, MA, MN, NC, OK, PA, SC and, WA).

- In FY 2009, the national organization grantees funded under this cooperative agreement are The National Campaign to Prevent Teen and Unplanned Pregnancy, Advocates for Youth, and Healthy Teen Network.

National, state and regional partners are demonstrating improved capacity to prevent teen pregnancy. Two examples are:

- The Adolescent Pregnancy Prevention Coalition of North Carolina (APPCNC) helped Beaufort County successfully apply for state funding to implement a needed primary prevention program, the Teen Outreach Program (TOP), in its schools. TOP is a national after-school program that is based upon the principles of youth development, an approach that provides teens with the necessary supports and opportunities to prepare for successful adulthood and avoid problem behavior. Teens that complete the TOP program experience a 60 percent lower rate of school dropout, 33 percent lower rate of pregnancy, 14 percent lower rate of school suspension, and 11 percent lower rate of school course failure.
- The Hawaii Youth Services Network provides ongoing intensive training and technical assistance to its newly formed coalition of youth-serving organizations, Healthy Youth Hawaii. As a result, all member organizations have adopted or implemented the Making Proud Choices curriculum. This curriculum is an eight-module curriculum that provides young adolescents with the knowledge, confidence, and skills necessary to reduce their risk of sexually transmitted diseases (STDs), HIV, and pregnancy by abstaining from sex or using condoms if they choose to have sex. It is based on cognitive behavioral theories, focus groups, and researchers' extensive experience working with youth. To date, almost 600 youth have been served.

Sudden Unexplained Infant Deaths (SUID) Guidelines

Infant deaths due to Sudden Infant Death Syndrome (SIDS) have declined in the past decade, in part due to a decline in prone sleep placement in response to the Back to Sleep campaign. However, SIDS is still the third leading cause of infant death in the United States. A recent CDC study identified that the decline in SIDs rates from 1999 to 2001 was offset by increasing rates of other Sudden, Unexplained Infant Deaths (SUID) and unknown cause-of-death on death certificates. This finding suggests that death scene investigators, and those certifying cause-of-death on the death certificate, have changed the way they have been investigating and reporting infant deaths in recent years. CDC developed and implemented a national initiative to standardize and improve data collection at infant death scene investigations and promote consistent diagnosis and reporting of cause-of death on death certificates. CDC, through national partnerships, completed a revision of a standardized death scene investigation form and developed training materials on how to conduct an infant death scene investigation. A national academy for "training-the-trainers" continues during FY 2009. To date, more than 10,000 professionals have been trained exceeding CDC's target goal of 1,250 U.S. professionals in the first year.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$44,738,000
FY 2006	$44,044,000
FY 2007	$43,100,000
FY 2008	$42,347,000
FY 2009	$44,777,000

BUDGET REQUEST

CDC's FY 2010 request includes $49,891,000 for Safe Motherhood and Infant Health, an increase of $5,114,000 above the FY 2009 Omnibus. This increase reflects $114,000 for pay increases and $5,000,000 for non-pay increases.

Prevention of Teen Pregnancies

CDC's FY 2010 request includes $5 million to support the President's initiative to prevent teen pregnancies. CDC will expand its current teen pregnancy prevention efforts to promote evidence-based interventions that provide medically accurate and age appropriate information to youth. CDC's activities will highlight three key strategies: state-based partnerships, national technical assistance, and promoting youth development programs. CDC will fund up to eight additional state-based teen pregnancy prevention coalitions (total of 17) to work with state departments of education to implement innovative science-based prevention programs in youth-serving organizations and schools. Effective science-based prevention programs include age appropriate, comprehensive sex education curriculum and strategies that promote youth development. The initiative will build on current state-based efforts and will enhance its focus on local areas of greatest need.

The FY 2010 request will allow CDC to continue to assist states with identifying and addressing reproductive and infant health issues through on going Safe Motherhood programs.

In FY 2010, CDC will continue to fund 39 PRAMS projects and continue SUID trainings and the projected assignment of 14 Maternal and Child Health Epidemiologist in states. CDC will continue to fund nine states and three national organizations to use science-based approaches and programs to prevent teen pregnancy and promote adolescent reproductive health, including abstinence, STD, and HIV prevention. Additionally, CDC will continue to conduct approximately 25 public health research projects to promote reproductive and infant health that will translate science and technology into strategies and interventions that promote reproductive health.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.J: Projects (states, entities, and city) funded for PRAMS	FY 2008: 39	39	39	Maintain
5.A.K: MCH Assignees in States	FY 2008: 12	13	14	+1
5.A.L: Teen Pregnancy Prevention (states and national partners funded for science based approaches)	FY 2008: 12	12	20	+8
5.A.M: Maternal and Child Health Research Projects	FY 2008: 94	25	25	Maintain
Appropriated Amount ($Million)[1]	$42.3	$44.8	$49.9	$5.1

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

ORAL HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$12,422,000	$13,044,000	$0	$13,074,000	+$30,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 310, 311 and 317M of the Public Health Service Act

FY 2009 Authorization……..Indefinite

Allocation Methods……..…….....Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC supports achievement of Healthy People 2010 Oral Health Objectives nationwide; monitors oral health status and behaviors; provides guidance on safe dental office infection control practices; fosters applied research to document the effectiveness of community-based programs; and provides tools that are useful for improving state and community oral disease prevention programs.

Since 2001, CDC has funded 12 states and one territory to build capacity to strengthen oral health programs and reduce inequalities in the oral health of residents. Among other activities, these programs implement two proven disease prevention strategies: community water fluoridation and school-based or -linked dental sealant programs.

CDC's program was implemented in direct response to findings from a study conducted by the Association of State and Territorial Dental Directors indicating that state oral health programs lacked the infrastructure and capacity to assure that effective disease prevention programs were adequately implemented. As a result, tooth decay remains the most common chronic disease among children, affecting more than one-fourth of U.S. children aged two to five, and about 60 percent of adolescents aged twelve to nineteen. Children from low-income families are most affected: about one-third have untreated decay. Tooth decay remains a substantial problem throughout life - about one-fourth of adult Americans have untreated tooth decay, a major cause of tooth loss. In general, low income persons and children and adults of some racial and ethnic groups face almost double the burden of untreated tooth decay, which can lead to pain, dysfunction, and absence from school or work.

Evidence-based effective public health interventions to prevent tooth decay have not been extended to all Americans. More than 100 million people do not have access to the proven benefits of fluoridated tap water. Dental sealants applied to children's teeth can prevent tooth decay, yet only one-third of children – even lower in certain low-income and minority groups – have had sealants. CDC assists states and communities to extend community water fluoridation, which benefits people of all ages and also to establish school-based dental sealant programs which have been demonstrated to reduce tooth decay in children, on average, by 60 percent. Older adults have retained more teeth than previous generations and many are now vulnerable to tooth decay and periodontal disease. Recently, CDC implemented pilot projects to maintain the oral health of older adults.

School-based sealant programs are cost-effective: one estimate indicated that sealing a permanent first molar saves $13.50 (2002 dollars) in dental care in comparison to an unsealed tooth (Assessing Cost-effectiveness of Sealant Placement in Children. J Pub Health Dental 2005).

Fluoridation of water supplies also is cost-effective. Estimates show that every dollar spent on community water fluoridation saves from $7 to $42 in treatment costs, depending on the size of the community (An Economic Evaluation of Community Water Fluoridation. J Pub Health Dental 2001).

With CDC's support, state oral health programs are building effective prevention programs to improve health across the lifespan and reduce disparities among disadvantaged populations. CDC works with all states to:

- Expand the fluoridation of community water systems and operate a fluoridation training and quality assurance program;
- Develop programs to reach children at high risk for oral disease with proven and effective prevention services, such as school-based dental sealants; and
- Track oral diseases and provide health information to assess the effectiveness of disease prevention programs and guide programs to be able to focus on persons most at risk for developing an oral disease.

In FY 2008, CDC conducted a competitive process open to all states and territories for cooperative agreement support for state-based oral disease prevention programs and funded sixteen grantees. These 16 states are being funded to build capacity for strong state oral health programs that promote oral health, monitor oral health behaviors and problems, and conduct and evaluate prevention programs, such as water fluoridation and school-based dental sealant programs. With the increase received in FY 2009, CDC will provide supplemental funding to the 16 states for oral health activities.

CDC also provides funding to national partners that provide technical assistance and help support state oral health program development – the Association of State and Territorial Dental Directors, Oral Health America, and the Children's Dental Health Project.

Examples of program accomplishments include the following:

- **Alaska** now has a well-established fluoridation program management system. Recent achievements include improved tracking of fluoridation results, a statewide assessment of equipment needs, improved technical assistance to communities, and provision of training to rural water operators on fluoridation techniques and benefits. The state is using data from the first-ever state-wide oral survey of schoolchildren to develop its first comprehensive state-wide oral disease burden document. In December 2007, the oral health program published a comprehensive state oral health plan that includes a broad range of oral health goals to be implemented between 2008 and 2012.
- **Arkansas** has a well-established statewide coalition, "Smiles AR: US," that actively supports water fluoridation, healthy snacks in schools, and more efficient methods for conducting oral health screenings. The state has developed a document describing its burden of oral disease, implemented a state oral health plan, and continues to enhance its statewide oral disease surveillance system. Arkansas has leveraged its funds to obtain additional grants from private foundations, including one for more than $200,000 from the Daughters of Charity and a grant from Oral Health America for supplies and equipment to support its dental sealant project, Seal the State in 2008. The Arkansas program continues to promote efforts to expand the practice of community water fluoridation by providing training to water plant operators and monitoring the quality of fluoridation efforts, including periodic facility inspections.
- **Rhode Island** has increased program capacity and is working to improve program integration between oral health and primary care within the state health department. The program has successfully partnered with internal and external organizations to leverage

resources and coordinate oral health activities. Examples include expanding school-based and school-linked sealant programs, coordinating water fluoridation activities, disseminating information to water operators and the public, and strengthening the statewide oral health coalition. Program visibility has increased and dissemination of prevention information has been improved through a redesigned program Web site. The program has developed and published an oral disease burden document, an oral disease surveillance plan, and a state oral health plan. The program is incorporating evaluation into program activities to improve and sustain program efforts.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$11,204,000
FY 2006	$11,621,000
FY 2007	$11,456,000
FY 2008	$12,422,000
FY 2009	$13,044,000

BUDGET REQUEST

CDC's FY 2010 request includes $13,074,000 for Oral Health, an increase of $30,000 above the FY 2009 Omnibus for pay increases.

In FY 2010, CDC will continue funding the 16 states that were awarded five-year cooperative agreements in 2008 to support capacity-building oral health prevention programs. State progress in expanding coverage of community water fluoridation, increasing in the number of children receiving dental sealants, and reducing levels of untreated tooth decay will be measured by state-based surveys. CDC evaluation efforts will identify the intermediate steps that link established capacity-building performance measures with long-range health impacts. Lessons learned from the funded states, and tools and other resources that are developed by CDC in collaboration with these states will be aggressively shared with all 50 states, the District of Columbia and U.S. territories. CDC will continue to provide technical assistance to all states for oral health surveillance, community water fluoridation, and dental sealant programs.

In addition, CDC research will enhance the effectiveness of interventions to prevent oral diseases by reviewing scientific evidence, studying the cost-effectiveness of interventions, identifying the most efficient ways to deliver them through programs, and demonstrating their impact in terms of disease prevention and control. CDC will also help health departments collect, interpret, and share oral health data for use in targeting limited resources to people with the greatest needs and monitoring progress in meeting state and national Healthy People objectives.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.N: States/territories receiving support for capacity-building oral health prevention programs (e.g., fluoridation, sealants)	16	16	16	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PREVENTION RESEARCH CENTERS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$29,131,000	$31,132,000	$0	$31,203,000	+$71,000

AUTHORIZING LEGISLATION

PHSA §§ 1706

FY 2009 Authorization……Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

The Prevention Research Centers (PRC) program was authorized by Congress in 1984 to create a network of academic health centers to conduct applied public health research. The PRC program is a national network of academic research centers, at either a school of public health or a medical school which has a preventive medicine residency program. These centers have a rich capacity for the community-based, participatory prevention research needed to drive major community changes that can prevent and control chronic diseases.

The Prevention Research Centers program is a unique model of research that bridges the gap between scientific findings and the translation of these into public health practice. Through the establishment of a consortium that includes academic centers, public health agencies, and community partners, PRCs use collaboration to directly apply public health research in communities nationwide. This collaboration ensures research projects and their findings reach communities and are implemented in real and meaningful ways that can be sustained over time.

The PRC program addresses issues such as nutrition and physical activity to prevent obesity, diabetes, and heart disease; healthy aging; healthy youth development, including prevention of violence and substance abuse; strengthening family and community relationships to support healthy lifestyles; and controlling cancer risk and other health disparities. In FY 2008, CDC funded 33 PRCs in 26 states: University of Alabama at Birmingham; University of Arizona; Boston University; University of California at Berkeley; University of California at Los Angeles; University of Colorado; Columbia University; Emory University; Harvard University; University of Illinois at Chicago; University of Iowa; Johns Hopkins University; University of Kentucky; University of Michigan; University of Minnesota; Morehouse School of Medicine; University of New Mexico; University of North Carolina at Chapel Hill; University of Oklahoma; Oregon Health & Science University; University of Pittsburgh; University of Rochester; Saint Louis University; San Diego State University and University of California at San Diego; University of South Carolina; University of South Florida; State University of New York at Albany; Texas A&M University; University of Texas Health Science Center at Houston; Tulane University; University of Washington; West Virginia University; and Yale University.

With the increase received in FY 2009, CDC is funding two additional Prevention Research Centers and increasing the funding provided to each center to support its research and infrastructure.

The Prevention Research Centers develop, test, and evaluate effective interventions that are then disseminated and used throughout the public health system. Examples include the following:

- The West Virginia Prevention Research Center, along with partners including the West Virginia state health and education departments, the Coalition for a Tobacco-Free West Virginia, and the American Lung Association developed an innovative tobacco cessation program for teens: Not On Tobacco (NOT). NOT consists of ten, 50-minute group sessions (with no more than 10-12 teens) usually held in schools during school hours and led by trained facilitators.
    - Since 1999, more than 150,000 teens in 48 states have participated in the NOT program. Translation of materials into Spanish is increasing the program's reach, and NOT has been adapted for American Indian youth.
    - NOT has been recognized as an effective program by the National Registry of Effective Programs (NREP) and is listed as a Model Program on the Substance Abuse and Mental Health Services Administration's Web site.
    - The cost-effectiveness ratio for NOT ranges from $274 to $1029 (best and worst case estimates), which is lower than that for a comparable youth tobacco cessation program ($481 to $2770). NOT participants are predicted to have an increased life expectancy of 6.76 to 9.5 years over students who received a standard intervention of 15 minutes of tobacco cessation counseling.
- The University of Washington's Health Promotion Research Center has collaborated with the City of Seattle's Aging and Disability Services agency and Senior Services of Seattle/King County to develop and test a program to reduce depressive symptoms among homebound, chronically ill, and frail low-income elderly adults: Program to Encourage Active, Rewarding Lives for Seniors (PEARLS). The PEARLS intervention provides eight, 50-minute sessions with a trained social service worker in a client's home over 19 weeks. Counselors use three depression management techniques: problem solving treatment; social and physical activity planning; and pleasant event planning.
    - Results of a randomized controlled trial showed depression resolved completely for 36 percent of PEARLS participants, compared with 12 percent of nonparticipants. In addition, PEARLS participants experienced significant improvements in functional and emotional well-being.
    - Relieving depressive symptoms in older adults, as PEARLS does, results in cost savings. Older adults with depression have ambulatory and inpatient medical costs that are 47 to 51 percent higher than older adults without depression.

CDC's two long term goals related to the PRCs are: 1) increase the evidence base for public health practice, and 2) enhance competency in the knowledge and skills required for research and public health practice. In FY 2007, the target for goal one (1), measured by the number of research projects in the PRCs, was 275. The PRCs surpassed this goal, reporting 375 research projects. For goal two (2), CDC aimed to include 175 scientific presentations at public health conferences in FY 2007. This goal also exceeded its target with 209 presentations at public health conferences.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$29,690,000
FY 2006	$29,536,000
FY 2007	$29,149,000
FY 2008	$29,131,000
FY 2009	$31,132,000

BUDGET REQUEST

CDC's FY 2010 request includes $31,203,000 for Prevention Research Centers, an increase of $71,000 above the FY 2009 Omnibus for pay increases.

The FY 2010 budget will support the ongoing work of conducting applied research and practice in chronic disease prevention and control, in collaboration with community members and local institutions.

In FY 2010, the PRC program will be in the second year of its new five-year funding cycle. The program will continue to fund 35 sites. Funded sites will demonstrate formal collaborative relationships with state and local health agencies. Tested interventions will be added to an Internet listing that organizes the interventions by stage of development and makes the information available to potential users and partners in the public health sector. CDC projects that there will be at least 275 PRC related research projects taking place, as well as 375 peer-reviewed publications. In terms of enhancing competency in the knowledge and skills required for research and public health practice, CDC projects that there will be at least 175 PRC-related scientific presentations at public health conferences in FY 2010.

In FY 2010, CDC will continue to support the dissemination of the fully tested, evidence-based interventions from the previous period. The examples of tested interventions from the PRC Program illustrate that quality research has produced interventions for wide dissemination. CDC will continue to support the further development of thematic research networks that focus on identifying and promoting concrete changes in environment, policy, and practices that can have a direct impact on the nation's health.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.O: Prevention Research Centers with formal collaborative relationships with state and local agencies	FY 2008: 33	35	35	+ 2

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

COMMUNITY HEALTH [REACH U.S. (RACIAL AND ETHNIC APPROACHES TO COMMUNITY HEALTH), HEALTHY COMMUNITIES PROGRAM]

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Healthy Communities	$25,158,000	$22,771,000	$0	$22,823,000	+$52,000
Racial and Ethnic Approach to Community Health (REACH)	$33,860,000	$35,553,000	$0	$39,644,000	+$4,091,000
Total	$59,018,000	$58,324,000	$0	$62,467,000	+$4,143,000

AUTHORIZING LEGISLATION

PHSA Sections 301, 304, 307, 310, 311 and 317

FY 2009 Authorization……...Indefinite

Allocation Methods…….…….....Direct Federal/Intramural; Grants/Cooperative Agreements; Contracts; and Other

PROGRAM DESCRIPTION

The U.S. faces serious national problems in chronic disease burden that will be compounded by the obesity epidemic and the aging of the U.S. population. The impact of chronic disease is far-reaching, extending beyond individuals and families, to national economic issues, such as lost productivity and escalating health care costs. Risk factors for chronic disease such as, obesity, lack of physical activity, poor nutrition, and inadequate blood pressure and blood sugar control have remained relatively consistent, or, in the case of obesity, are on the rise.

In addition, significant health disparities continue to exist. Targeted health promotion and chronic disease prevention efforts represent one of the nation's most significant opportunities to reduce health disparities and increase health and quality of life in racial and ethnic minority communities.

To improve the health of all Americans will require broad community-based change in the places where people live, work, and play. The decisions and actions needed to make change often rest in the hands of local decision-makers. By providing them with innovative strategies that reach the most hard-to-impact populations and quickly mobilize local-level change, the overwhelming burden of chronic diseases nationwide can be reduced.

CDC sponsors innovative community-based strategies for chronic disease prevention and disparities-reduction. These innovative approaches disseminate widely, and are designed to promote local-level changes that, in turn, accelerate state and national efforts to impact chronic diseases. As of FY 2009, 240 communities have been directly impacted by CDC's community health programs within Healthy Communities and Racial and Ethnic Approaches to Community Health (REACH), and countless others have benefited from the widespread dissemination of these effective strategies.

Racial and Ethnic Approaches to Community Health (REACH U.S.)

Despite great improvements in the overall health of the nation, health disparities remain widespread among members of racial and ethnic minority populations. Based on this need, CDC initiated the *REACH U.S.* Program (Racial and Ethnic Approaches to Community Health) in 1999 to promote the ongoing development and dissemination of innovative and effective strategies that respond to the

unique needs of diverse communities. These strategies aim to bridge the gaps between the health care system and minority communities; respond to unique social, economic, and cultural circumstances; and change the conditions and risk factors in local communities that have kept racial and ethnic minority groups from improving their health. REACH fully engages local community members in informing the development, implementation, and evaluation of REACH strategies and interventions. REACH U.S. target populations include African-Americans, American Indians, Hispanic-Americans, Asian-Americans, Pacific Islanders, and Alaska Natives.

Beginning in FY 2007, the REACH program established Centers of Excellence in the Elimination of Health Disparities (CEEDs) which have expertise in working with specific ethnic groups. Centers of Excellence train new communities and disseminate effective strategies. REACH also supports Action Communities which apply effective strategies through innovative and non-traditional partnerships at the community level. Current health focus areas for CEEDs and Action Communities include breast and cervical cancer, cardiovascular disease, diabetes, infant mortality, adult and older adult (50 years +) immunizations, hepatitis B, and asthma.

Ongoing successes of REACH U.S. are being leveraged to influence the practices of programs throughout the public health system. In addition, REACH U.S. is impacting growing numbers of communities. REACH Centers of Excellence are supporting 36 “legacy communities,” which receive mentoring and support from these Centers to spread effective strategies. Legacy communities are awarded as sub-recipients of the REACH U.S. Centers of Excellence. Outcomes from REACH U.S. are striking, and challenge the conventional notion that health disparities are intractable. Based on data from the REACH risk factor survey, between 2002 and 2006, the program has demonstrated community-level improvements in health outcomes.

Individual REACH communities have produced positive results. For example, The Breast and Cervical Cancer Coalition at the University of Alabama at Birmingham works to increase breast and cervical cancer screening rates for African American women throughout the state.

- In Choctaw County, African American women were much less likely to get a mammography screening compared with white women. In eight years, the proportion of African American women who received mammography screenings increased from 29 percent to 61 percent, surpassing the rate for white women by 13 percent.
- In Dallas County, a lower mammography screening rate for African American women (30 percent) compared with white women (50 percent) was virtually eliminated during the same time.
- According to data from the eight counties that the Alabama REACH program focuses on, the gap in mammography screening rates between African American and white women decreased by 76 percent over the same 8-year period.

Healthy Communities Program

The Healthy Communities Program is an integral part of CDC’s response to the epidemics of obesity and chronic disease. Through the Healthy Communities Program, local communities are implementing evidence-based interventions in community-based settings including schools, workplaces, community organizations, health care settings, and municipal [city/county] planning, to achieve the critical local changes necessary to prevent chronic diseases and their risk factors. Special focus has been directed toward populations with disproportionate burden of disease and lack of preventive services. The Healthy Communities Program was funded for the first time in FY 2003 to assist communities, cities, and tribal entities in implementing community action plans to address the growing problems of obesity and other chronic diseases. In 2006, CDC conducted an assessment of the program to inform future directions. This assessment found a continued need for CDC to provide local communities with ongoing direction, training, tools, and technical

assistance to develop and implement effective community-based strategies that address obesity and chronic diseases.

CDC initially awarded cooperative agreements with states (each state funded and coordinated an average of four rural or small city areas), urban cities and counties, and tribal entities to support implementation of community action plans in 45 communities. The models and successes created from the first 45 communities continue to serve as a guidepost for future communities impacted through CDC's Healthy Communities Program.

CDC currently supports 14 communities through the Strategic Alliance for Health (SAH) program to develop effective models for local action in communities, worksites, schools, and health care, produce Action Guides on how to implement effective strategies, and mentor other communities that want to take action and replicate successful strategies. SAH communities represent a mix of urban, rural, and tribal communities.

In FY 2008, CDC began funding ACHIEVE Communities (Action Communities for Health, Innovation and EnVironmental ChangE). ACHIEVE brings together local leaders and stakeholders to build healthier communities by promoting policy and environmental change strategies with a focus on: obesity, diabetes, heart disease, healthy eating, physical activity, and preventing tobacco use. In order to reach large numbers of communities, CDC is collaborating with five key national organizations that have substantial local community presence and are positioned to assist communities in achieving important local policy, environmental, and systems changes.

As part of the Healthy Communities program, CDC has also supported the YMCA of the USA's Pioneering Healthier Communities initiative. Since 2004, CDC has provided funding and technical support to the YMCA and used its vast network to bring together key local leaders to improve health and confront the national crises of obesity and chronic disease. Through its Pioneering Healthier Communities Program, the YMCA of the USA has developed innovative models for community change and has convened, trained, and supported teams of key leaders in 81 communities. By 2010, approximately 100 communities will have made changes to their communities to support healthy lifestyles and reduce risk factors from chronic disease.

Local communities funded through the Healthy Communities Program have produced positive results, including reducing obesity through community-based interventions, reducing chronic disease risk factors and health care costs in workplaces; creating healthier school environments; implementing clean indoor air ordinances; and reducing blood sugar levels among diabetes patients. Specific examples of accomplishments include the following:

- Across 45 communities funded from 2003-2008, the percentage of adult smokers who were advised to quit by a health care provider grew from 63 percent to 71 percent between 2004 and 2006, and the percentage of adults with diabetes who reported having a foot exam in the past year grew from 71 percent to 77 percent
- In 2006, the Healthy Communities Program in **Southeast Alaska** brought together local public health workers and community agencies representing diverse sectors of Sitka, which has a significant population of Native Alaskans, to plan for a Health Summit. Through concentrated efforts following the summit, Sitka became the first community in Alaska to be designated as a Bicycle Friendly Community by the League of American Bicyclists, developed and implemented a healthy vending machine policy for Sitka schools, created a community recreation center in an abandoned university gymnasium, and formed an "Alaska Working Well" coalition that has led to the establishment of employee wellness programs available to a large portion of the Sitka workforce.
- **Cleveland, Ohio,** has been working with the Community Gardening Program at Ohio State University Extension to help improve access to fresh produce and increase physical activity

through the creation of community gardens in intervention neighborhoods. Since the program started, approximately 50 new community gardens have been established, which have engaged more than 1,400 new gardeners in physical activity and increased access to fresh produce for hundreds of families. Thousands of pounds of fresh fruits and vegetables have been donated to area food pantries.

- Key leaders on the Pioneering Healthier Communities leadership team in Clearwater, **Florida** decided to lead by example. As part of their PHC action plan, the two largest providers of after-school programming decided to provide all children in their after-school child care programs 30 minutes of physical activity per day. As a result, the daycare licensing board in Pinellas County, where Clearwater is located, now requires that all after-school child care programs county-wide provide children with a minimum of 30 minutes of physical activity five days a week in order to be licensed. In addition, the leadership team influenced the passage of a state-wide law which required that all elementary schools provide 30 minutes of daily physical education five days a week.

The Healthy Communities Program has moved into a new phase which will spread effective local strategies to impact change in communities across our nation on an ongoing basis. The program continues to test and develop state-of-the-art strategies and interventions for local-level change. The growing successes of the Healthy Communities Program are being continuously translated into Action Guides, mentorship networks, and tools for community change.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$78,781,000
FY 2006	$77,691,000
FY 2007	$76,543,000
FY 2008	$59,018,000
FY 2009	$58,324,000

BUDGET REQUEST

CDC's FY 2010 request includes $62,467,000 for Healthy Communities, an increase of $4,143,000 above the FY 2009 Omnibus. This increase reflects $143,000 for pay increases and $4,000,000 for non-pay increases.

REACH U.S.

CDC's FY 2010 request includes $39,644,000 for REACH U.S., an increase of $4,091,000 above the FY 2009 Omnibus.

REACH will fund 12-15 additional communities at $200,000-$250,000 for two year planning grants. The planning period will be used by the grantees to conduct meaningful community outreach to racial and ethnic minority populations; assemble a community coalition including members from across a variety of sectors; conduct a community needs assessment; and develop a community action plan. These communities will be eligible to compete for the next REACH funding period, having established a solid foundation to immediately implement their action plans. With the additional FY2010 funds, CDC will be able to fund a broader array of communities working to reduce and eliminate racial and ethnic health disparities.

Healthy Communities Program

CDC's FY 2010 request includes $22,823,000 for the Healthy Communities program, an increase of $52,000 above the FY 2009 Omnibus level.

As part of a new grant structure designed in FY 2008, to accelerate the spread and adoption of effective community strategies in communities across our nation, CDC will support more than 70 communities through the Healthy Communities Program in FY 2009 and FY 2010. This includes ACHIEVE Communities, supported locally by affiliates of nationally networked community organizations, and Strategic Alliance for Health, communities funded through states, urban cities, and tribes. Initial investment in a planning stage began in these communities in FY 2008, and will enter into full implementation in FY 2009. Through ongoing innovation, mentorship of new communities, and support that is structured to identify, train, and initiate change in growing numbers of communities each year, CDC anticipates the cumulative impact of the Healthy Communities Program to reach nearly 300 communities by FY 2010. Communities will receive funds to spark local-level action, change community conditions to reduce risk factors, establish and sustain state-of-the-art programs, test new models of intervention, create models for replication, and help train and mentor additional communities. Tools, resources, and training will be provided to community leaders and public health professionals to equip these entities to effectively confront the urgent realities of the growing national crisis in obesity and other chronic diseases in their communities.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.P: REACH Community Grants (grant cycle ended in FY 2006)	FY 2008: 0	0	0	Maintain
5.A.Q: REACH Centers of Excellence	FY 2008:18	18	18	Maintain
5.A.R: REACH Action Communities	FY 2008:22	22	22	Maintain
5.A.S: REACH Legacy Communities *(transitioning to 5.A.S.1 below)*	FY 2008:36	36	36	Maintain
5.A.S.1: REACH Planning Grants	N/A	N/A	12-15	+12 - 15
5.A.T : Healthy Communities (Strategic Alliance for Health) – Communities funded through Local and State Health Departments and Tribes	FY 2008:12	14	14	Maintain
5.A.U : Healthy Communities – Communities funded through National Organizations	FY 2008: 63	62	62	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount

GENOMICS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$12,093,000	$12,280,000	$0	$12,308,000	+$28,000

AUTHORIZING LEGISLATION

Public Health Service Act §§ 301, 304, 307, 310, 311, and 317

FY 2009 Authorization……Indefinite

Allocation Method……..…..Competitive
Cooperative Agreements/Grants, Contracts, and Direct Federal/Intramural

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC's National Office of Public Health Genomics (NOPHG), established in 1997 as the Office of Genetics and Disease Prevention, provides national and international leadership, in partnership with other federal agencies, public health organizations, professional groups, and the private sector, toward realizing the potential of genomics discoveries to improve the lives and health of all people.

Genomics plays a part in nine of the ten leading causes of death in the United States, including heart disease, cancer, stroke, chronic lower respiratory diseases, diabetes, and Alzheimer's disease, among others. All human beings are 99.9 percent identical in genetic makeup, but differences in the remaining 0.1 percent may hold important clues about the causes of disease. The study of genomics can help us learn why some people get sick from certain infections, environmental factors and behaviors, while others do not. Better understanding of the interactions between genes and the environment will help us find better ways to improve health and prevent disease.

NOPHG addresses the Healthy People 2010 focus area of increasing quality and years of healthy life through its investment in translation research, surveillance, and program activities to move human genome discoveries into clinical and public health practice in a manner that maximizes health benefits and minimizes harm to individuals and populations. NOPHG's mission to integrate genomics into public health research, policy, and programs is achieved through the following activities:

- Advancing knowledge through research and surveillance regarding the use of genetic tests and family history for improving health and preventing disease;
- Developing a sustainable process for assessing the clinical usefulness of genetic tests for practice and prevention;
- Assessing human genetic variation in the United States using the National Health and Nutrition Examination Survey (NHANES);
- Integrating genomics into public health investigations; and
- Assessing and building laboratory, epidemiology, and programmatic capacity to support the application of genomics in public health.

The activities of the National Office of Public Health Genomics focus primarily on adults and older adults.

In 2004, NOPHG initiated the Evaluation of Genomic Applications in Practice and Prevention (EGAPP) project to facilitate the appropriate integration of emerging genetic tests with the potential for broad public health impact into clinical and public health practice. The project's main goal is to establish and test a systematic, evidence-based process for evaluating the validity and utility of genetic tests that are in transition from research to practice. To date, genetic tests related to breast, ovarian, and colorectal cancer; depression; thrombophilia, cardiovascular disease; and diabetes are being or have been evaluated through EGAPP.

- As of FY 2008, the independent, non-federal EGAPP Working Group has released its first recommendation statement on the use of cytochrome p450 tests for the selection and dosing of selective serotonin reuptake inhibitors in patients with non-psychotic depression. Three evidence reports funded by CDC's EGAPP project have been released by the Agency for Health care Research and Quality (AHRQ) Evidence-based Practice Centers (EPC). At least three new evidence reports are scheduled for release in FY 2009, as well as four EGAPP Working Group recommendation statements. Also, in FY 2009, the EGAPP Working Group published their methods for evidence-based review of genetic tests in October 2008.

In 2002, NOPHG initiated the Family History Public Health Initiative to increase awareness of family history as an important risk factor for common chronic diseases and to contribute to the evidence base regarding the clinical utility of family history assessment for improving health outcomes.

- In early FY 2008, three NOPHG-funded research centers completed the data collection phase of a clinical trial of CDC's Family Healthware™ to measure whether family history risk assessment and personal prevention messages influence health behaviors and use of medical services. The completion of data analysis and the publication of the results are anticipated in FY 2009. CDC's Family Healthware™, a web-based tool, collects information about health behaviors, screening tests, and family histories for six diseases: coronary heart disease; stroke; diabetes; and colorectal, breast, and ovarian cancer. Family Healthware has also been used as the basis of the U.S. Surgeon General's Family Health Portrait, a successful collaboration among the Surgeon General's Office, NIH, CDC and other HHS agencies to make electronic and paper-based family history collection tools available to the general public.

In FY 2009, CDC is funding the following projects:

- One extramural research project that will advance knowledge about the validity, utility, utilization, and population health impact of genomic applications for improving health and preventing disease in large, well-defined populations or practice settings in the U.S.
- Four projects in policy, surveillance, or education of genetic tests and other genomic interventions, such as family history, with the goal of improving health and preventing disease in large, well-defined populations or practice settings in the U.S.
- The continued support of five CDC projects that integrate genomics into public health research and programs, such as projects focused on infectious disease, chronic disease, birth defects, pharmacogenomics, and environmental exposures.
- Three new systematic evidence reviews of genetic tests and other genomic applications for the EGAPP project; staff and meeting support for the non-federal, independent EGAPP Working Group in their development of three evidence-based recommendation statements for genetic tests; staff and meeting support for the newly formed EGAPP Stakeholders Group; and a survey of stakeholders to assess the value and impact of the EGAPP processes and products.

- The continued updating and enhancement of the *Human Genome Epidemiology (HuGE) Published Literature Database*, a web-based resource which includes information on the population prevalence of genetic variants, gene-disease associations, gene-gene and gene-environment interactions, and evaluation of genetic tests.
- Continued funding of the Jeffrey Modell Foundation to support awareness campaigns related to primary immune deficiency syndrome.

Examples of program accomplishments include the following:

- In 2007, the NHANES Collaborative Genomics Project, a CDC-led collaboration with the National Cancer Institute (NCI) initiated in 2002, provided a foundation for understanding how genetic variation contributes to human disease by measuring the U.S. population variation in 90 genetic variants of public health significance using samples collected in the third National Health and Nutrition Examination Survey (NHANES III). These data were published in November 2008.
- As of December 2008, the HuGE Published Literature Database contains more than 38,000 abstracts, 72 HuGE Reviews, and 867 meta-analyses, which can be searched by gene, disease, and environmental factors. In 2007, NOPHG launched the HuGE Navigator, a suite of on-line applications that mine PubMed to populate the HuGE Published Literature Database, identify candidate genes, search for investigators with a particular research focus, and produce knowledge summaries.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$6,987,000
FY 2006	$6,914,000
FY 2007	$11,811,000
FY 2008	$12,093,000
FY 2009	$12,280,000

BUDGET REQUEST

CDC's FY 2010 request includes $12,308,000 for Genomics, an increase of $28,000 above the FY 2009 Omnibus for pay increases.

In FY 2010, CDC plans to continue to provide funding for the following:

- The genomics translation research project, initiated in FY 2008, to fill gaps in the evidence base for genetic tests and other genomic applications, including family history, that hold promise for clinical and public health practice. In this way, NOPHG is focusing to address critical gaps in the evidence identified through evidence-based processes such as EGAPP, to facilitate the appropriate integration of emerging genetic tests into practice.
- Projects initiated in FY 2008 and FY 2009 in the areas of policy, surveillance, or education of genetic tests and other genomic interventions, such as family history, to support the integration of genomics knowledge and interventions into public health practice. These projects build on NOPHG's previously-funded efforts to establish programmatic capacity in genomics by funding state health departments and academic centers.

In addition, in FY 2010, CDC will continue the support and coordination of the following activities:

- Fund CDC research projects to further integrate genomics into CDC's public health investigations and programs, in an effort to enhance our understanding of variations in

disease outcomes, characterize environmental exposures more accurately, and refine public health interventions.

- Support the EGAPP project to assess the validity and utility of the increasing number of emerging genetic tests. EGAPP activities will include new evidence reviews of genetic tests, support of the EGAPP Working Group in its preparation of new recommendation statements for clinical practice, support for the recently-formed EGAPP Stakeholders Group, the completion of the stakeholder evaluation to assess the value and impact of the EGAPP project, and the development of a sustainable process for genetic test evaluation.
- Coordinate the second phase of the CDC-NCI NHANES Collaborative Genomics Project to identify associations between the first 90 genetic variants of public health significance examined in NHANES III and disease outcomes, such as cardiovascular disease, obesity, and cancer; and continued planning of the Beyond Gene Discovery (BGD) initiative, a proposed public-private partnership that will assess the prevalence of about one million genetic variants in NHANES surveys to provide the first population-based assessment of genomic variation in the U.S. The addition of these genomic data to the rich NHANES database, which contains about 10,000 health-related and environmental variables, will provide a foundation for understanding how genetic variation contributes to health status in the U.S. population, and a basis for estimating the number of people in the U.S. who may benefit from particular genomic interventions.
- Update and enhance the Human Genome Epidemiology (HuGE) Published Literature Database to advance the synthesis, interpretation, and dissemination of population-based data on human genetic variation in health and disease.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.Z: Projects funded to conduct genomics translation research	1	1	1	Maintain
5.A.A.A: Projects funded to conduct genomics surveillance, education, or policy	4	4	4	Maintain
5.A.A.B : CDC public health investigations that integrate genomics	5	3-5	3-5	Maintain
5.A.A.C: EGAPP-sponsored evidence reviews or recommendation statements published	2	4-6	4-6	Maintain
5.A.A.D: Number of abstracts added to the HuGE published literature database	6,896	7,500	8,000	+ 500

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

BIRTH DEFECTS, DEVELOPMENTAL DISABILITIES, AND DISABILITY AND HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Birth Defects and Developmental Disabilities	$37,580,000	$42,059,000	$0	$42,176,000	+$117,000
Human Development and Disability	$70,349,000	$76,106,000	$0	$79,928,000	+$3,822,000
Blood Disorders	$19,437,000	$19,857,000	$0	$19,912,000	+$55,000
Total	$127,366,000	$138,022,000	$0	$142,016,000	+$3,994,000

SUMMARY OF THE REQUEST

CDC promotes positive birth outcomes of all babies, helps children reach their full potential, and ensures people with disabilities of lead productive, healthy lives. CDC accomplishes this work by identifying the causes of birth defects and developmental disabilities, promoting the early detection and timely follow-up of developmental disorders, conducting research to increase understanding of disabilities and their impact on the nation's health, and developing prevention and intervention programs that promote healthy living for all people with disabilities and other disabling conditions.

CDC's FY 2010 request includes $142,016,000 for Birth Defects, Developmental Disabilities, and Disability and Health, an increase of $3,994,000 above the FY 2009 Omnibus. This increase reflects $394,000 for pay increases and $3,600,000 for non-pay increases.

This request includes:

- $42,176,000 for Birth Defects and Developmental Disabilities to conduct surveillance and research to identify preventable causes of birth defects and developmental disabilities, and to support the development, implementation, and evaluation of prevention strategies for birth defects with known causes, including folic-acid-preventable spina bifida and anencephaly and fetal alcohol spectrum disorders.
- $79,928,000 for Human Development and Disability to support early hearing diagnosis and intervention programs, autism surveillance, and early intervention strategies, surveillance of single gene disorders, including muscular dystrophy, and research to identify successful models for transitional care for older adolescents with mental and physical disabilities.
- $19,912,000 for Blood Disorders for CDC's work in the areas of bleeding and clotting disorders, hemoglobinopathies, and other rare blood disorders.

EFFICIENCY MEASURE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
6.E.2: Increase the percentage of cost savings for CCHP as a result of the Public Health Integrated Business Services HPO. *(Efficiency)*	FY 2007: 28.4% (Target Not Met but Improved)	36.8%	38.0%	+1.2

BIRTH DEFECTS AND DEVELOPMENTAL DISABILITIES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Infant Health	$8,006,000	$8,006,000	$0	$8,028,000	+$22,000
Fetal Alcohol Syndrome	$10,112,000	$10,112,000	$0	$10,140,000	+$28,000
Folic Acid	$2,221,000	$2,818,000	$0	$2,826,000	+$8,000
Birth Defects	$17,241,000	$21,123,000	$0	$21,182,000	+$59,000
Total	$37,580,000	$42,059,000	$0	$42,176,000	+$117,000

AUTHORIZING LEGISLATION

Public Health Service Act §§ 301,307,310,311,317 , 317C, 317J, 327, 352, 399G, 399H, 399I, 399J, 399M,1102, 1108, PHSA Title IV, 42. U.S.C. Section 247b-4b, "Developmental disabilities surveillance and research programs"

FY 2009 Authorization…….Indefinite

Allocation Method……..……Direct Federal/Intramural; Competitive Grants and Cooperative Agreements and Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Birth Defects and Developmental Disabilities

CDC's Birth Defects and Developmental Disabilities program works to identify unknown causes of birth defects and developmental disabilities and implements prevention strategies for those defects with known causes. The program engages in public health surveillance, research, and prevention activities with the ultimate goal of preventing or reducing birth defects and developmental disabilities.

Surveillance:

CDC's birth defects surveillance centers on data from the Metropolitan Atlanta Congenital Defects Program (MACDP) and state-based surveillance programs. The MACDP was created in 1967 and actively collects, analyzes, and interprets birth defects surveillance data by monitoring all major birth defects in five metropolitan Atlanta counties. The program, which covers approximately 50,000 births per year, serves as a model for many state-based programs and as a resource for the development of uniform methods and approaches to birth defects surveillance. Information collected has been used to identify risk factors for birth defects, such as smoking and alcohol use, to investigate causes of birth defects and to identify factors associated with survival among children with birth defects. In FY 2010, MACDP will continue to monitor birth defects in the five counties, and will expand work on linking birth defects data to exposures (e.g. environmental data) and outcomes (e.g. childhood cancer) of interest, in order to identify any potentially important associations.

CDC supports 15 state-based birth defects surveillance programs that are vital to tracking and detecting trends in birth defects. State-based programs provide the basis for studies of causes, allow for the monitoring trends, and assist in planning and

evaluating prevention efforts. CDC provides technical assistance and facilitates the exchange of information between states and territories by supporting the National Birth Defects Prevention Network (NBDPN), a network of state-based birth defects surveillance programs. The NBDPN has more than 300 members representing 50 states, Washington D.C., Puerto Rico, and several other countries. In FY 2010, a new state surveillance funding opportunity announcement will be issued as existing cooperative agreements will end this year. These CDC-supported surveillance activities provide valuable information about birth defects to CDC, state programs, policy makers, researchers, and community service agencies. In July 2004, NBDPN released Guidelines for Conducting Birth Defects Surveillance, a technical guide covering developing, planning, implementing, conducting, and using birth defects surveillance data. A chapter on data presentation was released in August 2008, and another chapter on prenatal surveillance is being developed for release in 2010.

The NBDPN is developing core standards for birth defects surveillance to standardize the methodology for collecting data for on-going monitoring, research, and referral to services. Additionally, CDC, through the NBDPN, publishes the annual Congenital Malformations Surveillance Report. The NBDPN report includes scientific articles, a directory of all birth defects surveillance programs, and birth defects data from 35 population-based programs.

CDC supports surveillance for developmental disabilities through its Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP). Established in 1984, MADDSP is an ongoing system for monitoring the occurrence of selected developmental disabilities such as autism, cerebral palsy, hearing loss, mental retardation, and vision impairment in five metropolitan Atlanta counties. This system is one of few programs in the world that conduct active monitoring of children affected by developmental disabilities in a large, racially diverse metropolitan area.

Prevention Research:

With nearly 70 percent of birth defects having unknown causes, CDC continues to look for answers as to whether environmental pollutants, genetic and dietary factors, medications, and personal behaviors contribute to the occurrence of birth defects. Using data provided by surveillance systems, CDC supports research studies to investigate potential causes and risk factors for birth defects.

In 1996, Congress appropriated funds to CDC to establish the Centers for Birth Defects Research and Prevention (CBDRPs) to collaborate on a study to identify factors that cause or contribute to the occurrence of specific birth defects. Later, in 1998, the CBDRP's were authorized under the Birth Defects Prevention Act of 1997. This ongoing collaborative study, the National Birth Defects Prevention Study (NBDPS), is one of the largest case-control studies of birth defects ever conducted. Currently, CDC has funded CBDRPs in five states: Arkansas, California, Massachusetts, North Carolina, and Utah. CDC serves as a sixth site, covering the Atlanta metropolitan area. Since the study began collecting data in 1997, the NBDPS has completed more than 30,000 maternal interviews, obtained over 15,500 infant DNA samples, and planned more than 250 investigational projects. Study collaborators have made significant progress toward achieving the goals of identifying and evaluating the role of new risk factors for birth defects and developmental disabilities by analyzing data and publishing findings. Highlights from FY 2008 include:

- Publication in the journal "Pediatrics" finding an association between maternal smoking in early pregnancy and the occurrence of congenital heart defects;

- Publication in the "British Medical Journal" finding an association between maternal genitourinary defects and the birth defect of the abdominal wall, gastroschisis; and,
- Publication in the "American Journal of Obstetrics and Gynecology" of the strong association between pre-existing diabetes and many types of major, structural birth defects.

In fiscal years 2009 and 2010, priority projects for the NBDPS include:

- Understanding how multivitamins might modify the risk associated with pre-existing diabetes;
- Understanding which birth defects might occur more often following the use of assisted reproductive technologies (ART) than would be expected in pregnancies not exposed to these procedures;
- Understanding how medications sometimes provided during pregnancy for maternal conditions (e.g. anti-hypertensive medications, antibiotics) might affect the risk of major birth defects;
- Assessment of high priority occupational exposures and their possible association with specific birth defects; and,
- Conducting pilot studies of genetic risk factors for major birth defects.

Folic Acid

CDC supports the research finding that folic acid consumption prevents many cases of spina bifida, and engages in activities to encourage its use. CDC monitors the effects of folic acid fortification of the food supply and seeks strategies to address the disparate rate of decline in cases of spina bifida among Hispanics in the U.S. Program activities include:

- Conducting research on women of child-bearing age, in particular communications research with subgroups of “at-risk” women to understand their motivations;
- Developing and disseminating free educational materials designed to increase consumption of folic acid to the general public, state and local programs, health care providers, managed care organizations, and community-based organizations; and,
- Collaborating with public and private sector partners to explore the feasibility of additional systems-level changes, such as working with manufacturers to increase availability of corn flour products fortified with folic acid. The program has been working to make connections with key partners and develop and disseminate research to support food fortification strategies in the prevention of neural tube defects.

CDC is progressing toward achieving its goal of reducing health disparities by developing a new, targeted outreach and education campaign aimed at reducing the occurrence of folic acid preventable neural tube defect-affected pregnancies among Hispanic women. CDC uses data on the birth prevalence of neural tube defects collected by NBDPN to evaluate this campaign. Since folic acid fortification of the food supply in 1998, CDC has documented a 26 percent decline in the occurrence of neural tube defects.

Fetal Alcohol Syndrome

CDC dedicates resources to develop effective intervention strategies to prevent Fetal Alcohol Syndrome (FAS), one of the leading preventable causes of mental retardation and birth defects. CDC's FAS program has developed proven strategies for FAS prevention in high-risk populations, and is working with obstetricians and gynecologists to widely implement a strategy of brief counseling and intervention for women at risk for an alcohol-affected pregnancy. In addition, the program maintains cooperative agreements with health agencies and academic institutions to monitor the impact of prevention activities at the individual and population level.

CDC's FAS program also develops, implements, and evaluates educational materials on Fetal Alcohol Spectrum Disorders (FASD) for parents and healthcare professionals, and disseminates curricula and guidelines for the diagnosis of FAS to practitioners. The program completed data collection in FY 2008 for a survey to establish baseline rates of screening and intervention practices among key healthcare providers in conjunction with the American College of Obstetrics and Gynecology (ACOG), among other partners. This will help monitor progress toward the program's goal of increasing the number of health care providers who screen women at risk of an alcohol-exposed pregnancy.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$39,239,000
FY 2006	$38,458,000
FY 2007	$37,741,000
FY 2008	$37,580,000
FY 2009	$42,059,000

BUDGET REQUEST

CDC's FY 2010 request includes $42,176,000 for Birth Defects and Developmental Disabilities, an increase of $117,000 above the FY 2009 Omnibus for pay increases.

Funding will allow CDC to continue its activities in birth defects research, surveillance, and intervention—with a particular focus on intervening in folic acid preventable spina bifida, anencephaly and fetal alcohol spectrum disorders. In FY 2010, the program expects to enhance CDC's birth defects surveillance program and will continue support to state-based birth defects surveillance efforts. The request will support:

- Birth Defects: $21,182,000 to continue efforts to identify and address the causes of birth defects through surveillance, research, and prevention strategies. CDC funds 15 states or territories to conduct state-based birth defects surveillance. A new state surveillance funding opportunity announcement will be issued at the end of this year. Investments in surveillance and research have increased the understanding of the occurrence of these conditions and have led to new prevention opportunities. The CBDRPs have published several important findings on the potential causes of birth defects including maternal diabetes, obesity, nutrition, smoking, and certain medications.
- Fetal Alcohol Syndrome: $10,140,000 for Fetal Alcohol Syndrome to implement proven strategies in the prevention of alcohol exposed pregnancies. Specifically, CDC expects to fund the current partnership with Fetal Alcohol Spectrum Disorders regional training centers to provide education and training to medical

and allied health students on the identification and prevention of alcohol-exposed pregnancies. The program assesses prevention and identification practices among key healthcare providers and evaluates efforts to encourage and improve the uptake of evidence-based prevention activities.

- Folic Acid: $2,826,000 for Folic Acid efforts aimed at reducing the disparate decline in folic acid-preventable spina bifida and anencephaly. CDC uses behavioral health interventions and other nutritional strategies to improve folic acid intake among Hispanic women. Such strategies hold great promise for addressing disparities but may take several years to fully implement and evaluate.
- Infant Health: $8,028,000 to support CDC's Infant Health model surveillance and research activities. These projects make active contributions to research and surveillance efforts for birth defects and developmental disabilities. In addition, sites represent models for other participating state and university programs, and facilitate the implementation of quality improvement measures. Specific projects include birth defects surveillance (the Metropolitan Atlanta Congenital Defects Program), birth defects research (the Atlanta Center for Birth Defects Research and Prevention), developmental disabilities surveillance (the Metropolitan Atlanta Developmental Disabilities Surveillance Program), and the CDC study site for the Study to Explore Child Development.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 6.1: Prevent birth defects and developmental disabilities.				
6.1.1: Increase the sensitivity of birth defects and developmental disabilities monitoring data. *(Outcome)*	FY 2008: Birth Defects- 90% /Develop mental Disabilities- Data analyses and preliminary results	Birth Defects- 91% /Develop-mental Disabilities- Establish baseline sensitivity percentage	Birth Defects- 92% /Develop-mental Disabilities- Improve from baseline by 1%	+1%
6.1.2: Identify and evaluate the role of at least five new factors for birth defects and developmental disabilities. *(Output)*	Publish findings on maternal medications	Publish findings on occupational exposures	Establish large statistically powerful sample for developmental disabilities research	N/A
6.1.3: Reduce health disparities in the occurrence of folic acid-preventable spina bifida and anencephaly by reducing the birth prevalence of these conditions among Hispanics. *(Outcome)*	FY 2005: 6.1 (Target Not Met but Improved)	4.7	4.6	-0.1
6.1.4: Increase the percentage of health providers who screen women of childbearing age for risk of an alcohol-exposed pregnancy and provide appropriate, evidence-based interventions for those at risk. *(Outcome)*	Implement ongoing provider education programs and establish baseline rates of provider-based screening and intervention. (Met)	Increase provider-based screening and intervention by 1% from baseline.	Increase provider-based screening and intervention by 2% from baseline.	+1%

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
6.A : Number of cooperative agreements to states in support of state-based birth defects surveillance	FY 2008: 12	15	15	Maintain
6.B: Number of Centers for Birth Defects Research and Prevention	FY 2008: 8	8	8	Maintain
6.C: Number of model state-based FASD surveillance prevention projects	FY 2008: 7	7	7	Maintain
6.D: Number of states participating in research/monitoring for Autism and other Developmental Disabilities	FY 2008: 16	16	16	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

HUMAN DEVELOPMENT AND DISABILITY

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Disability and Health (includes Child Development Studies)	$13,572,000	$13,572,000	$0	$13,611,000	+$39,000
Limb Loss	$2,856,000	$2,898,000	$0	$2,906,000	+$8,000
Tourette Syndrome	$1,718,000	$1,744,000	$0	$1,749,000	+$5,000
Early Hearing Detection and Intervention	$9,871,000	$10,858,000	$0	$10,888,000	+$30,000
Muscular Dystrophy	$6,177,000	$6,274,000	$0	$6,291,000	+$17,000
Special Olympics Healthy Athletes	$5,437,000	$5,519,000	$0	$5,534,000	+$15,000
Paralysis Resource Center (Christopher Reeve)	$5,727,000	$5,727,000	$0	$7,748,000	+$2,021,000
Attention Deficit/Hyperactivity Disorder	$1,746,000	$1,746,000	$0	$1,751,000	+$5,000
Fragile X	$1,828,000	$1,900,000	$0	$1,905,000	+$5,000
Spina Bifida	$5,205,000	$5,468,000	$0	$5,483,000	+$15,000
Autism	$16,212,000	$20,400,000	$0	$22,061,000	+$1,661,000
Total	$70,349,000	$76,106,000	$0	$79,928,000	+$3,822,000

*Autism activities described in the Birth Defects & Developmental Disabilities narrative.

AUTHORIZING LEGISLATION

PHSA §§ 301,307,310,311,317 , 317C, 317J, 327, 352, 399G, 399H, 399I, 399J, 399M,1102, 1108, PHSA Title IV, 42. U.S.C. Section 247b-4b, "Developmental disabilities surveillance and research programs"

FY 2009 Authorization……Indefinite

Allocation Methods……Federal/Direct Intramural; Competitive Grants and Cooperative agreements; Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC's Human Development and Disability program, in collaboration with national, state, and local partners, addresses the public health issues related to human development and promotes the health and well-being of all people with disabilities.

CDC promotes optimal development among at-risk children and overall health for people with disabilities. Activities include: 1) early identification and interventions for children at-risk for developmental problems; 2) the use of newborn screening to identify children with hearing loss and selected metabolic and genetic disorders; 3) research on risk factors and measures of health, functioning, and disability; and 4) the establishment of state health department programs to support program infrastructure and health promotion for individuals with a disability.

As a population-based public health promotion program, CDC's efforts related to human development optimizes the health, well-being, independence, productivity, and full societal

participation of all people. CDC's efforts specifically impact the estimated 40 percent of the US population at-risk for, or living with a disability.

Disability and Health

Individuals with disabilities comprise approximately 15-20 percent (40-50 million) of the U.S. adult, non-institutionalized population five years of age and older. Of Americans with disabilities, approximately nine million have a mobility or physical impairment, and 26 million have a sensory impairment. CDC programs support research on risk factors for poor health and well-being and measures of health, functioning, and disability. Primary program activities include: data collection on the prevalence and the health status of people with disabilities; health promotion interventions; and the implementation of public health policies related to disability and health. Two noteworthy projects include:

- *Living Well with a Disability*. This project helps long-term and newly disabled persons learn life skills in order to cope with and thrive with their disability. Skills cover a wide range of topics, from maintaining a healthy lifestyle to learning how to live independently.
- *Institute of Medicine Report on Disability in America*. In 2007, the Institute of Medicine (IOM) published its report outlining 10 recommendations to transform the future of disability in America. CDC funded this activity and worked with the IOM to develop the report. Based on the recommendations, CDC is working to develop a set of core disability measures for inclusion in the BRFSS and other Federal surveys. Additionally, CDC is collaborating on the development of evidence-based guidelines and tools that support health professionals in caring for persons with disabilities.

CDC funded programs help develop community-based interventions that improve the health and quality of life for persons with disabilities such as: projects with the Amputee Coalition of America, the Christopher and Dana Reeve Foundation, Special Olympics Inc., Healthy Athletes, the National Center on Physical Activity and Disability, projects on spina bifida, and research projects related to the transition of children with a disability to adulthood, emergency preparedness and disability, and improving the overall health of people with disabilities.

Funding for the 16 state disability and health programs supports each program's infrastructure, specific health promotion activities, and surveillance of health disparities for persons with disabilities.

Limb Loss

There are approximately 1.8 million amputees in the United States, with more than 185,000 new amputation surgeries each year. In FY 1997, CDC began funding activities designed to provide information and resources to persons with limb loss or limb difference, their families, caretakers, and health professionals. Limb difference occurs when a human part (e.g. arm) is underdeveloped. Funding also supports research to determine the rate and impact of limb loss and limb difference. By 2020, the number of people with limb loss is expected to increase to over two million, with half under 65 years of age.

CDC funds the Johns Hopkins School of Public Health to support research on the epidemiology and consequences of limb loss. CDC also funds the National Center on Physical Activity and Disability (NCPAD), at the University of Illinois at Chicago. NCPAD serves as an online health promotion resource center whose mission is to reduce the incidence of secondary conditions and improve the overall quality of life for persons with disabilities through promotion of beneficial levels of physical activity and healthy, active lifestyles.

In addition, CDC funds the Amputee Coalition of America (ACA) to develop and operate the National Limb Loss Information Center (NLLIC), a resource center for amputees and healthcare

providers. The NLLIC is the primary source of information on limb loss for military personnel injured in recent conflicts abroad. Resources provided include a national hotline, a website, referral services, educational curricula, youth programs, consumer publications, fact sheets, and a library catalog. In 2008, approximately 400,000 unique visitors accessed information on the NLLIC website, and web hits exceeded two million. In addition, the National Peer Network was established to help people with limb differences and their families make contact with those who have had similar experiences. The ACA provides training through the Peer Training Program, which prepares peer visitors to communicate effectively and complement medical care. Training addresses the stages of grief and loss, communication techniques, coping skills, and access to available resources.

Special Olympics Healthy Athletes

Beginning in FY 2002, CDC began receiving funds for the Special Olympics Healthy Athletes Program. An estimated two to four million people have an intellectual or developmental disability. The U.S. Department of Education reported that approximately 9 in 1,000 U.S. school children received special education for intellectual disabilities during the 2002-2004 school years. CDC partners with Special Olympics to address health challenges and disparities faced by Special Olympics athletes and other people with intellectual disabilities by supporting the Healthy Athletes program. The program helps address the broader issue of health disparities faced by people with disabilities. Through the partnership, CDC supports the national and international efforts of Special Olympics to provide health screenings to athletes with intellectual disabilities.

During 2008, Special Olympics Healthy Athletes screenings totaled 22,127 athletes (at various Special Olympics events worldwide). An additional 4,428 participants were screened at Medfest events - which enable the athlete to qualify to participate in Special Olympic athletic activities.

Paralysis Resource Center (Christopher Reeve)

Beginning in FY 2001, CDC began receiving funds for paralysis research. In conjunction with ongoing curative research for spinal cord injury being conducted at the University of Chicago and the Christopher and Dana Reeve Foundation Paralysis Research Center (PRC), CDC recently began addressing the impact of paralysis including quality of life issues, peer support, educational information for people experiencing paralysis, and the prevention of secondary conditions.

CDC has established collaborative relationships with rehabilitation facilities, hospitals, and disability advocacy and voluntary support organizations to address the health needs of people with paralysis. CDC provides leadership in facilitating health promotion activities (improving physical activity, exercise and nutrition, confronting depression/isolation issues, managing weight, and quitting tobacco use) among people with paralysis to enhance physical and emotional health.

The PRC is the first and only federally-funded national information resource clearinghouse for paralysis. The PRC provides comprehensive information, resources, and referral services to persons with paralysis, their families, caretakers, and healthcare professionals. Since the PRC was established in 2002, tremendous strides have been made toward helping people with paralysis and their families live healthier, more productive lives, removing barriers and increasing their quality of life.

Some accomplishments of the PRC include:

- 39,287 people who are paralyzed, families or health care providers contacted the PRC for assistance through telephone calls or e-mails;
- 1,701,750 people used the PRC website;
- 31,714 people watched the various streaming videos; and

- 72,681 English-language and 13,973 Spanish-language copies of the ***Paralysis Resource Guide*** were distributed.

Spina Bifida

Spina Bifida is the most common permanent disabling birth defect in the U.S., affecting more than 70,000 men, women, adolescents, and children across the nation. The goals of CDC's Spina Bifida activities are to reduce and prevent spina bifida incidence, morbidity of associated conditions, and to improve the quality of life for those living with the condition. In FY 1991, CDC began receiving funds for spina bifida, leading CDC to continue research regarding folic acid intake. Increased consumption of folic acid can help reduce the risk of spina bifida by up to 70 percent.

There are several ongoing activities in the National Spina Bifida Program. Through work with the Spina Bifida Association, CDC focuses on training and education for healthcare professionals, building local and national programs to enhance the of quality of life for persons affected by spina bifida and their families, and the development of a Spina Bifida Clinical Network. A Spina Bifida Patient Registry was developed to gather demographic, intervention, and outcome data for persons seen in the clinics. These data will be used to improve the care provided in clinics, as well as to build a foundation for future research. Care Coordination and Transition Programs in Spina Bifida clinics are being examined to determine their effectiveness in facilitating care, access, and the transition to adult care and services. The Association of University Centers on Disability (AUCD) is funded to oversee two continence studies at Kennedy Krieger Institute (MD) and Children's Hospital, Los Angeles (CA). These studies will help identify effective interventions to improve bowel and bladder continence and protect the health and function of the urinary tract. CDC is collaborating with the Department of Veterans Affairs (VA) to explore an administrative database on beneficiaries of the VA's Spina Bifida healthcare program. Finally, a pilot project is in development to study the natural history of Spina Bifida in children by prospectively studying children who were born with this birth defect.

CDC is continuing efforts to prevent folic acid preventable Spina Bifida through health communication campaigns. These efforts will increase awareness of the need to consume adequate folic acid before and during early pregnancy, with focus on increasing awareness among Hispanic women. CDC continues to assess the impact of folic acid fortification on the occurrence of Spina Bifida by analyzing data from state-based surveillance programs, and is evaluating the impact of both fortification and the use of folic acid supplements using data from the National Birth Defects Prevention Study (NBDPS). The NBDPS endeavors to identify risk factors for birth defects and provides opportunities to find additional environmental and genetic risk factors for Spina Bifida, as well as to identify strategies to prevent these birth defects. Additional work continues to help better understand the mechanism through which folic acid acts, and how the action of folic acid varies with differences in genetic factors. The reduction in Spina Bifida in the U.S. following folic acid fortification is a tremendous public health success, but we have much more work to do in understanding other causes of Spina Bifida and developing appropriate prevention activities.

Child Development Studies

According to the National Survey of Children's Health in 2005, more than 36 percent of parents with a child aged five or under, reported that they had a concern about their children in at least one area of development. Investments in promoting optimal child development, especially in low-income families, can reduce social costs, such as special education, foster care, welfare, medical care, law enforcement, social security, and social services.

CDC is conducting a longitudinal randomized controlled trial, Legacy for Children™, to test a parenting intervention to improve developmental health of children in low-income families. Working with low-income families, the intervention focuses on increasing parents' beliefs that they can have

a positive impact on their child's development; building a sense of community through peer groups supporting positive parenting behavior; and increasing the amount of time and energy parents invest in their child's development to ensure improved short and long term outcomes. Legacy for Children™ program implementation is housed at the University of Miami and the University of California at Los Angeles. Preliminary analysis indicates a difference between children who received the intervention and those who did not. In FY 2009, findings from the Legacy study are being presented at national conferences and submitted for publication. This effort is promising and outcomes could position CDC to promote effective ways to help children in low-income families reach their full potential.

Attention Deficit/Hyperactivities Disorder

Attention-Deficit/Hyperactivity Disorder (ADHD) is a common condition; population-based estimates suggest a prevalence of more than seven percent among school-age youth. CDC began receiving funds for ADHD in FY 2002. CDC estimates that roughly 2.5 million children currently take medications to treat ADHD. Substantial disparities in rates of parent-reported diagnosis and treatment exist across the U.S.

CDC conducts community-based research on ADHD, including population-based studies of prevalence, risk factors, coexisting conditions, and community treatment. CDC funded a cooperative agreement with the University of Oklahoma Health Sciences Center and the University of South Carolina to conduct a multi-site project to learn about ADHD in Youth (PLAY) that included two epidemiological studies of ADHD. The studies strengthened CDC's surveillance activities by screening over 8,000 children between the ages of five and ten and conducting a diagnostic interview on a weighted sample of over 1000 of the screened children. A longitudinal follow-up study was funded in FY 2007 to document the short- and long-term outcomes of children participating in the original studies. In FY 2009 study findings on community-based prevalence rates, information on health risk behaviors, and rates of coexisting conditions will be presented at national conferences and are being prepared for publications. Study findings will enhance CDC's understanding of ADHD in children and will also increase the agency's ability to make informed decisions and recommendations concerning potential public health prevention and intervention strategies. CDC supports the National Resource Center on ADHD.

Tourette Syndrome

CDC began receiving funding for Tourette Syndrome (TS) in FY 2004. Approximately 100,000 Americans have TS, and as many as one in 200 show a partial expression of the disorder, such as chronic or transient tics in childhood. TS affects three to five people in every 10,000 individuals, and about ten in every 10,000 school-age children. CDC funds research and projects involving surveillance, educational and informational services, and training related to TS for healthcare and other providers. CDC's focus is on improving the health and quality of life for persons living with this condition.

CDC funds the Tourette Syndrome Association (TSA) to provide health education and training of professionals on the standard diagnostic and treatment practices for TS and related disorders, especially targeting practitioners working with underserved and minority populations.

- TSA has completed a redesign of their website to include a web page addressing the needs of adults and young children with TS, a comprehensive medical education website with continuing medical education (CME) credits available, and the creation of new educational materials and media.
- A methodological study was conducted via the Attention Deficit Hyperactivity Disorder cooperative agreement, in which surveillance of tic disorders and TS was conducted using community survey and parental interview.

- In FY 2007, CDC participated in the Technical Expert Panel for the National Survey of Children's Health. Data from the National Survey's of Children's Health will be available in FY 2009 and will lead to multiple publications on children's mental health and an MMWR with estimates of the national prevalence and severity of TS among youth ages four to 17.

Early Hearing Detection and Intervention

The Early Hearing Detection and Intervention (EHDI) program began at CDC and HRSA in the mid-1990s when technology made universal screening of newborns for early hearing loss possible. Each year in the United States, more than 12,000 babies are born with hearing loss, making it the most frequently occurring birth defect. EHDI provides support and technical assistance on data collection and management to ensure quality monitoring of infant hearing loss screening, evaluation, and enrollment in intervention. EHDI collaborates with federal, national, and state agencies and organizations. The program provides financial support and technical assistance to state/territory public health departments and universities for the development and implementation of state/territory EHDI programs and surveillance systems. In addition, EHDI supports data sharing and integration with other child health information systems. This helps to identify previously unknown causes of hearing loss, ensure timely delivery of complete and accurate information, and improve children's health and healthcare.

CDC's EHDI program funds cooperative agreements in 46 states/territories to develop or enhance a sustainable state-based EHDI tracking and surveillance system and to integrate the EHDI system with other state/territorial screening, tracking, and surveillance programs that identify children with special healthcare needs.

Muscular Dystrophy

There are over 6,000 Single Gene Disorders, and although individually rare, these disorders affect about 1 in 300 births. Duchenne Muscular Dystrophy (DMD) is a common single gene disorder. About 1 in 3,500 boys is born with DMD, which causes progressive muscle weakness leading to death. About one in 3,500 girls is a carrier of DMD. DMD is usually very mild in females, but female carriers are at increased risk of heart problems. Becker Muscular Dystrophy, a milder form of the disease, is caused by mutations in the same gene. The combined spectrum is referred to as Duchenne and Becker Muscular Dystrophy (DBMD).

CDC's Muscular Dystrophy funding is used for surveillance and family needs assessment activities. CDC funds, through a cooperative agreement, investigators in Iowa, Western New York State, Colorado, Arizona and Georgia to participate in the Muscular Dystrophy Surveillance Tracking and Research Network (MD STARnet). MD STARnet collects data on the incidence and prevalence of DBMD, the natural history of the disorder, and medical treatments and outcomes. CDC currently supports a project to develop a model approach to overcome barriers to diagnostic and genetic testing for DBMD, particularly in traditionally underserved populations.

Fragile X

Fragile X Syndrome (FXS) is the most common known cause of inherited mental retardation and developmental disability. The exact number of people who have FXS is unknown, but it is estimated that approximately 1 in 4,000 males and 1 in 6,000 to 8,000 females have the disorder. CDC began receiving funds for FXS in FY 2005. These funds support CDC's work to improve the health and quality of life of those living with FXS.

Current activities include:

- Genetic Alliance has developed a national resource network for single gene disorders, like fragile X syndrome (FXS). This network provides access to quality information on single gene disorders to families and healthcare providers.

- The Research Triangle Institute is conducting a national survey of FXS-affected families to assess their needs for services.
- Providing Supplemental funding, through a cooperative agreement with the Association for Prevention Teaching and Research (APTR), to expand developmental disability monitoring activities to estimate the prevalence of FXS and other genetic syndromes among children with autism and intellectual disabilities.
- Providing funds to support the infrastructure of a network of major clinical centers serving individuals with FXS and associated disorders and improve identification and regional surveillance of affected individuals.

Autism

CDC's leadership in the area of autism is focused on understanding rates and trends, advancing public health research into risk and protective factors, improving early detection and diagnosis, and increasing awareness among the public and private healthcare providers.

CDC began tracking the prevalence of several developmental disabilities during the 1980s; autism was added in 1996. CDC supports intramural and extramural surveillance and research programs for autism and other developmental disabilities. The activities conducted include the Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP), which was established in 1991, to monitor the occurrence of certain developmental disabilities in children. CDC operates this model tracking and research program to determine the prevalence of autism and other common developmental disabilities (including intellectual disability, cerebral palsy, vision impairment, and hearing loss) and to conduct research on the causes of these conditions. Additional autism surveillance is conducted by the Autism and Developmental Disabilities Monitoring (ADDM) Network. Since 2000, the ADDM has worked to determine the prevalence and characteristics of children with Autism Spectrum Disorders (ASDs) and other developmental disabilities. During Phase I, 16 sites, including the CDC, participated in the ADDM Network. The ADDM Network issued the largest report on autism prevalence in the United States to date. The report estimated 1 in 100 to 1 in 300 with an average of 1 in 150 children have an autism spectrum disorder. CDC supports 11 sites (AL, AZ, CO, FL, MC, MO, NC, PA, SC, WI, and GA) to track the prevalence of autism and other developmental disabilities and describe the changes in the population over time. CDC also supported two ADDM sites to establish methods for combining early autism screening and prevalence determination methods for young children (under the age of four). In 2009, CDC received funding to restore Phase I ADDM sites in three sites: AR, UT, and NJ.

CDC supports research into risk factors for autism through the Centers for Autism and Developmental Disabilities Research and Epidemiology (CADDRE) sites. There are sites in six states (CA, CO, MD, NC, PA, and GA) conducting the largest study of risk factors for autism called the Study to Explore Early Development (SEED). This study is a large population-based study of autism that will include 2,700 children with autism spectrum disorders and their parents. The joint study protocol for SEED was completed in 2007, and in late 2007/early 2008, study sites began actively recruiting study participants.

Since 2005, the CDC has conducted an awareness campaign called Learn the Signs. Act Early. The campaign is designed to reach parents, child care providers, educators, physicians, and other healthcare professionals. As of FY 2008, CDC and its partners have distributed more than 171,000 resource kits; to more than five million health care professionals, 46 million parents; and 140,000 child care providers through a comprehensive communication and dissemination strategy.

In addition, CDC supports international activities in autism and other developmental disabilities through collaboration with US public and private partners and international partners.

Recent key program accomplishments include:

- Publication of joint ADDM Network ASD prevalence reports for surveillance year 2000 (six sites) and surveillance year 2002.
- Publication of an ADDM Network evaluation paper that was released in February of 2007 in the Morbidity and Mortality Weekly Report (MMWR) Surveillance Summaries. In 2007, a paper was published reflecting the ADDM methodology.
- Publication of the first joint ADDM Network Cerebral Palsy prevalence report for surveillance year 2002. A second report, for surveillance year 2004, was released in early 2009.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$61,599,000
FY 2006	$62,468,000
FY 2007	$61,357,000
FY 2008	$70,349,000
FY 2009	$76,106,000

BUDGET REQUEST

CDC's FY 2010 request includes $79,928,000 for Human Development and Disability, an increase of $3,822,000 above the FY 2009 Omnibus. This increase reflects $222,000 for pay increases and $3,600,000 for non-pay increases.

The request includes:

- $13,611,000 for Disability and Health to continue activities in data collection on the prevalence of disabilities and the health of people with these disabilities, research on risk factors for poor health outcomes associated with these disabilities, and development of health promotion programs for people with these disabilities.
- $2,906,000 for Limb Loss which will enable CDC to continue work with the Amputee Coalition of America and other partners to address those persons who have experienced limb loss. Activities in FY 2010 include conducting surveillance of veterans with disabilities once they reenter their communities.
- $1,749,000 for Tourette Syndrome.
- $10,888,000 for Early Hearing Detection and Intervention to funds research related to newborn and infant hearing screening, evaluation, and intervention programs, including the identification of the causes and risk factors for congenital hearing loss. The program also covers the costs and determines the effectiveness of newborn and infant hearing screening and of audiologic and medical evaluations, intervention programs, and systems.
- $6,291,000 for Muscular Dystrophy for continued work in outreach to patients, parents, and providers of patients with Muscular Dystrophy, as well as growth on MDSTARnet to further define successful strategies of care for this population.
- $5,534,000 for Special Olympics Healthy Athletes to continue funding “Healthy Athletes” and Special Olympic events.
- $7,748,000 for Paralysis Resource Center (Christopher and Dana Reeve Foundation) an increase of $2,021,000 over the FY 2009 Omnibus. The funding increase will be used to expand and implement activities related to the recently-enacted Christopher and Dana

Reeves Paralysis Act, such as: the expansion of the disability and health state program activities to address the needs of people with paralysis and other physical disabilities. Additional program funding will support efforts to provide consumer information and community quality of life projects.

- $1,751,000 for Attention Deficit Hyperactivity Disorder.
- $1,905,000 for Fragile X Syndrome (FXS) will provide for continuation of support to a resource center for parents and providers of patients with FXS, surveillance studies on prevalence of the condition, and further work on promising areas (such as newborn screening/bloodspot analysis) to develop surveillance on FXS.
- $5,483,000 for Spina Bifida to continue a pilot longitudinal study of children with spina bifida. After the results of the pilot are examined, the study will be adapted to include other states utilizing the birth defects network. This will allow continuous follow-up for children from birth into school age to include monitoring for the onset of developmental delays and health problems. Timely interventions may then be recommended and implemented. Also planned is the inclusion of additional spina bifida clinics in the collection of demographic, intervention and outcomes data.
- The FY 2010 budget request includes $22,061,000 for Autism, an increase of $1,661,000 above the FY 2009 Omnibus to support a Presidential Initiative to enhance autism research, treatment, screenings, public awareness and support services, including activities authorized in the Combating Autism Act (PL 109-416). Increased funds will be used to expand autism surveillance activities to include a broader age-range of target populations and support efforts of the Study to Explore Early Development (SEED) to address public concern over the causes of autism and other developmental disabilities.
- CDC will continue to operate a model surveillance program (Metropolitan Atlanta Developmental Disabilities Surveillance Program) to determine the prevalence of autism and other common developmental disabilities (including intellectual disabilities, cerebral palsy, vision impairment, and hearing loss).
- CDC will fund the Autism and Developmental Disabilities Monitoring Network, which is comprised of 14 sites across the U.S. CDC's leadership in the area of autism will focus on understanding rates and trends, advancing public health research into risk and protective factors, and improving early detection and diagnosis.
- CDC will maintain funding for six CADDRE sites, including CDC, which are participating in the collaborative Study to Explore Early Development (SEED); a large population-based study designed to better understand the characteristics of children with autism, identify possible risk factors, and explore potential prevention opportunities With an additional increase in FY 2010, CDC will be able to expedite enrollment and analysis for the Study to Explore Early Development (SEED), in order to address public concern over the potential causes of autism and other developmental disabilities.
- CDC will continue to fund Learn the Signs. Act Early, an autism awareness campaign designed to reach parents, child care providers, physicians, and other healthcare professionals, to improve understanding and awareness of children's developmental milestones. To date, campaign evaluation has been limited to process measures (activities, material distribution, web hits, message reach, etc.) and surveys measuring knowledge, awareness, and reported behavior regarding child development, autism, and early intervention. In late 2008, the awareness campaign entered into contract to develop and implement a more rigorous evaluation plan that will measure the extent to which the campaign is achieving its objectives. A final evaluation plan is expected by spring 2009.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 6.2: Improve the health and quality of life of Americans with disabilities.				
6.2.2: Identify an effective public health intervention to ameliorate the effects of poverty on the health and well-being of children. *(Outcome)*	FY 2008: Data collection and analysis for age 3 year (Met)	Data collection and analysis for age 4 year	Data collection and analysis for age 5 year	N/A
6.2.3: Ensure that 95% of all infants are screened for hearing loss by 1 month of age. *(Outcome)*	FY 2006: 92% (Target Exceeded)	94%	95%	+1
6.2.4: Increase the mean lifespan of patients with Duchenne and Becker Muscular Dystrophy (DBMD) and carriers by 10% as measured by the Muscular Dystrophy Surveillance, Tracking and Research Network. *(Outcome)*	Report on the impact of clinic use on morbidity and mortality in DBMD using MD STARnet data (Met)	Identify and report on (1) the trends on incidence and prevalence of secondary complications related to DBMD annually based on MD STARnet data and (2) the trends of service utilization by people with DBMD and their families based on MD STARnet data.	Increase the percentage of patients with DBMD who have access to treatments based on national standards of care to 80% as measured by MD STARnet and national or nationally representative data collection methods	N/A

OUTPUT TABLE

Key Outputs	Most Recent Result (FY 2008)	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
6.E: Disability Research/State Capacity/Information Centers Grants	27	27	27	Maintain
6.F: National Spina Bifida Program Research Projects	1	2	2	Maintain
6.G: ADHD Projects	3	3	3	Maintain
6.H: State Tracking/Research projects on Early Hearing Detection and Intervention	46	46	46	Maintain
6.I: State Surveillance/Research on DBMD	6	6	6	Maintain
Appropriated Amount ($ Million)[1]	$70.3	$76.1	$79.9	+$3.8

[1]The outputs are not necessarily reflective of all programmatic activities funded by the appropriated amount.

BLOOD DISORDERS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Hemophilia	$16,735,000	$17,155,000	$0	$17,203,000	+$48,000
Thallasemia	$1,860,000	$1,860,000	$0	$1,865,000	+$5,000
Diamond Blackfan Anemia	$516,000	$516,000	$0	$517,000	+$1,000
Hemachromatosis	$326,000	$326,000	$0	$327,000	+$1,000
Total	$19,437,000	$19,857,000	$0	$19,912,000	+$55,000

AUTHORIZING LEGISLATION

PHSA §§ 301,307,310,311,317 , 317C, 317J, 327, 352, 399G, 399H, 399I, 399J, 399M,1102, 1108, PHSA Title IV, 42. U.S.C. Section 247b-4b, "Developmental disabilities surveillance and research programs"

FY 2009 Authorization……...Indefinite

Allocation Methods……Direct Federal/Intramural, Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC's Blood Disorders program promotes the health of populations impacted by blood disorders and works to prevent and reduce the complications they cause. Target populations include persons at risk of or affected by bleeding disorders, clotting disorders, red cell disorders, hemoglobinopathies, and iron disorders. Blood disorders can range from mild to severe, affect any person, and cause serious health problems including disability and death. Some blood disorders are present at birth and are inherited, while others can develop during certain illnesses or treatments.

In the 1980s, CDC was directed to work on HIV prevention strategies for people with hemophilia. Since then, CDC's work has expanded into the development of a national network of 135 specialized health-care treatment centers (HTCs) for hemophilia. The network promotes the management, treatment, and prevention of complications experienced by individuals with these disorders. This network promotes the use of a multi-disciplinary model of care shown to reduce death and disability by 40 percent among those who make regular visits. In recent years, several treatment centers expanded to address other priority disorders such as thrombophilia, a condition that causes blood clots.

CDC employs a Universal Data Collection (UDC) system to monitor the health of individuals in HTCs across the country. Blood samples are tested for HIV, Hepatitis A, B and C, and other emerging infectious agents as needed. These samples provide a national repository for emerging infectious disease testing to quickly identify blood-borne infections contaminating blood products used to treat bleeding disorders and to prevent transmission of infectious diseases. The UDC also provides information on joint mobility and function, bleeding occurrences, treatment, and vaccinations.

Funds are distributed to CDC partners through cooperative agreements (research and non-research) and contracts. Funds are distributed through 12 regional coordinating centers, which oversee both the regional networks of 135 hemophilia treatment centers and five hemostasis and thrombosis centers throughout the U.S. and its territories (average award for each of the regions --

$567,000). CDC's hemophilia treatment center program is the only far-reaching public health program for blood disorders. Transforming Hemophilia Treatment Centers into Hematology Treatment Centers that work across program areas is one key strategy to address the growing public health concern related to blood disorders.

Recent program accomplishments include:

- CDC released a study, using data collected through the UDC, which shows that prophylactic treatment can help in preventing joint disease in young boys with hemophilia.
- CDC determined the genetic mutation causing hemophilia for more than 700 patients taking part in a prospective study of inhibitors (antibodies) to blood products, using expanded laboratory capacity. Inhibitors are the number one blood safety issue for these patients and result in poor quality of life, increased mortality and high costs for intensive medical care.

Education and outreach are underway for other blood disorders including hemochromatosis (iron overload), Diamond-Blackfan anemia, and hemoglobinopathies such as sickle cell disease and thalassemia.

CDC measures the success of the treatment center network by tracking the enrollment level of patients in the UDC system. In 2007, CDC exceeded its enrollment targets substantially and future targets have been adjusted to compensate for the higher than anticipated enrollment. This exceptional enrollment may be due to a number of reasons including: a lower than anticipated refusal rate (about nine percent); increased marketing through consumer groups to promote the HTCs; and the extent to which the HTC network, which reaches both urban and rural areas, allows catchment of patients in all areas of the country.

However, there is still the potential for loss to follow up of current enrollees, which would decrease the overall number of enrollees in the UDC. Data is collected based on yearly visits to HTCs, and patients may either not elect to visit each year or be lost due to geographic relocation. Additionally, since hemophilia is a rare blood disorder, the estimated population of people with hemophilia is relatively small. Therefore, despite these efforts, it is anticipated that enrollment will eventually level off, and it will become more difficult to enroll a significant number of additional new patients. Despite these challenges, CDC anticipates meeting enrollment targets for FY 2010.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$20,226,000
FY 2006	$20,095,000
FY 2007	$19,783,000
FY 2008	$19,437,000
FY 2009	$19,857,000

BUDGET REQUEST

CDC's FY 2010 request includes $19,912,000 for Blood Disorders, an increase of $55,000 above the FY 2009 Omnibus for pay increases.

CDC will support treatment center research networks and health promotion and outreach programs in the following programmatic areas:

- Bleeding Disorders and Hemoglobinopathies – 135 hemophilia and thalassemia treatment centers. These centers monitor the health of patients who visit on a yearly basis for comprehensive care visits. Data collected includes blood samples that are screened for bloodborne infectious diseases and general information on a patient's health and well-being.

This data is used to monitor complications of hemophilia and hemoglobinopathies in the centers, to conduct studies on risk factors, and to determine how best to improve patient health outcomes.

- Clotting Disorders – five thrombosis and thrombophilia study sites. These sites conduct targeted studies on the causes of blood clots. Data collected includes people who have an increased propensity to clot because of an inherited condition and people who have previously had a blood clot.
- Red Cell Disorders – four Diamond-Blackfan anemia resource centers. These centers provide information and education for families on treatment and management of Diamond-Blackfan anemia (DBA). A special emphasis is made on patient and provider education, given that DBA is a rare condition, and most providers do not have adequate specialized knowledge.
- Iron Disorders – health provider curricula and health promotion program. These materials provide continuing medical education credits to health care professionals, and are an important mechanism for expanding provider awareness and knowledge about iron disorders.

In FY 2010, CDC will conduct an evaluation of the multi-disciplinary model of care for additional blood disorders. In addition, CDC will continue to work towards increasing the number of people with blood disorders who participate in the monitoring system (i.e., the UDC). By collecting data on as many hemophilia patients as possible, CDC can ensure better population-based estimates for risk factors and secondary conditions associated with hemophilia.

Additionally, CDC plans to fund HTCs previously cut due to budget shortfalls. This will allow CDC to re-gain lost monitoring capacity, and provide needed infrastructure to these critically important care centers.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 6.2: Improve the health and quality of life of Americans with disabilities.				
6.2.1: Increase the number of people with blood disorders who participate in the monitoring system by 10%. *(Outcome)*	FY 2008: 23,347.0 (Target Exceeded)	22,195.0	22,630.0	+435

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- 2009
6.K: Hemophilia/Thalassemia Treatment Centers	FY 2008: 140	135	135	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

HEALTH INFORMATION AND SERVICE

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$89,868,000	$83,124,000	$0	$96,690,000	-$196,232,000
PHS Evaluation Transfers	$186,910,000	$196,232,000	$0	$195,094,000	+$196,232,000
Total	$276,778,000	$279,356,000	$0	$291,784,000	+$12,428,000
FTEs	902	1,002	0	1,002	0

SUMMARY OF THE REQUEST

Leaders, health professionals, and the public look to CDC for specific, credible, and detailed health information on which to base decisions that will determine the way in which they address health and safety. An increasingly connected public—with the need for instant access to trustworthy information—relies on CDC for knowledge to improve and better manage their health. CDC's ability to provide meaningful, trustworthy information instantly and consistently, 24/7/365, may be the determining factor in saving one life or many lives, and the expenditure of millions, if not billions, of dollars. The Coordinating Center for Health Information and Service provides leadership and promotes innovation in the areas of public health informatics, health statistics, health marketing, and scientific communications.

CDC's FY 2010 request includes $291,784,000 for Health Information and Service, an increase of $12,428,000 above the FY 2009 Omnibus. This increase reflects $2,129,000 for pay increases and $10,299,000 for non-pay increases.

- $138,683,000 for the Health Statistics program, an increase of $13,982,000 above the FY 2009 Omnibus, to support programs designed to obtain and use health statistics to support decision- and policy-making and research on health. As the nation's principal health statistics agency, the National Center for Health Statistics (NCHS) seeks data from a variety of sources -birth and death records, medical records, household health interviews, standardized physical exams and laboratory tests – to obtain accurate and relevant information.
- $70,597,000 for the Public Health Informatics program, an increase of $522,000 above the FY 2009 Omnibus, to support standardization, integration, and sharing of health information, data, and systems among public and private organizations. This integration will enable public and private organizations to share and analyze information quickly and accurately from a wide range of sources to support better informed and effective health interventions, preparedness and response, and policy decisions.
- $82,504,000 for the Health Marketing program, a decrease of $2,076,000 below the FY 2009 Omnibus. The Health Marketing program conducts activities both nationally and internationally to better understand how to meet people's health information needs and preferences; develops and maintains CDC's communications systems, tools, and products; creates and delivers health information and interventions using customer-centered and science-based strategies; and develops, coordinates, and enhances CDC's partnerships with public and private organizations.

HEALTH STATISTICS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACTI	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
PHS Evaluation Transfers	$113,636,000	$124,701,000	$0	$138,683,000	+$13,982,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308; 1% Evaluation: PHSA § 241 (non-add); (Superseded in the FY 2002 Labor HHS Appropriations Act - Section 206)

FY 2009 Authorization……..…Indefinite

Allocation Method……..……Direct/Federal Intramural, Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

As the nation's principal health statistics agency, CDC's National Center for Health Statistics (NCHS) provides data to identify and address health issues. CDC compiles statistical information to help guide public health and health policy decisions. As authorized by law, CDC is charged with conducting and supporting statistical and epidemiological activities to improve the effectiveness, efficiency, and quality of health services in the U.S. These health statistics allow CDC to document the health status of the U.S. population and selected subgroups; identify disparities in health status and use of health care by age, gender, race/ethnicity, socio-economic status, region, and other population characteristics; monitor trends in health status and health care delivery; identify health behaviors and associated risk factors; support biomedical and health services research; provide data to support public policies and programs; and evaluate the impact and effectiveness of health policies and programs.

The initial basis for NCHS surveys was the National Health Survey Act enacted in 1956. NCHS was administratively established as an organizational entity in the Public Health Service in 1960 and was established in law in 1974.

CDC's health data collection systems support the needs of the health community for high quality and reliable data. The primary data users include Congress and other policymakers, epidemiologists, biomedical and health services researchers, businesses, public health professionals, individual physicians, media and advocacy groups, actuaries, and government agencies. Specific data from all NCHS surveys can be accessed at http://www.CDC.gov/nchs.

The goals of the Health Statistics program are accomplished by:

- Providing a broad range of high quality data to the nation's health decision makers in a timely fashion.
- Coordinating data collection strategies and efforts through the HHS Data Council, the National Committee on Vital and Health Statistics, and the Interagency Council on Statistical Policy to address specific interests, problems, or needs.
- Collaborating extensively with representatives from states, data users in the public and private sectors, and other federal agencies on the following topics: collecting data; defining data needs; addressing issues in methodology, survey design, data quality, confidentiality,

and data standards; analyzing data and developing policy; disseminating data with regard to facilitating access and use; and developing the public health workforce of the future.

- Disseminating data to partners and stakeholders through published reports (print and website); website-only releases; pre-tabulated tables with national and state-level data on issues such as births and deaths; and interactive data warehouses including "VitalStats," "Health Data Interactive," and the Research Data Center, allowing secure access to detailed data.

Health Statistics' success in accomplishing its purpose has been demonstrated by meeting various performance measures.

- Surveys of key data users and policy makers on their satisfaction with NCHS products and data are used to drive program improvements. In FY 2008, CDC established baseline measures for four data user groups: Reimbursable customers, Data User Conference attendees, Federal Power Users and Web-based users. Results of these surveys will help to inform the program on the utility of its data and lead to future improvements.
- Measuring the continuous improvement and innovation in the scope and detail of information in *Health, United States* increases the scope of information produced and made available. CDC's goal is to produce 15 new improvements and innovations annually. In FY 2008 *Health, United States* includes 4 new trend tables and 26 new charts. In addition, the book incorporated major changes in all natality tables to account for the ongoing implementation of the new birth certificate data that is the basis for most of our trend tables on natality. These changes, as well as modifications to selected mortality tables (notably the tables on race and ethnicity that include infant mortality data) will be ongoing over the next several years until all states have adopted the new birth and death certificates.
- Producing data on the Internet in easily accessible forms improves the speed and efficiency with which people access the information. CDC has met its goal of developing at least five new tools, technologies, or web enhancements per year from FY 2003 through FY 2008.

National Health and Nutrition Examination Survey (NHANES)

The NHANES is the only national source of objectively measured health data capable of providing accurate estimates of both diagnosed and undiagnosed medical conditions in the population. Through a combination of personal interviews, standardized physical examinations, diagnostic procedures, and lab tests, NHANES assesses the health status of a representative sample of U.S. adults and children. Mobile Examination Centers travel throughout the country to 15 sites annually to collect data on conditions such as diabetes, high cholesterol, undiagnosed sexually transmitted diseases, obesity, and to provide critical information about the relationship between health behaviors, genetics, and the environment. Data from NHANES are used to track many of CDC's, HHS and Healthy People 2010 goals and will help ensure that program interventions achieve the greatest health impact.

- The release and publication of obesity prevalence data in children, adolescents and adults resulted in the DHHS Secretary and CDC Director bringing public attention to the rise in obesity and discussing positive steps for the public to take, including exercise and making better food choices. The data led to legislative initiatives and changes in messaging and food choices by the food industry. The data are also useful in national nutrition program planning efforts and in the development and evaluation of nutrition policies. NCHS data show that in 2005-2006 that over 72 million people, more than one-third of adults, were obese. This includes 33.3 percent of men and 35.3 percent of women. Obesity rates have increased dramatically since 1980, and among men, there was a continued increase in obesity prevalence between 1999 and 2006. There was no significant statistical change in

prevalence however, between the two most recent data points, 2003-2004 and 2005-2006 for either men or women. These data still point to an alarming rate of obesity among the U.S. population.

- NHANES data have been used to contribute to the implementation of food fortification recommendations and education efforts to increase folate consumption to prevent neural tube defects and to monitor the impact of the interventions. Data show the prevalence of low red blood cell folate among U.S. women of childbearing age declined from 37.6 percent in 1988-1994, to 5.1 percent in 1999-2000; the 2005-2006 value was 4.5 percent.

Funds allocated to NHANES are distributed through competitive contract awards and sole-source contract awards with multiple vendors, which include both universities and corporate entities. Funds are also distributed through interagency agreements with partners such as NIH, USDA, FDA, and other Centers, Offices, and Institutes within CDC.

National Health Care Surveys

National Health Care Surveys are a family of provider-based surveys designed to meet the need for objective, reliable information about the organizations and providers that supply health care, the services rendered, and the patients they serve. Policy-makers and planners use these data to profile changes in the use of health care resources, monitor changing patterns of disease, and measure the effect of new technologies and policies. Researchers use data on the characteristics of providers, facilities, and patients to study shifts in the delivery of care across the health care system, variations in treatment patterns and patient outcomes, and other factors that affect cost and access to and quality of care in the U.S. Data from The National Health Care Surveys are used to track CDC, HHS and Healthy People 2010 goals and will help ensure that program interventions achieve the greatest health impact.

- Data are used to track the nation's adoption and use of electronic medical records (EMRs) and other health information technologies. Results from a mail survey conducted from April through August, 2008 show 38.4 percent of the physicians using full or partial EMR systems, not including billing records, in their office-based practices. About 20.4 percent reported using a system described as minimally functional. Data from 2006 on ambulatory care indicated that 29.2 percent of office-based physicians reported using full or partial EMR systems. DHHS's Office of the National Coordinator on Health Information Technology has begun to use the National Ambulatory Medical Care Survey to monitor physicians' adoption of electronic medical records and other health information technologies across the nation.
- Data are used to document the extent of overcrowding and ambulance diversion in emergency departments. The Institute of Medicine has issued a series of reports describing the crisis in emergency medicine, and it used National Hospital Ambulatory Medical Care Survey data as the backbone of the reports. Data show the number of emergency department visits in the U.S. increased by 32 percent from 1996 through 2006, from 90 million visits to 119 million visits. At the same time, the number of emergency departments nationwide declined from about 4,000 to 3,800, contributing to an increase in the wait times from 38 minutes in 1997 to about 56 minutes in 2006.

Funds allocated for National Health Care Surveys are distributed through a competitive contract and interagency agreements with partners including DHHS and the Census Bureau.

National Health Interview Survey (NHIS)

The NHIS is the core of DHHS data collection and is the nation's largest household health survey providing data for analysis of broad health trends, as well as the ability to characterize persons with various health problems, determine barriers to care, and compare functional health status, health related behaviors, and risk factors across racial and ethnic populations. The NHIS provides information through confidential interviews conducted in households. Data from the NHIS are used to track many of CDC's, HHS' and Healthy People 2010 goals and will help ensure that program interventions achieve the greatest health impact.

- Data are used by public health officials, policy makers, epidemiologists and Congress, to gain a more complete understanding of the uninsured population, those with less access to care, those who delay or do not get medical care due to cost, and those less likely to receive preventive services. Data are also used by policy makers to show the proportion of the population that lacks coverage, and to understand the shifts in coverage from private to public sources (such as the State Children's Health Insurance Program and Medicaid).
- Preliminary results from January-June 2008 indicate that more than one out of every six American homes (17.5 percent) had only wireless telephones, an increase of 1.7 percentage points since the second half of 2007. The growth in the size of this population has potential implications for results from health surveys and other research conducted using random-digit-dial surveys with landline telephone numbers. CDC is also exploring options and conducting research on the best ways to include households with only wireless telephones (or with no telephone service) in its telephone surveys.

Funds allocated to the NHIS are distributed through competitive contracts with commercial vendors and an interagency agreement with the Census Bureau.

National Vital Statistics System (NVSS)

The NVSS provides the nation's official vital statistics data based on the collection and registration of birth and death events at the state and local level. The NVSS provides the most complete and continuous data available to public health officials at the national, state and local levels, and in the private sector. Data are used by the U.S. Census Bureau to calculate post-censal population estimates. Birth and death data are used to set and track many of CDC's, HHS' and Healthy People 2010 goals and will help ensure that program interventions achieve the greatest health impact.

- Preliminary data for 2006 show life expectancy at birth hit a new record high of 78.1 years, a 0.3 increase over 2005. Record high life expectancy was recorded for both white males and black males (76 years and 70 years, respectively) as well as for white females and black females (81 years and 76.9 years, respectively). The preliminary infant mortality rate for 2006 was 6.7 infant deaths per 1,000 live births, a 2.3 percent decline from the 2005 rate of 6.9. These data are crucial for public health officials at the national, state and local level to monitor progress toward achieving health goals related to infant mortality, and monitoring health disparities.
- A national consensus document of best practices was developed for how electronic birth and death certificate systems will operate in partnership with the Social Security Administration and the National Association for Public Health Statistics and Information Systems (NAPHSIS). The document is being used by NAPHSIS in working with states to develop an electronic death registration (EDR) system. There are currently 33 states either operating an EDR system or working toward system development. .

Funds allocated to the NVSS are distributed through a competitive contract with a commercial vendor, as well as through task orders on contracts maintained by other Centers within CDC. Funds are also distributed through interagency agreements.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$109,021,000
FY 2006	$109,021,000
FY 2007	$107,142,000
FY 2008	$113,636,000
FY 2009	$124,701,000

BUDGET REQUEST

CDC's FY 2010 request includes $138,683,000 for Health Statistics, an increase of $13,982,000 above the FY 2009 Omnibus. This increase reflects $683,000 for pay increases and $13,299,000 for non-pay increases.

CDC's surveys and statistical programs are critical not only to CDC, but throughout government at the federal, state and local level. The increase in FY 2010 will enable CDC to fully fund surveys and sample sizes at the expanded FY 2009 level, collect 12 months of core vital statistics data and reinstate many of the reductions in operational capacity that have been implemented in the past several years.

In FY 2010 the program will achieve its purpose by:

Maintaining data collection systems in the field

- Maintaining continuous field operations through NHANES on a nationally representative sample of 5,000 individuals at 15 U.S. sites.
- Collecting a full 12 months of core birth and death data to provide the nation's official vital statistics data based on the collection and registration of events at the state and local level.
- Providing information annually on the health status of the U.S. civilian, non-institutionalized population through confidential household interviews conducted by NHIS in at least 30,625 households covering 76,562 persons.
- Conducting nationally representative surveys of health care providers in physician offices and community health centers, hospital outpatient and emergency departments, and other selected settings such as those providing long term care and hospital inpatient departments to reflect the changing patterns of health care delivery and public health.
- Redesigning a new sample for the NHIS to ensure it accurately reflects the shifting U. S. population demographics identified in the decennial census.
- Collaborating with other federal agencies to address specific research and program-driven needs on areas such as oral health, body composition, cardiovascular disease, diabetes and other chronic diseases, environmental exposure, osteoporosis, hearing, vision, infectious disease, health behaviors and risk factors, diet and nutrition and incorporating them into ongoing surveys.

Improving data access and dissemination

- Providing access to the most current key national indicators, including reductions in teen pregnancies, low birth weight and preterm birth, prevalence of chronic and infectious

disease (e.g., diabetes, hypertension, anemia, Methicillin-Resistant Staphylococcus aureus), functional status, insurance and access to care, and utilization of health care.

- Ensuring data are available in more easily accessible forms through the Internet.
- Publishing NHIS data on a quarterly basis on the lack of health insurance coverage to reflect different policy relevant perspectives on persons with access to care. Also publishing data on selected health measures of health status and disability, access to care, use of health services, immunizations, health behaviors, ability to perform daily activities, and child mental health.
- Providing detailed charts and tables on health status and its determinants, health care resources, health care utilization, and health insurance and expenditures through publication of *Health, United States.*
- Providing mechanisms for researchers to access the full range of health and vital statistics information collected by NCHS, while protecting the confidentiality of the respondents and records through the Research Data Center.

Improving Methodology

- Working with selected states on the development and implementation of the 2003 U.S. Standard Certificates of Live Birth, Death, and Fetal Death; and with the implementation of electronic systems, including NCHS edit specifications.
- Monitoring the adoption of health information technologies such as electronic health records (EHRs) by health providers. Estimates of EHR adoption are used by DHHS to track the progress of the goal of universal electronic health records by 2014.
- Measuring the impact and implications of cell phone use on telephone surveys and identifying differences between wireless only households (or with no telephone service) and other households.

The FY 2010 budget will enable the achievement of several key outcomes and outputs, including:

- Maintaining the timely release of data files; the quality of NCHS reports released in print and on the internet; and the number and quality of access tools through tutorials to ensure data are available in easily accessible forms and to improve the speed and efficiency with which people access the data.

To accomplish its goals, CDC is developing ways to integrate data collection to maximize linkage with administrative data and building on technical advances in data collection, access and dissemination. In order to meet the ever-increasing needs of data users, the program faces some challenges as it moves forward.

- Demands to enhance the scope and quality of data to meet the needs of a variety of data users for estimates of smaller population groups among a variety of dimensions.
- Increasing costs of data collection and the need for upgrades in the technology and design of surveys.
- Building and reengineering electronic collection, processing and storage systems to improve the speed and quality of data.
- Maintaining response rates due to an increasing mobile population and an increase in the number of households with only wireless telephones.
- Ensuring confidentiality of survey participants.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
7.E.1: The number of months for release of data as measured by the time from end of data collection to data release on internet *(Efficiency and Outcome)*	FY 2006: 9.6 (Target Exceeded)	9.7	9.6	-0.1

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 7.1: Monitor trends in the nation's health through high-quality data systems and deliver timely data to the nation's health decision-makers.				
7.1.1: Percentage of key data users and policy makers, including reimbursable collaborators, that are satisfied with data quality and relevance. *(Outcome)*				
a) Web-based Users	FY 2007: 56% Excellent; 35% Good (Baseline)	N/A	N/A	N/A
b) Federal Power Users Attendees[1]	FY 2006: 38%;	N/A	Conduct survey	N/A
c) Reimbursable customers	FY 2006: 100% rated Good or Excellent (Baseline)	Maintain 100%	Maintain 100% Satisfaction rating	N/A
d) Data User Conference[1]	FY 2008: 67.2% [2] Satisfied (Baseline)	Conduct survey, report findings in FY 2010	72.2 % satisfied	N/A
7.1.2: The number of new or revised charts and tables and methodological changes in Health, United States, as a proxy for continuous improvement and innovation in the scope and detail of information. *(Output)*	FY 2008: 30.0 (Target Exceeded)	15.0	15.0	Maintain
7.1.3a: Number of improved user tools and technologies and web visits as a proxy for the use of NCHS data: Number of improved user tools and technologies *(Output)*	FY 2008: 6.0 (Target Exceeded)	5.0	5.0	Maintain
7.1.3b: Number of improved user tools and technologies and web visits as a proxy for the use of NCHS data: Number of web visits*(Output)*	FY 2008: 6.8M (Unmet)	7.5	7.5	Maintain

[1] Due to resource and staffing changes, NCHS did not conduct surveys of federal power users and data user conference attendees (DUC) in FY 2008. NCHS did however conduct a usability study at the DUC and based on the results of the survey, NCHS is making recommended changes to the CDC/NCHS webpage.

[2] 67.2 percent satisfied (agree or strongly agree) that information on website is easy to find and interpret, is relevant, timely and accurate.

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
7.A: Number of key elements of the health care system for which data are collected.	FY 2008: 3	2	3	+1
7.B: Number of communities visited by mobile examination centers from the National Health and Nutrition Examination Survey.	FY 2008: 15	15	15	Maintain
7.C: Data systems for which significant efforts will be underway for redesign, reengineering, or transformation.	FY 2008: 2	2	2	Maintain
7.D: Number of households interviewed in the National Health Interview Survey.	FY 2008: 35,000	17,500	30,625	Maintain
Appropriated Amount ($ Million)[1]	$113.6	$124.7	$138.7	$14.0

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PUBLIC HEALTH INFORMATICS

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$45,739,000	$45,324,000	$0	$61,222,000	+$15,898,000
PHS Evaluation Transfers	$24,751,000	$24,751,000	$0	$9,375,000	-$15,376,000
Total	$70,490,000	$70,075,000	$0	$70,597,000	+$522,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 308, 307, 310, 311, 317, 318, 319, 319A, 319B, 319C, 327, 352, 391, 1102, 2315, 2341, Clinical Laboratory Improvement Amendments of 1988, § 4

FY 2009 Authorization……..….Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grants and Cooperative Agreements; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Created in 2005, CDC's National Center for Public Health Informatics (NCPHI) improves public health by advancing the science of informatics, the discipline of efficiently employing information and computer science and technology in public health practice, research, and learning. CDC's public health informatics activities inform and support an extensive range of public health officials, Congress and other policymakers, and other federal, state, and local agencies.

The escalating need for public health informatics arises from growing pressures for public health and clinical care delivery systems to develop and implement electronic information solutions that will aid reform and improve the health system. These solutions include those that allow stakeholders to quickly share and analyze accurate and authoritative information from a wide range of sources in order to support better informed and effective interventions, preparedness, and policy decisions. The challenge is that each organization uses information systems which are often incompatible with those of other organizations, resulting in the inability to exchange data or delays in data reconciliation.

CDC advances the use of public health informatics by working collaboratively with key stakeholders to identify and implement strategies that promote effective information and knowledge sharing between systems. CDC forwards this work through a variety of methods, such as:

- Fostering innovative approaches to seamlessly connect people, processes, and systems for improving public health and reducing costs through enhanced preparation, planning, and decision-making;
- Providing for more efficient dissemination of information and utilization of resources by connecting public health and clinical care information systems and resources;
- Monitoring the health of the population and of the healthcare system;
- Enhancing decision support and knowledge management; and
- Improving preparedness and response capabilities.

CDC's Public Health Informatics budget is divided into three major categories: Public Health Information Network (PHIN), National Electronic Disease Surveillance System (NEDSS), and Public Health Informatics. Activities under these categories are detailed below, along with essential cross-cutting efforts.

Public Health Information Network (PHIN)

The Public Health Information Network (PHIN) is a national initiative to improve electronic information exchange across organizational and jurisdictional boundaries. PHIN will allow information on nationally notifiable diseases (NND), public health threats and alerts, laboratory orders and results, and countermeasure tracking to be shared quickly and efficiently across all levels of public health regardless of the type of system and infrastructure each jurisdiction has in place. Although state and local public health agencies are implementing interoperable electronic information systems, albeit at different rates, some still collect and maintain data through cumbersome paper-based processes. In order for PHIN to be fully realized, state and local infrastructure needs to be dramatically upgraded to allow for adoption of electronic systems.

CDC supports the PHIN goal of enhancing the exchange of critical health information between all levels of public health and healthcare by:

- Collaboratively developing and disseminating requirements, standards, specifications, and an overall architecture to ensure all public health agencies adhere to a common set of national (PHIN) standards.
- Providing guidance and technical support to 62 state and local public health agencies through CDC's Public Health Emergency Preparedness (PHEP) cooperative agreement funded by CDC's Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER). Through the PHEP cooperative agreement, CDC advances and monitors grantees' progress toward implementing interoperable systems that meet PHIN objectives and requirements.
- Facilitating communication and information sharing within the PHIN community to foster success for jurisdictions trying to meet national (PHIN) standards. In recent years, CDC has published a list of applications in use by each jurisdiction to facilitate the exchange of lessons learned. Other important CDC outlets for information and collaboration include the PHIN newsletter, PHIN website, PHIN Forum, PHIN conference, Regional and National Partner Calls, Outreach Programs, and educational series. In 2008, CDC launched a "Community of Practice (CoP) Program" that provides resources to communities within PHIN to work collaboratively on a variety of domain topics.

Funds allocated to PHIN are distributed to provide operations and project management support through a competitive contract. PHIN distributes funds for technical support such as message specification and data brokering through an interagency agreement with the General Services Administration (GSA).

National Electronic Disease Surveillance System (NEDSS)

The National Electronic Disease Surveillance System (NEDSS) is a broad initiative to employ data and information system standards that promote automated, integrated and interoperable surveillance systems and processes. NEDSS facilitates the electronic exchange of data between public health systems, laboratories, clinical providers and other reporting entities.

NEDSS supports the automatic capture and analysis of surveillance data already available electronically, such as laboratory results and clinical data. NEDSS is the only cross-cutting electronic system for receiving surveillance data at CDC, and is utilized by major surveillance programs at CDC.

Goals of the program are accomplished by:

- Provision of data to the National Notifiable Diseases Surveillance System (NNDSS). The data feed provided by NEDSS supports the NNDSS, which is the only national dataset for Notifiable conditions. Data are used at the federal level for monitoring trends and the effectiveness of prevention and control activities, program planning and evaluation, policy development, and research; they are used at the local/state/territorial levels to detect and respond to reportable diseases of public health concern.
- Through adoption of NEDSS integrated surveillance systems, all states are able to identify, respond to, and notify CDC regarding reportable diseases more rapidly. This improvement to the surveillance infrastructure has resulted in more timely and complete detection and management of cases, resulting in reduced morbidity and mortality associated with reportable conditions.
- Transition to standards-based data exchange for reportable disease surveillance has significantly improved local/state/territorial capacity to detect and respond to reportable diseases (naturally-occurring and terrorism-related) and our nation's ability to support the revised International Health Regulations. Implementation of Electronic Laboratory Results reporting has decreased the time for detection of a case from an average of 24 to three days and increased the number of cases identified by as much as 300 percent in some jurisdictions.

CDC distributes NEDSS funds through contract awards with multiple commercial vendors. CDC also distributes funds through multiple interagency agreements and multiple grants/cooperative agreements with state public health offices.

Public Health Informatics

CDC advances the quality, timeliness and effectiveness of public health practice through the science of public health informatics. The Public Health Informatics budget supports leadership, services and research to facilitate the design, integration and sharing of information between public health departments and the healthcare ecosystem. Public Health Informatics resources foster improved communication, coordination and collaboration by developing standards, tools, guidance, and methodologies to improve workflow and the timeliness, analysis and visualization of information to decision makers. These activities are a vital part of healthcare transformation. Funding supports activities such as:

- Developing innovative clinical decision support capabilities to mitigate outbreaks through actionable public health alerts that can be distributed to providers at the point of care through Electronic Health Record (EHR) systems;
- Pioneering open source software development to lower costs and increase functionality for federal, state, local and tribal stakeholders;
- Increasing cross-jurisdictional collaboration and data sharing for outbreak management and biosurveillance by enabling participation and addressing privacy/data stewardship challenges through innovative public health grid technologies;
- Protecting sensitive public health data for local, state, and federal organizations through deployment of secure data messaging systems; and
- Providing decision support for rapid analysis, visualization and reporting of public health data for public health assessments, epidemiologic research, policy planning, and evaluations.

Funds allocated for Public Health Informatics are distributed through numerous contract awards with multiple commercial vendors, interagency agreements, and cooperative agreements.

ADDITIONAL PROGRAM DESCRIPTIONS

NCPHI manages the BioSense program, which receives its funding from the CDC Coordinating Office for Terrorism, Preparedness and Emergency Response (COTPER). Please refer to the COTPER narrative for BioSense program description and budget request. NCPHI also manages the Countermeasure and Response Administration Project, which is funded through COTPER and pandemic influenza funds. The purpose of the CRA Project is to automate the tracking and managing of a range of countermeasures for any event, whether national or regional in scope. Countermeasures may include medical interventions such as vaccinations, pharmaceuticals and non-medical interventions such as patient isolation and quarantine, the provision of scarce medical equipment, and social distancing measures.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$73,130,000
FY 2006	$67,369,000
FY 2007	$71,601,000
FY 2008	$70,490,000
FY 2009	$70,075,000

BUDGET REQUEST

CDC's FY 2010 request includes $70,597,000 for Public Health Informatics, an increase of $522,000 above the FY 2009 Omnibus for pay increases.

Key objectives and outputs that will guide the program's activities include:

- Open source development of PHIN-compliant tools that ensure interoperability at all levels of public health (collaborative development).
- Dissemination of promising practices and lessons learned in the implementation of interoperable systems and Health Information Exchanges (HIE) to accelerate nationwide adoption.
- Significant adoption of PHIN-certified standards based on electronic messaging from States to CDC, in particular, messaging of case notifications.

As CDC works to achieve its goals, it faces several key challenges moving forward:

- Each public health and clinical care organization uses information systems which identify, code, store, and transmit data in ways that are often incompatible with those of other organizations (and subunits within the same organization), requiring substantial time and effort to reconcile the data.
- The sharing of cross-jurisdictional data is often prohibited, and when permitted, reconciliation of the data is labor intensive because of the slow pace of adopting standards.
- State and local public health infrastructure is antiquated and currently does not support the electronic exchange of data. In fact, in many jurisdictions, public health information is not collected, stored, or shared electronically.

CDC is exploring and implementing new strategies that will enhance its ability to accomplish key goals. While CDC works to enhance Public Health Informatics through a broad range of activities, the four strategies below showcase some of the most innovative and promising work:

1. Integrated Systems – CDC is exploring innovative approaches to integrating biosurveillance with traditional disease detection, health monitoring, and surveillance systems to create powerful, cost-effective solutions that empower local, state, and federal officials to protect the health of their citizens by providing the tools and information needed to develop effective interventions and make timely and informed decisions.
2. Federated Systems – CDC is investigating a federated approach to routinely share cross-jurisdictional analyses rather than data. This change will provide health officials information about health threats which could potentially affect their communities, while minimizing the privacy and security risks.
3. Health Information Exchanges (HIEs) – CDC is working to accelerate the adoption of HIEs and regional health information organizations (RHIOs) by funding innovative approaches to identify and explore promising methods for integrating public health data accessibility and reporting methods used to support biosurveillance, outbreak detection, and response to emerging or imminent threats to the public health.
4. Centers of Excellence – CDC conducts research to foster utilization of healthcare information to improve the capability and capacity for detecting emerging public health threats earlier and more efficiently. This work is partially supported through grants to academic Centers of Excellence in Public Health Informatics. Current research focuses include Electronic Health Record (EHR) systems, Personally Controlled Health Records (PCHR), decision support systems, and new technologies for electronic medical surveillance.

OUTPUT TABLE

Key Outputs[1]	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- 2009
8.A: States actively engaged in ongoing NEDSS/PHIN-compatible systems integration	FY 2008: 42 (Target Exceeded)	45	45	Maintain
8.B: States developing NEDSS-compatible systems, in deployment, or live with the NEDSS Base System	FY 2008: 50	50	50	Maintain

[1] The program plans to retire these measures in FY 2009 and replace with measures that are more reflective of program goals and priorities.
[2] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

HEALTH MARKETING

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$44,129,000	$37,800,000	$0	$35,468,000	-$3,000,000
PHS Evaluation Transfers	$48,523,000	$46,780,000	$0	$46,780,000	+$0
Pay Increase	N/A	N/A	$0	$924,000	+ $924,000
Total	$92,652,000	$84,580,000	$0	$82,504,000	-$2,076,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 308, 310, 311, 317, 318, 319, 319A, 319B, 319C, 327, 352, 391, 1102, 2315, 2341, 2521

FY 2009 Authorization ……..…….Indefinite

Allocation Methods…… ……Direct Federal/Intramural, Competitive Grants and Cooperative agreements; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

CDC's National Center for Health Marketing stands as a link between scientific discovery and information dissemination to CDC's audiences and facilitates the translation of knowledge to action. Most public health interventions rely on health information as a prominent element of what is conveyed to practitioners and populations to have a positive impact on health outcomes. Public health interventions achieve greatest effectiveness when state-of-the-art knowledge from health communication science and marketing practice are incorporated into all stages of development and dissemination.

The task of translating and disseminating evidence-based public health information and interventions has become more challenging in recent years due to the rapidly evolving digital information environment, which also offers significant opportunities for CDC's work in increasing the reach and impact of public health's science and interventions. Recognizing this simultaneous challenge and opportunity for public health, CDC established the National Center for Health Marketing (NCHM) in 2005.

The value in the work that CDC performs has been recognized as an essential component to increasing positive health outcomes in the nation. The Institute of Medicine and Healthy People 2010 strongly endorsed the need for public health to increase its application of health communication and social marketing sciences.

CDC requires health communication, social marketing, and public engagement through both traditional and new media to accomplish CDC's mission of improving the public's health and wellness and supporting efforts to reform the health system. Health Marketing involves creating, communicating, and delivering health information and interventions using customer-centered and science-based strategies to protect and promote the health of diverse populations

Health Marketing serves a variety of functions:

- Scientific function – grounded in theory and practice from a number of academic disciplines, operating from an evidence base of effectiveness, and evaluating and improving by seeking public input and engagement.

- Creative function – developing and delivering health messages, programs and products which get people's attention and resonate to position health as a means of achieving what people really value; such as having energy, staying independent, performing satisfying work, and fulfilling basic needs.
- Program management function – strategically coordinating and leveraging all science-based communication and marketing activities within CDC to maximize its reach and health impact, reduce the gap between research and practice, and reduce health disparities.

The most important tool for the program's primary audiences (state and local health departments, partners, general public) is current information and knowledge. Health information must be continuously updated, translated, and communicated to meet changing conditions and threats.

In FY 2009, CDC has focused efforts on leadership in health marketing sciences, partnerships and strategic alliances, electronic health marketing, creative services, health communication and marketing, and global communication. The following information describes current activities and accomplishments within these areas.

Leadership in Health Marketing Sciences

NCHM coordinates and guides science-based health communication and marketing on behalf of CDC through NCHM Divisions and Offices and the HCSO embedded within each CDC National Center. Strategic planning for communication and marketing of scientific programs focuses on:

- Integrating health messages into cohesive campaigns targeted to defined audiences;
- Ensuring the use of scientifically sound research;
- Developing relationships with internal and external partners; and
- Leading the identification and implementation of information and dissemination channels.

NCHM collaborates with the HCSO on CDC brand management activities, activities to identify, measure, and grow trust with target audiences in order to have a greater impact on promoting healthy behavior change. In FY2008, CDC hosted the second annual National Conference on Health Communication, Marketing, and Media in Atlanta, Georgia, which was a collaborative effort between CDC, the National Cancer Institute, and the National Public Health Information Coalition. The conference attracted more than 110 speakers and nearly 1000 attendees, representing more than 290 organizations and 14 countries and territories. Additionally, CDC has led the development of core competencies for current and future professionals in public health communication and social marketing. As the largest employer of health communication specialists in the world, with over 250, CDC can ultimately share this model to serve as a baseline framework for CDC and for other employers, academic institutions, and students of public health communication and social marketing.

Goals of the program are accomplished through:

- Customer Centricity – Health marketing makes information highly accessible and relevant so that people can find easily understood health information and interventions when, where and how they need them. CDC uses the notion of customer-centricity as a guiding principle when conducting audience research and developing campaigns and other health promotion tools.
    - In 2007, CDC completed extensive audience research to redesign the Traveler's Health website – a website devoted to providing comprehensive, up-to-date, health-related information to students, travelers with special needs, and people traveling with children. The redesign was based on user feedback and the creation of a

content management system that enables users to obtain country-specific (rather than region-specific) information.

- Cutting Edge Communication – To extend the reach of its public health information efforts, CDC is using digital media technologies to supplement traditional approaches. The recent advances in communication technologies extend from interactive websites, streaming videos, audio podcasts, and virtual worlds. CDC uses these channels to disseminate health information and scientific data.
    - In 2008, CDC used social networks like MySpace, to promote HIV testing and World AIDS Day activities. CDC developed a series of graphical badges which users were invited to copy and paste into their own MySpace pages or other social networks.
- Partner & Public Engagement – Partner and public engagement are vital to advancing public health and expanding the reach and impact of health interventions and information.
    - CDC partnered with the American Public Health Association (APHA) and other external partners to raise awareness about climate change. CDC created a web page that was devoted to climate change and health and within four months of its launch, the page had been viewed more than 16,000 times. CDC furthered the reach of its awareness strategy by utilizing both traditional and non-traditional communication channels: e-cards and an audio podcast were also developed and disseminated to CDC's partners.

Funding for Health Communication and Marketing Sciences is distributed through multiple contract awards with commercial vendors. In FY 2009, CDC's intramural research and evaluation activities in health communication and marketing will continue with a reduction in the amount of $254,877 in contracts and contractors. A planned extramural funding opportunity announcement, in the amount of $2,500,000, will not be offered.

Partnerships and Strategic Alliances

CDC engages businesses, health care organizations, educational institutions, other federal agencies, the sports and entertainment industry, and faith-based and community organizations to more effectively support health promotion and disease prevention. To facilitate partner engagement and communication CDC established the online partnership portal. The portal connects nearly 400 organizations affiliated with multiple sectors and delivers a bi-weekly newsletter to more than 7,500 subscribers to provide updates on CDC's activities and issues of critical public health importance. Goals of the program are accomplished by activities, such as:

- Building and engaging partners through a multi-sector approach to advance CDC's health protection goals. Sector-based engagement activities include identifying and working with potential partners; facilitating a focus on the contributions of the healthcare sector on population health; connecting celebrities in the sports and entertainment arena to serve as communication channels for promoting public health interventions; engaging the business community in health promotion at the workplace; networking with faith-based groups in disadvantaged communities; and, promoting linkages between public health, public education, and other community agencies to reduce health disparities by improving high school graduation rates.
- Developing marketing and communication solutions that promote CDC's partnership activities, programs, products, and services to internal and external audiences. The marketing and communication activities create a context and forum for partners to engage with CDC in an efficient and effective manner. These activities increase the dissemination,

reach, and impact of CDC's evidence-based health products though leading, directing, and implementing strategic marketing communication programs.

- Providing management, oversight, and coordination assistance to cross-cutting CDC-wide cooperative agreements with 16 public health system partner organizations (e.g. APHA, Association of State and Territorial Health Officials, and the Association of Public Health Laboratories).

Funding for Partnerships and Strategic Alliances is distributed through contracts and interagency agreements with federal partners as well as through cooperative agreements with national non-profit public health partner organizations. In FY 2009, CDC will reduce overall funding for the partner cooperative agreements by $1,639,900 with individual awards reflecting technical review scores and CDC priorities.

Electronic Health Marketing

CDC launched its Electronic Health Marketing (E-Health) activity in April 2006 to manage and expand CDC's electronic marketing communication activities and capacity using a series of web, electronic communication, and interactive media initiatives to increase the impact of CDC's science through innovative electronic communications. For example, NCHM actively manages and markets CDC.gov, the agency's primary web site and online communication channel. The redesigned CDC.gov is recognized as a top government agency website and has received many awards and recognitions by other federal organizations as a leader in user-centered design and usability.

Since 2005, there has been a significant increase in traffic to CDC.gov – a 70 percent increase in page views and 108 percent increase in visits, while competition has significantly increased. CDC health e-cards are available on more than 200 health topics, have been sent to more than 35,000 users to date, and have been recognized and credited by national media as increasing health impact by providing the supporting information and personal endorsement needed to change attitudes and affect behavior change. Goals of the program are accomplished by activities, such as:

- Providing oversight, leadership, and coordination for CDC.gov, one of the primary channels through which CDC communicates regularly with professionals and the public to communicate information to multiple audiences.
- Creating, deploying and evaluating innovative projects where interactive media activities allow CDC science to reach new audiences, reinforce existing messages, engage users in health information, and encourage healthier behaviors. This activity builds internal and external collaborations and builds evidence-based recommendations for public health expansion into emerging media channels.
- Providing oversight to CDC-INFO, CDC's consolidated telephone, email, and fulfillment services center, allowing for synchronization of content across CDC's primary channels for communication. CDC's contact center (1-800-CDC-INFO) provides a single source of accurate, timely, consistent, and science-based health and safety information for the general public, healthcare providers, and public health partners. CDC-INFO provides information to more than 400,000 inquirers each year, and distributes nine million CDC publications annually.

Funding for Electronic Health Marketing is distributed through multiple competitive and sole-source contract awards with commercial vendors. In FY 2009, CDC is fully funding CDC.gov. Additionally, in FY 2009, CDC-INFO will operate with reduced and/or eliminated capacity to warehouse publications, fulfill publications requests and provide e-mail responses as a result of necessary

reductions in contracts and contractor support. CDC is committed to reaching the widest audience possible with existing resources.

Creative Services

CDC's Creative Services activity provides mechanisms and expertise with which to better execute agency communication strategies across print, broadcast, web, and other electronic channels. These resources underpin all communication efforts within the Agency to translate into action scientific findings that drive public health impact of CDC. Selected examples of NCHM's reach and impact include CDC podcasts, which have been downloaded more than 2.2 million times; RSS feeds for CDC information updates, which have been subscribed to by more than 12.3 million users; and CDC email updates, which have distributed more than 33,112,682 health information updates to professionals and the public since 2006.

Goals of the program are accomplished by activities such as:

- Managing broadcast channels and production that enable CDC leadership and subject matter experts to share timely and informative health messages through national networks (CBS, CNN, etc.) on such topics as E. coli, Salmonella, and other timely and critical health issues. Production support is also provided for online media development featuring CDC-TV (see www.cdctv.gov/cdctv) and CDC podcasts (see www.cdc.gov/podcasts). Video and audio products, which translate scientific information and data for general audiences, reach millions of people each year. Users have indicated that these products are incorporated into training modules for community health educators, hospital staff as well as utilized within patient outreach activities.
- Coordinating communication support for graphics and writer editor services agency wide. Staff typically respond to over 8,000 requests annually to produce such varied materials as the professional reference book, *Epidemiology and Prevention of Vaccine Preventable Diseases; Preventing Chronic Disease*; *Health U.S.*

Funding for Creative Services is distributed through multiple competitive and sole-source contract awards with commercial vendors. In FY 2009, CDC is continuing to provide graphics and writer editor services.

Health Communication and Marketing

CDC's Health Communication and Marketing activities use strategies and research to inform and influence individual and community decisions that enhance health and health literacy efforts. The program also assists other areas of CDC and its partners in the effective application of health communication and marketing sciences and in identifying effective interventions to implement in their programs. For example, the Guide for Community Preventive Services' (aka Community Guide) website and online content database has been significantly updated. These improvements in usability, layout and design have increased viewership and enables stakeholders to easily select programs and policies that are proven effective and are the right fit for target communities – all 200 systematic reviews and recommendations completed to date are easily accessible online. NCHM has also expanded the reach of CDC's Morbidity and Mortality Weekly Report (MMWR) with the launch of its corresponding weekly podcast series in 2006, which receives an average of 60,000 downloads every month.

Goals of the program are accomplished by activities, such as:

- Advancing health literacy improvement for public health professionals and supporting health literacy research through pandemic influenza preparedness projects.

- Analyzing and advising on target audiences for public health interventions in order to create more audience centric and effective public health messages and materials.
- Assessing and identifying improvements in CDC's capacity to disseminate messages and materials to state and local public health and the publics they serve in health emergencies such as an influenza pandemic.
- Increasing the amount of consumer research CDC's programs can accomplish. The mechanism for this is the Health Message Testing System which includes approved questions to ascertain consumer information on knowledge, attitudes and beliefs for health topics and disease areas.
- Developing the Guide to Community Preventive Services (Community Guide), a compilation of evidence-based recommendations about interventions and policies that are effective at improving public health and meeting critical public health objectives (e.g., CDC goals, Healthy People). Findings of the Community Guide form the basis of evidence-based recommendations that are made by the non-federal, independent Task Force on Community Preventive Services, and used by policymakers, practitioners, and other decision makers.
    - In FY 2009, the Community Guide anticipates adding five new evidence-based recommendations and updating five existing recommendations, in areas as diverse as decreasing obesity, increasing vaccination, reducing excessive alcohol consumption and related harms, and reducing risky sexual behavior among adolescents. The recommendations in the Community Guide can serve as the evidence base for prevention and wellness activities and contribute to the field of comparative effectiveness research.
- Providing leadership and oversight for the family of publications that includes the Morbidity and Mortality Weekly Report (MMWR) Weekly, MMWR Recommendations and Reports, MMWR Surveillance Summaries, MMWR Supplements, and the MMWR Summary of Notifiable Diseases. These reports are the principal mechanisms for communicating public health information to state and local health agencies, health care providers and other health-related groups including public health reports such as information on opportunistic infections in adults and children with HIV infection, and urgent reports on importation of polio and heparin contamination.

Funding for Health Communication and Marketing is distributed through multiple, competitive contract awards with commercial vendors, through interagency agreements with federal partners, and through competitive and non-competitive grants/cooperative agreements with public health partner organizations and academic institutions.

Global Communication

The Global Health Communication Team's objectives are to support capacity building in health communication, emergency risk communication, social marketing, media engagement, and other relevant health communication and marketing activities among international Ministries of Health and global partners; and, to research and test the implementation of innovative health marketing strategies in diverse global settings. Because public health problems often do not recognize geographical boundaries, this work also protects U.S. health. In addition, lessons learned are applied domestically, as relevant and appropriate.

Goals of the program are accomplished by activities, such as:

- Implementing and testing electronic communications systems, including mobile telephone technology for advancing public health communications capacities in Kenya and a message testing and communication surveillance system in Nigeria.
- Supporting numerous emergency communications activities in China to develop its emergency communication system capacity and assisting in responses to the recent earthquake and hand, foot, and mouth disease events.
- Providing technical counsel to the World Health Organization (WHO) around planning for urban public health emergencies, regardless of (natural, unintentional, or intentional) origin.

Funding for Global Communication and Marketing is distributed through multiple contract awards with commercial vendors, through interagency agreements with federal partners, and through grants/cooperative agreements with public health partner organizations.

Other Health Communication and Marketing Activities

CDC's National Center for Health for Health Marketing conducts a variety of health communication and marketing activities that are funded through CDC's Terrorism budget. These activities include:

- Developing and implementing agency-wide, emergency risk communication strategy and coordination for all public health emergencies using CDC's Emergency Communication System (ECS). In the past year, the ECS has been activated for foodborne outbreaks, a de-orbiting satellite, ricin event in NV, four hurricanes, wildfires in Southern California, severe winter weather, two agency-wide pandemic influenza epidemic exercises, one agency-wide exercise related to an anthrax event, the earthquake in China, and support related to typhoon in Burma.
- Providing Epi-X, a secure web-based communications solution gives public health officials a single source of up-to-the-minute alerts, reports, discussions, and comments on public health events. The network's primary goal is to inform health officials about important public health events, help them respond to public health emergencies, and encourage professional growth and exchange of information. Additionally, Epi-X allows for discussion of state, local and regional level issues which may not have nationwide impact. This resource is especially useful to issues relating to both US-Canada and US-Mexico border issues and is utilized by the Division of Global Migration and Quarantine (DGMQ), Border Infectious Disease Surveillance (BIDS) project, Early Warning Infectious Disease (EWIDS) project and Border Health programs.
    - In FY 2008, 1,772 reports of outbreaks, Epi-Aids, and notification tests including reports on avian and pandemic influenza, anthrax, plague, TB, Tularemia, imported mumps and measles, and Legionnaire's disease in the U.S. were posted through Epi-X.
- Providing Health Alerts from CDC to state and local health departments via CDC's Health Alert Network (HAN). In FY 2008, the Health Alert Network provided over 10 health alerts. The states have also used this cascaded system to send CDC messages to their constituencies and to issue their own state health alerts.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$46,523,000
FY 2006	$42,515,000
FY 2007	$91,330,000
FY 2008	$92,652,000
FY 2009	$84,580,000

BUDGET REQUEST

CDC's FY 2010 request includes $82,504,000 for Health Marketing, a decrease of $3,000,000 without pay increases, or $2,076,000 with pay increases, below the FY 2009 Omnibus.

The FY 2010 Health Marketing budget will continue to fund CDC priority prevention areas. This reduction will maintain full funding for, and will not have a negative impact on, key communication tools: the Community Guide, the Morbidity and Mortality Weekly Report, and the CDC website. The reduction would eliminate Health Marketing funding for the Global Communication Pilot. This pilot funds information and communication technology pilot tests in China to see if participants prefer distance based training over traditional face-to-face training. In addition, the offset would reduce funding in the amount of $1,000,000 for CDC's Public Health Partners, who have other resources for public health activities.

In FY 2010, CDC will focus health marketing efforts on the activities, objectives and targets described below.

Leadership in Health Marketing Sciences

- Intramural and extramural research in Health Marketing and Communication is designed to advance interdisciplinary approaches to create, communicate and deliver public health information and intervention products. Innovative research and demonstration programs link recent advances across multiple disciplines to develop new, rigorously evaluated paradigms for providing health marketing and communication that influence action to improve and promote public health.
- CDC plans to hold the third National Conference on Health Communication, Marketing and Media on August 11-13, 2009 building upon the success of the previous year's conference, which brought together more than 900 scientists, professionals, and practitioners from the U.S. and several other countries.
- The NCHM Board of Scientific Counselors will continue to advise CDC leadership on important areas of growth and emphasis, reviewing health marketing science programs, and providing recommendations to increase the impact of health marketing on CDC programs.

Partnerships and Strategic Alliances

- Managing funding agreements with 16 "core" public health partners that directly and concretely promote the public's health interests through the accomplishment of CDC's Health Protection Goals. In FY 2010, $1,000,000 reductions will be taken from funding for these core partners
- Maintaining and marketing the new CDC "Partner Web site." The CDC Partners' Web site (www.cdc.gov/Partners) is designed to engage and inform CDC's partners and offer a wealth of easily accessible news and information for and about CDC partnerships. The goal of the Web site is to increase communication and enhance public health partnerships by building stronger partner relations through timely information sharing and interactivity.

- Convening key partner meetings and conferences which will bring together senior executives in business, government, education, non-profit, and faith-based and community sectors to discuss their ideas on actionable policies, strategies, and innovative technologies to improve the health of the nation.

Electronic Health Marketing

- Ensuring rapid dissemination of CDC's health information through CDC.gov, and interactive media channels including content syndication and mobile, and through electronic communication efforts such as CDC-INFO. In FY 2010, CDC will reduce the operational capacity and levels of service provided for some of its e-Health activities through necessary reductions in contracts and contractor support. CDC will continue its efforts to reach the widest possible audience through the following activities:
    - Maintaining access and utilization of CDC.gov by the general public, public health professionals and health care providers by establishing key sector online partnerships.
    - Working with state and local health departments, moving forward on development of a nationwide content syndication platform for sharing CDC's science and health information.
    - Developing and expanding research around the use of mobile applications across organizational lines with key programs, partners, and organizations. Collaborate to disseminate and evaluate the impact of social media and health communications science tactics and messaging.
    - Continuing the use of CDC-INFO data, pilot audience research initiatives, and current evaluation activities and real-time reporting capabilities.

Creative Services

- Continuing to access and use a broad array of multi-media channels to quickly translate science into usable information accessible in many formats (e.g., broadcast and cable television, web casts, audio and video pod casts, etc) to be used by a variety of audiences. CDC will continue its efforts to reach the widest possible audience through the following activities.
    - Developing, maintaining, and enhancing allied audio, video and health education and promotion resources which provide CDC the ability to produce and deliver information, from conception to completion in real time and high definition format, through broadcast channels (TV, radio, phone, satellite, web) and digital formats (DVD's and CD-ROMs).
    - Conducting outreach activities through in-person initiatives led by the Global Health Odyssey resource including, interactive tours of permanent and rotating exhibits for more than 50,000 annual visitors, "disease detective" camps for high-school students as well as workshops and seminars designed to promote public health instruction among middle school science teachers.
    - Refocusing multi-media and broadcast capabilities to increase the number of multi-media outputs that provide science-based health information to public health professionals, CDC partners, and the American public.

Health Communication and Marketing

- Providing expertise and strategy in audience centered information and marketing practices through consultations, tools, templates, and other resources which will increase the impact of messages and materials on public health diseases and topics to the intended audiences.
- Identifying and implementing strategies for health literacy and multilingual translation and delivery of CDC information tailored to specific audiences for maximum health impact.
    - Conducting health literacy training sessions, as well as disseminating a health literacy policy brief and action plan to outline existing policies, gaps and opportunities.
    - In FY 2010, CDC will reduce support for multilingual translation services through reductions in contracts and contractor support. The impact will be a reduction in the availability and timeliness of some the services provided to CDC clients. CDC will continue its efforts to reach the widest array of clients possible.
- Improving the usage of CDC's online public health emergency alert systems, training materials, and other electronic resources/tools will have immediate and lasting impact on CDC's ability to respond to national emergencies and protect citizens from natural hazards and terrorism threats.
- Maintaining the Guide to Community Preventive Services (Community Guide) Findings of the Community Guide form the basis of evidence-based recommendations that are made by the non-federal, independent Task Force on Community Preventive Services, and used by policymakers, practitioners, and other decision makers. Within existing resources, the Community Guide anticipates adding six or more new evidence-based recommendations and updating six existing recommendations, in areas as diverse as those covered in FY 09. The recommendations in the Community Guide can serve as the evidence base for prevention and wellness activities and contribute to the field of comparative effectiveness research.
- Continuing to provide the family of publications that includes the Morbidity and Mortality Weekly Report (MMWR) Weekly, MMWR Recommendations and Reports, MMWR Surveillance Summaries, MMWR Supplements, and the MMWR Summary of Notifiable Diseases. Within existing resources CDC will strive to maintain highest subscription rate in 10 years. In January 1, 2007, there were about 55,000 email subscribers and 27 months later CDC had almost 65,000 email subscribers, an increase of about 9,900 subscribers, or 18 percent in 27 months. Of the almost 10,000 new subscribers, about 35 percent have come since the MMWR joined GovDelivery.com and abandoned the CDC listserv thus demonstrating the important synergy with web based information sharing.

Global Communication

- CDC supports Ministries of Health in other countries to conduct emergency communication system assessments; develop emergency communication plans; advance health communication and social marketing strategies to support public health interventions; conduct health communication research and evaluations; and, pilot innovative information and communication technology systems to support communications to the public and the public health workforce.
    - CDC has conducted three emergency communication system assessments in 2008 in Guatemala, Kenya, and Nigeria and will complete two more in Panama and Honduras. These activities will be followed by capacity development and emergency planning activities.

- CDC will continue to support the Global Health Security Initiative (GHSI) through representation on the Risk Management and Communication Working Group. CDC supports the Health and Human Services Assistant Secretary of Public Affairs in developing and implementing communications strategies consistent with interests and obligations of the Initiative.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure 9.E.1:				
9.E.1: Provide "just-in-time" scientific information and education via multiple communication channels to thousands of health professionals, thereby reducing the cost and time of distributing the latest science based information. *(Efficiency)*	FY 2008: 207,000.0 (Target Exceeded)	107,350.6	112,718.1	+5.02
Long Term Objective 9.1: CDC will maintain and improve its website and electronic communications to provide science-based health information to health care professionals, CDC partners and the American public.				
9.1.1: Increase access and utilization of CDC.gov by public, partners, and other health care professionals. *(Output)*	FY 2007: 450.0 million (Baseline)	495.0 million	495.0 million	Maintain
Long Term Objective 9.2: Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies; and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.				
9.2.1: Increase the usage of CDC's online public health emergency alert systems, training materials, and other electronic resources/tools designed to provide information, educational materials, and real-time alerts as measured by the number of subscribers to Epi *(Output)*	FY 2008: 6,527.0 (Target Exceeded)	5,246.4	5,246.4	Maintain
Long Term Objective: CDC will maintain and improve its multi-media broadcast capabilities (e.g. satellite television, webcasts, podcasts, video) to provide science based health information to health care professionals, CDC partners and the American public.				
9.3.1: Increase the number of multi-media broadcast outputs to partners and health professionals. *(Output)*	FY 2008: 43.0 (Target Exceeded)	44.0	44.0	Maintain

OTHER HEALTH MARKETING OUTPUTS

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
9.A: Number of MMWR Publications	FY 2008: 85 (Target Not Met)	90	90	Maintain
9.B: Number of Completed *Community Guide* Findings (Task Force findings and recommendations) annually[3]	FY 2008: 28* (Target Exceeded)	13	6	-6
9.C: Number of monthly page views to CDC.gov website	FY 2008: 40.8 million Page Views (Target Exceeded)	43million million Page Views	43 million Page Views per month	Maintain
9.D: Customer satisfaction with CDC website	FY 2008: 81% (Target Exceeded)	81%	80%	-1%
9.E: Number of monthly calls placed to 800-CDC-INFO	FY 2008: 55,870 (Target Not Met)	60,000	60,000	Maintain
9.F: Customer satisfaction with 800-CDC-INFO	FY 2008: 78% (Target Exceeded)	72%	72%	Maintain
9.G: Programs produced for broadcast (for general public) through PHTN, CDC-TV or other channels	FY 2008: 33 (Target Exceeded)	30	25	-5
9.H: Reports of outbreaks reported by Epi-X	FY 2008: 1,772 (Target Exceeded)	1,550	1,550	Maintain
9.I: Organizations included in CDC and External Organizations Networking Directory	FY 2008: 384 (Target Exceeded)	450	450	Maintain
9.J: CDC users of partnership coordination database	FY 2008: 50 (Target Exceeded)	70	80	+10

[1]The increase in FY 2007 and beyond is due to a re-programming of various activities across CDC to the Health Marketing program
[2]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.
[3] Most Community Guide reviews cannot be completed without the receipt of supplemental funding from CDC Programs which fluctuates widely from year to year. The targets for FY 2009 and 2010 are based on core funding only. The actual output (Community Guide findings and recommendations) results from the combination of core and supplemental funding. Variation in funding in a particular year impacts outputs in subsequent years.

ENVIRONMENTAL HEALTH AND INJURY PREVENTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$289,323,000	$330,657,000	$0	$335,016,000	+$4,359,000
FTEs	564	593	0	593	0

SUMMARY OF THE REQUEST

The Environmental Health and Injury Prevention budget supports critical management and coordination functions for environmental health and injury prevention science, program, and policy, including public health programs in areas such as asthma control, lead poisoning prevention, refugee health, laboratory activities, child passenger safety, and violence prevention.

CDC's FY 2010 request includes $335,016,000 for Environmental Health and Injury Prevention, an increase of $4,359,000 above the FY 2009 Omnibus. This increase reflects $1,359,000 for pay increases and $3,000,000 for non-pay increases. This includes:

- $148,615,000 for Injury Prevention and Control, an increase of $3,373,000 above the FY 2009 Omnibus. Funds will be used to:
    - Enhance efforts to develop, implement, and evaluate a comprehensive program to prevent teen dating-violence in high-risk urban communities (with non-pay increase).
    - Sustain and enhance Center priority areas, including: older adult fall prevention; residential fire prevention; teen driving safety; traumatic brain injury; child maltreatment prevention; youth violence prevention; domestic and sexual violence prevention; rape prevention and education; intimate partner violence; suicide prevention; and, the National Violent Death Reporting System (NVDRS).
- $186,401,000 for Environmental Health. Funds will be used to:
    - Eliminate childhood lead poisoning.
    - Improve laboratory methods and increase laboratory and other environmental health capacity at state and local levels.
    - Develop and expand environmental public health tracking.
    - Support priority health actions for climate change in research and surveillance; communication and education; national capacity building, and partnership development.
    - Develop and disseminate information on environmental health hazards and best practices on how to prevent or mitigate potential health effects.
    - Educate and train the environmental health workforce, partners, and the public on environmental health issues.
    - Respond to local, state, national, and international environmental health emergencies and requests for technical assistance.

In addition, CDC will continue to work closely with the Agency for Toxic Substances and Disease Registry to coordinate activities related to environmental issues.

ENVIRONMENTAL HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$154,486,000	$185,415,000	$0	$186,401,000	+$986,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 317A, 317B, 317I, 327, 352, 361, 399N, 1102; Housing and Community Development Act, 1021 (15 U.S.C. 2685); Title 50 – sections 1512 and 1521 of the Chemical Weapons Elimination Activities; Housing and Community Development (Lead Abatement) Act of 1992 (42 U.S.C. § 4851 et seq.)

FY 2009 Authorization……..…….Indefinite

Allocation Methods…….……..……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Established in 1980, CDC's environmental public health programs and activities focus on safeguarding people's health from environmental hazards. The program aims to protect people's health by preventing disability, disease, and death from environmental causes. Through a combination of science, service, and partnerships, CDC's environmental health work encompasses a broad range of activities, including:

- Investigating the effects of the environment on health through laboratory and field research.
- Tracking and evaluating environment-related health problems through surveillance systems.
- Developing and implementing interventions and prevention actions.
- Building local, state, and tribal public health environmental health capacity.
- Assisting domestic and international agencies and organizations to prepare for and respond to environmental emergencies.

While CDC's Environmental Health Programs engage in a broad range of activities, four activities – Environmental Public Health Laboratory (which conducts the National Biomonitoring Program), Environmental Public Health Tracking, Asthma, and the Healthy Housing/Lead Poisoning Prevention Program – account for approximately 80 percent of the total program's budget. In addition to these activities, CDC has identified Climate Change and Healthy Communities as priority emerging issues. CDC is working with partners to address air pollution prevention, the health effects of climate change, as well as human health issues related to the built environment, including physical activity, nutrition, injury prevention, and community planning.

Environmental Public Health Laboratory National Biomonitoring Program

The National Biomonitoring Program is a predominantly intramural program that specializes in the direct measurement of people's exposure to chemicals in the environment by measuring the substances or their metabolites in human specimens such as blood or urine. Biomonitoring measurements are the most health-relevant assessments of exposure because they indicate the amount of the chemical that actually enters people's bodies from all environmental sources (e.g., air, soil, water, dust, or food) combined, rather than the amount that may enter people's bodies. CDC also operates the Rapid Toxic Screen, which analyzes human blood or urine for 150 chemical

agents likely to be used in terrorist attacks. Results of these tests will identify which chemical agents were used, who was exposed to the chemicals, and how much of a particular chemical was absorbed in the body.

In FY 2008, CDC measured 280 environmental chemicals (including nutritional indicators) in the U.S. population. The program also ensures the quality of several different tests in a large number of laboratories that voluntarily participate in quality assurance and standardization programs. One standardization program, the Newborn Screening Quality Assurance Program (NSQAP), celebrated its 30th anniversary in 2008. NSQAP is the only comprehensive program in the world devoted to ensuring the accuracy of newborn screening tests. In many cases, detecting these disorders spells the difference between life and death for newborns; in other instances, identifying babies with a disorder means that they can be treated and thus not face life-long disability or cognitive impairment. Parents and doctors in the United States can trust the results of newborn screening tests because of NSQAP's efforts over the past 30 years.

Significant accomplishments for this program include:

- In FY 2009, CDC's National Biomonitoring Program funded several state-based biomonitoring programs through cooperative agreements. The funding:
    - Expands the capability and capacity of state public health laboratories to conduct biomonitoring and thus assess human exposure to environmental chemicals within their jurisdictions.
    - Provides CDC grantees with analytical method training and technology transfer, as well as proficiency testing and quality assurance services to laboratories for existing CDC methods.
- In July 2008, CDC scientists published the *National Report on Biochemical Indicators of Diet and Nutrition*, a comprehensive summary of data on levels of nutritional indicators in the U.S. population. The data, which are segmented by age, sex, and race/ethnicity, will be used to establish or improve upon population reference ranges that public health officials, doctors, laboratorians, and scientists can consult to determine whether the nutritional status of a person or group is unusually high or low and to help assess the effectiveness of public health efforts to improve the diet and nutritional status of U.S. population.
  Future reports will provide data on additional categories of indicators, including levels of vitamins C and B6; *omega*- and *trans*-fatty acids; caffeine and other food stimulants; food residues and carcinogens; natural antioxidants and markers of oxidative stress; and botanicals and herbs.
- In FY 2008, CDC instituted a new approach to publishing biomonitoring exposure results through peer-reviewed journal articles to describe the exposure of the U.S. population to specific chemicals or groups of chemicals as soon as they are available. The abstracts and links to the full-text articles are posted on CDC's Web site as soon as they are published.

  In FY 2008, CDC produced first-time exposure data for the U.S. population for chemicals such as triclosan (an anti-bacterial chemical used in detergents, soaps, skin cleansers, etc), benzophenone-3 (a chemical used in sunscreen), polybrominated diphenyl ethers (PBDEs) [a class of man-made chemicals that are added to plastics and foam products to make it more difficult for them to burn], and bisphenol-A (BPA) [an industrial chemical used to make one type of polycarbonate plastic and certain types of epoxy resins.] CDC will continue periodic releases of the *National Report on Human Exposure to Environmental Chemicals* Report, which provides summarized results of chemical measurements for all environmental chemicals measured in NHANES participants.

- CDC is working with public health laboratories in states, territories, cities, and counties to assist them in expanding their chemical laboratory capacity to prepare and respond to chemical terrorism incidents or other emergencies involving chemicals. With CDC funding, 62 partners – 50 states, eight territories, three cities, and one county – will be able to respond to chemical terrorism. CDC provides extensive training, technology transfer, and testing for analytical proficiency for all participating laboratories. CDC also partners with the Association of Public Health Laboratories (APHL) to ensure support for public health laboratories involved in responding to chemical-exposure events from all sources, including those related to terrorism.
- CDC's Environmental Health Laboratory is developing the capacity to respond to chemical and radiologic terrorism. CDC's laboratory response to radiologic terrorism provides unique and essential information on human exposures that informs health officials about what agents have been used and who has been exposed. Currently, CDC has developed and validated analytic methods for measuring seven radionuclides in urine. CDC is working to complete this Urine Radionuclide Screen (URS), which would provide results within 24 hours of receiving samples, and would identify and quantify a total of 22 priority nuclides.
- In FY 2008, CDC's Newborn Screening Quality Assurance Program (NSQAP) provided training, consultation, guidelines, proficiency testing, and reference materials to nearly 500 laboratories responsible for newborn screening. NSQAP is the only comprehensive program in the world devoted to ensuring the accuracy of newborn screening tests. The Program also funded two states (Wisconsin and Massachusetts) to undertake pioneering population-based pilot studies that will introduce and sustain screening for Severe Combined Immune Deficiency (SCID). Sometimes known as the "bubble boy disease," SCID is characterized by an inability to resist infections. Without early diagnosis and treatment, babies with SCID usually die within a year.

Environmental Health Activities

Environmental Public Health Tracking

Established in FY 2002, CDC's National Environmental Public Health Tracking Program, or Tracking Program is a multidisciplinary collaboration that involves the ongoing collection, integration, analysis, interpretation, and dissemination of data from environmental hazard monitoring, human exposure surveillance, and health effects surveillance. The cornerstone of the Tracking Program's efforts is the development of a web-based data and information system known as the National Environmental Public Health Tracking Network, or Tracking Network. Using information from the Tracking Network, federal, state, and local agencies will be better prepared to develop and evaluate effective public health actions to prevent or control diseases that may be linked to hazards in the environment. Health care providers and agencies can utilize the data to target preventive services, and the public can utilize information from the Tracking Network to better understand health trends and events in their communities. The Tracking Network is scheduled to be launched in 2009.

CDC funds state and local agencies, schools of public health, non-governmental organizations, and other federal efforts to improve capacity, data systems, analytic and communication methods and tools, and environmental health science. The Tracking Network is now in its implementation phase in New York City and 16 states. Funding is also provided to four schools of public health to develop methods and tools to utilize and link health and environmental data to drive public health action, to train the upcoming workforce in tracking principles, and to conduct research on the impact of the environment on health. Additionally, the program funds national professional organizations and data partners to improve and standardize data, disseminate information, and build capacity. Extramural funding accounted for approximately 75 percent of the program's budget during the last fiscal year.

The additional FY 2009 funding of $7,312,000 will provide funding for up to five additional states to engage in tracking activities and support innovative projects in existing states.

Through September 2008, 13 public health actions were completed based on information obtained from state/local tracking programs, indicating the National Tracking Program has exceeded its target of 12 new public health actions. These include but are not limited to addressing community concerns about possible health effects associated with the use and operation of a pig farm and it's nuisance odors, improving outreach to families with children born with birth defects, evaluation of pediatric asthma and concerns related to a landfill, and raising awareness of carbon monoxide poisoning and prevention during hurricane season.

Significant accomplishments for the Tracking Program in FY 2008 include the following:

- Finalized standards for nationally consistent data and measures for the National Environmental Public Health Tracking Network and published its technical plan for Network Implementation.
- Completed 13 public actions to address environmental health issues and community concerns that utilized tracking data, resources, or expertise.
- Co-hosted a workshop with the EPA and the Health Effects Institute to examine key issues in the development of robust health impact indicators for tracking of effects of ambient PM2.5 (fine particles: 2.5 micrometers in diameter or smaller) and ozone pollution at the state and sub-state levels. The workshop report (expected this fiscal year) will provide guidance to the Tracking Program on methods and tools that can be implemented in the Network to enable tracking of health impact $PM_{2.5,}$ and ozone by state agencies.

Climate Change

CDC is leading efforts to address anticipated health effects of climate change, to help plan systems to detect and track the health effects, and to take steps to prepare for, respond to, and manage associated risks. Building on existing programs and the Essential Public Health Services, a framework for describing public health activities developed under the National Public Health Performance Standards Program, CDC has identified priority health actions for climate change. These include collecting data, diagnosing and investigating health problems and health hazards in the community, communicating/supplying scientific information, planning for preparedness activities, mobilizing community partnerships, actions to identify and solve health problems training/developing workforce, and providing technical assistance.

Significant Accomplishments for this program in 2008 include:

- Conducting a series of six workshops with stakeholders to clarify the public health priorities, impact, and future research needs for the public health response to the effects of climate change.
- Funding university researchers to develop mathematical models to identify urban areas and populations at increased risk for heat wave associated death and illness.
- Training state/local environmental public health practitioners to respond to increasing intensity and frequency of storms that may be related to climate change.
- Developing the CDC Climate Change Web Page and Web-based training module for secondary school educators on "The Identification and Prevention of Heat-related Illness among Athletes."
- Establishing partnerships to identify health and injury issues associated with climate change with other federal agencies and state and local organizations.

Healthy Communities/Built Environment

Decisions on how our nation builds and designs its communities affect health. These decisions often refer to the Built Environment. CDC is addressing various built environment issues related to air pollution prevention, physical activity, nutrition, injury prevention, and community planning. CDC has initiated research on the impact of the built environment on public health. Preliminary evidence suggests that the built environment may have a large effect on our health. For example, designing and building places where Americans can safely walk and bike to destinations may reduce the incidence of injuries, respiratory illness and diseases such as obesity, diabetes, and heart disease in these communities. In addition, CDC has developed the Health Impact Assessment (HIA) tool to help decision makers identify the likely health impact of planning, development, and policy decisions.

Significant accomplishments for 2008 include:

- CDC partnered with the Department of Transportation's Non-Motorized Pilot Program (NTPP) to complete a pre-intervention evaluation of pilot communities and develop health-focused evaluation of projects. These evaluations will help guide future efforts.
- CDC assisted Seattle-King County to complete a HIA on its State Route 520 Bridge Project to analyze the potential health impacts of the proposed bridge design. The HIA lead to design improvement suggestions focused on promoting human health by improving connections between the bridge and surrounding neighborhoods that allowed for increased physical activity.
- CDC leveraged funds with the National Safe Routes to School National Partnership to optimize Transportation Department funds in building safe routes to school.

In 2011, CDC intends to change the name of the Public Health and Built Environment Initiative to the Healthy Community Design Initiative (HCDI). The proposed change stems from the results of a communications study which indicated that HCDI resonated with our target audiences and better reflected the scope of current and future activities of the Public Health and Built Environment Initiative.

Radiation Studies

CDC's radiation studies program identifies potentially harmful environmental exposures to ionizing radiation, conducts public health research related to radiation exposures, and works to protect the public's health in the event of a radiological emergency.

Significant accomplishments for this program include:

- CDC developed software which calculates radionuclide dose to an infant via breast milk from the mother. This software has filled an enormous gap in our capability of monitoring dose to an infant via breast milk after an exposure to the mother. This software can be used for terrorism or non-terrorism exposures.
- CDC developed tools to optimize state and local resources for population monitoring in a radiological or nuclear emergency, including draft community reception center flow diagrams describing various functional modules, staffing and equipment needs, and a decision tool (software) for optimizing reception center operations. In addition, CDC has developed draft protocols for using readily available, relatively inexpensive portable radiation instruments for initial screening and triage of internally contaminated individuals. These protocols will be developed based on physical phantom and computer-generated models and will assist in prioritizing collection and analysis of large numbers of bioassay samples in a contamination event.

Safe Water

Threats to the healthfulness of U.S. drinking and recreational waters include naturally-occurring and man-made chemical and biological contaminants, aging or inadequate water treatment and distribution systems, pathogens resistant to standard water treatment methods, and emergency- or disaster-related events. The recognized public health impact from waterborne disease outbreaks is increasing as we improve waterborne disease outbreak reporting, investigate unregulated drinking water systems, and assess the ability of the current infrastructure to continue to provide safe water in the future. The Safe Water Program comprises a three-pronged approach that incorporates disease surveillance, cross-cutting program activities, and competitive investigator-initiated research to identify, investigate, and track health hazards associated with water; measure relevant exposures; and, prevent associated health effects

Significant accomplishments for this program include:

- Expanded the Harmful Algal Bloom-related Illness Surveillance System (HABISS) to include 10 states as part of a cooperative agreement and 3 additional states impacted by harmful algal blooms.
- Supported the Environmental Health Services Network (EHS-Net) and to launch the Electronic Waterborne Disease Reporting system. Safe water also supported investigator-initiated research projects including creating a Bionumerics database system for *Legionella*, constructing of Crypto-Net for *Cryptosporidium sp*. tracking, and investigating arsenic exposure from at-risk water supplies on Navajo reservations.

Other Environmental Health Program Activities

CDC continues to provide national leadership in the development of environmental and emergency public health policy and prevention programs to improve public health practice nationwide. Additional programs within the Center support interventions that help domestic and international agencies and organizations prepare for and respond to natural, technologic, humanitarian, and terrorism-related environmental emergencies; provide technical support for public health activities during emergencies such as famines, disasters, and civil strife; and reinforce the important role environmental health and its workforce plays within public health.

Significant accomplishments for this program include:

- In FY 2007, CDC environmental public health experts worked closely with the State of California and the Food and Drug Administration to identify the source of the E. coli spinach contamination, recommend actions to prevent further contamination of the spinach, and mitigate consumers' exposure to E. coli. At the request of FDA, CDC's Environmental Health Specialist Network (EHS-Net) is conducting an investigational study to identify the practices in retail food establishments that may result in contaminated leafy greens. The EHS-Net network is a collaborative effort of environmental health specialists (lead environmental health investigators, epidemiologists, and laboratorians working together as a team) that works to identify and prevent food-borne and water-borne disease outbreaks by collecting and analyzing related data that can determine the contributing factors to such outbreaks.
- CDC has coordinated several disaster surveillance activities. The Disaster Surveillance Work Group (DSWG) has over 90 members from across CDC. The DSWG has created multiple surveillance forms to use following a natural disaster and has piloted the form in two studies. The forms have been requested for use domestically and internationally and the DSWG has provided training on the use of the surveillance form. The DSWG held an external partner workshop for 90 participants from federal, state, and local health agencies.

The partnerships built during the workshop will improve CDC's efforts to coordinate surveillance activities following a natural disaster.

Based on recommendations from a program assessment, the program instituted a process to have key activities and core functions evaluated by an independent peer-review panel. Subsequent to putting this process in place, the program conducted evaluations on activities in each of the three Environmental Health Program divisions and in one cross-functional area. In FY 2007, the following sub-activities underwent peer-review evaluations: Terrorism Preparedness and Emergency Response and the International Emergency and Refugee Health Branch. Specific actions taken or underway as a result of program assessment findings include a revision of specific long-term and annual performance measures, and the design and implementation of a system to assist in linking budget requests to the accomplishment of annual and long-term goals.

Asthma

In 1999, CDC's National Asthma Control Program (NACP) was established to develop and build capacity in states to reduce the burden of asthma. The NACP aims to reduce the number of asthma-related deaths, hospitalizations, emergency department visits, school- and workdays missed, and limitations on activity. To accomplish these objectives, the NACP provides funding to its grantees to support activities such as increasing the use of asthma management plans by persons with diagnosed asthma; providing education and training to increase the knowledge of asthma among providers, school personnel, and persons living with asthma; and supporting asthma case management activities. In FY 2008, the NACP provided support to 33 states, Washington, D.C., and Puerto Rico. Funding to public health departments accounted for over 50 percent of the program's budget. In FY 2009, a new competitive Funding Opportunity Announcement (EH09-901) for the "Addressing Asthma from a Public Health Perspective" initiative of the NACP was released. The cooperative agreements will be for a five year project period, and will provide funding to state health agencies to identify and track those most affected by asthma, build partnerships, and develop and implement science-based interventions for the nation's most vulnerable populations.

The program collects hospitalization data from its grantees to support its revised key performance measure. The data are collected through CDC's Behavioral Risk-Factor Surveillance Survey and Asthma Callback Survey. In FY 2009, CDC expanded the Asthma Callback Survey to 39 participating states. The Asthma Callback Survey adds depth to the existing body of asthma data, helps to address critical questions surrounding the health and experiences of persons with asthma, and provides detailed asthma surveillance data at the state and local level. Prior to funding the survey, these data were not available at the state level. State level data on asthma characteristics, such as symptom control, medical care, medication use, and educational efforts, are necessary to evaluate the impact of the state asthma control activities and interventions.

Significant accomplishments for this program include:

- In FY 2008, CDC produced the third MMWR Asthma Surveillance Summary: National Surveillance for Asthma - United States, 1980-2004. The findings in this report suggest that from 1980 through the mid-1990s, increases in asthma prevalence played a substantial role in the increases in patient encounter measures (office visits, hospital outpatient visits, emergency department visits and hospitalizations) used in asthma surveillance. Since FY 2007, 80 percent of state grantees conduct health care provider training, 74 percent address environmental triggers, and 66 percent support individualized asthma management plans.
- CDC is conducting a systematic review of community interventions to reduce asthma morbidity and mortality. The Program recently completed a comprehensive review of multi-component, multi-trigger home visit interventions to reduce indoor asthma triggers and presented these results to the US Task Force on Community Preventive Services at the

Task Force Conference in June 2008. The evidence found shows that these interventions were effective in reducing the number of asthma symptom days by 21 days/yr and school days missed due to asthma by 11 days/yr. CDC is working to disseminate these findings in a variety of ways including a publication in the American Journal of Preventive Medicine, a recommendation statement on the Community Guide website, and a presentation at the 2008 National Healthy Homes Conference in September.

Healthy Housing/Lead Poisoning Prevention Program

The CDC Healthy Housing/Lead Poisoning Prevention Program uses funds to develop programs and policies to prevent lead poisoning, educate the public and health-care providers about lead poisoning, fund state and local health departments to determine the extent of lead poisoning by screening for elevated blood lead levels, help ensure medical and environmental follow-up for lead poisoning, and develop neighborhood-based efforts to prevent lead poisoning.

The program provides over 80 percent of its budget to fund competitive cooperative agreements in 34 states and six localities for lead poisoning prevention programs. Funding for the current five-year project period began in July 2006 and will continue through June 2010. Additionally, CDC has partnered with the U.S. Department of Housing and Urban Development (HUD) and the EPA since 2004 to ensure safe and healthy communities by identifying housing units in which successive children have been lead poisoned. The partnership was piloted in one community in 2004 and has since expanded to seven by the end of FY 2008.

Significant accomplishments of this program include:

- Based on the data published in CDC's Third National Report on Human Exposure to Environmental Chemicals the percentage of young children with elevated Blood Lead Levels (BLLs), 10 micrograms per deciliter (µg/dl) or higher, decreased from an estimated 4.4 percent in NHANES III (1991–1994) to.59 percent for 2005-2006. This decline indicates that lead exposure among young children in the general population is continuing to decrease and is reflective of national, state and local efforts to reduce BLLs in children aged one to five years.
- By the end of FY 2008, 100 percent of previously CDC funded programs had met the requirement to develop and implement elimination plans that involved stakeholders and local and state decision-makers.

Because of the excellent progress in reducing the number of lead-poisoned children in our nation and the connection to the effort to make housing safer, CDC has transitioned the Lead Poisoning Prevention program into a Healthy Housing program that will focus on reducing multiple health and safety hazards located in housing, including the hazard of lead. CDC recognizes the synergies that can be gained by a holistic approach to analyzing and addressing health threats in houses.

Performance Analysis

Currently, CDC is undergoing an agency-wide process to achieve significant efficiencies through the Public Health Integrated Business Services High Performing Organization (PHIBS HPO). The PHIBS HPO was approved by OMB in March of 2007 and implemented in stages across the Coordinating Centers.

In 2008, the Coordinating Center for Environmental Health and Injury Prevention (CCEHIP) was engaged in the process. A significant outcome of this process was the development and adoption of a new efficiency measure which represents the organizational structure of CCEHIP. The new efficiency measure was approved by OMB for use by both the National Center for Environmental Health (NCEH) and the National Center for Injury Prevention and Control (NCIPC).

CCEHIP's new efficiency measure accounts for all organizational units, including Agency for Toxic Substances and Disease Registry (ATSDR). Business services for NCEH, NCIPC and Agency for Toxic Substances and Disease Registry comprise CCEHIP's business services.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$151,195,000
FY 2006	$149,161,000
FY 2007	$146,634,000
FY 2008	$154,486,000
FY 2009	$185,415,000

BUDGET REQUEST

CDC's FY 2010 budget request includes $186,401,000 for Environmental Health, an increase of $986,000 above the FY 2009 Omnibus for pay increases.

In FY 2010, CDC will continue activities to address environmental health issues. Key activities, objectives, and targets include:

- $42,962,000 will support the Environmental Health Laboratory. CDC will provide technical assistance to States in biomonitoring; measure 273 environmental chemicals and nutritional indicators in the U.S. population; certify 974 clinical laboratories to conduct specific tests; and develop 9 new or improved methods for measuring environmental chemicals in people.
- $31,309,000 will support the Environmental Public Health Tracking Program. The Tracking Program provides support for state and local public health agencies, academic institutions, and other partners to engage in activities designed to help the program develop and integrate a national health and environmental data network so that the impact of environmental hazards on public health can be better understood. The additional FY09 funding of $7,312,000 will provide funding for up to 5 additional states to engage in tracking activities and support innovative projects in existing states. The program has set an FY 2010 target of 15 public health public health actions to be undertaken using Environmental Public Health Tracking data that prevent or control potential adverse health effects from environmental exposures.
- $34,805,000 will support the Healthy Housing/Lead Poisoning Prevention Program. The program will provide funding to 40 state and local lead programs to continue their efforts to eliminate elevated blood lead levels in affected infants and young children. Programs funded by CDC will engage in activities such as screening and ensuring treatment for at-risk and lead-poisoned infants and children respectively, and working with traditional and non-traditional partners to advance lead-poisoning prevention efforts.
- $30,924,000 will support the Asthma Program. These funds will support the continued development and implementation of asthma control plans and increased use of asthma management plans in affected populations in 35 states, localities, and territories. The program will also support education and training, surveillance data collection, and the participation of funded states in the Asthma Callback Survey. The program has developed a new performance measure that will track the proportion of people with asthma who report they have received self-management education and/or training for asthma, a measure the program will begin using in FY 2010. First-year trend data for the measure will be collected in FY 2009.

- $7,237,000 will support the continuation of the Safe Water collaborative. These funds provide the foundation for a water and public health program integrated across the entire agency. Our programmatic approach supports interdisciplinary activities involving the numerous programs and CIOs that are needed to address multifaceted water problems. By providing overall direction and vision for safe water-related work at CDC, these investments provide the foundation for significant improvements in public health protection by reducing the burden of waterborne exposures and acute and chronic disease.
- $7,540,000 will support the Climate Change program. These funds will support priority health actions for climate change in research and surveillance; communication and education; national capacity building; and, partnership development. Actions will include collecting data on environmental conditions and disease risks, communicating health risks and ways to reduce them; conducting preparedness and response planning for health threats; mobilizing community partnerships; identifying and responding to health problems; conducting training and workforce development; and, providing technical assistance.
- $31,624,000 will support other Environmental Health Activities (not including Environmental Health Tracking, Safe Water, and Climate Change, described above).

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 10.2: Prevent or reduce illnesses, injury, and death related to environmental risk factors.				
10.2.2: Number of children under age 6 with elevated blood lead levels. *(Outcome)*	FY 2006: 190,829 (Target Met)	95,000	79,000	-16,000
10.2.4: Increase the proportion of those with current asthma who report they have received self – management training for asthma in populations served by CDC funded state asthma control programs. *(Output)*	FY 2006: 45 (Baseline)	48	49	+1

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure 10.E.2				
10.E.2: Maintain the percentage of cost savings each year for CCEHIP as a result of the Public Health Integrated Business Services HPO. *(Efficiency)*	FY 2006: 0 (Baseline)	28	29	+1
Long Term Objective 10.1: Determine human health effects associated with environmental exposures.				
10.1.1: Number of environmental chemicals, including nutritional indicators that are assessed for exposure of the U.S. population. *(Output)*	FY 2008: 280 (Target Met)	323	323	0
10.1.2: Complete studies to determine the harmful health effects from environmental hazards. *(Output)*	FY 2008: 32 (Target Exceeded)	25	25	Maintain
10.1.3: Number of laboratory quality standards maintained in certified or participating laboratories for tests such as lipids; newborn screening; those predictive of type 1 diabetes; blood lead, cadmium, and mercury; and nutritional factors. *(Output)*	FY 2008: 967 (Target Met)	959	959	Maintain
Other Environmental Health Outputs				
10.A : New or improved methods developed for measuring environmental chemicals in people	FY 2008: 6	14	9	- 5
10.B: Laboratory studies conducted to measure levels of environmental chemicals in exposed populations	FY 2008: 52	52	52	Maintain
10.C: Public health actions undertaken (using Environmental Health Tracking data) that prevent or control potential adverse health effects from environmental exposures	FY 2008: 7	14	15	+ 1
10.D: Funded state and local lead programs that develop and implement elimination plans	N/A	N/A	N/A	N/A
10.E: State, local, and territorial programs funded to develop or implement asthma control plans	FY 2008: 35	35	35	Maintain
10.F: States assisted with screening newborns for preventable diseases	FY 2007: 50	50	50	Maintain

[1] The targets have been met; the output measure will be retired after FY 2007.

[2] The outputs are not necessarily reflective of all programmatic activity.

INJURY PREVENTION AND CONTROL

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/-FY 2009 OMNIBUS
Intentional Injury	$96,913,000	$103,384,000	$0	$106,652,000	+$3,268,000
Unintentional Injury	$34,703,000	$38,323,000	$0	$38,419,000	+$96,000
NVDRS [1]	$3,221,000	$3,535,000	$0	$3,544,000	+$9,000
Total	$134,837,000	$145,242,000	$0	$148,615,000	+$3,373,000

1. NVDRS is discussed in the Intentional Injury narrative.

BUDGET REQUEST

CDC is leading our nation's efforts to reduce premature deaths, disability, human suffering, and the medical costs caused by injuries and violence. Working with state and local governments, nonprofit organizations, academic institutions, private entities, other federal agencies, and international organizations, CDC is documenting the numbers and identifying the causes of injuries and violence.

CDC's FY 2010 request includes $148,615,000 for Injury Prevention and Control, an increase of $3,373,000 above the FY 2009 Omnibus. This increase reflects $373,000 for pay increases and $3,000,000 for Injury Prevention and Control.

- $38,419,000 for Unintentional Injury Prevention and Control to sustain and enhance Center priority areas of older adult fall prevention, residential fire prevention, teen driving safety, and traumatic brain injury.
- $106,652,000 for Intentional Injury Prevention and Control to sustain and enhance Center priority areas of child maltreatment prevention, youth violence prevention, domestic and sexual violence prevention, rape prevention and education, intimate partner violence, and suicide prevention.
- $3,544,000 for the National Violent Death Reporting System (NVDRS) to fund efforts to collect and analyze violent death data to form a more complete picture of the circumstances surrounding violent deaths. NVDRS will be used to develop, inform, and evaluate violence prevention programs that target the particular needs of communities, states and the nation.

In response to the spring 2008 program assessment, the Coordinating Center for Environmental Health and Injury Prevention (CCEHIP) has created a new approved measure that reflects the maintenance of the percentage of cost savings each year for CCEHIP that came as a result of the Public Health Integrated Business Services High Performing Organization (PHIBS HPO). This new measure applies to activities conducted by the National Center for Injury Prevention and Control.

CDC is undergoing an agency-wide process to achieve significant efficiencies through the PHIBS HPO. The PHIBS HPO was approved by OMB in March of 2007. The focus of the PHIBS HPO is to systematically improve and modernize 16 different business support services reaching optimal efficiencies in service quality and at the same time reducing staff resource costs that perform the services by 2011.

This measure represents the cost savings per year for CCEHIP, divided by the projected cost for the same year, which is derived from the FY 2006 baseline costs adjusted for cost of living in the out-years.

Efficiency Measure

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
10.E.2: Maintain the percentage of cost savings each year for CCEHIP as a result of the Public Health Integrated Business Services HPO. *(Efficiency)*	FY 2006: 0.0 (Baseline)	28.0	29.0	+1

UNINTENTIONAL INJURY PREVENTION AND CONTROL

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009 OMNIBUS
Traumatic Brain Injury (TBI)	$5,709,000	$6,137,000	$0	$6,152,000	+$15,000
All Other Unintentional Injury	$28,994,000	$32,186,000	$0	$32,267,000	+$81,000
Total	$34,703,000	$38,323,000	$0	$38,419,000	+$96,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 319, 327, 352, 391, 392, 393A, 393B, and 394A

FY 2009 Authorization……...…….……Indefinite

Allocation Method…… Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; and Contracts.

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

CDC began studying home and recreational injuries in the early 1970s. From these early activities grew a national program to reduce injury, disability, death, and costs associated with injuries outside the workplace. In June 1992, CDC established the National Center for Injury Prevention and Control (NCIPC). CDC monitors trends in unintentional injuries in the U.S., conducts research to better understand risk factors, and evaluates interventions to prevent these injuries and reduce their impact. Research and prevention programs focus on three categories of unintentional injury: motor vehicle-related injuries, home and recreation related injuries, and injury care and response practices for conditions such as traumatic brain injury (TBI).

CDC supports a highly successful investigator-initiated, peer-reviewed extramural grant program for academic research institutions across the country, funds new investigators in the field of unintentional injury prevention including dissertation awards to graduate students to further develop the capacity of the injury research community, and uses cooperative agreements to fund collaborative activities between programs and grantees. In addition, interagency agreements (IAAs) and contracts are used to expand partnerships and technical assistance in program building, such as an existing IAA between CDC and the Administration on Aging to support the Falls Free Coalition.

Unintentional injuries are the leading cause of death for Americans ages one to 44. CDC is dedicated to reducing the number and severity of unintentional injuries and to improving outcomes for those who are severely injured through science-based, applied research and prevention programs. Specific topics addressed by the unintentional injury prevention program include, but are not limited to: residential fire safety and prevention, preventing falls among older adults, teen driver safety, and TBI.

Residential Fire Safety and Prevention

Deaths from fires and burns are the fifth most common cause of unintentional injury deaths in the United States and the third leading cause of fatal home injury. Each year, fires and burns result in $7.5 billion in direct medical costs and future productivity losses. Approximately half of home fire deaths occur in homes without smoke alarms. Installation of smoke alarms, education, addressing

risky behaviors, and technology development are keys to reducing the number of fire-related deaths in the U.S.

CDC supports activities to identify behavioral factors in residential fires that are associated with injuries; to improve household smoke alarm function and evaluate the effectiveness of the various maintenance education approaches; and to conduct analysis of residential fires, including causes, risk factors and key prevention strategies. Major accomplishments in residential fire prevention include the following:

- CDC-funded programs report that approximately 2,400 lives may have been saved through its smoke alarm installation and fire safety education program. Program staff have canvassed over 501,000 homes and installed more than 410,000 long-lasting or lithium-battery powered smoke alarms in high-risk homes.
- CDC partnered with the Meals on Wheels Association of America (MOWAA) to implement the Residential Fire Homebound Elderly Lifeline Project (Fire H.E.L.P.), in five Texas communities. Fire H.E.L.P. utilizes Meals on Wheels (MOW) volunteers to distribute smoke alarms to homebound older adults in need which are installed by local fire departments through a partnership with the International Association of Fire Chiefs. To date, more than 900 MOW clients in Texas have received a home assessment and client education and more than 3,400 smoke alarms have been installed in the homes of MOW clients.
- In Kentucky, a smoke alarm installed as part of the CDC funded Smoke Alarm Installation and Fire Safety Education (SAIFE) program saved the lives of four individuals. As a result of the smoke alarm sounding, the four residents, two children, two adults, one of whom was over 65 years of age, were alerted and escaped safely. The early warning provided by the smoke alarm allowed the fire to be contained mostly to a mattress in a back bedroom. This is but one example of lives directly saved by the SAIFE program.

Preventing Falls Among Older Adults

Among people 65 years and older, falls are the leading cause of injury deaths and the most common cause of nonfatal injuries and hospital admissions for trauma. More than one third of adults, ages 65 years and older, fall each year. Each year, falls result in more than 1.8 million older adults being treated in emergency departments for fall-related injuries, over 433,000 hospitalizations, and approximately 15,000 deaths. In 2000, the direct medical cost totaled $19.2 billion, for fatal and nonfatal fall injuries. The financial toll for older adult falls is expected to increase as the population ages, and may reach $54.9 billion by 2020 (adjusted to 2007 dollars).

CDC supports research to develop and evaluate approaches to implement and disseminate effective community-based fall prevention programs. This effort includes research to identify the best formats and channels for delivering interventions to ensure adoption among older adults.

Major accomplishments in older adult fall prevention include:

- In March 2008, CDC released the Compendium of Effective Community-based Interventions to help public health practitioners address the problem of falls by describing interventions that have been scientifically proven to be effective at reducing falls among older adults. In addition, CDC developed a companion “how to” guide, designed for community-based organizations who are interested in developing their own effective fall prevention programs. These documents have been widely distributed to partners and constituents, and the evidence-based interventions can now be implemented in a variety of other settings. Currently, two programs from the *Compendium*, “Stepping On” and “Moving for Better Balance,” have been translated into community-based efforts suitable for U.S. audiences.

- CDC and the Administration on Aging (AoA) are supporting the National Council on Aging for its work with the more than 66 member Falls Free Coalition. The Falls Free Coalition has helped to establish coalitions in 13 states and is currently in the process of developing coalitions in 10 additional states. The Falls Free Coalition also engages a variety of partners to employ a collective approach to a national fall prevention action plan developed by the coalition and used by partners to identify strategies and approaches to fall prevention. Partners include nonprofit national organizations, foundations, businesses, and state-based groups.
- In March 2008, CDC released a new *Morbidity and Mortality Weekly Report* on Self-Reported Falls and Fall-Related Injuries among Persons Aged over 65. The Report documented that almost 16 percent of older adults had fallen in the previous three months, and a third of these falls had caused injuries. Fall injuries have a serious impact on the quality of life of older adults and on our health care system, these findings reinforce the need to raise awareness and provide scientifically proven fall prevention interventions.

Teen Driver Safety

In the U.S. during 2004, approximately 5,000 teens ages 16 to 19 died of injuries caused by motor vehicle crashes. During 2005, nearly 400,000 motor vehicle occupants in this age group sustained nonfatal injuries severe enough to require treatment in an emergency department. The risk of motor vehicle crashes is higher among teens aged16 to 19 than among any other age group. In fact, per mile driven, teen drivers ages 16 to 19 are four times more likely than more experienced drivers to crash. In 2002, the estimated economic cost of fatal and non-fatal police-reported crashes involving drivers ages 15-20 was over $40 billion dollars.

CDC supports activities to reduce these risks, including programs designed to address the high risks new drivers face by allowing them to get their initial driving experience under low-risk conditions, and to implement evidence-based community interventions to increase seat belt use among adolescent drivers and their passengers.

Major accomplishments in teen driver safety include:

- The Council of State Governments (CSG) and CDC, in an effort to enhance state legislators' knowledge about teen driver safety issues, has created the Graduated Driver Licensing (GDL) tool kit where users can find out more about GDL systems, why GDL laws are needed, and what state legislators can do to improve state GDL laws. The GDL toolkit contains an overview of GDL and sections outlining alcohol, passenger and nighttime restrictions and the importance of seatbelts and enforcement. This popular toolkit is on its second printing and has been mailed to hundreds of key stakeholders in the field. Because of efforts related to GDL, 48 states now have some form of GDL law. Components of these laws vary from state-to-state with some being more comprehensive than others.
- With CDC funding, the University of Iowa Injury Prevention Research Center (UI IPRC) led the development of Iowa's Comprehensive Highway Safety Plan (CHSP). The plan was completed and adopted in 2007 and contained numerous recommendations for strengthening components of Iowa's GDL law. UI IPRC also led the implementation efforts of the young driver component of the CHSP.
- CDC in collaboration with external partners has developed the GDL Planning Guide to assist states in determining their strengths and weaknesses and facilitate planning towards improving GDL policies at the state level. CDC will be pilot testing this guide in six states beginning in FY 2009.

Traumatic Brain Injury

Of the 1.4 million individuals who sustain a TBI each year in the United States, 50,000 die, 235,000 are hospitalized, and 1.1 million are treated and released from an emergency department. CDC is engaged in a number of activities to improve prevention, diagnosis, and treatment for TBI, including surveillance activities designed to gather more in-depth information about the incidence of TBI.

A CDC cost-benefit analysis found that a substantial savings in annual medical costs ($262 million) and rehabilitation costs ($43 million) would be achieved and mortality would be reduced by more than 3,600 lives annually if treatment guidelines were adopted and applied by 80 percent of hospitals and physicians in the U.S.

Major accomplishments in addressing TBI include:

- The American College of Emergency Physicians (ACEP), in collaboration with CDC, revised the clinical guidelines related to mild TBI in adult patients. The new guidelines, available on ACEP's web site and in the December 2008 issue of the *Annals of Emergency Medicine,* are expected to lead to improved patient outcomes because they focus on more consistency in diagnosis and screening for mild TBI. A template for emergency department discharge instructions to accompany these guidelines is expected to be released in the fall of 2009.
- In March 2008, CDC launched an awareness campaign called "Helping Seniors Live Better, Longer: Prevent Brain Injury," designed to raise awareness among caregivers of older adults about the danger of traumatic brain injuries associated with falls. Within the first month of the launch, 40,000 educational materials were disseminated and various local events and activities were held by organizations to promote the initiative including, distribution of radio public service announcements and transit ads throughout Virginia. A national press release on fall-related TBI released as part of the initiative in June 2008 garnered international and national media coverage with placement in over 150 news outlets.
- CDC's "Heads Up: Concussion in Youth Sports" initiative was launched in July 2007 in collaboration with 26 participating organizations, including YMCA of the USA, the National Football League, and the American Academy of Pediatrics. Media coverage from the launch resulted in over 32 million media impressions, including a full-page ad in *Sports Illustrated's* NFL preseason issue. To date, over 35,000 copies of the tool kit, 160,000 copies of the fact sheets, and 60,000 magnets and posters, developed as part of the initiative, have been disseminated nationwide.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$35,099,000
FY 2006	$34,821,000
FY 2007	$34,205,000
FY 2008	$34,703,000
FY 2009	$38,323,000

BUDGET REQUEST

CDC's FY 2010 request includes $38,419,000 for Unintentional Injury Prevention and Control, an increase of $96,000 above the FY 2009 Omnibus for pay increases. The request will support the following:

- Older Adult Fall Prevention: $2,000,000 will be used to support research on dissemination of effective fall prevention interventions, evaluations of prevention programs, and raising awareness about the burden of falls and how they can be prevented.
- Teen Driver Safety: $1,600,000 is being used to support a pilot to test the GDL planning guide in six states and to conduct a communication campaign for parents in two cities in the United States. With base funding, a five-year project is being completed in FY 2010 that is evaluating community-based approaches to increasing seat belt use among adolescent drivers and their passengers.
- Traumatic Brain Injury: $6,152,000 will be used to support TBI prevention, surveillance, and research; the production of materials about brain injury, symptoms, and tips for healing; and resources to educate patients and the community about TBI-related risks and injury prevention. A special focus of CDC's funding for TBI-related activities is on research related to health outcomes of mild TBI in children and adolescents, the development of a tool for assessing and managing concussions, and the prevalence of a history of TBI in prisons and nursing homes. Support also goes to determining the prevalence and risk factors of TBI-related disability and other outcomes among children and youth. CDC will continue to support 30 states as part of the unintentional injury program's Public Health Injury Surveillance and Prevention Program.

CDC's activities are aimed at better understanding risk factors and evaluating interventions to prevent these injuries. Supporting strategies for translating research into practice and evaluating the implementation and dissemination of evidence-based strategies will move the field of unintentional injury prevention closer to its goal of reducing the enormous societal burden caused by these injuries and deaths.

One key challenge in the area of unintentional injury prevention is related to the prevention of falls among older adults. In particular, there is a lack of understanding about why there is an increase in older adult fall mortality rates (30 percent for men and 40 percent for women from 2000 to 2005) even after adjusting for the aging U.S. population. CDC is exploring this area to develop effective interventions.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 11.2.1: Achieve reductions in the burden of injuries, disability or death from unintentional injuries for people at all life stages.				
11.2.1: Among the states receiving funding from CDC, reduce deaths from residential fires by 0.01 per 100,000 population. *(Outcome)*	FY 2005: 1.11 / 100,000 (Target Exceeded)	1.11 / 100,000	1.1 / 100,000	-0.01
11.2.2: Achieve an age-adjusted fall fatality rate among persons age 65+ of no more than 69.6 per 100,000. *(Outcome)*	FY 2005: 42.4 (Target Not Met)	50.0	52.1	+2.1
11.2.3: Decrease the estimated percent increase of age-adjusted fall fatality rates among persons age 65+ years. *(Outcome)*	FY 2005: 4.29 % reduction (Target Not Met but Improved)	9.45 % reduction	9.56 % reduction	+0.11

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
11.F: Older Adult Fall Prevention Activities	1	1	1	Maintain
11.G: Residential Fire-Related Injury Prevention Programs	17	17	TBD	N/A
11.H: Teen Driving Safety	1	1	1	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

INTENTIONAL INJURY PREVENTION AND CONTROL

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/-FY 2009
Domestic Violence and Sexual Violence	$26,302,000	$31,283,000	$0	$34,369,000	+$3,086,000
Youth Violence Prevention	$20,791,000	$21,291,000	$0	$21,345,000	+$54,000
Domestic Violence Community Projects	$5,021,000	$5,511,000	$0	$5,525,000	+$14,000
Rape Prevention	$42,016,000	$42,516,000	$0	$42,623,000	+$107,000
All Other Intentional Injury	$2,783,000	$2,783,000	$0	$2,790,000	+$7,000
Total	$96,913,000	$103,384,000	$0	$106,652,000	+43,268,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 310, 311, 317, 319, 327, 352, 391-394A, 1252, Use of Allotments for Rape Prevention Education (393B), Section 4, P.L. 104-166 (expired), Sec 318 (42 USC Sec. 10418) of the Family Violence Prevention and Services Act of 2003

FY 2009 Authorization ……..…Indefinite

Allocation Method……..……Direct Federal Intramural; Competitive Cooperative Agreements/Grants, including Formula Grants; and Competitive Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

The public health burden of violence in the U.S. is great; an estimated 50,000 deaths result from homicide and suicide each year.

In 1979, violent behavior was identified as a key public health priority by the U.S. Surgeon General in a report entitled *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. Shortly thereafter, in 1980, CDC began studying patterns of violence. Since the establishment of CDC's violence prevention program in 1992, CDC has been using the public health approach to prevent injuries and deaths caused by violence. To do this, CDC supports a range of activities, including data collection to identify risk and protective factors, evaluation of prevention strategies, and widespread use of prevention approaches based on the best available science. CDC utilizes public health data to determine who is at risk, where, and at what times for specific types of violence.

CDC's violence prevention program addresses areas such as child maltreatment prevention, intimate partner violence (IPV) and sexual violence prevention, youth violence prevention, and suicide prevention. Activities are conducted to address these areas as well as support the National Violent Death Reporting System (NVDRS), Rape Prevention and Education Program (RPE), and domestic violence community projects. The program is conducted through investigator-initiated,

peer-reviewed extramural grant programs among academic research institutions across the country, grants to new investigators in the field of violence prevention including dissertation research, and cooperative agreements to fund a number of research and programmatic activities, such as NVDRS. In addition, interagency agreements (IAAs) and contracts are used to expand partnerships and provide technical assistance in program development. Funds provided for the RPE Program are allocated by a population-based formula through cooperative agreements.

Domestic Violence and Sexual Violence Prevention

Each year, women experience approximately 4.8 million intimate partner-related physical assaults and rapes; men are the victims of about 2.9 million intimate partner-related physical assaults. IPV resulted in more than 1,500 deaths in the U.S. in 2004. Of these deaths, 25 percent were men and 75 percent were women.

One in 11 adolescents reports being hit, slapped, or physically hurt by a dating partner each year. This statistic and other recent research led to the development of a CDC initiative entitled Choose Respect to help adolescents ages 11 to 14 years old form healthy relationships. This national effort seeks to prevent dating violence before it ever starts and is designed to motivate adolescents to challenge harmful beliefs about dating abuse and take steps to form respectful relationships. The initiative also connects with parents, teachers, youth leaders, and other caregivers who influence the lives of young teens.

Major accomplishments in the prevention of domestic violence and sexual violence include:

- In FY 2006, CDC launched the Choose Respect initiative to respond to the increasing level of violence among adolescents. Five states (VA, MN, IN, KS, and IL) have taken the Choose Respect initiative statewide to prevent teen dating violence. For example, the Illinois Violence Prevention Authority (IVPA) selected grant recipients who are forming Choose Respect teen teams. The teams are made up of youth ages 11-16. Each team will work within their community to teach other teens about the importance of healthy, respectful relationships as well as work to get teen dating violence prevention efforts in schools statewide. In each site, IVPA will partner with a youth-serving organization, a school and a faith-based youth organization to coordinate a youth-lead Choose Respect Program.
- CDC supported an evaluation of the SAFE DATES Program, a school-based curriculum designed to change norms associated with partner violence, decrease gender stereotyping, and improve students' conflict management skills. Findings show participants in the SAFE DATES Program reported 56 to 92 percent less dating violence in the time period following participation than individuals in the control group. Findings also indicate that the program is equally effective across race and gender groups.
- CDC documented a link between IPV and several chronic health conditions and health risk behaviors. The program analyzed data collected from over 70,000 respondents in 2005 and found that approximately one in four women and one in seven men reported some form of lifetime IPV victimization. The study found that IPV has been associated with a range of negative mental and physical health outcomes including risk behaviors such as smoking, binge drinking, and sexual risk taking, as well as chronic health conditions like asthma, arthritis and stroke.

Child Maltreatment Prevention

Child maltreatment includes all types of abuse and neglect that occur among children under the age of 18. More than one in seven children experience child maltreatment, including physical, sexual, and emotional abuse and neglect each year. Children who experience maltreatment are at increased risk for adverse health effects and behaviors as adults, including smoking, alcoholism,

drug abuse, eating disorders, severe obesity, depression, suicide, sexual risk behaviors, and certain chronic diseases. Recent research in the area of child maltreatment interventions indicates that parent training programs can be cost-effective ways to decrease child maltreatment and increase positive outcomes for children and families. One such program, Nurse Family Partnership (NFP), has been shown to have a return on investment of between $2.88 and $5.70 depending on the risk level, socioeconomic status and geographic region of the program site evaluated. NFP is a nurse home visitation program currently being supported in a number of communities across the U.S.

CDC works to develop, evaluate, and disseminate evidence-based strategies that support and promote safe, stable, nurturing relationships with parents and other adults to prevent child maltreatment and achieve lasting positive impacts on health over the life course. Major accomplishments in child maltreatment prevention include:

- CDC in partnership with the University of South Carolina implemented the "Triple P – Positive Parenting Program" in nine counties. This program, which promotes positive parenting, found lower rates of substantiated abuse cases, child out-of-home placements, and child injuries in counties where parenting supports were implemented. Researchers estimate that the results of this study could translate annually into 688 fewer cases of child maltreatment, 240 fewer out-of-home placements, and 60 fewer children with injuries requiring hospitalization or emergency room treatment for every 100,000 children under age eight.
- CDC developed and released *Child Maltreatment Surveillance: Uniform Definitions for Public Health and Recommended Data Elements* to present a definition of child maltreatment, its associated terms and recommended data elements for voluntary use by individuals and organizations in the public health community. The definitions and data elements are intended to promote and improve consistency of child maltreatment surveillance for public health practices. It is designed to be used by state and local health department staff to assist in and provide a framework for the collection of public health surveillance data on child maltreatment.

Youth Violence Prevention

Homicide is the second leading cause of death for young people between the ages of 10 and 24. Among this age group, homicide is the leading cause of death for African Americans. Youth violence includes various behaviors. Some violent acts, such as bullying, slapping, or hitting, can cause more emotional harm than physical harm. Others, such as robbery, assault, or rape, can lead to serious injury or death. Violence can also affect the health of communities, including an increase in health care costs, decreases in property values, and a disruption in social services.

CDC's youth violence prevention research is intended to have practical implications and immediate relevance. CDC works to develop, evaluate, and disseminate evidence-based interventions that create communities in which youth are safe from violence to ensure the development of youth into healthy adults. Major accomplishments in youth violence prevention include:

- CDC and Carnegie Mellon University are evaluating an initiative to depopulate public housing communities in Pittsburgh, PA, to determine the impact on community levels of youth violence as assessed by police records, 911 call, coroner reports, and emergency department data. Preliminary analysis of one of the depopulated communities indicated a decrease of approximately 50 percent of incidents of violent crime, with no corresponding increase in violent crime in the surrounding communities or other communities who absorbed families moving from the depopulated public housing community.

- CDC convened a panel of experts in January 2008 to identify promotive and protective factors, including links between these factors and interventions, strategies for translating findings into policy, and next steps for research and practice. In FY 2009, CDC is developing a National Public Health Strategy (NPHS) to Prevent Youth Violence by working with other public and private partners to build consensus for national prevention that effectively and systematically includes public health approaches. The NPHS will guide actions and efforts to prevent youth violence and focus on strategies for increasing dissemination and implementation of national prevention efforts.

Academic Centers of Excellence in Youth Violence Prevention

The Academic Centers of Excellence Program began in 2000. CDC has funded eight National Academic Centers of Excellence on Youth Violence since 2005 and two Urban Partnership Academic Centers of Excellence since 2006 to foster joint efforts between university researchers and communities to address the problem of youth violence. This unique ability of Academic Centers to connect communities and researchers helps to build infrastructure to support broader community development. This infrastructure helps communities create and sustain partnerships; increase resources and expertise needed to address pressing social needs and community concerns; build the capacity to respond quickly after a crisis or event (such as a school shooting); and in specific communities, help reduce interpersonal youth violence. Major accomplishments from the Academic Centers include:

- The Columbia Center for Youth Violence Prevention (CCYVP) conducted a study on dating violence among New York City high school students. The study found that one in six teens indicated having experienced dating violence during at least one point in their life. Additionally, 60 percent of teens included in the survey indicated that they did not report episodes of dating violence to anyone or seek medical services. As a result, CCYVP is beginning primary prevention programs in NYC public schools in collaboration with the NY Department of Education.
- The Harvard University Academic Center developed a comprehensive and easily accessible data system called the Boston Data Project to document the burden of youth violence in Boston and monitor progress to prevent it. The system captures data from multiple sources that are relevant to children and youth. Data are being used by community groups and city leaders to make decisions about program development, funding, and service delivery.

National Violent Death Reporting System (NVDRS)

Started in 2002, NVDRS works by gathering and sharing state-level data from state and local agencies, medical examiners, coroners, police, crime labs, and death certificates that could answer questions about trends and patterns of violence. NVDRS brings this information together to form a more complete picture of the circumstances surrounding violent deaths. This information can then be used to develop, inform, and evaluate violence prevention programs that target the particular needs of communities. CDC currently funds 17 states to implement the NVDRS; increased resources from FY 2009 Omnibus will support funding one additional state bringing the total states funded to 18.

Major accomplishments using NVDRS include:

- CDC released a new on-line tool, WISQARS™ NVDRS (Web-based Injury Statistics Query and Reporting System National Violent Death Reporting System), in November 2008. This tool provides data on violent deaths from NVDRS that are easily accessible to public researchers, public health practitioners, decision makers, and the media. Users are able to customize their search based on a variety of data fields, including: demographics, victim/suspect relationships, method of injury, and precipitating circumstances.

- Data from NVDRS in Oregon were used to create a profile of elderly suicide victims. For example, NVDRS data found that 37 percent of older adult suicide victims made a visit to their physician within 30 days of their death. This important information was incorporated into Oregon's state level suicide prevention plan. This data was used to secure funding for suicide awareness materials; dissemination of screening and assessment tools for depression, suicidality, and substance abuse, particularly to primary care providers; and implementation and evaluation of the benefits of best practice and promising strategies to prevent suicide among older adults.
- CDC added an additional module to the NVDRS system to collect data related specifically to IPV deaths. Users can use the module separately or as part of NVDRS to gather information to inform policy and guide future prevention efforts.

Suicide Prevention

Suicide is the 11th leading cause of death among Americans. In 2005, suicide was the third leading cause of death among youths and young adults aged 10 to 24 years in the U.S., accounting for 4,482 deaths. In 2005, more than 420,000 people with self-inflicted injuries (suicide and self-harm acts) are treated in emergency rooms each year. The cost of self-inflicted injuries is $33 billion annually. CDC's violence prevention program works to develop, evaluate, and disseminate evidence-based interventions that promote individual, family, and community resilience and connectedness to prevent suicidal behavior.

Major accomplishments to prevent suicide include:

- In 2007, CDC documented an eight percent increase in the suicide rate for persons aged 10-24 from 2003-2004. The study also found changes in the methods used in suicide among girls. Carefully monitoring potential trends in suicide informs improved program approaches to addressing suicide prevention in the United States.
- CDC used NVDRS to document that suicide by former or current military personnel comprised 20 percent of all suicides in 2005. The greatest percent of decedents were persons 45 years of age or older. Of all former or current military personnel decedents who were tested for alcohol, 63 percent had a BAC of at least 0.08. CDC also found that although 47 percent were depressed at the time of death, and 35 percent had a diagnosed mental health problem, only 27 percent were receiving mental health care.
- CDC staff recently participated in the U.S. Department of Veterans Affairs Blue Ribbon Work Group on Suicide Prevention as well as the U.S. Army's suicide prevention steering committee; both comprised of government experts in various suicide prevention and education programs including the Department of Defense, National Institutes of Health, and Substance Abuse and Mental Health Services Administration. The work groups developed reports with recommendations on suicide prevention strategies for Veteran and Army populations.

Rape, Prevention, and Education (RPE) Program

Over 200,000 individuals in the United States are victims of a sexual assault or rape each year. Through the RPE program, established in 1994 with initial funding provided under the Violence Against Women Act, CDC provides resources and technical assistance to all 50 states, Washington, D.C., Puerto Rico, and six territories for rape prevention and education initiatives conducted by rape crisis centers, state sexual assault coalitions, and other public and private nonprofit entities. The RPE program strengthens sexual violence prevention efforts by supporting increased awareness, education, and training as well as the operation of hotlines. CDC also assists

state and coalition staff through training opportunities and support for the National Sexual Violence Resource Center. Major accomplishments from the RPE program include:

- The Maui County Area Health Education Center and the Molokai Interagency Council on Sexual Assault through a contract with the Hawaii Department of Health produced a video entitled "Preventing Sexual Violence, Everybody's Kuleana," the Hawaiian word for "responsibility." Molokai, a rural island, has a strong native Hawaiian culture; over 50 percent of its population is Native Hawaiian. This culturally relevant video has resulted in community trainings and efforts towards changing community norms related to sexual violence on Molokai and other neighbor islands.
- EMPOWER funded states convened diverse, multidisciplinary statewide prevention planning teams. More than just planning, these states have focused on building capacity to engage in critical analysis of data and research to develop new directions for state sexual violence prevention efforts. The work of these teams is resulting in sexual violence prevention system changes and improved primary prevention practices at the state and local level. Noting the significant outcomes of their efforts, these states are now supporting their local RPE funded communities for similar work.

Domestic Violence Community Projects

Since 2002, CDC has addressed the problem of IPV by supporting the Domestic Violence Prevention Enhancement and Leadership through Alliances (DELTA) program, which supports state domestic violence coalitions to provide prevention-focused technical assistance, training, and funding to local communities. Local Coordinated Community Responses (CCRs) receive DELTA program funding to support the adoption of primary prevention principles and practices and to implement programs that will prevent first-time perpetration and victimization. DELTA accomplishments include:

- CDC funded the Michigan Coalition Against Domestic and Sexual Violence which sponsored a series of faith forums, providing tangible resources and information on preventing the first-time occurrence of IPV to faith leaders. The forums resulted in an increased focus on healthy and respectful relationships in pre-marital counseling activities and at community and congregational events.
- The CDC funded Alaska DELTA program coordinated by the Alaska Network on Domestic Violence and Sexual Assault was asked by two communities in Russia to provide technical assistance on gender-based violence prevention initiatives. Technical assistance was specifically provided on engaging men and working to develop community capacity related to IPV prevention. The Alaska DELTA program's approach to IPV prevention is gaining attention internationally as a model for IPV prevention.

FUNDING HISTORY TABLE

Fiscal Year	Amount
FY 2005	$100,596,000
FY 2006	$100,987,000
FY 2007	$99,441,000
FY 2008	$96,913,000
FY 2009	$103,384,000

BUDGET REQUEST

CDC's FY 2010 request includes $106,652,000 for Intentional Injury, an increase of $3,268,000 above the FY 2009 Omnibus. This increase reflects $268,000 for pay increases and $3,000,000 for non-pay increases.

This request includes:

- $34,369,000 for Domestic Violence and Sexual Violence Prevention, an increase of $3,086,000 above the FY 2009 Omnibus. The $3,086,000 increase for FY 2010 will enhance efforts to develop, implement, and evaluate a comprehensive program to prevent teen dating violence in high-risk urban communities by building on current evidence-based practice and experience. Additional funds will be used to continue projects to prevent sexual violence and IPV among racial and ethnic minority populations, maintain projects working with men and boys in culturally appropriate ways to prevent sexual violence and IPV before it occurs and support intervention and evaluation trial testing strategies to prevent IPV effectively. Increased resources from FY 2009 were allocated to support additional activities in the area of teen dating violence prevention and expansion of the National Intimate Partner and Sexual Violence Surveillance System
- $7,104,000 for Child Maltreatment Prevention to support research examining the effects of information and communication technology and training in home visitation programs to determine ways to maximize effectiveness in the prevention of child maltreatment. Funds will also supports collaboration with national organizations to expand the capacity of state, local, and/or regional affiliates to address the prevention of child maltreatment and implementation of state plans to prevent violence perpetrated toward or among child and adolescents. Funding for peer-reviewed extramural research examining the effectiveness of providing information to parents and caregivers that is designed to prevent abusive head trauma will also be maintained.
- $21,345,000 for Youth Violence Prevention to support extramural peer-reviewed research to advance youth violence prevention, the National Youth Violence Prevention Resource Center, and a national consortium that is developing tools, strategies, and messages to prevent violence in urban settings. This funding also includes support for ten Academic Centers of Excellence in Youth Violence Prevention. In FY 2010, CDC will inform the prevention of youth violence and youth victimization by conducting program evaluation to identify effective strategies that reduce risk factors and increase promotive and protective factors at the individual, family, and community levels. These strategies will move the nation toward reducing incidences of youth homicide and unwanted sexual intercourse, dating violence, and physical fighting.
- $5,525,000 for Domestic Violence Prevention to support Domestic Violence Community Projects in 14 states.
- $42,623,000 for Rape Prevention Education (RPE) to provide formula-based funding to 50 states, the District of Columbia, Puerto Rico, and six territories through the RPE Program and support the National Sexual Violence Resource Center.
- $3,544,000 for NVDRS to fund 18 states to fund data collection on violent deaths. Increased funds from FY 2009 were used to support one additional state for NVDRS, bringing the total states to 18.

CDC's activities work toward a better understanding of violence, evaluating strategies to inform prevention approaches, and supporting the dissemination and implementation of effective

prevention. Supporting strategies for translating interventions into products to aid in replication, distinguishing the costs associated with successful prevention strategies, and evaluating how the characteristics and capacities of individuals, practice settings, organizations, and communities influence the implementation and dissemination of evidence-based strategies will move the field of violence prevention closer to its goal of primary prevention.

In FY 2010, CDC will sustain funding for violence prevention activities that have been effective in enhancing performance. Understanding risk factors and developing effective interventions are of little value unless these interventions are made available to those in greatest need. The budget request is designed to ensure that research activities produce useful results, and that that useful results are translated and disseminated to policymakers, partners, and constituents.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 11.1.1: Achieve reductions in the burden of injuries, disability, or death from intentional injuries for people at all life stages.				
11.1.1: Reduce youth homicide rate by 0.1 per 100,000 annually. *(Outcome)*	FY 2005: 9.2 / 100,000 (Target Not Met)	8.8 / 100,000	8.7 / 100,000	-0.1
11.1.2a: Reduce victimization of youth enrolled in grades 9-12 as measured by: a reduction in the lifetime prevalence of unwanted sexual intercourse. [1] *(Outcome)*	FY 2007: 7.8% (Target Not Met)	6.7%	N/A	N/A
11.1.2b: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of dating violence. [1] *(Outcome)*	FY 2007: 9.9% (Target Not Met)	8.1%	N/A	N/A
11.1.2c: Reduce victimization of youth enrolled in grades 9-12 as measured by: the 12-month incidence of physical fighting. [1] *(Outcome)*	FY 2007: 35.5% (Target Not Met, but improved)	29.3%	N/A	N/A

[1] The data source for these measures is the Youth Risk Behavior Survey, which is completed on a biennial basis; therefore targets and actuals are set and reported every two years, therefore, there are not targets for FY 2010.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- 2009
11.A: Child Maltreatment Prevention Activities	14	14	14	Maintain
11.B: Rape Prevention and Education Grants	FY 2008: 58 (Target Not Met)	58	58	Maintain
11.C: Intimate Partner Violence Prevention Programs[1]	20	20	20	Maintain
11.D: National Violent Death Reporting System	17	18	18	Maintain
11.E: National Academic Centers of Excellence in Youth Violence Prevention	10	10	10	Maintain

[1]This includes the Domestic Violence Community Projects.
[2]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS RAPE PREVENTION AND EDUCATION	
State/Territory/Grantee	FY 2008 Actual
Alabama	$605,770
Alaska	$87,325
Arizona	$698,527
Arkansas	$366,915
California	$4,598,971
Colorado	$586,102
Connecticut	$464,288
Delaware	$108,545
District of Columbia	$79,885
Florida	$2,171,270
Georgia	$1,113,314
Hawaii	$166,737
Idaho	$177,987
Illinois	$1,687,701
Indiana	$827,452
Iowa	$399,502
Kansas	$367,303
Kentucky	$550,799
Louisiana	$608,757
Maine	$175,271
Maryland	$721,105
Massachusetts	$863,907
Michigan	$1,351,026
Minnesota	$669,887
Mississippi	$388,290
Missouri	$761,607
Montana	$124,684
Nebraska	$234,491
Nevada	$273,459
New Hampshire	$169,962
New Jersey	$1,144,195
New Mexico	$249,135
New York	$2,577,604
North Carolina	$1,094,647
North Dakota	$89,404

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS RAPE PREVENTION AND EDUCATION	
State/Territory/Grantee	FY 2008 Actual
Ohio	$1,543,154
Oklahoma	$470,549
Oregon	$466,577
Pennsylvania	$1,668,963
Rhode Island	$144,519
South Carolina	$546,920
South Dakota	$104,705
Tennessee	$774,370
Texas	$2,832,112
Utah	$305,317
Vermont	$84,881
Virginia	$962,909
Washington	$802,185
West Virginia	$247,816
Wisconsin	$730,183
Wyoming	$69,363
Guam	$21,646
Marshall Islands	$11,560
Micronesia	$17,767
Northern Mariana Islands	$13,888
Puerto Rico	$518,211
Virgin Islands	$18,659
Total States/Cities/Territories	**$38,912,078**

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$286,985,000	$268,834,000	$0	$276,664,000	+$7,830,000
PHS Evaluation Transfers	$94,969,000	$91,225,000	$0	$91,724,000	+$499,000
Total	$381,954,000	$360,059,000	$0	$368,388,000	+$8,329,000
FTEs	1,177	1,134	0	1,134	0

SUMMARY OF THE REQUEST

CDC strives to reduce the burden of occupational injuries, illnesses, and fatalities by conducting an integrated program that includes conducting scientific research, translating findings into products and services, and promoting safe and healthy workplaces through interventions, recommendations, and capacity building.

CDC accomplishes its mission by conducting and supporting quality science and employing intramural and extramural expertise. All projects supported by the agency, intramural and extramural, undergo a competitive peer-review process to ensure scientific and technical merit.

The National Institute for Occupational Safety and Health (NIOSH) is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. Created by the Occupational Safety and Health Act of 1970, NIOSH was established to help assure safe and healthful working conditions for all working men and women.

In addition to conducting and supporting research, NIOSH develops and certifies protective technologies, conducts on-site investigations to identify workplace hazards, and assists in the development and implementation of effective workplace solutions. NIOSH is also charged with providing policy, scientific, and technical support relating to cancer claims in Energy Employees Occupational Illness Compensation Program, as well as medical monitoring and treatment for those affected by the World Trade Center (WTC) attacks.

CDC FY 2010 request includes $368,388,000 for the National Institute for Occupational Safety and Health, which is $5,000,000 above the FY 2009 Omnibus and includes $91,725,000 in PHS Evaluation Transfers. These funds will support occupational safety and health research and development of recommendations for the prevention of work-related injury and illness.

- This amount includes funds which will be used to support monitoring and treatment for first response emergency services personnel, residents, students, and others affected by the World Trade Center attacks of September 11, 2001, and $5,000,000 to support nanotechnology research and development.

NIOSH also developed the following efficiency measure in FY 2008: Reduce consumption of utilities (e.g., gas, electric, water). The annual costs spent on utilities at the Morgantown, Cincinnati, Pittsburgh, and Spokane facilities will be measured per square feet of used space during the year. Utilities are a significant part of the NIOSH budget. NIOSH research facilities have specific requirements making efficiency efforts more difficult than they are for other types of government operations. There are many factors outside of the control of NIOSH that influence utility consumption. The weather and the development, availability, and affordability of engineering controls that conserve utilities impact consumption. Inside the facilities, the types and duration of scientific procedures, the utility needs of specialized scientific equipment, emergency and

administrative operations impact consumption. By employing engineering controls to lighting and HVAC (heating, ventilating, and air-conditioning) it is expected that NIOSH reduce the consumption of utilities which will achieve cost efficiencies for CDC.

In addition, NIOSH has requested $55,358,000 in mandatory funding for the Energy Employees Occupational Illness Compensation Program to support the statutory requirements as outlined in the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). These funds will support completion of dose reconstructions, Special Exposure Cohort (SEC) evaluations, program evaluation reports, and provide administrative support for the Advisory Board on Radiation and Worker Health (ABRWH).

OCCUPATIONAL SAFETY AND HEALTH RESEARCH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Education and Research Centers	$21,425,000	$23,497,000	$0	$23,740,000	+$243,000
Personal Protective Technology	$12,804,000	$17,042,000	$0	$17,218,000	+$176,000
Healthier Workforce Center	$0	$4,030,000	$0	$4,072,000	+$42,000
National Occupational Research Agenda (NORA)	$109,889,000	$111,644,000	$0	$117,406,000	+$5,762,000
World Trade Center	$51,583,000	$70,000,000	$0	$70,723,000	+$723,000
World Trade Center - Emergency Supplemental	$56,500,000	$0	$0	$0	$0
Mining Research	$49,126,000	$50,000,000	$0	$50,516,000	+$516,000
Other Occupational Safety and Health Research	$80,627,000	$83,846,000	$0	$84,713,000	+$867,000
Total	$381,954,000	$360,059,000	$0	$368,388,000	+$8,329,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 310, 311, 317, 317A, 317B, 327, Occupational Safety and Health Act of 1970 (P.L. 91-596), §§ 9, 20-22 (29 USC 657), Federal Mine Safety and Health Act of 1977, P.L. 91-173 as amended by P.L. 95-164, §§ 101, 102, 103, 202, 203,204, 205, 206, 301, 501, 502, 508 and PL 95-239 § 19 (30 USC 904), Federal Fire Prevention and Control Act, § 209, (29U.S.C.671(a)), Radiation Exposure Compensation Act, §§ 6 and 12(42U.S.C.2210), Housing and Community Development Act of 1922 §1021 (15 U.S.C. 2685), Energy Employees Occupational Illness Compensation Program Act (2000) 42 U.S.C. 7384, et. Seq. (as amended), Floyd D. Spence National Defense Authorization Act §§ 3611, 3612, 3623, 3624, 3625, 3626 of P.L. 106-393, National Defense Authorization Act for Fiscal Year 2006, PL 109-163, Toxic Substances Control Act (15 USC 2682), Prohibition of Age Discrimination Act (29 USC 623), Mine Improvement and New Emergency Response Act of 2006 (MINER Act), P.L. 109-236 (29 U.S.C. 671, 30 U.S.C. 963 and 965) §§ 6, 11 and 13FY 2009

Authorization……..……..Indefinite

Allocation Methods……..……Direct Federal/Intramural; Competitive Grant/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

The National Institute for Occupational Safety and Health (NIOSH), established by the Occupational Safety and Health Act of 1970, is the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness. Despite improvements in workplace safety and health over several decades, on average, nearly 16 workers in the U.S. die each day from injuries sustained at work, and 134 die from work-related diseases. NIOSH works to prevent the burden of workplace injury and illness by providing research, information, education, and training in the field of occupational safety and health (OSH).

NIOSH is a professionally diverse organization with staff representing a wide range of disciplines including epidemiology, medicine, industrial hygiene, safety, psychology, engineering, chemistry, and statistics. NIOSH scientists work in multidisciplinary teams and carry out a focused program of intramural and extramural research to prevent or reduce work-related injury and illness. The NIOSH research program is aligned with the National Occupational Research Agenda, a research framework established in 1996 to guide the efforts of the occupational safety and health community. The National Occupational Research Agenda (NORA) addresses the key OSH challenges in today's workplace utilizing a sector-based approach. NORA aligns the efforts of NIOSH and other government agencies, academia, labor, and industry to more effectively translate research findings, technologies, and information into prevention practices and products to be implemented in the workplace.

As a result of its 2004 program assessment CDC contracted with the National Academies (NA) to conduct a comprehensive review of its OSH research programs. Evaluation criteria were established by the NA Framework Committee in FY 2005. Since FY 2006, NA Evaluation Committees have reported favorably on the hearing loss, mining, respiratory disease, agriculture, fishing and forestry, personal protective technology research programs, traumatic injury, health hazard evaluation, and construction. Results of these reviews will provide insight into the overall relevancy of the programs and their impact on OSH.

The Institute continues to implement the use of performance information to improve program direction, allocate resources and develop annual budgets. CDC also continues to track and assess performance of specific programs, including increasing accessibility of respirators to firefighters and first responders and reducing overexposure to respirable coal dust and fatalities and injuries in roadway construction.

Education and Research Centers (ERCs) – CDC has established partnerships with 48 academic institutions that comprise the academic network responsible for the nation's OSH professional training infrastructure. CDC funds 17 university-based ERCs to train occupational safety and health practicing professionals and researchers. The ERCs are located in 17 states, representing each HHS Region: AL, OH, CA (two ERCs), CO, MA, IL, MD, IA, MI, MN, NY, NJ, NC, FL, TX, UT, and WA. The Centers provide academic and research training for core programs in occupational medicine, occupational health nursing, industrial hygiene, and occupational safety, as well as closely related fields such as agricultural safety and health, occupational epidemiology, occupational injury prevention, and occupational health services research. In addition to ERCs, CDC also funds 31 Training Project Grants (TPGs) in academic institutions across the country for single discipline graduate training in core OSH fields.

- Based on FY 2008 data, ERC and TPG grantees enrolled more than 1,400 full-time trainees in their academic programs and produced over 400 OSH specialty graduates to enhance the workforce and provide worker health protection.
- Through its ERCs and TPGs, CDC has funded over 1,400 continuing education courses. State-of-the-art knowledge to prevent injuries, illnesses, and fatalities in workplaces was

delivered to approximately 40,000 practicing professionals participating in these courses across the country.

Personal Protective Technology/Respirator Certification – CDC's NIOSH conducts a respirator certification program to ensure respiratory protective equipment conforms to established regulatory standards. In 2008, NIOSH processed 430 approval actions. Among these were 44 respirators for occupational use by emergency responders against Chemical, Biological, Radiological, and Nuclear (CBRN) agents, including 26 self-contained breathing apparatus, 16 air-purifying respirators, and 2 air-powered, air-purifying CBRN respirators. CDC also coordinated with the Food and Drug Administration (FDA) in supporting FDA's standards for a public use respirator for pandemic flu use. N95 respirators with surgical mask capabilities were approved and masks with potential anti-microbial properties were evaluated. In addition, the newly operational CDC-installed CBRN Laboratory Respirator Protection Level (LRPL) testing chamber significantly improved the time reducing LRPL testing time by more than 30 days and decreased the expense of this testing by 20 percent. Increased efficiencies in the approval process have resulted in a reduction in the backlog of approval actions, 365 new applications were accepted in FY 2008 and 65 actions were a reduction of backlog.

National Occupational Research Agenda (NORA) – The Institute also accomplishes its mission by establishing goals through NORA. Introduced in 1996 as the largest stakeholder-based research agenda in the U.S., NORA has been the research framework guiding occupational safety and health (OSH) research for CDC and the nation for the past ten years. CDC has now entered the second decade of NORA, known as NORA II, and is building on past successes in designing research to address the 21st century workplace. NORA formed eight Sector Research Councils that have developed draft sector-based research goals and objectives that were shared for public comment in FY 2008. Following the release of the goals and objectives, the NORA Research Councils will develop action plans to provide guidance to the entire OSH community on moving research findings, technologies, and information into highly effective prevention practices and products that are adopted in the workplace.

Cost Effectiveness Information: Occupational Injury Prevention Program

A "best practices" trial was conducted for safely lifting physically dependent residents at six nursing homes. The initial investment of $158,556 for lifting equipment and worker training was recovered in less than three years based on post-intervention savings of $55,000 annually in worker's compensation (WC) costs. In addition, the rate of post-intervention assaults on caregivers during resident transfers was down 72%, 50%, and 30% based on WC, OSHA, and first reports of injury data, respectively. The "best practices" program significantly reduced injuries for full time and part time nurses in all age groups, all lengths of experience, and in all study sites.

Mining Research – CDC targets high-priority issues affecting mineworkers, as defined by stakeholder and surveillance data. The Mining Research Program is defined by a goal-driven strategic plan with performance measures, and addresses a range of safety and health issues in addition to disaster prevention and response. The Institute has developed research partnerships with industry, labor, and government organizations to solve significant mining safety and other health and safety problems, including disaster prevention, dust monitoring, noise control, diesel emissions control, and ground control.

In FY 2006 and FY 2007, CDC received $23,000,000 in supplemental funding to implement the mandates of the Mine Improvement and New Emergency Response Act (MINER Act). Currently, CDC has:

- Established a permanent Office of Mine Health and Safety within CDC, which has oversight and leadership for mining health and safety research within CDC.

- Established an interagency working group to provide a formal means of sharing non-classified technology that would apply to mine safety.
- Conducted research and field tests concerning the utility, practicality, survivability, and cost of various refuge alternatives.
- Developed a mix of contracts to facilitate the rapid movement of new technologies for communications, tracking, and oxygen supply into underground coal mines.

Significant progress is also being demonstrated in the area of communications. Research results to date strongly indicate that the technological building blocks for achieving survivable post accident communications systems will be available for implementation by June 2009. This “building block” approach will serve as a platform on which future advancements in technology can be added.

CDC has funded the development of an enhanced leaky feeder system, which allows continued communications even in the event that a section of the system is damaged or eliminated. The system has been fully developed to be compliant with Mine Safety Health Administration (MSHA) permissibility requirements and approval is pending. A mine-wide demonstration system has been installed in the Loveridge mine in West Virginia.

CDC is also working with the U.S. Army to modify the Kutta system. The Kutta system is a wireless communications system used by the military that has enormous potential as an emergency communications system in a post disaster scenario in mines. Once modified, this system would allow underground miners to communicate with each other and with the surface and maintain mine-wide operational integrity after a mine fire or explosion.

As directed by the Federal Coal Mine Health and Safety Act, CDC conducts the Coal Workers' Surveillance Program to aid in the prevention of coal workers' pneumoconiosis (CWP) and other potentially fatal, dust-induced diseases. CDC provides free chest X-rays to underground miners and certifies physicians in the classification of chest X-rays to detect and assess the severity of CWP. In areas with reports of CWP among young or short-tenure miners and/or rapidly progressive disease, CDC, in cooperation with MSHA, carries out an early detection and prevention program using a Mobile Occupational Safety and Health Unit. CDC also conducts studies to improve the technology used to screen coal miners for CWP, and identifies/develops strategies to prevent or reduce the incidence and progression of the disease. These activities are critical for preventing, tracking, and responding to CWP and protecting the health and safety of miners.

Significant accomplishments in the Mining Program include:

- Rock falls have accounted for almost 30 percent of the fatalities in coal mines over the past five years. CDC research has identified the use of welded wire screen as the single most effective surface control to prevent rock falls between bolts. In response to these findings, CDC initiated the rock fall prevention initiative in 2000 which included an intensive research and educational program aimed at informing the mining community of the magnitude of the rock fall problem and identifying and publicizing “best practices” for prevention: the use of surface controls. Prior to 2000, the rock fall injury rate in U.S. underground coal mines had held relatively steady for at least six years. The rate has now fallen over the last four years to a level about 25 percent below its former plateau. The improvement can be attributed in part to an increased awareness of the rock fall problem and an increased use of surface control systems.
- Research that was initiated after the coal mine disaster in Alabama in 2001, in which 13 miners lost their lives, included the development of a coal dust explosibility meter (CDEM). Research on the application of the meter for rapid and accurate assessment of potentially explosive mixtures of coal dust has been successful in laboratory experiments, and a

collaborative study with MSHA inspectors assessing the field worthiness of the meter has been completed successfully. The CDEM is currently undergoing testing for MSHA certification, and a manufacturer is prepared to produce commercial quantities after approval is obtained. This technology was awarded the prestigious Research and Development 100 award in 2006.

World Trade Center – The World Trade Center (WTC) Monitoring and Treatment Program was established to serve WTC emergency responders affected by the WTC attacks on September 11, 2001. *Until 2008, CDC funded grants for services soley for WTC emergency responders and cleanup workers. In 2008, the Consolidated Appropriations Act included specific appropriations language to expand treatment and monitoring services for the first time to non-responders ("resident, students, and others related to the September 11, 2001 terrorist attacks on the World Trade Center").* In addition to addressing the health needs of individuals, this program supports scientific reporting to provide a better understanding of the physical and mental health effects arising from the WTC attack.

The WTC Monitoring and Treatment consists of six clinical centers (CC) and two data and coordination centers (DCC) that provide patient tracking, standardized clinical and mental health screening, treatment, and patient data management. The Fire Department of New York (FDNY) manages the DCC and CC that serve the firefighters and emergency medical service personnel. The Mount Sinai School of Medicine manages the other DCC and coordinates a five-clinic consortium in the New York City (NYC) metropolitan area to collect and analyze data on all other responders. Enrollees in the WTC Program who are not located in the NYC Metropolitan Area receive monitoring and treatment via a national network of providers managed by Logistics Health Incorporated (LHI). The WTC Community Program serves residents, students, and other community members (non-responders) in NYC who were directly exposed to smoke debris, and psychological trauma. Participants in the program can receive health screenings and assessments, health monitoring and tracking, and improved health care services. This grant is used to help cover gaps when individuals' public or private insurance is insufficient to fully cover costs associated with care or treatment.

As of the end of FY 2008, approximately 50,050 responders had enrolled in the WTC Monitoring and Treatment Program. Of those enrolled, 42,181 responders have been screened and approximately11,000 have received treatment for health conditions. During FY2008, approximately 4,000 responders received treatment for mental health conditions.

NIOSH supports the program's DCCs and CCs via grant funding and LHI through a contract. Grant awards have been determined by the size of the cohort to be served and the services to be provided. In addition to supporting the DCCs and CCs, NIOSH has also awarded grants to the NYC Police Foundation's Project COPE and the Police Organization Providing Peer Assistance (POPPA), as mandated. These programs provide mental health services to the police responder population.

The WTC Monitoring and Treatment Program, Project COPE, and POPPA address the immediate need to assess and treat WTC-related conditions. The data collected and analyzed will help define the long-term health care needs for the exposed population, and also provide important information on the consequences of air pollutants, physical stressors, emotional stress, musculoskeletal exertions, and other occupational and environmental measures. The WTC Health Registry, administered through the NYC Department of Health and Mental Hygiene, gathered voluntary data on approximately 71,000 people about where they were on 9/11, their experiences, and their health. Periodic health surveys are conducted to continue to assess the extent and persistence of physical and/or mental health conditions and gaps in treatment.

Other Occupational Safety and Health Research – Other key activities include:

Manufacturing – CDC is actively participating in a government-wide program to ensure that the U.S. remains a world leader in nanotechnology research and development. This initiative will study the toxicity, health impact of a range of nanomaterials, and proper risk management procedures needed to control exposure.

- CDC has developed a strategic plan to address immediate and long-term issues associated with nanotechnology and occupational health in partnership with other federal agencies, research centers, and industry participating in the National Nanotechnology Initiative and the Nanoscale Science, Engineering and Technology subcommittee of the National Science and Technology Council Committee on Technology.
- CDC will investigate and develop guidance for two critical aspects of nanotechnology: reduction of uncertainty about the health effects and development of evidence-based risks management procedures to control exposures to workers and ultimately the general population exposed to nanomaterials.

Transportation – Motor vehicle-related incidents are consistently the leading cause of work-related fatalities in the U.S. Although most work-related motor vehicle-related injuries and fatalities can be attributed to the Transportation sector, these incidents frequently threaten the health and safety of workers across many sectors. In response, CDC initiated the multidisciplinary Occupational Motor Vehicle Safety and Health Research Program under NORA to address topics such as ambulance crash survivability, the influence of fatigue in truck drivers, and the risk factors for vehicle crashes among public employees. CDC also actively engages employers to promote motor vehicle safety by providing technical assistance and disseminating Hazard Alerts and Fact Sheets that present practical prevention strategies in both English and Spanish.

Agriculture – Agriculture ranks among the most hazardous industries. CDC conducts a national program in agricultural safety and health that includes both intramural and extramural components. Studies range from assessing pesticide exposure among farm families to developing technology designed to reduce injuries resulting from tractor rollovers. To further enhance these efforts in FY 2008, CDC funded eight Agricultural Safety and Health Centers that are located throughout the nation to be responsive to issues unique to the different regions.

Construction – In 2008, CDC continued to work with key construction safety and health partners to coordinate research, evaluate the effectiveness of interventions, and disseminate interventions that emerge as best practices. As part of its focus on the building and construction industry, CDC pursues both intramural and extramural research on construction fatalities.

Health Care & Social Assistance – CDC has identified and addressed a number of hazards to workers in the health care and social assistance sector:

- In partnership with labor, industry, government, and academia, CDC drafted guidelines to reduce hospital workers exposure to hazardous drugs, and successfully promoted for their adoption by CDC policy makers.
- In partnership with the private and public sectors, CDC developed and tested a program of “best practices” that reduced slips, trips, and falls by an estimated 25 percent in the five acute care hospitals studied.
- CDC conducted a nationwide survey and an intervention study of the effects of extended work hours on physician intern health and safety. The findings showed a statistically significant increase of two to five times in the probability of an intern having a crash driving home after an extended shift and the probability of making a serious diagnostic error. These results have prompted a reassessment of shift durations during intern training.

Health Hazard Evaluation Program – Through the Health Hazard Evaluation (HHE) Program, CDC conducts studies of workplaces in response to requests from employers, employees and their representatives, and government agencies. The program allows CDC the opportunity to obtain information on occupational exposures where standards are lacking or do not protect all workers. Workplace exposures studied include chemicals, biological agents, work stress, noise, radiation, and ergonomic stressors. At no cost to the employer, NIOSH evaluates the workplace environment and the health of employees by reviewing records and/or conducting on-site testing and providing recommendations to address workplace health hazards. More than 14,000 HHEs have been completed since the inception of the program in 1971. Adoption of recommendations made by the HHE program has had a significant impact on worker safety and health.

Research to Practice – In 2004, CDC established the Office of Science Policy and Technology Transfer to ensure that all OSH research funded by the agency (both intramural and extramural) is focused on the application of the research findings to prevent work-related illness or injury. This goal is accomplished by facilitating partnerships throughout the entire research process so that findings are amenable to implementation; bringing interventions to market; transferring knowledge and products to employers, workers, and policy makers; and evaluating programs for their impact. Now, all new projects funded under NORA must be consistent with the research-to-practice principles. Recent results of the focus on translating research findings into practice include the following:

- CDC engineers have designed and developed a new noise dosimetry system to assess and evaluate exposure to impulsive noise. Currently, commercial noise dosimeters are not capable of measuring exposure to impulsive noise accurately. CDC has partnered with a leading instrument manufacturer to implement the new technology into its next generation of dosimeters that will enable OSH professionals to assess the potential hazard of impulsive noise.

On December 26, 2006, three CDC employees received a U.S. Patent for the “Wearable Kneel-Sit Support Device.” The device is a product of research on ergonomic interventions in the shipbuilding and repair industries.

The Energy Employees Occupational Illness Compensation Program Act (EEOICPA) – EEOICPA provides compensation to employees or survivors of employees of Department of Energy (DOE) facilities and private contractors who have been diagnosed with a radiation-related cancer, beryllium-related disease, or chronic silicosis as a result of their work in producing or testing nuclear weapons. CDC’s NIOSH estimates occupational radiation exposure for certain cancer cases, considers and issues determinations on petitions for adding classes of workers to the Special Exposure Cohort (SEC), and provides administrative support to the Advisory Board on Radiation and Workers Health (ABRWH).

- To assist the Department of Labor (DOL) in making compensation determinations, CDC estimates individuals’ occupational exposure to radiation by conducting dose reconstructions. Secondly, CDC accepts petitions to add classes of employees to the SEC. The SEC allows eligible claims to be compensated without the completion of a radiation dose reconstruction or determination of the probability of causation.
- CDC also provides administrative support to the ABRWH. To assist the ABRWH in carrying out its responsibilities under the Act, CDC has awarded a technical support contract. The contractor will be reviewing a sample of completed individual dose reconstructions to evaluate their scientific validity and quality, review completed site profiles and SEC evaluations, and ensure that CDC is following dose reconstruction procedures as outlined in the rule.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$251,241,000
FY 2006	$262,883,000
FY 2007	$315,100,000
FY 2008	$381,954,000
FY 2009	$360,059,000

BUDGET REQUEST

CDC's FY 2010 request includes $368,388,000 for NIOSH, which is $8,329,000 above the FY 2009 Omnibus. The increase reflects $3,329,000 for pay increases and $5,000,000 for non-pay increases. The Budget includes $70,000,000 for the World Trade Center Program. To date, WTC grantees have spent approximately 50 percent of appropriated funds. The FY 2010 Budget request of $70,000,000 coupled with estimated carryover balances will fully support the WTC Program through FY 2010.

In addition, CDC has requested $55,358,000 in mandatory funding to support the statutory requirements as outlined in EEOICPA.

This request includes $5,000,000 to support research and development for two critical aspects of nanotechnology:

- reduction of uncertainty about the health effects
- development of evidence-based risks management procedures to control exposure to workers and ultimately the general population exposed to nanomaterials.

Addressing workplace safety and health poses numerous challenges given changes in the way work is organized, the introduction of new chemicals and work processes, the wide variety of workplace settings with unique hazards and needs, and an increasingly diverse workforce. CDC is working diligently to address both new and historic threats to worker safety and health. The Institute is currently pursuing three key approaches that demonstrate great promise in reducing the burden of work-related injury, disease, and death in this country:

- NORA is pursuing an industry sector-based approach to move research results into workplace practice and to ensure the most direct connection possible with workers, business, and other partners.
- The Research to Practice (r2p) initiative is focused on the transfer and translation of research findings, technologies, and information into highly effective prevention practices and products which can be adopted immediately into the workplace. The two basic tenets of r2p are involving partners or stakeholder throughout the research process – conceiving, planning, conducting, translating, and evaluating research – and conducting research projects that have the greatest potential for impact in the workplace.
- The comprehensive National Academies (NA) review of CDC's NIOSH programs will assist in targeting new research to areas most relevant to future improvements in workplace protection. In 2008, the Construction Research Program was reviewed by the NA Evaluation Committee. Using a 5-point scoring scale (with 5 being the highest), the Committee assigned the Construction Research Program a score of 5 for relevance, indicating that the research is in high-priority areas and that NIOSH is significantly engaged in appropriate transfer activities for completed research projects and reported program results. Key

recommendations from each review will help guide the program's future research and transfer activities. NORA, r2p, and the NA reviews will assist CDC in establishing priorities and making a greater impact on worker safety and health.

These activities will support the Institute's overarching goal to reduce occupational injuries, illnesses, and fatalities.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 12.2: Promote safe and healthy workplaces through interventions, recommendations and capacity building.				
12.2.2 Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors:				
a)Reduction of non-fatal injuries among youth ages 15–17.	FY 2008: 4.2/100FTE - Exceeded	4.4/100FTE	4.4/100FTE	Maintain
b)Reduction of fatal injuries among youth 15–17.	FY 2008: 2.0/100,000 FTE - Exceeded	3.0/100,000 FTE	3.0/100,000 FTE	Maintain
c)Percentage of active underground coal mines in the U.S. that possesses NIOSH-approved plans to perform x-ray surveillance for pneumoconiosis	FY 2008: 98% Exceeded	90%	90%	Maintain
12.2.4: Percentage of[9]				
a) Companies employing those with NIOSH training that rank the value added to the organization as good or excellent.	N/A	80%	N/A	N/A
b) Professionals with academic or continuing education training.	N/A	15% increase	N/A	N/A

OUTPUT TABLE

Key Output	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure:				
12.E.2: Reduce consumption of utilities (e.g., gas, electric, water). *(Efficiency)*	FY 2007: $3.26/sq. ft. (Baseline)	2% reduction	3% reduction	-1%
Long Term Objective 12.1: Conduct research to reduce work-related illnesses and injuries.				
12.1.1: Progress in targeting new research to areas of occupational safety and health (OSH) most relevant to future improvements in workplace protection.	FY 2007: Evaluate relevance of third 1/5 of CDC NIOSH program activities. (Met)	Evaluate relevance of final 1/5 of CDC NIOSH program activities according to specifications below.	N/A	N/A
12.1.2: Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; measure the success of implemented intervention strategies.				

[9] This serves as a long-term outcome measure with 2003 baselines of A) 68% and B) 1,405 full-time academic trainees, 31,508 continuing education trainees.

Key Output	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
A) Evaluate the role that tracking information had in designing research and intervention projects.	FY 2007: 211 research and intervention projects were based on tracking information (Met);	Evaluate the role that tracking information had in designing research and intervention projects.	Evaluate the role that tracking information had in designing research and intervention projects.	Maintain
B) Identify the role that follow-up tracking information can have in assessing the success of interventions.	FY 2007: 4 intervention projects used tracking information to demonstrate the success of the intervention strategy (met)	Identify the role that follow-up tracking information can have in assessing the success of interventions.	Identify the role that follow-up tracking information can have in assessing the success of interventions.	Maintain
C) Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	FY 2007: 7.8 adults per 100,000 with elevated blood lead levels (Unmet)	Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Heighten use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%.	Maintain
12.1.3: Percentage of NIOSH programs that will have completed program-specific outcome measures and targets in conjunction with stakeholders and customers.	FY 2007: 80% (Exceeded)	80%	80%	Maintain
Long Term Objective 12.2: Promote safe and healthy workplaces through interventions, recommendations and capacity building.				
12.2.1: Increase the percentage of CDC NIOSH-trained professionals who enter the field of occupational safety and health after graduation.	FY 2008: 85% (Exceeded)	80%	80%	Maintain
OTHER KEY OUTPUTS				
12.A: Safety and Health Patent Filings	FY 2008: 3 (TARGET NOT MET)	3	5	MAINTAIN
12.B: Certification Decisions Issued for Personal Protective Evaluated for Certification[2]	FY 2008:430 (TARGET NOT MET)	300	300	MAINTAIN
12.C: Estimated Academic Graduates	FY 2008:446 (TARGET NOT MET)	460	460	MAINTAIN
12.D: Heath Hazard Evaluations/Fatality Assessment and Control Evaluations[3]	FY 2008:365 (TARGET NOT MET)	350	350	MAINTAIN
12.E: Number of Research Articles Published in Peer-Review Publications	FY 2008:310 (TARGET EXCEEDED)	250	250	MAINTAIN
12.F: Agricultural Centers	FY 2008:8 (TARGET NOT MET)	9	9	MAINTAIN
12.G: Research Grants	FY 2008:144 (TARGET NOT MET)	170	170	MAINTAIN
12.H: Training Grants	FY 2008:50 (TARGET NOT MET)	50	50	MAINTAIN

Key Output	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
12.I: Number of States Receiving Public Assistance[4]	FY 2008:41(TARGET EXCEEDED)	35	35	MAINTAIN

[2] Increased efficiencies in the approval process have resulted in a reduction in the backlog of approval actions. The expected level of activity for 2009 is approximately 300 (especially in view of the current economic situation). Respirator approval requests are market driven.

[3] Historically the target number of health hazard evaluations has been based on the average number of requests over many years of program operations. However, in FY 2008, the number of requested evaluations was much lower than the average-historical experience of the health hazard evaluation program. Although NIOSH is uncertain that this represents a continuing trend, NIOSH believes it is appropriate to lower the target to reflect that reality. The Health Hazard Evaluation program is embarking on several efforts to increase awareness of its services to try to return the number to the previous target.

[4] These targets were established some time ago and are reflected in the FY 2009 Congressional Justification. For reasons of consistency they remain unchanged in the FY 2010 CJ.

GLOBAL HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$302,371,000	$308,824,000	$0	$319,134,000	+$10,310,000
FTEs	129	144	0	202	0

SUMMARY OF THE REQUEST

Since 1958, beginning with CDC's work in malaria control, following with a focus on cholera and smallpox outbreaks, the scope and nature of CDC's global engagements have changed dramatically. The agency's global health mandate has expanded to include other diseases and conditions, and the goal of protecting the U.S. and world population from emerging global threats has been added.

CDC's Coordinating Office for Global Health (COGH) provides leadership and works with partners around the globe to increase life expectancy and years of quality of life. COGH also works to increase global preparedness to prevent and control naturally occurring and man-made threats to health.

CDC's FY 2010 request includes $319,134,000 for Global Health, an increase of $10,310,000 above the FY 2009 Omnibus. This increase reflects $310,000 for pay increases and $10,000,000 for non-pay increases.

- $118,979,000 for Global Aids Program (GAP). Funds will be used to address the HIV/AIDS epidemic and to conduct activities under the President's Emergency Plan for AIDS Relief (PEPFAR) in 15 focus countries for treatment of 2.2 million people.
- $153,475,000 for Global Immunization Program, $10,149,000 above the FY 2009 Omnibus for Other Global/Measles. Funds will be used to purchase 240 million doses of oral polio vaccine (OPV) for use in mass immunization campaigns in Asia, Africa, and Europe as part of global polio eradication efforts, and to purchase 15 million doses of measles vaccine for use internationally to reduce global measles-related mortality. The additional funding will be used to strengthen global immunization capacity in order to decrease the risk of importations of vaccine preventable diseases.
- $33,756,000 for Global Disease Detection (GDD). Funds will be used to protect the health of Americans and the global community by developing and strengthening global, regional, and local public health capacity to rapidly detect and effectively respond to infectious disease outbreaks and other emerging health threats.
- $9,405,000 for Global Malaria Program. Funds will be used to support the prevention and control of malaria throughout the world by providing technical assistance in malaria control through the President's Malaria Initiative (PMI) in 15 countries, and by providing technical assistance for malaria research and control to 15 non-PMI countries.
- $3,519,000 for Other Global Health Activities. Funds will be used to support two programs: The Field Epidemiology (& Laboratory) Training Program [FE(L)TP] and the Sustainable Management Development Program (SMDP). Through these programs, foreign Ministries of Health (MOHs) acquire the means to build their own programs and capacity to improve public health on a local, regional, and national level, ultimately leading to improved health on a global scale.

GLOBAL AIDS PROGRAM

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$118,863,000	$118,863,000	$0	$118,979,000	+$116,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341, Foreign Assistance Act of 1961 §§ 104, 627, 628, Federal Employee International Organization Service Act § 3, International Health Research Act of 1960 § 5, Agriculture Trade Development and Assistance Act of 1954 § 104, Economy Act, 22 U.S.C. 3968 Foreign Employees Compensation Program, 41 U.S.C. 253 International Competition Requirement Exception, P.L. 111-8 sec. 213.

FY 2010 Authorization……..….Indefinite

Allocation Methods……..……..……..……...Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Direct Contracts; Interagency Agreements

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Created in 2000, the CDC Global AIDS Program (GAP) supports national HIV/AIDS programs in more than 70 countries in Africa, Asia, Central and South America, and the Caribbean through its Atlanta, in-country and regional offices. GAP's strategic priorities include:

- Developing partnerships with Ministries of Health (MOH) and other public health institutions based on a shared mission and vision of sustainable institutional capacity;
- Scaling up evidence-based HIV prevention, care, and treatment programs; and,
- Providing expertise developed as the United States "Ministry of Health" in all aspects of public health programming.

In January 2003, the President announced the President's Emergency Plan for AIDS Relief (PEPFAR), an unprecedented $15 billion initiative to provide prevention, care, and treatment around the world. When PEPFAR was announced, only 50,000 patients received antiretroviral treatment (ART) in all of sub-Saharan Africa. As of September 30, 2008, PEPFAR has supported life-saving ART for approximately 2.1 million men, women, and children in sub-Saharan Africa, Asia, and the Caribbean, and has allowed nearly 240,000 African babies to be born HIV-free.

To further support PEPFAR efforts, on July 30, 2008, the Tom Lantos and Henry J. Hyde United States Global Leadership Against HIV/AIDS, Tuberculosis, and Malaria Reauthorization Act (H.R. 5501) was signed. This legislation authorizes up to $48 billion to combat global HIV/AIDS, tuberculosis, and malaria with the added focus areas of health systems strengthening and wrap-around programs. Wrap-around programs offer the opportunity to link HIV/AIDS programs with programs in other sectors, improving quality of life and strengthening development efforts overall. These programs leverage resources, both human and financial, from entities with different funding sources in order to complement and maximize the effectiveness of PEPFAR. As a PEPFAR implementing agency, GAP will continue to provide critical support for this new five-year phase.

GAP provides direct scientific and technical support to MOH, partner organizations (through cooperative agreements and contracts), and other USG agencies to strengthen national public health systems. GAP's highly trained physicians, epidemiologists, public health advisors, behavioral

scientists, and laboratory scientists support national HIV/AIDS programs. GAP staff contributes to cutting-edge science and research translation through their work in critical technical areas:

- HIV prevention, counseling, and testing;
- Facility-based HIV care and treatment, including Preventing Mother-to-Child Transmission (PMTCT) of HIV and Tuberculosis (TB);
- Surveillance and health management information systems;
- Laboratory networks and services;
- Health workforce development; and,
- Operations research and program evaluation.

Currently, GAP has over 280 direct-hires, contractors, locally-employed staff, and fellows at headquarters and over 1,400 staff implementing HIV/AIDS prevention, care, and treatment programs in 39 field offices. GAP supports over 30 additional countries through technical assistance from Atlanta, financial support to multilateral organizations like the Joint United Nations Program on HIV/AIDS (UNAIDS), and through regional support by our field offices.

Significant accomplishments in FY 2008 include:

- On World AIDS Day, December 1, 2008, the President announced that PEPFAR had achieved two of its three goals for the first five years of the initiative: providing antiretroviral treatment to over 2 million men, women, and children and compassionate care to over 10 million people affected by HIV/AIDS (including 4 million orphans and vulnerable children). GAP directly contributed to this monumental achievement by:
    - helping countries to plan, implement, and evaluate HIV care and treatment guidelines and strategies;
    - providing expertise to HIV care and treatment partners on service delivery, human resources, physical infrastructure, laboratory services, monitoring and evaluation, and more; and
    - developing and disseminating training on HIV care and treatment policies and strategies.
- Laboratory Training and Capacity - The GAP-supported African Centre for Integrated Laboratory Training opened in South Africa to significantly expand the number of laboratorians and other health care workers trained in TB/HIV throughout Africa. Additionally, the GAP laboratory in Atlanta received the internationally recognized College of American Pathologist (CAP) accreditation. This accreditation will facilitate critical external Quality Controls and Quality Assurance programs for CDC's partner laboratories supporting the PEPFAR throughout the world.
- Innovative Surveillance Methods - GAP helped resource-constrained countries adopt and use Respondent-Driven Sampling (RDS) for conducting surveillance of hard to reach populations. GAP provides training and technical assistance to implement RDS and has produced a manual, protocol and standard operating procedures to facilitate adoption. GAP also developed a web-based sampling tool that helps determine the most appropriate sampling method for specific groups of at-risk populations.
- HIV Prevention in Care and Treatment Settings - CDC, along with key partners, piloted this clinic-based, provider-delivered intervention in Kenya and is now rolling it out to countries throughout Africa. This intervention gives providers the tools and skills to

deliver targeted prevention messages to HIV-positive patients at the end of every routine clinic visit.

- TB/HIV Training Curriculum - GAP developed a diagnostic HIV counseling and testing (DCT) training curriculum (addressing administrative, operational, and clinical issues) to be implemented in TB clinics. This curriculum was recently piloted and evaluated in three districts in Tanzania and will be rolled out in all Emergency Plan countries.
- Early Infant Diagnosis - Left unidentified and untreated, 50 to 60 percent of HIV-infected infants die by age two. GAP is pioneering Early Infant Diagnosis (EID) using the dried blood spot (DBS) technique in resource-limited settings throughout Africa. With the prick of an infant's heel, whole blood is placed onto a card to dry, creating easily transportable samples that are stable for long periods without refrigeration.

The Office of Global AIDS Coordinator (OGAC) of the U.S. Department of State is conducting an evaluation of technical assistance provided directly by OGAC for Global Fund grants and working to improve its performance-based systems to include reporting on program activity by budget amount and reporting on sub-recipient activity. GAP has included performance measures for focus country programs and other bilateral country programs that reflect the USG-wide efforts under PEPFAR.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$123,830,000
FY 2006	$122,560,000
FY 2007	$120,985,000
FY 2008	$118,863,000
FY 2009	$118,863,000

BUDGET REQUEST

CDC's FY 2010 request includes $118,979,000 for the Global Aids Program, an increase of $116,000 above the FY 2009 Omnibus for pay increases. CDC will continue to support core GAP activities, with the majority of these funds transferred to country programs, and the remainder retained at headquarters for technical assistance and support to country programs.

In addition to the funding received through the Labor HHS appropriation, CDC receives support for PEPFAR through the State Department's Global Health and Child Survival (GHCS) account. OGAC has primary responsibility for the oversight and coordination of all USG global HIV/AIDS spending, and strategically leverages the particular strengths of all U.S. Government (USG) agencies involved in HIV/AIDS interventions. GHCS funds allocated to GAP are determined through the PEPFAR Country Operational Plan process.

In FY 2010, GAP will continue its HIV/AIDS activities in conjunction with other PEPFAR implementing agencies. Some key objectives for FY 2010 include:

- Provide technical assistance and support to PEPFAR country programs for the delivery of ART to adults and children; and of prevention, diagnosis, and treatment of opportunistic infections (OI) including TB. In FY 2010, HIV/AIDS treatment will be provided to over 3 million individuals.
- Help countries scale-up PMTCT programs toward the new five year target of providing 80 percent PMTCT service coverage for HIV-infected pregnant women in PEPFAR countries. A strong emphasis will be placed on early infant diagnosis, improving quality, assisting low performing countries to scale-up coverage, and identifying highly active antiretroviral

treatment (HAART)-eligible women and linking PMTCT with HIV care and treatment. New initiatives for the year include promoting integration of PMTCT with maternal, newborn, and child health services and implementing a multi-country evaluation to identify the optimal models for PMTCT interventions (the HOPE Study: "How to optimize PMTCT Effectiveness").

- Support PEPFAR country programs in five HIV/AIDS prevention areas: 1) Counseling and Testing, 2) HIV-Infected Individuals and Families, 3) Medical Transmission, 4) High-Risk Sexual Transmission; and, 5) Drug-Using Populations.
- Support the implementation of new biomedical interventions to prevent HIV infection, beginning with medical circumcision and including other proven interventions, when available.
- Support epidemiology and laboratory training – GAP staff work in close concert with HHS/CDC's Field Epidemiology and Laboratory Training Programs and Sustainable Management Development Program to effectively train public health professionals around the world in epidemiology, laboratory, and management sciences. These programs support newly trained professionals to train thousands of their peers in MOH and partner organizations, contributing exponentially to the capacity of health systems in PEPFAR countries.
- Build laboratory capacity in collaboration with HHS/CDC and other partners, develop rapid HIV testing protocols, conduct field trainings on an incidence-based assay for HIV surveillance, and serve as a reference laboratory for diagnostic testing and incidence testing issues. Staff will also provide training for pediatric HIV diagnosis, support HIV drug resistance surveillance, evaluate new testing technologies, and develop quality assurance programs.
- Facilitate the monitoring of outcomes and the impact of PEPFAR and other international efforts at the national level, and support surveys and monitoring and evaluation systems that measure HIV prevalence, changes in HIV-related behavior, and health status among individuals and at the population level.
- Contribute to the broader scientific body of knowledge in global public health; ensure that scientific integrity, excellence, and public health ethics are maintained in PEPFAR activities; and provide leadership on PEPFAR's Public Health Evaluation (PHE) agenda.
- Provide scientific and technical expertise to PEPFAR and serve as a linkage to other CDC global health programs, including global disease detection, public health training, and prevention and control of other infectious diseases such as malaria and TB.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 13.A.1.1: GAP will help implement PEPFAR in 15 focus countries by partnering with other USG agencies to achieve the goals of treating 2 million HIV-infected people and caring for 10 million people infected with or affected by HIV/AIDS by 2008, and preventing 7 million new HIV infections by 2010.				
13.A.1.1: Number of people receiving HIV/AIDS treatment. *(Output)*	FY 2008: 2,007,800 people (Target Exceeded)	2,568,137 people	3,153,169 people	+585,032
13.A.1.2: Number of individuals provided with general HIV-related palliative care/basic health care and support during the reporting period, including TB. *(Outcome)*	FY 2008: 5,734,800 (Target Exceeded)	7,693,971	8,503,441	+809,470
13.A.1.3: Number of pregnant women receiving PMTCT services, including counseling and testing during the reporting period. *(Output)*	FY 2008: 5,850,100 (Target Exceeded)	7,134,086	9,789,416	+2,655,330
13.A.1.4: Number of individuals who received counseling and testing during the reporting period (counseling includes the provision of test results to clients *(Output)*	FY 2008: 17,901,400 (Target Exceeded)	16,527,468	22,882,305	+6,354,837
Long Term Objective 13.A.2.1: The Global AIDS Program will help implement the President's Emergency plan for AIDS Relief in the other bilateral countries by partnering with other USG agencies, international and host country organizations to achieve the goals of preventing new HIV infections, treating HIV-infected people, and caring for people infected with or affected by HIV/AIDS.				
13.A.2.1: Number of individuals receiving antiretroviral therapy at the end of the reporting period (includes PMTCT+ sites). *(Output)*	FY 2007: 276,965 (Target Not Met but Improved)	550,366	674,981	+124,615
13.A.2.2: Number of individuals trained to provide laboratory-related activities. *(Output)*	FY 2008: 3,420 (Target Not Met)	3,318	4,038	+720
13.A.2.3: Number of pregnant women who received HIV counseling and testing for PMTCT and received their test results. *(Output)*	FY 2008: 457,509 (Target Not Met but Improved)	674,359 (direct)	759,994 (direct)	+85,635
13.A.2.4: Number of individuals who received counseling and testing during the reporting period. *(Output)*	FY 2007: 5,249,131 (Target Exceeded)	2,022,878 (direct)	2,310,591 (direct)	+287,713

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
13.A.A : Number of individuals receiving HIV/AIDS treatment in the 15 focus countries.	FY 2008: 2,007,800	2,568,137	3,153,169	+ 585,032
13.A.B : Number of focus countries conducting HIV/AIDS surveillance.	FY 2008: 15	15	15	Maintain
13.A.C : Number of non-focus countries conducting HIV/AIDS surveillance.	FY 2008: 10	15	15	Maintain
13.A.D : Number of persons trained in the provision of laboratory-related activities.	FY 2008: 3,420	2,479	3,411	+ 932

[1]These targets are set by the US Office of the Global AIDS Coordinator and represent the total USG contribution to achieving the goal. OGAC has not released target numbers for those marked as "TBD" or has not yet established targets for those marked as "NA."
[2]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

GLOBAL IMMUNIZATION PROGRAM

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$139,851,000	$143,326,000	$0	$153,475,000	+$10,149,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341: Foreign Assistance Act of 1961 §§ 104, 627,628: Federal Employee International Organization Service Act § 3: International Health Research Act of 1960 § 5: Agriculture Trade Development and Assistance Act of 1954 § 104: Economy Act: 22 U.S.C. 3968 Foreign Employees Compensation Program: 41 U.S.C. 253 International Competition Requirement Exception): P.L 110-289 (1st Continuing Resolution FY07): P.L.-109-369 (2nd Continuing Resolution FY07): P.L. 109-383 (3rd Continuing Resolution FY07): P.L 110-5 (Revised Continuing Appropriations Resolution, FY07).

FY 2010 Authorization……Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grant/Cooperative Agreement; Contracts

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC supports global immunization initiatives to protect American children from vaccine-preventable diseases (VPDs) imported into the United States or acquired abroad, for humanitarian reasons, and to reduce the medical costs of morbidity and mortality associated with VPDs. Experience with polio eradication and measles elimination to date clearly shows that these viruses know no boundaries, and that all children remain at risk when the virus persists anywhere in the world. Along with a substantial network of partner agencies, CDC is one of the leading partners for global polio eradication, measles mortality reduction, and Global Immunization Vision and Strategy (GIVS) initiatives.

CDC's global immunization activities primarily target children under five years of age in developing countries at highest risk for polio, measles, and other VPDs. Secondarily, activities also target children from five to15 years of age requiring additional doses of measles and other vaccines, as well as women of child-bearing age who are of specific concern for the rubella and tetanus elimination initiatives.

CDC provides significant financial support through cooperative agreements with the World Health Organization (WHO), United Nations Children's Fund (UNICEF), the Pan American Health Organization (PAHO), and the United Nations Foundation (UNF), most notably for procurement of polio and measles-containing vaccines through UNICEF. CDC operates in partnership with public and private sector partners to achieve global immunization objectives including Rotary International, American Red Cross, UNF, International Federation of Red Cross and Red Crescent Societies, Bill and Melinda Gates Foundation, WHO, UNICEF, and the World Bank. The Ministries of Health in the partner countries play the lead role in ensuring the implementation and oversight of immunization and surveillance activities.

CDC supports implementation of key eradication, elimination, and control strategies through three major activities:

- SIAs have also become instrumental in providing emergency immunization and vitamin A supplementation to young victims of natural or manmade disasters and when applicable to

children living in countries affected by conflict. Such crises can compromise the health of children, rendering them very susceptible to disease.

  - In response to the earthquake in Kashmir, Pakistan on 8 October 2005, more than 1.2 million children received a measles shot and vitamin A. The program responded similarly to the subsequent earthquake in Pakistan in October 2008.
  - During the conflict in Afghanistan, Global Immunization funding and work of its partners supported mass measles immunization campaign aimed at reaching up to 10 million children and saving more than 35,000 lives.

- **Strengthening routine immunization systems** through public health investments saves lives and improves them because these programs not only prevent disease, but they also strengthen health systems. Investments to strengthen routine immunization systems sustain the public health gains achieved through polio eradication and measles mortality reduction, and create a platform for health systems improvements that provides the foundation for control of other VPDs and supports the introduction of new life-saving vaccines. In addition, CDC provides technical assistance and support for detection and response to disease outbreaks in collaboration with partner agencies and national governments.
- **Surveillance and laboratory network** ensures that patterns of polio and measles disease transmission are tracked and the disease data are used to guide programmatic response, evaluate the impact of immunization activities, and document the absence of disease. This documentation is required to certify regional and global polio eradication as well as regional measles elimination.

Significant accomplishments and public health impact of the polio and measles initiatives to date include:

- Since 1988, global polio incidence has declined by more than 99 percent from more than 350,000 cases annually to 1659 cases in 2008, an increase of 27 percent from the 1310 cases reported in 2007, mostly due to an increase of cases in Nigeria and an outbreak in Sudan. The program strives to lower the number and intensity of these polio outbreaks. The number of endemic countries has been reduced from 125 in 1988 to four in 2008 (Afghanistan, India, Nigeria, and Pakistan).
- As of 2007, the efforts of the global Measles Initiative contributed to a reduction of global measles mortality in all ages by 74 percent, from an estimated 757,000 deaths in 2000 to an estimated 197,000 in 2007. The largest percent reduction during this time period was in the Eastern Mediterranean and African region, where measles mortality decreased by 90 percent and 89 percent respectively.
- Mass measles vaccination campaigns increasingly include additional health services. Since 2001, the Measles Initiative and its partners have supported the distribution of more than 31 million insecticide-treated bed nets for malaria prevention, 49 million doses of de-worming medicine, and more than 126 million doses of vitamin A.
- There are a number of economic benefits to frontloading investments in measles immunization, including: a) cost savings to the health system of preventing rather than treating measles, especially in epidemic settings; b) improved productivity of households as a result of better health; and, c) general economic gains or returns to investment on immunization. Analyses have demonstrated the cost savings argument, most particularly for measles; numerous reports in the literature support the notion that families/households with healthier children have higher incomes, allocate their resources in healthier ways, and have other benefits. Findings from studies of the broader economic impact of vaccination show

that investment in the vaccine preventable disease mortality reduction can be expected to yield an economic rate of return of 10-20 percent or more, similar to that of primary education.[10]

- The Polio and Measles Initiatives clearly demonstrate the impact of immunizations on averting disease, disability, and death. Globally, more than five million cases of childhood paralysis have been prevented, 3.6 million deaths averted as a result of measles mortality reduction activities, and more than 1.25 million deaths prevented through vitamin A supplementation during immunization activities. While both polio and measles have been successfully eliminated from the Western Hemisphere, American children remain at risk for both diseases as long as they persist anywhere in the world. Furthermore, it is important to ensure that the gains made through polio eradication and measles mortality reduction initiatives continue by strengthening routine immunization programs, and by building capacity in countries to introduce new life-saving vaccines, vaccine-preventable and emerging disease surveillance, by building on the success of the global surveillance networks for polio and measles.
- An assessment of the Global Immunization Program cited CDC's ability to eliminate or reduce VPDs overseas, recognized the well-established annual and long-term performance measures of the program, and stated that the program is meeting its efficiency goals in minimizing headquarter's expenses.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$144,386,000
FY 2006	$144,282,000
FY 2007	$142,338,000
FY 2008	$139,851,000
FY 2009	$143,326,000

BUDGET REQUEST

CDC's FY 2010 request includes $153,475,000 for the Global Immunization Program, an increase of $10,149,000 above the FY 2009 Omnibus. This includes $101,599,000 for Polio Eradication and $51,876,000 for Other/Global Measles. This increase reflects $149,000 for pay increases and $10,000,000 for non-pay increases.

The majority of the Global Immunization Program's funding is used to directly support mission-critical activities through CDC's global cooperative agreement partners: WHO, UNICEF, PAHO, and UNF. The program has directed over 90 percent of its annual budget to the program, exceeding its efficiency targets for the last three years.

Funds also maintain support to the global polio eradication and measles mortality reduction initiatives as well as implementation of key components of the Global Immunization Vision and Strategy (GIVS).

[10] David Bloom, David Canning and Mark Weston, "The value of vaccination," *World Economics*, Vol. 6, No. 3, July-Sept 2005; Vijayaraghavan M, Lievano F, Cairns L, Wolfson L, Nandy R, Ansari, Golaz A, Mashal T and Salama P. 2006, "Economic Evaluation of Measles Catch-up and Follow-up Campaigns in Afghanistan in 2002 and 2003" *Disasters The Journal of Disaster Studies, Policy and Management 30(2)*; 256-269.

With the additional $10,149,000 increase for FY 2010, the Global Immunization Program will further protect the U.S. by decreasing the risk of importations of vaccine preventable diseases (VPD) through the strengthening of Global Immunization capacity. To maintain the gains of polio eradication and measles elimination, these efforts will:

- Expand measles vaccination campaigns into high burden countries of South Asia and continue to sustain the successful groundwork achieved in Africa.
- Build in-country capacity for more effective immunization program management and evaluation through training, supervision, and the development of information systems to ensure the quality of vaccine preventable disease surveillance systems.
- Strengthen routine immunization programs through bilateral and multilateral partnerships that strengthen health systems so new and underutilized vaccinations more readily reach people living in areas where disease, death, and disability from vaccine preventable diseases is common.

CDC will also continue to support global immunizations initiatives through the following:

- Funding the purchase of 240 million doses of oral polio vaccine for use in mass immunization campaigns in Southeast Asia, Africa, and Europe as CDC works to achieve its target of zero countries endemic with polio virus in 2010. Funding will also be used to work with global partners to reduce the number of global measles-related deaths to 75,000 in FY 2010 (a decrease from 777,000 in FY 2000).
- Supporting personnel and program operations, including:
    - Quality surveillance and laboratory capacity for polio, measles and other VPDs;
    - Successful implementation of supplemental immunization activities (SIAs);
    - Capacity for rapid response in the event of outbreaks or spread of disease; and,
    - Program management and technical oversight.
- Providing epidemiologic, laboratory, and programmatic support to WHO and UNICEF to evaluate and strengthen surveillance capacity; collaborate with countries for outbreak investigations and rapid response activities; and, support planning, monitoring and evaluating of SIAs.
- Assigning expert staff overseas to help implement global immunization programs, and providing short-term technical assistance abroad through temporary assignments of CDC experts from Atlanta.
- Providing expertise in virology, diagnostics, and laboratory procedures, serving as a global reference lab for polio, measles, and rubella.

Key challenges the program faces in achieving goals include:

- Interrupting polio transmission in the remaining four endemic countries (India, Nigeria, Afghanistan, and Pakistan) presents the greatest immediate challenge to the global polio eradication initiative. Despite significant progress in these countries, ongoing transmission is likely to delay global polio eradication until 2010. Low routine immunization coverage in the polio endemic countries presents a challenge to the eradication efforts in the most critical areas.
- Despite remarkable progress in reducing measles mortality, there are significant challenges with sustaining the gains made to date and maintaining a focus on continued efforts to achieve the goal of 90 percent worldwide measles mortality reduction by 2010. With the

declines in mortality in Africa, the disease burden in South Asia has become more recognized, especially in India and Pakistan. In 2006, nearly three-fourths of the global measles deaths occurred in the WHO Southeast Asia Region. The Measles Initiative is expanding its support to countries with high measles burdens in other WHO regions, especially South-East Asia. Introduction of accelerated measles control activities will be critical to addressing the remaining disease burden.

- Globally and regionally, routine immunization coverage has improved over the past five years. However, there remain many districts or subdistricts with very low coverage, some in the single digits for diphtheria-tetanus-pertussis (DTP3) coverage. This lack of coverage is widely attributed to the difficulty in reaching individuals in remote or hard-to-reach areas, economic and social barriers to service demand or delivery (extreme poverty, ethnic, or religious minority), and security (conflict, post-conflict, or poorly policed communities).

New strategies being implemented to achieve goals include:

- New laboratory procedures are now in place that significantly decrease the time it takes to detect and confirm new polio infection from 42 to 21 days; this enables more rapid detection of wild poliovirus (WPV) and allows for faster response to importations and/or spread of virus.
- The use of monovalent OPV (mOPV), which provides greater protection against the two types of WPV currently circulating (Types 1 and 3), is now widespread in the four polio-endemic countries and in countries experiencing outbreaks. Use of mOPV Type 1 has significantly reduced transmission of WPV Type 1, and its sustained use will be critical to interrupting WPV Type 1 globally.
- Research is on-going to assess the potential for use of additional tools to achieve the polio eradication strategy, including safer and more cost-effective variations of inactivated polio vaccine (IPV) (Sabin and, intradermal), fractional dose IPV, and other vaccine administration techniques.
- Improving routine vaccination coverage in the areas that currently have low coverage will require additional resources and innovation. The Global Immunization Vision and Strategy (GIVS) calls for a minimum of 3 vaccination contacts per year for every community. Strategies to reach this goal and to maintain the required support will have to be researched and tested before wide scale implementation.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
13.B.1.1: Number of doses of oral polio vaccine (OPO) purchased for use in OPV mass immunization campaigns in Asia, Africa, and Europe (1 does = 1 child reached). *(Efficiency)*	FY 2007: 287 million (Target Exceeded)	240 million	240 million	240 million
Long Term Objective 13.B.1: Help domestic and international partners achieve World Health Organization's goal of global polio eradication				
13.B.1.1: Number of doses of oral polio vaccine (OPO) purchased for use in OPV mass immunization campaigns in Asia, Africa, and Europe (1 dose = 1 child reached). *(Output)*	FY 2007: 287,000,000 (Target Exceeded)	240,000,000	240,000,000	Maintain
13.B.1.2: Number of children reached with OPV as a result of non-vaccine operational support funding provided to implement OPV mass immunization campaigns in Asia, Africa, and Europe. *(Output)*	FY 2007: 119,000,000 (Target Exceeded)	45,000,000	N/A	N/A
13.B.1.3: Number of countries in the world with endemic wild polio virus. *(Outcome)*	FY 2007: 4 (Target Exceeded)	0	0	Maintain
Long Term Objective 13.B.2: Work with global partners to reduce the cumulative global measles-related mortality by 90% compared with 2000 estimates (baseline 777,000 deaths) and to maintain elimination of endemic measles transmission in all 47 countries of the Americas.				
13.B.2.1: Number of global measles-related deaths. *(Outcome)*	FY 2007: 197,000 (Target Exceeded)	100,000	75,000	-25,000
13.B.2.2: Number of non-import measles cases in all 47 countries of the Americas as a measure of maintaining elimination of endemic measles transmission. *(Outcome)*	FY 2007: 0 (Target Met)	0	0	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.
[2]FY 2005-FY 2007 Targets and Actual figures reported include the larger international Measles Partnership purchase of vaccines, which includes CDC contribution. Beginning in FY 2008, CDC Targets and Actual figures will reflect the CDC contribution only.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
13.B.E.1: The portion of the annual budget that directly supports the program purpose in the field. *(Output)*	FY 2008: 93% (Target Exceeded)	>=90%	>=90%	Maintain

GLOBAL DISEASE DETECTION

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$31,445,000	$33,723,000	$0	$33,756,000	+$33,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341: Foreign Assistance Act of 1961 §§ 104, 627,628: Federal Employee International Organization Service Act § 3: International Health Research Act of 1960 § 5: Agriculture Trade Development and Assistance Act of 1954 § 104: Economy Act: 22 U.S.C. 3968 Foreign Employees Compensation Program: 41 U.S.C. 253 International Competition Requirement Exception): P.L 110-289 (1st Continuing Resolution FY07): P.L.-109-369 (2nd Continuing Resolution FY07): P.L. 109-383 (3rd Continuing Resolution FY07): P.L 110-5 (Revised Continuing Appropriations Resolution, FY07).

FY 2010 Authorization……..……..……..……..Indefinite

Allocation Methods……...…Direct Federal/intramural; Contract; Competitive Grant/Cooperative Agreement

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Established in 2004, the Global Disease Detection (GDD) program protects the health of Americans and the global community by developing and strengthening global, regional, and local public health capacity to rapidly detect and effectively respond to infectious disease outbreaks and threats. This includes newly emerging threats such as the novel arenavirus that led to a disease cluster in Africa during 2008. Key to the GDD strategy is the establishment of Regional Centers, strategically positioned around the world to help countries address these types of threats at home and across borders.

The GDD Centers, collaborations with the host country and the World Health Organization (WHO), are currently located in six countries: Thailand, Kenya, Guatemala, China, Egypt, and Kazakhstan. Direct federal/intramural funding supports the CDC staff and operational costs within the Centers. Salaries for the locally employed staff and funding for activities conducted at the GDD Centers are primarily funded through contracts and cooperative agreements within the GDD host countries.

In support of the International Health Regulations, these GDD Centers will focus activities in five key areas:

- Outbreak Response – to improve the timeliness and reliability of outbreak investigations and response.
- Surveillance – to strengthen surveillance systems that are capable of detecting, assessing, and monitoring the occurrence and public health significance of infectious disease threats over time.
- Pathogen Discovery and Innovation – to advance public health knowledge through innovative research into the epidemiology and biology of emerging infections and public health practice through operational research into surveillance and training methodologies.
- Training – to build capacity and improve quality of epidemiologic and laboratory science through training.

- Networking – to enhance collaboration through shared resources and synergy.

GDD helps to ensure that countries have ready access to the resources needed to detect and contain global disease threats, and it represents the U.S. contribution to helping countries acquire the required capacities to identify, report, and contain public health threats as outlined in the revised International Health Regulations (IHR). Recent examples of CDC's disease detection activities include CDC's response support for threats such as the China earthquake in 2008, avian influenza outbreaks during 2004-2007, the December 2004 tsunami, and the SARS outbreak of 2003.

The GDD program reports the following accomplishments, since 2006:

Outbreak Response

- Provided rapid response to more than 300 disease outbreaks and public health events, including avian influenza, hemorrhagic fever, meningitis, cholera, Rift Valley fever, unknown respiratory disease, arsenic poisoning, and dengue hemorrhagic fever.
- These emergency responses resulted in measurable health impact, such as slaughter bans and livestock quarantines that led to a reduction of cases during a Rift Valley fever outbreak in Kenya, implementation of a new policy to purchase and begin using influenza vaccine for health care personnel in response to an outbreak of influenza on an HIV ward at a hospital in Guatemala, and screening and quarantine for US-bound refugees in response to a cholera outbreak in Thailand to assure that no exported cases occurred.

Surveillance

- Established population-based surveillance in four GDD Centers: China, Guatemala, Kenya, and Thailand.
- Conducted other enhanced surveillance systems or projects (in all Centers). GDD Centers are using these data to detect outbreaks, make policy recommendations, evaluate new interventions, and measure public health impact. For example, the documentation of the burden, cost, and high-risk groups for influenza was very influential in support of a national policy in Thailand to provide influenza vaccine to persons age 65 years and older with chronic medical conditions.

Pathogen Discovery and Innovation

- Discovered more than 40 new pathogens. These new pathogens were either identified for the first time anywhere in the world or newly discovered within the GDD Center regions.
- Established in-country diagnostic testing capacity for more than 60 conditions, enabling sustainable disease detection capability and expediting the identification of appropriate response interventions.

Training

- Helped to strengthen in-country and regional public health capacity for outbreak detection and response by graduating a total of 160 Field Epidemiology Training Program (FETP) fellows; more than 100 of these graduates now hold public health leadership positions in their countries.
- Provided short-term public health training for more than 20,000 participants worldwide.

Networking

- The Kenya Center collaborated with the International Organization of Migration to develop outbreak response protocols for use in African Refugee Camps.
- The Thailand GDD Center collaborated with Vietnam, Laos, and Cambodia on national and regional multi-sectoral operational planning for avian influenza, pandemic influenza, and all-hazards response.

Other (H5N1 Preparedness)

- Provided response support for 43 cases of avian influenza.
- Provided rapid response training for more than 2,500 participants.
- Established stockpiles of protective equipment and antivirals that are immediately available to first responders and provided initial containment while the large U.S. and international stockpiles are being deployed.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$21,426,000
FY 2006	$32,443,000
FY 2007	$32,004,000
FY 2008	$31,445,000
FY 2009	$33,723,000

BUDGET REQUEST

CDC's FY 2010 request includes $33,756,000 for Global Disease Detection, an increase of $33,000 above the FY 2009 Omnibus for pay increases.

Funds will be used to continue activities of seven GDD Centers and build on achievements of the GDD Centers to date. Two GDD Centers (Kenya and Thailand) were started in FY 2004, three Centers (China, Egypt, and Guatemala) were started in FY 2006, and activities at a sixth Center (Kazakhstan) were initiated in FY2008, and initial start-up activities at a seventh Center (TBD) will be underway during the latter part of FY 2009. Initial activities and investments for these Centers have contributed to infrastructure development and established capacity in conducting activities in the areas of outbreak response, surveillance, research, training, and networking. Continued funding will enable these Centers to move beyond infrastructure development and work towards strengthening capacity in the five key focus areas. Funds will also be used to enhance in-country capacity by working closely with the Ministry of Health and other government officials.

In addition, monitoring and evaluation efforts of the Centers will be continued. In 2006, CDC developed and implemented a GDD monitoring and evaluation framework that was used to collect information about the achievements of the GDD Centers. Data captured in each of the five key activity areas provided a baseline from which the impact of the Centers will be assessed over time. In 2007, this framework was further enhanced to incorporate additional measures to help assess progress in all five key activity areas. The Government Accountability Office reviewed the GDD program during 2006-2007, and in the final report (entitled, "U.S. Agencies Support Programs to Build Overseas Capacity for Infectious Disease Surveillance," October 2007) acknowledged that CDC had recently begun efforts to evaluate program impact but recognized that it was too early to assess whether progress had been made. Continued evaluation efforts will be used to measure progress and assess program impact.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
13.B.B : Number of "Strategic Partner" countries with disease detection and response interventions.	FY 2008: 6	7	7	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

GLOBAL MALARIA PROGRAM

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$8,696,000	$9,396,000	$0	$9,405,000	+$9,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341: Foreign Assistance Act of 1961 §§ 104, 627,628: Federal Employee International Organization Service Act § 3: International Health Research Act of 1960 § 5: Agriculture Trade Development and Assistance Act of 1954 § 104: Economy Act: 22 U.S.C. 3968 Foreign Employees Compensation Program: 41 U.S.C. 253 (International Competition Requirement Exception): P.L 110-289 (1st Continuing Resolution FY07): P.L.-109-369 (2nd Continuing Resolution FY07): P.L. 109-383 (3rd Continuing Resolution FY07): P.L 110-5 (Revised Continuing Appropriations Resolution, FY07

FY 2010 Authorization……Indefinite

Allocation Methods…….....…..Direct Federal/Intramural; Contracts; Competitive Grants/Cooperative Agreements

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

CDC was established in 1946, developing from the wartime agency Malaria Control in War Areas. More than 60 years later, CDC continues to support the prevention and control of malaria throughout the world in partnership with local, state, and federal agencies in the U.S., medical and public health professionals, national and international organizations, and foreign governments. The malaria program at CDC conducts both global and domestic activities:

Global Activities

Globally, malaria transmission occurs in more than 100 countries. In endemic countries, malaria kills a child approximately every 30 seconds, causes more than one million deaths and 500 million illnesses each year, and is frequently resistant to available medicines for treatment and to infection prevention in travelers. Malaria, along with HIV/AIDS and tuberculosis (TB), is a destabilizing factor and continues to pose a critical threat to the national security of all sub-Saharan African countries.

On June 30, 2005, the President announced a five-year, $1.2 billion United States Government President's Malaria Initiative (PMI) to reduce malaria mortality by 50 percent in 15 African countries. As part of this initiative, CDC provides consultation, technical assistance, and program implementation support to the focus PMI countries on issues of malaria prevention and control. Through PMI, CDC is also working in collaboration with the global Roll Back Malaria program, the WHO/Global Malaria Program, the World Bank, the Global Fund to Fight AIDS, TB, Malaria, other non-governmental organizations, faith-based organizations, and academic institutions engaged in the fight against malaria. In addition, CDC provides technical assistance for malaria research and control activities to other non-PMI countries.

The Malaria Branch funded seven external partners through cooperative agreements and six partners through contract in 2008 for research program implementation. These research initiatives strive to gain new information to inform control programs on malaria biology, ecology, transmission dynamics, parasite species differences, host-parasite relationships, diagnostics, host immune responses, populations at risk, and determinants of morbidity and mortality.

Specific CDC global malaria accomplishments include:

- Assessed the efficacy of amodiaquine-artesunate, a second-line treatment for malaria in Kenya. The findings suggested that the combination treatment remains clinically efficacious, but the continued high level of unregulated monotherapies could undermine its future role in malaria control.
- Collaborated with the Tanzanian MOH and Social Welfare to evaluate new malaria treatment policies based on rapid diagnostic tests and commercial availability of highly subsidized malaria treatment.
- Worked with the United States Agency for International Development (USAID) to support the successful scale-up of PMI. CDC in partnership with USAID assessed and conducted strategic planning to begin the scale-up of interventions with the national malaria control programs in eight new PMI (Year Three) countries and continued to support implementation and evaluation activities in three (Year One) countries and four (Year Two) countries. To date,
    - More than 30 million people in 15 African countries have benefited from PMI interventions.
    - Indoor residual spraying (IRS) has been conducted in 10 PMI countries, benefiting more than 17 million people.
    - PMI has procured and distributed more than 4.3 million long-lasting insecticide-treated mosquito nets (LLINs), supported the re-treatment of more than 1.1 million regular nets, procured more than 4 million tablets of Sulfadoxine-pyrimethamine (SP) for intermittent preventive treatment of malaria during pregnancy (IPTp), and procured 12.7 million treatment courses of highly-effective artemisinin-based combination therapies (ACTs), of which 7.4 million have already been distributed.
    - PMI has trained more than 29,000 health workers in the correct use of ACTs.

Domestic Activities

In the U.S., although malaria was declared eradicated in the late 1950s, up to 1,400 people in the U.S. contract malaria each year from travel to places where malaria transmission is occurring. Approximately 20 million U.S. travelers annually must use malaria prevention medicines, and an estimated 50,000 U.S. blood donors are rejected because of concern about malaria transmission via the blood supply.

CDC conducts malaria surveillance, prevention, and control in U.S. residents and visitors. CDC also monitors the efficacy and safety of antimalarial drugs for chemoprophylaxis and chemotherapy and offers clinical advice and epidemiologic assistance on the treatment, control, and prevention of malaria in the United States and in malaria-endemic countries, including providing information to the U.S. public and agencies or groups serving this population on appropriate measures to prevent and control malaria. CDC coordinates responses to malaria outbreaks in the U.S. (the most recent domestic outbreak occurred in Florida in 2003). Specific CDC domestic malaria activities include:

- Implemented and monitored the artesunate investigational new drug protocol for the treatment of severe malaria in the U.S. An estimated 50 to 100 cases of severe malaria occur in the U.S. every year, all of which could benefit from this medication. Usage and safety data that are collected in association with this protocol will be useful in making this life-saving medicine more available via a new drug application to the FDA. To date, 17 patients with life-threatening malaria have been treated, and all have survived.

- Evaluated the usability of the new malaria map application launched in 2007, which displays information on malaria risk and prevention for any location on the globe. The initial version of the map application has been successful in reducing the volume of telephone inquiries by almost half.
- Characterized malaria risk information for endemic areas around the world by examining existing data sources and generating primary data through the investigation of high-volume travel destinations of U.S. residents. The impact of this effort will be to increase chemoprophylaxis usage among people who need it and decrease usage among people who do not - preventing cases of malaria as well as unnecessary medication side effects.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$9,108,000
FY 2006	$8,975,000
FY 2007	$8,851,000
FY 2008	$8,696,000
FY 2009	$9,396,000

BUDGET REQUEST

CDC's malaria program is a key component of the President's Malaria Initiative.

CDC's FY 2010 request includes $9,405,000 for the Global Malaria Program, an increase of $9,000 above the FY 2009 Omnibus for pay increases.

Funds are used for epidemiological and laboratory research in the United States and abroad; surveillance, prevention, and control of malaria; and consultation, technical assistance, and training to malaria-endemic countries with government and non-government partners. In addition to ongoing domestic projects, specific activities to be conducted in FY 2010 include:

- Supporting PMI implementation, monitoring, and evaluation activities in 15 African countries.
- Providing technical assistance annually to about ten malaria endemic, non-PMI countries.
- Conducting research on long-lasting insecticide-treated nets (LLINs), indoor residual spraying (IRS), malaria in pregnancy (MIP), and case management including diagnosis, treatment, and drug resistance to inform new strategies and prevention approaches. Additional research activities will be conducted on malaria vaccine field evaluations as well as evaluating new monitoring, evaluation and surveillance strategies. Success will be measured by the number of technical assistance visits provided, the number of monitoring and evaluation activities accomplished, and the progress reached on research projects.

In FY 2010 and future years, key challenges related to the prevention, detection, and control of malaria include the need to enhance existing strategies, and to develop new strategies to prevent and control malaria in Africa and elsewhere. Without this new information, ongoing efforts to prevent and control malaria may be less effective.

To address these challenges, CDC will conduct research to evaluate new approaches to prevention and control:

- Transmission reduction
- Improved case management
- Improved prevention of malaria in pregnancy

- New approaches to monitoring and evaluation

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 13.C: Decrease the rate of all-cause mortality in children under five in the President's Malaria Initiative target countries. [1, 2]				
13.C.1: Increase the proportion of children under five years old who slept under an insecticide treated net the previous night PMI target countries. *(Outcome)*	FY 2008: 13.1% (Baseline for 3rd 6 of 8 countries)	N/A	N/A	N/A
13.C.2: Increase the proportion of children under five with fever in the previous two weeks that received treatment with antimalarials within 24 hours of onset of their symptoms in PMI target countries. *(Outcome)*	FY 2008: 29.5% (Baseline for 3rd 6 of 8 countries)	N/A	N/A	N/A
13.C.3: Increase the proportion of women who have received two or more doses of intermittent preventive treatment during pregnancy (IPTp) among women that have completed a pregnancy in the last two years. *(Outcome)*	FY 2008: 4.9% (Baseline for 3rd 6 of 8 countries)	N/A	N/A	N/A

[1]FY 2006 target countries include Angola, Uganda, and Tanzania. FY 2007 target countries include Malawi, Mozambique, Rwanda, and Senegal. FY 2008 target countries include Benin, Ethiopia, Ghana, Liberia, Kenya, Madagascar, Mali, and Zambia.
[2]The first year of reporting for this measure is in FY 2011. The targets for FY 2011 – FY 2013 are 85 percent.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
13.B.C : Number of countries receiving technical assistance in malaria control scale-up through the President's Malaria Initiative (PMI).	15	15	15	Maintain
13.B.D: Number of non-PMI countries receiving technical assistance for malaria research and control activities.	10	10	15	+ 5

[1]The outputs are not necessarily reflective of all programmatic activities funded by the appropriated amount.

OTHER GLOBAL HEALTH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$3,516,000	$3,516,000	$0	$3,519,000	+$3,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 319, 327, 340C, 361-369, 2315, 2341: Foreign Assistance Act of 1961 §§ 104, 627,628: Federal Employee International Organization Service Act § 3: International Health Research Act of 1960 § 5: Agriculture Trade Development and Assistance Act of 1954 § 104: Economy Act: 22 U.S.C. 3968 Foreign Employees Compensation Program: 41 U.S.C. 253 International Competition Requirement Exception): P.L 110-289 (1st Continuing Resolution FY07): P.L.-109-369 (2nd Continuing Resolution FY07): P.L. 109-383 (3rd Continuing Resolution FY07): P.L 110-5 (Revised Continuing Appropriations Resolution, FY07).

FY 2010 Authorization……Indefinite

Allocation Methods……..…..Direct federal/intramural; Contracts; Competitive Grants/Cooperative Agreements

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

Other Global Health activities include the Field Epidemiology (& Laboratory) Training Program (FELTP) and the Sustainable Management Development Program (SMDP).

FE(L)TP:

The FE(L)TPs, started in 1980, in collaboration with national and international organizations (e.g., the Department of State, the United States Agency for International Development [USAID], World Health Organization [WHO], and the World Bank), help foreign Ministries of Health (MOH) build strong, sustained public health systems, tailored to the unique needs of each country. CDC provides training and technical assistance to health professionals around the globe and build capacity to assess disease surveillance and improve intervention programs. FE(L)TPs cover a broad range of issues, including epidemiology, investigation of infectious and non-infectious health problems, health surveillance systems, applied economics, communications science, and resource management. Through these programs, foreign MOHs acquire the means to build their own programs and capacity to improve public health on a local, regional, and national level, ultimately leading to improved health on a global scale. FE(L)TPs also have a central role in helping CDC achieve its Global Health Diplomacy Goal through investments in public health capacity development and the creation of partnerships with the developing world.

This FE(L)TP strategy is implemented by helping countries set up applied epidemiology and laboratory training programs, modeled after CDC's Epidemic Intelligence Service (EIS) and CDC's public health laboratory practice training programs. Currently, CDC is supporting 13 FETPs and FE(L)TPs, covering 23 countries around the world, with 10 new programs under development. Teams of physicians, epidemiologists, public health advisors, instructional designers, health communication specialists, and support staff provide scientific expertise, training consultations, and other programmatic support and advice to enable MOHs to enhance health protection and health promotion programs within their respective countries. Direct federal/intramural funding and contract funding is used to support the CDC staff and operational costs in Atlanta. Funding through cooperative agreements is used to support activities within the host countries.

In support of this strategy, the FETPs will help countries implement sound, effective, public health programs and will focus activities in two major areas: applied epidemiology and surveillance systems.

In the applied epidemiology area, CDC will work with MOH and other public health institutions to strengthen their countries' epidemiology work force through a residency-based program in applied epidemiology. A combination of classroom-based instruction and mentored practical work allows trainees to receive hands-on multi-disciplinary training in public health surveillance, outbreak investigation, laboratory management, program evaluation, and other aspects of epidemiology research and methods.

In the surveillance systems area, CDC will work with partner MOHs to strengthen their public health surveillance and response systems for priority disease conditions. FETP trainees learn detection, confirmation, reporting, analysis and feedback of disease data and implementation of effective public health responses in a participatory approach. As graduates, they apply these skills in their work for the ministry to operate and further strengthen the surveillance and response systems and to use the information for more effective disease detection, control, and prevention.

CDC is currently in the process of implementing a comprehensive monitoring and evaluation framework that can be used to assess the performance and progress of the FE(L)TPs. To date, FE(L)TPs report the following accomplishments:

- CDC provided a Resident Advisor for consultation and support to 30 FE(L)TPs and similar programs in 40 countries from 1980 to 2008. Of these, 18 programs no longer need support from a full-time Resident Advisor and are still producing graduates. During this 28-year period, more than 1,200 epidemiologists have graduated from these programs, resulting in enhanced capacity in these countries for the detection and control of emerging infectious diseases. For example, in 2007, 213 FETP trainees conducted 220 outbreak investigations in 10 countries, including responses to Ebola in Uganda and avian influenza in Pakistan.
- Since 1999, CDC has increased the number of international sites with the capacity to conduct disease identification and intervention activities by adding FETPs in China, Kenya, Central America, Central Asia, Jordan, India, Pakistan, and South Africa. Several new programs are in various parts of the planning stages including Ethiopia, Nigeria, Tanzania, Francophone West Africa, the Republic of Georgia, and Iraq. These new programs will provide broader global coverage of this program and thus improve public health capacity in this region.
- Active and alumni trainees from 11 programs conducted 176 outbreak investigations, and gave 205 presentations at international conferences. These programs supported 227 trainees during 2007. Data indicate that most graduates have moved into leadership positions within different levels of the MOH of their own country.
- FE(L)TP trainees' efforts lead to public health policy changes. For example, a continuous outbreak occurred in Brazil involving thousands of cases of non-TB mycobacterial infections following laparoscopic surgeries. Trainees traced, characterized the infection, and identified risk factors. Because of their efforts, state authorities quickly prohibited implicated hospitals from conducting these procedures and far reaching modifications of instrument sterilization regulations have been introduced.
- In 2005, FETPs in Africa, together with support of CDC and USAID came together to create the African Field Epidemiology Network (AFENET). AFENET is a non-profit organization and networking alliance dedicated to helping MOH in Africa build strong, effective, sustainable programs and capacity to improve public health systems in Africa. Networking of public health institutions, MOH, and other health agencies across countries is key to the

control of public health problems. AFENET has facilitated multi-country investigations of outbreaks and the sharing of expertise across the network.

- Since 2008, AFENET sponsored teams have participated with the national FETPs in epidemic outbreak response activities, including Marburg and Ebola in Uganda; aflatoxin in Kenya; Rift Valley Fever in Kenya and Tanzania; meningitis in Ghana, Sudan and Uganda; cholera in Uganda and Zimbabwe; and, the H5N1 avian influenza in Ghana.
- The Central America FETP (CA-FETP), which started in 2000, is a regional program of six national FETPs. The CA-FETP has designed and implemented pyramidal a three-tiered FETP in Guatemala which has been cited as a successful model for FETPs in the global network. This model aims to build an effective career track and surveillance network for epidemiologists. This model also creates a mentorship cascade with FETP trainees serving as mentors to additional trainees. The "multiplier" effect has significantly improved surveillance in remote areas of the country as seen during Hurricane Stan where much higher quality post-hurricane surveillance data were obtained from those health areas employing graduates of the program.
- Since its inception in 2006, the South Africa FELTP has been recognized at national and international scientific conferences with the acceptance of 7 oral and 22 poster presentations. Residents of the South African Field Epidemiology and Laboratory Training Program (SAFELTP) received the prestigious John Snow Award for Outbreak Investigation and Best Poster Presentation at the 2008 Training Programs in Epidemiology and Public Health Interventions NETwork conference in Malaysia. In addition, the program is providing training to epidemiologists from Burkina Faso and Togo, which will serve as points of contact for the establishment of the West Africa FELTP. In late 2008 and early 2009, some residents participated in a high-profile arenavirus outbreak, as well as the widespread cholera outbreak that originated in Zimbabwe.
- Between 2004 and 2008, the Kenya FELTP has raised the number of epidemiologists in the Kenya MOH from one to eight. Graduates hold prominent positions in the MOH on the national level and work at the provincial level, thus enhancing the public health workforce at all levels of the Kenya health system.

SMDP:

The SMDP, started in 1992, works with partners with MOHs, educational institutions, and nongovernmental organizations in developing countries to promote organizational excellence in public health through strengthening leadership and management capacity. The goal of SMDP is to assist developing countries in improving the effectiveness of public health programs by empowering local health officials with better management skills and by stimulating creativity and innovation in problem-solving among local health personnel to improve the delivery of public health services. SMDP works with partners to build capacity for public health leadership and management development through a multi-phased approach:

- Strategic partnerships – develop strategic institutional partnerships for public health leadership and management capacity-building efforts.
- Capacity Development – develop faculty to enhance in-country leadership and management training capacity through the Management for International Public Health (MIPH) course and in-country training-of-trainers courses.
- Technical Assistance – provide support to training faculty in partner institutions to conduct performance needs assessments, develop locally appropriate curricula, and design in-

country leadership and management workshops that provide participants with practical skills needed to manage public health teams, programs, and organizations.

- Sustainability – work with partner institutions to ensure the long-term sustainability of global public health leadership and management development programs, and address issues such as integration with national public health priorities, local funding for recurrent costs, continuous learning opportunities, accreditation, and evaluating impact.

Direct federal/intramural funding and contract funding are used to support the CDC staff and operational costs in Atlanta. Funding through cooperative agreements is used to support activities within the host countries. CDC is currently in the process of implementing a comprehensive monitoring and evaluation framework that can be used to assess the performance and progress of SMDP. To date, SMDP reports the following accomplishments:

- In 2008, there were 30 Management for International Public Health (MIPH) graduates from 17 countries and over 540 in-country managers trained, with 6 countries receiving technical assistance. The MIPH curriculum has provided course graduates with practical skills needed to manage public health teams, programs, and organizations, skills which they then implement in their own countries.
- The SMDP collaborated with three regional institutions in Vietnam (the Hanoi School of Public Health, the Ho Chi Minh Institute for Hygiene and Public Health, and Denang Preventive Medicine Center) to train 144 public health managers in 49 provinces through strengthening a decentralized management capacity-building program. These public health managers implemented 48 applied management improvement projects in their organizations in 2007, including one in Nam Dinh province which increased the percentage of voluntary counseling and testing (VCT) center clients returning for their HIV test results from 60 percent to 90 percent.
- In Malawi, CDC staff assisted the MOH and GAP Malawi by providing technical assistance to MIPH graduates training 43 participants from eight District Health Management Teams, four Health Zone Support Offices and the Department of Planning and Policy Development at MOH headquarters in program planning and management, using SMDP's Healthy Plan-*it*™ program. The teams are using the tools learned to improve the prioritization, analysis, planning, and monitoring and evaluation of their annual District Implementation Plans. The plans are designed to "raise the level of health status of all Malawians by reducing the incidence of illness and occurrence of premature deaths in the population."
- In Nigeria, SMDP partners with the Carter Center in four year-long projects to help develop a model for integrated health interventions and to demonstrate that the model is feasible, replicable, and effective at controlling multiple priority diseases in Nigeria. This project builds on existing, large-scale integration efforts in central Nigeria that use mass drug administration (MDA), health education, and community mobilization and will create a fully integrated program that addresses Onchocerciasis, Lymphatic Filariasis, Schistosomiasis, Trachoma, Malaria, and Vitamin A deficiency. The Sustainable Management Training Center (SMTC) in Jos, Nigeria, established in 1996 in collaboration with SMDP, will provide management training to increase management capacity of personnel involved in the integration project. The objective is to develop evidence that providing this type of management capacity building for integration supports more effective delivery of integrated interventions.
- Since 2003, CDC and Botswana have helped the Ministry of Health and HIV/AIDS program managers apply process improvement skills to improve the effectiveness and efficiency of public health operations. In 2008, the program graduated 65 workshop participants who

worked in teams to complete 45 applied management improvement projects. In one project in the Bobirwa Subdistrict, for example, the percentage of HIV positive pregnant women receiving CD4 screening to predict the risk of developing opportunistic infections and neoplasms increased from 33 percent to 65 percent.

- In Georgia, the U.S. Department of Defense's (DOD) Defense Threat Reduction Agency is establishing a public health surveillance system on especially dangerous pathogens (EDPs). CDC staff are providing technical assistance to enhance the Georgian laboratory system's ability to detect, report and respond to EDPs and other infectious disease cases and outbreaks. Specific SMDP activities include assisting with 1) building organizational and systems capacity by developing a framework and strategic plan for the health laboratory system and 2) enhancing workforce capacity and competency by building laboratorians' project management, leadership, and process improvement skills.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$3,403,000
FY 2006	$71,364,000
FY 2007	$3,319,000
FY 2008	$3,516,000
FY 2009	$3,516,000

*FY 2006 Includes DoD Appropriation of $68 million

BUDGET REQUEST

CDC's FY 2010 request includes $3,519,000 for other global health activities, an increase of $3,000 above the FY 2009 Omnibus for pay increases.

Funds provided to CDC for these activities are used to provide foundational and catalytic support for global field epidemiology training and sustainable management and development. The funds support curriculum development, ensuring that the programs keep current with state-of-the-art methodologies and public health best practices, and ongoing technical assistance from Atlanta for the countries implementing these two programs. In addition, some of these funds support activities in the host country, but these funds are highly leveraged with additional funding coming from a diverse set of global partners.

For example, the average annual cost of a Field Epidemiology (and Laboratory) Training is $1 million. CDC is not the only agency that contributes to this total. Other federal agencies, including USAID and DOD, and private sector partners have recognized the value of this long-standing and highly effective program and collaborate to support country-level program implementation. Furthermore, host countries must also commit resources in order to participate. CDC generally supports a FE(L)TP program for about five years. During the first few years of a program, a large proportion of funding supports one or two CDC staff in the host country and technical support. The host country initially provides office space and staff and, as the program progresses, gradually takes on additional program costs, such as trainee support, travel, equipment/supplies, and books. This gradual transfer of responsibility and program costs helps to ensure that the country can sustain the program once CDC staff is no longer present within country.

Because CDC funds are so highly leveraged, the outputs of these programs (such as number of countries and number of graduates) do not necessarily support increases or decreases in the appropriated budget. However, these appropriations ensure the development of science-based curricula that reflect current global public health challenges. Evaluation measures linked to performance and sustainability are tracked and monitored by CDC.

PUBLIC HEALTH RESEARCH

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACTI	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
PHS Evaluation Transfers	$31,000,000	$31,000,000	$0	$31,170,000	+$170,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 317, 327

FY 2010 Authorization……Indefinite

Allocation Method…….....PHS Evaluation Funds/ Federal, Competitive Grant; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

The Public Health Research program was established in 2004 under Section 301 of the Public Health Service (PHS) Act (42 U.S.C. 238j). In FY 2005, through the evaluation set-aside authorized by Section 241 of the PHS Act, funds were derived to carry out Public Health Research. The Office of Public Health Research's (OPHR) mission is to provide leadership, vision, and coordination for the CDC research program, both for intramural and extramural research. In addition, OPHR assists in the development of a CDC-wide research agenda, evaluates and monitors CDC's overall research performance and alignment with CDC's Health Protection Goals, provides support for best research practices used across CDC, and conducts peer review and grants management for new research initiatives.

The multi-year CDC Health Protection Research Initiative (HPRI) was launched in FY 2004 to fund grants to institutions to support investigator-initiated research and mentored research, institutions of higher education for training of public health researchers, and centers of excellence to support a variety of priority research areas. OPHR develops cross-cutting extramural research initiatives in support of goals-driven research priorities, supports emerging fields and new areas for innovation in public health, stimulates new areas for research growth at CDC, supports public health researchers at different career stages, and supports research that has significance for public health practice and potential for impact.

In FY 2009, OPHR will support new Funding Opportunity Announcements (FOAs) focused on translation research to protect health through health promotion, prevention and preparedness. The extramural research funding is primarily distributed to institutions of higher education, representing nearly 80 percent of the OPHR funding, followed by independent hospitals and other research organizations. In FY 2009, about 60 percent of this funding will fund translation research.

In FY 2010, OPHR will continue funding the ongoing translation research awards and support new FOAs for mentored public health research, institutional training grants, and research to determine effective strategies to evaluate public health interventions and assess impacts. In addition, a three-year program announcement will be supported for one-year doctoral dissertation research grants.

In FY 2011, a new FOA on research to address health systems approaches for enhancing the effectiveness and efficiency of public health practices and interventions will be developed. One-year dissertation research grants will also continue to be supported.

Highlights of funded HPRI projects include:

- Research scientist development awards: Since FY 2004, OPHR has funded over 40 research scientist awards (21 in FY 2004 and 20 in FY 2007). These mentored research awards support career development experiences of young or career-changing investigators that lead to independence and substantially expand their knowledge and capabilities as research scientists. The expected result is research findings that can improve public health and career paths toward public health research.
- Centers of Excellence in Public Health Informatics: These Centers contribute to the efforts of CDC's Public Health Informatics program by advancing the ability of health care professionals to communicate health recommendations to consumers and by making the use of electronic information systems easier. They seek to improve the public's health through discovery, innovation, and research related to health information and information technology. For example, the Center of Excellence at Harvard Pilgrim Health Care successfully engineered, tested, and deployed an operational version of a system called Electronic Medical Record Support for Public Health (ESP), made major advances in Personally Controlled Health Record (PCHR) architecture, successfully used a peer-to-peer design for distributed public health queries to establish a linkage with the Massachusetts regional health information organization (RHIO), and maintained a relationship with the public health informatics committee of the national Council of State and Territorial Epidemiologists (CSTE).
- In FY 2007, OPHR developed the first trans-CDC FOA on improving public health practice through translation research. The response from the research community was exceptional with 205 applications, the highest response ever. Currently, 28 projects are being funded at $12.3 million per year for these three-year research projects.
- In FY 2008, OPHR issued its second trans-CDC FOA on translation research for populations with health disparities. CDC received over 100 applications in response to the funding announcement. Currently, 14 projects are being funded at $5.8 million per year for these three-year awards.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$31,000,000
FY 2006	$31,000,000
FY 2007	$31,000,000
FY 2008	$31,000,000
FY 2009	$31,000,000

BUDGET REQUEST

CDC's FY 2010 request includes $31,170,000 for Public Health Research, an increase of $170,000 above the FY 2009 Omnibus for pay increases.

- In FY 2010, OPHR anticipates funding 82 new extramural research awards and 26 continuation awards in high priority public health research areas. In FY 2010, OPHR will fund continuation awards for $15,705,479 and new awards at a level of $11,469,521 for public health priority research. In addition, OPHR will fund 15 intramural research seed projects (Georgia State University, Georgia Institute of Technology, and University of Georgia [Athens] for the collaborative intramural research program) in the total amount of $325,000.

- Key outcomes and outputs for FY 2010 include:
    - Success will be measured in terms of the number of grants awarded and focused on new priority research initiatives for CDC. Progress and final reports of grantees also provide an assessment of their research accomplishments, outputs and impacts. This information is used for overall evaluation of each research initiative's progress and success.
- Translating research findings into practice is an important challenge. The Institute of Medicine (IOM) reported that a 17-year gap exists between the publication of research results and its impact on treatment delivery. Publishing is not the end point of research. Scientific discoveries must be translated into practical applications to provide health benefit to individuals and targeted populations. To address this challenge, OPHR is developing guidance for research translation plans to ensure that the results and findings of CDC research are used to maximize the impact of CDC's work to prevent and control disease, disability, and injury. The expectations are that all new CDC research projects include a translation plan that describes how the research findings will be translated when the project is complete.
- The FY 2007 and 2008 Translation Research initiative to improve public health practice resulted in an overwhelming response from the research and public health community. The goal is to improve the adoption and accelerate the dissemination of proven effective interventions that can make critically important impacts on health. This new strategy has brought focus on how public health practice and research must collaborate to advance and achieve greater success. In addition, the Translation Plans are a new strategy to be implemented by CDC supported researchers to help catalyze the uptake of their research results into public health practice and achieve the ultimate goal of improving health.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
14.A.A: Number of extramural research grants	FY 2008: 95 (Target Not Met)	98	108	+10
14.A.B: New awards	FY 2008: 39	37	82	+45
14.A.C: Continuation awards	FY 2008: 56 (Target Not Met)	61	26	-35
14.A.D: Intramural Collaborative Research Projects	FY 2008: 8	15	15	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PUBLIC HEALTH IMPROVEMENT AND LEADERSHIP (PHIL)

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$224,899,000	$209,136,000	$0	$188,586,000	-$20,550,000
FTEs	602	619	0	619	0

BUDGET REQUEST

The Public Health Improvement and Leadership (PHIL) budget activity supports several cross-cutting areas within CDC that ensure more efficient, effective science and program development. This activity includes the leadership and management function, which funds the CDC Office of the Director (OD), coordinating centers and each constituent center, and the Office of Workforce and Career Development (OWCD).

CDC's FY 2010 request for Public Health Improvement and Leadership (PHIL) includes $188,586,000, which includes $1,447,000 for pay increases and a decrease of $20,550,000 less than the FY 2009 Omnibus. This includes:

- $149,986,000 for Leadership and Management to enhance the effectiveness of public health program, science, and practice, and to achieve greater impact on America's health. CDC's Leadership and Management activity supports critical areas such as strategy and innovation, goals management, and health disparities.
- $35,652,000 for Public Health Workforce Development to ensure that the public health workforce—at the federal, state and local levels and in sufficient numbers—has the skills and competencies necessary to work effectively in a rapidly changing, complex environment.
- $2,948,000 for the Director's Discretionary Fund to ensure that CDC has the flexibility to fund important cross-cutting internal and external initiatives that are typically not funded elsewhere within the CDC's annual budget.

LEADERSHIP AND MANAGEMENT

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$158,255,000	$149,332,000	$0	$149,986,000	+654,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308, 310, 311, 317, 317(F), 319, 319A, 322, 325, 327, 352, 361 -369, 391, 399(F), 399G, 1102, 2315, 2341: Federal Technology Transfer Act of 1986, (15 U.S.C. 3710): Bayh-Dole Act of 1980, P.L. 96-517: Clinical Laboratory Improvement Amendments of 1988, § 4

FY 2010 Authorization……Indefinite

Allocation Methods……..…..Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

CDC's Leadership and Management budget activity was created in FY 2005 to more easily identify resources supporting the administrative activities of the agency. To enhance the effectiveness of public health program, science, and practice and to achieve greater impact on America's health, CDC's Leadership and Management activity supports critical areas such as strategy and innovation, goals management, and health disparities. Funding is allocated internally to support various components of this activity described below.

CDC Office of the Director (OD)

The CDC OD is comprised of offices that manage and direct CDC's domestic and international health protection programs. The OD provides leadership, advises on strategy, and develops and evaluates the progress of goals and objectives related to disease prevention and control, including the correlation of these activities to health impact.

CDC is continuing efforts to accomplish greater health impact via its agency-wide health protection goals, ensuring these goals focus on reducing and eliminating health disparities, and balancing health protection needs, science, and available resources to accomplish CDC's mission. To this end, CDC's executive leadership is provided with decision-making support through analytical assessments and strategy recommendations for achieving the greatest health impact for the public.

The CDC OD also manages workforce and career development programs that help ensure a prepared, diverse, sustainable public health workforce through training, fellowships, research, recruitment, and strategic workforce planning and management. These programs—which prepare the public health workforce to meet current and emerging health promotion and protection priorities, ensure the use of best practices for workforce- and career-development programs sponsored by CDC, and promote an environment of continuous learning—include the following:

- CDC University, which delivers competency-based training to CDC employees and leaders through seven "schools" that focus on 1) leadership and management; 2) preparedness and emergency response; 3) public health science, research, and medicine; 4) public health information resource management; 5) public health education and communication, 6) public health administration; and, 7) business management.
- Strategic workforce-development services, which include human capital management planning and reporting, workforce and succession planning, consultation regarding

recruitment and retention, workforce diversity analysis and planning, assessment of annual employee surveys results, and Commissioned Corps activities..

- Workforce science and research activities, which include clearance of scientific materials produced in OWCD, oversight of human subjects protection, assistance with program evaluation, leadership in public health ethics at CDC, and research to strengthen the evidence base for setting public health workforce priorities that are consistent with CDC's health protection goals.
- The Excellence in Learning Council, which was formed to lead and support cross-agency communication and achievement of workforce and career development goals.
- The Career Paths to Public Health program (formerly called pipeline programs) creates for students and teachers an awareness of public health as a personal lifestyle and a career path. CDC works collaboratively with its stakeholders to identify workforce needs for the future and provide technical support for didactic and experiential training at middle school, high school, and college levels.
- The Initiative for Leadership Enhancement and Development (I-LEAD), which implements a four-tier leadership-development framework for CDC's workforce—a framework that links with succession planning, and includes an executive coaching program and training for senior executive staff, mid-level managers, team leaders and supervisors, and potential future leaders.
- The National Public Health Leadership Institute (PHLI), which is a 12-month program that strengthens leadership competencies of senior public health officials nationwide and builds inter-organization teams to improve community health. State and Regional Public Health Leadership Institutes also address the leadership-training needs of specific states, territories, and regions.
- The CDC Management Seminar and the Leadership and Management Institute, which are residential training programs designed to develop and enhance CDC managers' and senior executives' leadership competencies.
- The Leadership Forum Series, which is an interactive seminar series offered quarterly to CDC senior leaders.
- Development and validation of competency maps for mission-critical occupations at CDC, including the assessment of competency gaps and the drafting of recommendations for gap closure.

CDC's OD provides leadership, coordination, and assessment for minority health initiatives; supports internal and external partnerships; and synthesizes, disseminates, and encourages use of scientific evidence identifying effective interventions to reduce health disparities. The OD also supports cooperative agreements with academic institutions and national non-governmental organizations (NGOs) to conduct prevention research, program development, analysis, and evaluation to improve the health status of minorities and reduce health disparities. CDC funds key sectors to carry out student and professional research internship and fellowship opportunities that contribute to the improvement of diversity and cultural competency in public health.

CDC has expanded and enhanced activities related to scientific vision and leadership in science innovation, research, ethics, and administration to ensure stability and commitment to long-term scientific investments, translating science into practice to achieve its overarching health protection goals. The OD facilitates developing approaches for long-term planning and evaluation of CDC's scientific enterprise, ensuring sustainability of scientific output, establishing and sustaining high-level national and global alliances and synergy; and ensuring development of public health policies

using a scientific foundation. It facilitates research prioritization, planning, and evaluation across both intramural and extramural programs. The CDC research portfolio is designed for maximum impact on public health to achieve its desired ends.

CDC maintains the integrity and productivity of scientists by resolving scientific issues, supporting training and information exchange, and providing direction on matters of scientific integrity. CDC participates in national and international initiatives regarding human subject protection in public health research. The OD also manages CDC's intellectual property (e.g., patents, trademarks, copyrights) and promotes the transfer of new technology from CDC research to the private sector to facilitate and enhance the development of diagnostic products, vaccines, and products to improve occupational safety.

CDC's communications and issues management activities are coordinated across the agency through the OD. The OD collaborates with program, policy, and communications professionals to develop multi-faceted strategic responses to issues relevant to the whole agency or enterprise. These activities ensure that CDC leadership has critical information with which to respond to urgent issues and ensure that enterprise staff and partners are aware of this information and the supporting rationale.

The OD also incorporates the principal advisor to the CDC Director and manager of daily OD activities. These activities ensure that the multi-faceted and cross-cutting issues relating to efficiency and effectiveness of key decisions made by the CDC Director are reviewed and analyzed. The flow of information to the Director and CDC senior staff is also managed, ensuring the CDC director is advised on key programmatic and policy issues.

CDC's activities in Washington D.C. allow for a presence to represent CDC leadership and programs to Congress, officials from HHS, and Washington, D.C.-based organizations that are existing or potential partners with CDC. This function provides service and products to these entities which enables CDC to move forward in achieving its ultimate goal of improving health. In addition, CDC's Washington office provides strategic representation for the agency with other federal agencies to better manage public health crises. Finally, the office advises agency leaders and scientists about developments in Washington, D.C. that bear on the accomplishment of administration and agency health goals.

Public health practice is a significant area of CDC's activities, ensuring coordination and synergy between scientific and practice activities throughout CDC. The principal goal in achieving this level of coordination is to ensure practice-relevant standards, policies, and legal tools.

Coordinating Centers, Coordinating Offices, and Center Offices of the Director

CDC's structure includes several coordinating centers and offices responsible for the coordination of thematic areas within and across operational centers. These responsibilities include identifying areas for collaboration; reduction of redundancies in business practices in concert with CDC's OD; incorporating quality science and program to meet the agency's goals; leadership, decision-making, and management of operational units; and advising the Director on scientific, strategic, and programmatic issues. The coordinating centers work closely with the national center ODs, which are responsible for developing scientific knowledge and quality program development; ensuring scientific credibility and integrity in all areas of expertise needed to address public health; addressing programmatic key performance indicators; serving as the foundation and core of CDC's science and services; and maintaining expertise needed to address public health emergencies.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$163,746,000
FY 2006	$161,592,000
FY 2007	$161,069,000
FY 2008	$158,255,000
FY 2009	$149,332,000

BUDGET REQUEST

CDC's FY 2010 request includes $149,986,000 for Leadership and Management, which is $654,000 above the FY 2009 Omnibus. This increase reflects $654,000 for pay increases.

The request will enable CDC to ensure essential administration and coordination activities continue which strategically and efficiently direct the agency's efforts both on domestic and international fronts.

PUBLIC HEALTH WORKFORCE DEVELOPMENT

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$34,009,000	$34,859,000	$0	$35,652,000	+$793,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 306, 307, 308, 310, 311, 317, 317(F), 319, 319A, 322, 325, 327, 352, 361 -369, 391, 399(F), 399G, 1102, 2315, 2341; Federal Technology Transfer Act of 1986, (15 U.S.C. 3710); Bayh-Dole Act of 1980, P.L. 96-517; Clinical Laboratory Improvement Amendments of 1988, § 4; Pandemic and All-Hazards Preparedness Act, P.L. 109-417 (S. 3678)

FY 2010 Authorization……Indefinite

Allocation Method…….....Direct/Federal; Competitive Grants

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Established in 2005, CDC's Public Health Workforce Development program focuses on:

- Ensuring that a competent and sustainable public health workforce is prepared to meet current and emerging health promotion and protection priorities.
- Ensuring the use of best practices for workforce and career development sponsored by CDC.
- Promoting an environment of continuous learning.

A key challenge that public health workforce development faces in achieving its goals is a projected shortage in the number of qualified and well-trained public health professionals. According to a 2007 survey conducted by the Association of State and Territorial Health Officials, 20 percent of the public health workforce will be eligible for retirement during the next three years, and 50 percent will be eligible to retire by 2012. Many states already are experiencing chronic shortages of epidemiologists, nurses, laboratorians, program staff, and managers.

Funding for Public Health Workforce Development is distributed intramurally and extramurally.

Extramural funds are distributed through a cooperative agreement with the Association of Public Health Laboratories (APHL). APHL has two cooperative agreements with CDC, one of which funds the majority of APHL's programs, including the National Laboratory Training Network (NLTN) described below.

Specifically, funding supports the following activities and accomplishments:

- The NLTN provides cost-effective, cutting-edge training in laboratory sciences to state and local public health workers, preparing them to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies.
    - During the first half of FY 2009, the NLTN provided more than 80 courses and trained more than 27,500 laboratorians via hands-on workshops, seminars, online and computer-based courses, audio conferences, and Web casts.
    - During FY 2008, the NLTN provided more than 250 courses and trained more than 45,000 laboratorians.

- The *Epidemic Intelligence Service* (EIS), established in 1951, is a two-year post-graduate program that trains epidemiologists to assist in domestic and international infectious disease investigations including epidemics of meningococcal disease, West Nile Virus, and Severe Acute Respiratory Syndrome. EIS is also partially funded with Terrorism Preparedness and Emergency Response funds. The EIS Class of 2008 comprises 80 officers, compared with 80 in the Class of 2007 and 80 in the Class of 2006.
    - During the first half of FY 2009, EIS officers conducted 40 EPI-AIDs, which allow EIS officers and other CDC staff to provide technical support to organizations that request epidemiologic field investigations. Nine (9) of these investigations were international, and the rest were domestic. Six of the domestic investigations were multi-state investigations, including two investigations of a nationwide distribution of commercial food products contaminated with Salmonella. Additionally, field EIS officers assigned to state or local health departments in 44 states conducted 132 epidemiologic field investigations; 3 of these investigations were international.
    - During FY 2008, 70 percent of EIS graduates (the Class of 2005) obtained jobs in public health after graduation (figure based on preliminary data for 91 percent of FY 2008 graduates), compared with 70 percent in FY 2007 and 78 percent in FY 2006. The public health workforce development program's target is for 70 percent of EIS graduates to obtain jobs in public health after graduation. Each year, the program has met or exceeded this target. Of the graduates who do not obtain jobs in public health after graduation, many continue to serve the public's health by returning to academia and clinical medicine.
    - During FY 2008, EIS officers conducted 87 EPI-AIDS. Twelve (12) of these investigations were international, and the rest were domestic. In 10 of the domestic investigations, EIS officers at CDC coordinated large, multi-state investigations. Additionally, field EIS officers assigned to state or local health departments conducted 331 epidemiologic field investigations in 40 states and nine investigations in other countries.
- The *Preventive Medicine Residency and Fellowship* (PMR/F), established in 1972, is a 12-month program that combines clinical medical skills with public health practice expertise (e.g., leadership, health services management, program evaluation, epidemiology, and environmental health). One of the nation's largest accredited Public Health and General Preventive Medicine Residencies, PMR/F trains six to 10 residents per year. The PMR/F Class of 2009 comprises three residents/fellows, and PMR/F is supporting three additional residents' academic training in public health. By comparison, the Classes of 2008, 2007, and 2006 each comprised six residents/fellows. One additional resident was in academic training during 2007 and 2008.
    - During the first half of FY 2009, PMR/F residents/fellows conducted 1) an analysis of the impact of state and local laws on the transmission of infectious agents from unpasteurized dairy products, 2) an assessment for the New York City Department of Health and Mental Hygiene of the policy and regulatory alternatives for ensuring oversight of high-biocontainment laboratories handling high-risk pathogens, and 3) an analysis of childhood blood-lead testing rates among regional laboratories in the Indian Health Service.
    - During FY 2008, 83 percent of PMR/F residents/fellows obtained jobs in public health after graduation, compared with 100 percent in FY 2007 and 100 percent in FY 2006.

  - During FY 2008, PMR/F residents/fellows worked with a Massachusetts State Legislature committee to review legislation and assess morbidity and mortality statistics related to drowsy driving, and conducted Dengue surveillance and laboratory testing as a service to health care providers during the annual outbreak season. Additionally, after reaching consensus with multiple stakeholders, a fellow revised a Dengue weekly surveillance that is used throughout the Caribbean basin.

- The *Public Health Prevention Service* (PHPS), established in 1997, is a three-year program that provides Prevention Specialists with experience in program planning, implementation, and evaluation through hands-on training and mentorship at CDC and state and local health agencies. PHPS graduates approximately 25 master's-level public health professionals annually with skills in public health program management. The PHPS Class of 2009 will begin in October 2009. The PHPS Classes of 2008 and 2007 each comprised 23 Prevention Specialists, compared with 22 in the Class of 2006.
  - During the first half of FY 2009, Prevention Specialists developed and implemented the Alaska Child Abuse and Neglect Surveillance System; assisted the Baltimore health department with securing more than $600,000 in private grant funds to implement a citywide agenda to prevent cardiovascular disease and diabetes; organized a Program Assessment Guide workshop for a national nutrition program in Kyrgyzstan; designed an evaluation to measure national trends in breastfeeding during a 20-year period; and conducted a rapid needs-assessment in nine western Kentucky counties following a winter ice storm.
  - During FY 2008, 84 percent of Prevention Specialists obtained jobs in public health after graduation, compared with 78 percent in FY 2007, 77 percent in FY 2006, and 76 percent in FY 2005.
  - During FY 2008, Prevention Specialists published Hawaii's Physical Activity and Nutrition Surveillance Report 2008; conducted data triangulation using multiple data sources for answering key public health questions relevant to HIV/AIDS policy development, evaluation, and program improvement in Tanzania; and developed and implemented a three-year sexually transmitted diseases (STD) strategic plan to reduce STD rates.
- The *Prevention Effectiveness Fellowship Program* (PEFP), established in 1995, is a two-year post-doctoral program that trains quantitative policy analysts, economists, and health services researchers to apply the tools of economics and decision analysis to public health policies, programs, and practices. Approximately 38 percent of PEFP funding comes from the Public Health Improvement and Leadership (PHIL) budget activity via the Public Health Workforce Development program. Remaining funds come from across CDC. The PEFP Class of 2009 comprises six fellows, compared with four in the Class of 2008, five in the Class of 2007, and five in the Class of 2006.
  - During the first half of FY 2009, Prevention Effectiveness (PE) fellows developed the most comprehensive economic analysis to-date of a pertussis outbreak; performed groundbreaking research to estimate the direct and indirect costs of asthma in the United States; published cost-effectiveness analysis of lifestyle interventions to prevent type-two diabetes among high-risk individuals; developed a "Concentration Index" for measuring income-related health inequality; and published a range of econometric models HHS is using to estimate population health care needs following a man-made or natural disaster.

  - During FY 2008, 100 percent PE fellows obtained jobs in public health after graduation, compared with 100 percent in FY 2007, and 83 percent in FY 2006.
  - During FY 2008, PE fellows illustrated the use of the Health Achievement Index as a measurement of population health that balances efficiency and equity. Fellows also examined gender differentials in career progression among federal Civil Service employees at the CDC. Results indicate that the gender gap in promotion at the CDC is narrowing.

- The Public Health Informatics Fellowship Program (PHIFP), established in 1996, is a two-year program that trains professionals to translate and apply new and emerging information technologies to support the needs of public health programs. In addition to building capacity for informatics within CDC, PHIFP fellows assess local and state information systems and provide informatics-related technical assistance to CDC field offices worldwide. Approximately 31 percent of PHIFP's funding comes from the PHIL budget activity via the Public Health Workforce Development program. Remaining funds come from across CDC. The PHIFP Class of 2009 comprises five fellows, compared with five in the Class of 2008, three in the Class of 2007, and 10 in the Class of 2006.
  - During the first half of FY 2009, PHIFP fellows responded to four domestic InfoAid requests (requests for technical assistance with developing, evaluating, and implementing strategies to manage information systems effectively and efficiently), helping 1) the U.S. Air Force upgrade its biosurveillance capacity through a gap analysis, 2) the National Institute of Occupational Safety and Health in Virginia collect occupational safety information from electronic medical records, 3) the Seattle-King County (Washington) health department redesign its tuberculosis surveillance system, and 4) the Colorado Department of Public Health and Environment review its immunization registry.
  - During FY 2008, 90 percent of PHIFP fellows obtained jobs in public health after graduation, compared with 80 percent in FY 2007, and 75 percent in FY 2006.
  - During FY 2008, PHIFP fellows responded to international and domestic InfoAids. International InfoAids were carried out in Kenya and Thailand, and domestic InfoAids were carried out in Maine, Maryland, Iowa, and New York.
- The Public Health Workforce Development program provides Continuing Education Consultants who work one-on-one with every course developer to complete proposals and offer courses in all formats, including live conferences and single-session programs, net conferences, satellite broadcasts, webcasts, web-on-demand, CD-Rom, DVD, and video.
- The Continuing Education Accreditation program accredits training activities developed for the nation's health workforce to provide continuing education credits. CE credit is awarded for multidisciplinary health professionals as Continuing Medical Education (CME), Continuing Nursing Education (CNE), Continuing Education Units (CEU), Continuing Pharmacy Education (CPE), Continuing Health Education Credits (CHEC), and American Association of Veterinary State Boards Registry of Approved Continuing Education (AAVSB RACE).
  - During the first half of FY 2009, the Continuing Education Accreditation program accredited 102 educational activities.
  - During FY 2008, the Continuing Education Accreditation program accredited 504 educational activities in various media including satellite broadcasts, conferences,

journal articles, webcasts, and self-study courses that served 50,994 health professionals.

- The CDC Training and Continuing Education Online system allows learners worldwide to register for and complete training.
    - During the first half of FY 2009, 18,728 learners used the system to obtain continuing education or audit CDC courses.
    - During FY 2008, the system hosted and awarded continuing education credit for 504 courses. In total, 31,752 people used the system to obtain continuing education or audit CDC courses.
- CDC's Learning Design and Development (LDD) team provided instructional design services to programs across CDC, helping design and deliver training that applies learning standards and best practices; is well-organized, reusable, and shareable; and is delivered through a medium appropriate for the intended audience. During the first half of FY 2009, the LDD team worked with a range of programs to produce quality training focusing on the design of engaging e-learning that complies with Section 508 of the Rehabilitation Act of 1973 and HHS requirements.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$19,920,000
FY 2006	$19,668,000
FY 2007	$33,639,000
FY 2008	$34,009,000
FY 2009	$34,859,000

BUDGET REQUEST

CDC's FY 2010 request includes $35,652,000 for Public Health Workforce and Career Development, an increase of $793,000 above the FY 2009 Omnibus for pay increases.

Funds will support the following programs and activities:

- Fellowship/training programs such as EIS, PHPS, PMR/F, PEFP, and PHIFP
- Training to prepare state and local public health laboratory workers to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies
- Continuing education (CE) accreditation for various health education activities
- Resources to help health professionals register for and complete health training online
- Instructional design services for public health professionals

Key outcomes and outputs for FY 2009 will include 1) 200 recruits who will join public health programs in local, state, and federal health departments to participate in training in epidemiology or public health leadership management; 2) reports that more than 40 percent of public health and clinical laboratorians attending biosafety and biosecurity practice NLTN courses who say they lack practices for physical security/access control, information security, and training/practice drills added these practices or modified current practices as a result of the courses; and 3) 40 states participating in public health leadership and management training annually.

Investing in the public health workforce through the programs highlighted above can transform the health system for the better, saving money and lives by helping prevent disease and prepare for

threats before people become sick or injured. Increasing the use of just five preventive services—low-dose aspirin use, tobacco-use counseling, colorectal cancer screening, influenza immunization of older adults, and breast cancer screening—could save more than 100,000 lives each year. But the nation will need a robust public health workforce to facilitate the shift from disease care to prevention.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 14.D.1.1: CDC will develop and implement training to provide for an effective, prepared, and sustainable health workforce able to meet emerging health challenges.				
14.D.1.1: Maintain the number of recruits who join public health programs in local, state, and federal health departments to participate in training in epidemiology or public health leadership management. *(Output)*	FY 2008: 203.0 (Target Exceeded)	200.0	200.0	Maintain
Long Term Objective14.D.2.1: Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies; and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.				
14.D.2.1: Evaluate the impact of training programs conducted by the NLTN on laboratory practices. *(Output)*	FY 2007: 51% (Target Met)	More than 40% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practice drills added these practices or modified current practices as a result of the course.	More than 40% of public health and clinical laboratorians attending biosecurity and biosafety NLTN courses who reported lacking practices for protection of individuals, security of assets and information, or training/practice drills added these practices or modified current practices as a result of the course.	Maintain
Other Key Outputs				
14.B.A: Number of new Public Health Informatics Fellows annually	FY 2008: 5	6	6	Maintain
14.B.B: Number of new Prevention Effectiveness Fellows annually	FY 2008: 4	5	5	Maintain
14.B.C: Number of new Public Health Prevention Service Specialists annually[2]	FY 2008: 24	25	25	Maintain
14.B.D: States participating in public health leadership and management training annually	FY 2008: 40	40	40	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

PREVENTIVE HEALTH AND HEALTH SERVICES BLOCK GRANT

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$97,270,000	$102,000,000	$0	$102,034,000	+$34,000

AUTHORIZING LEGISLATION

PHSA §§ Title XIX Prevention Activities; 214, 301, 304, 306, 307, 308, 310, 311, 317J, 327; Violent Crime Reduction Programs 40151 of P.L. 103-322

FY 2009 Authorization……..….Indefinite

Allocation Method……..……...……Formula Grants, Direct Federal/Intramural

PROGRAM DESCRIPTION & ACCOMPLISHMENTS

The Public Health and Health Services Block Grant (PHHSBG) was authorized in 1981 to provide basic public health infrastructure including personnel, training, and systems that serve as a backbone for public health efforts. The PHHSBG is a source of funding used to support existing state programs, develop and implement new programs, and respond to unexpected emergencies.

The PHHSBG provides 61 grantees (50 states, the District of Columbia, two American Indian Tribal organizations, and eight U.S. territories) the autonomy and flexibility to prioritize use of funds for the health problems that most adversely affect their residents. Forty-one percent of PHHSBG funds are allocated by states to local communities.

The PHHSBG provides funding support for primary prevention activities and health services in states and local communities. Programs target major issues such as cardiovascular disease, cancer, diabetes, tuberculosis, emergency medical services, injury and violence, infectious disease, environmental health, and sex offenses. In addition, the PHHSBG has supported activities such as clinical services, preventive screening, laboratory support, outbreak control, training, public education, and program evaluation.

CDC also collects standardized application and performance information from each awardee through an electronic software system called the Grant Application and Reporting System (GARS). This system organizes information in terms of program impact and outcome objectives; allows states to relate program activities to 10 Essential Services; and enables states to compile an electronic Annual Report that describes changes in health objectives and progress towards completing program activities.

With the FY 2009 increase in funds, CDC is increasing the level of funds allocated to the states and supporting the development of performance measures that will be used to increase the accountability of the program.

Examples of program successes:

In California, PHHSBG dollars provided the primary source of funds for Project Lean, a program that was instrumental in changing school nutrition policies. Two landmark policies were passed that address food and beverage standards in California schools. The first standard limits the saturated fat, sugar, and calories allowed in all foods sold outside the federal meal programs to students at California public elementary, middle, and high schools. The second standard restricts the sale of

soft drinks on California high school campuses, extending a previous policy that only addressed elementary and middle schools.

In Arizona statistics show a 150 percent increase in melanoma since 1973, and a 44 percent increase in deaths from melanoma. Skin cancer is the most common type of cancer in America with skin cancer incidence rates three times higher in Arizona compared to the national average. According to the Skin Cancer Foundation "just one blistering sunburn in childhood is estimated to double the risk of getting melanoma later in life." The PHHS Block Grant is the sole source of funding for Arizona's SunWise Program. Initiated in 2003, the program provides sun safety education for Arizona children K-8. In August 2005, Arizona became the first state to mandate sun safety education in its schools. As a result more than 707,000 children are learning sun safety in 1,100 K-8 public schools throughout the state.

Iowa is able to train and certify Emergency Medical Services (EMS) providers, inspect trauma-care facilities, and collect trauma information because of the availability of PHHS Block Grant funds. These functions keep the EMS system viable in a state where 82.6 percent of EMS providers are volunteers.

In Minnesota, PHHS Block Grant funds are used to support a monitoring system to assess and address the causes of foodborne illness outbreaks in food service establishments.

FUNDING HISTORY TABLE

Fiscal Year	Amount
FY 2005	$118,526,000
FY 2006	$98,932,000
FY 2007	$99,000,000
FY 2008	$97,270,000
FY 2009	$102,000,000

BUDGET REQUEST

CDC's FY 2010 request includes $102,034,000 for the Preventive Health and Health Services Block Grant (PHHSBG), an increase of $34,000 above the FY 2009 Omnibus for pay increases.

The FY 2010 budget will continue to support funding for 61 grantees to strengthen their capacity to identify and use evidence-based guidelines and best practices to design and implement effective public health programs in communities across the nation.

Working with States, CDC proposes to develop a framework that sustains the flexibility of the Block Grant and facilitates the state's ability to focus on the use of these funds for greater public health impact in five areas: improved disease surveillance, increased life expectancy, healthy aging, healthy communities, and achieving health equity.

CDC proposes to replace the existing GARS (Grants Application and Reporting System) with an improved web-based Block Grant Management Information System (BG-MIS). Minor changes to the questions and response options are planned concurrent with conversion to the BG-MIS. The BG-MIS continues to support the legislative requirement to collect information by the areas described in Healthy People 2010.

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5.A.A.C: Number of states, territories, American Indian Tribal organizations funded	61	61	61	Maintain

[1]The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

STATE TABLE

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS PREVENTIVE HEALTH AND HEALTH SERVICES BLOCK GRANT	
State/Territory/Grantee	**FY 2008 Actual**
Alabama	$1,540,081
Alaska	$332,961
Arizona	$1,163,758
Arkansas	$867,115
California	$6,730,544
Colorado	$1,203,442
Connecticut	$1,402,350
Delaware	$181,792
District of Columbia	$740,873
Florida	$2,940,218
Georgia	$2,983,439
Hawaii	$751,610
Idaho	$360,505
Illinois	$2,319,446
Indiana	$1,636,601
Iowa	$1,064,859
Kansas	$911,765
Kentucky	$1,301,788
Louisiana	$2,797,953
Maine	$859,434
Maryland	$1,826,029
Massachusetts	$2,625,825
Michigan	$3,824,512
Minnesota	$2,438,794
Mississippi	$1,403,587
Missouri	$2,407,490
Montana	$636,129
Nebraska	$1,597,263
Nevada	$382,108
New Hampshire	$1,368,516
New Jersey	$2,803,799
New Mexico	$1,348,302
New York	$6,676,150
North Carolina	$2,657,285
North Dakota	$247,175
Ohio	$4,384,228
Oklahoma	$914,484
Oregon	$706,960
Pennsylvania	$4,620,272
Rhode Island	$458,783
South Carolina	$1,194,141

FY 2010 DISCRETIONARY STATE/FORMULA GRANTS PREVENTIVE HEALTH AND HEALTH SERVICES BLOCK GRANT	
State/Territory/Grantee	**FY 2008 Actual**
South Dakota	$226,162
Tennessee	$1,580,945
Texas	$3,990,969
Utah	$928,737
Vermont	$263,811
Virginia	$1,981,709
Washington	$994,706
West Virginia	$865,960
Wisconsin	$1,896,411
Wyoming	$219,409
Indian Tribes	$56,651
American Samoa	$51,057
Guam	$210,642
Marshall Islands	$25,477
Micronesia	$62,042
Northern Mariana Islands	$38,940
Palau	$20,266
Puerto Rico	$1,515,121
Virgin Islands	$166,570
Total States/Cities/Territories	**$91,651,300**

BUILDINGS AND FACILITIES

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$55,022,000	$151,500,000	$0	$30,000,000	-$121,500,000

AUTHORIZING LEGISLATION

PHSA §§ 304 (b)(4), 319D, 321(a)

FY 2010 Authorization……..Indefinite

Allocation Methods…….....Direct Federal/Intramural, Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

The Buildings and Facilities (B&F) Program was established over 20 years ago to provide CDC with funding to replace, sustain, improve, and repair existing facilities and to construct new facilities to meet the mission of CDC. The principal B&F activity is mission support, serving approximately 14,995 CDC staff, FTE and non-FTE, who occupy CDC-controlled space. B&F indirectly supports all program activities that take place in CDC-controlled space such as laboratory research (infectious diseases, environmental health, occupational safety and health, and mine safety), data and information systems support located in CDC-controlled data centers (i.e., Biowatch, FoodNet, etc.), and non-laboratory based public health research.

Since 2000, CDC has funded approximately $1,829,000,000, (of appropriated dollars) toward its facilities, including funding for numerous capital projects in Atlanta, GA., (Atlanta Facilities Master Plan), repair and improvement (R&I) of existing facilities, and a replacement laboratory in Ft. Collins, CO. Funds are distributed through competitive bid design and construction contracts and through small business set-asides (8a contracts).

Taxpayer investment in new and existing facilities is protected by the incorporation of sustainable design principles, the effective maintenance and operations to reduce resource consumption (energy, water, and capital), and effectively maintaining the facilities to keep them in good condition. For example:

- Energy Management Requirement: Exceeded FY03-FY08 energy reduction target by 7.7 percent
- Water Intensity Reduction Goal: Exceeded FY07 to FY08 water use reduction by .4 percent.

Charged with protecting the public health of the nation, CDC is responsible for ensuring adequate facilities and equipment to carry out the agency's mission. The B&F Program provides CDC with facilities that are safer for both workers and the community, as well as facilities that allow CDC to respond more efficiently to public health emergencies.

Atlanta-Based Facilities

The Atlanta Facilities Master Plan envisions replacement of existing laboratories and the consolidation of approximately 3,000 professional staff from leased space into secure, CDC-owned space to be constructed on the Roybal and Chamblee Campuses. CDC anticipates meeting the laboratory replacement goal by mid 2010, with the completion of Building 23. CDC has met approximately one third of the lease consolidation goal through approved projects to date.

In FY 2008, CDC continued with projects already in progress that were funded in part or fully with previous years' funding as part of the Atlanta Master Plan. Projects include:

- Commissioning and Beneficial Occupancy of the Environmental Health Facility – Building 106, was achieved in the second Quarter of FY 2008.
- Continued construction on another Atlanta Master Plan Project (East Campus Laboratory Consolidation Project – Building 23). Completion is expected in FY 2010.
- Continued design of another Atlanta Master Plan (Epi Office Tower – Building 24). A Design/Build (D/B) contract was awarded for Building 24 in May, 2008, and the building is currently at Schematic Design.

Building 106 is the most recent Atlanta area project to receive the U.S. Green Building Council (USGBC) for Leadership in Energy and Environmental Design (LEED™) certification demonstrating incorporation of sustainable design features:

- Building 106 – Environmental Health Facility, completed in the second quarter, FY 2008, has been awarded a USGBC LEED™ Gold certification. The building includes special function spaces such as a kitchen, a large day-lighted dinning hall and data center as part of the program for this project. An energy recovery system within the mechanical systems is included along with other sustainable design features to provide operational economies. Natural daylight is a common feature within all public spaces throughout the facility.

The strategies used in the construction of the Atlanta-Based facilities have positively affected a number of the B&F program's goals.

- All of the completed capital projects have met the performance measures for scope, schedule, budget, and quality, helping the program meet or exceed its performance assessment goal of "having greater than or equal to 90 percent of projects" meet/exceed the performance measures.
- The completion of the Emerging Infectious Disease Laboratory and the Environmental Toxicology Laboratory helped the program to meet its performance assessment goal of "having 70 percent of Infectious Diseases Laboratorians and 100 percent of Environmental Health Laboratorians in CDC standard space." Please note that upon completion of the Building 23 Project in 2010, CDC anticipates meeting its performance assessment goal of having 100 percent of Infectious Diseases Laboratorians in standard lab space.

Non-Atlanta Facilities

Division of Vector-Borne Infectious Diseases (DVBID) Lab Shell Space (Ft. Collins, CO)

- This project was fully funded in FY 2007 and received HHS approval in the first quarter of FY 2008. CDC awarded a D/B contract in the fourth quarter of FY 2008 to build out the fourth floor laboratory shell space in the new DVBID Laboratory for occupancy by approximately 50 scientists. The expected completion date for this project is in the first quarter of FY 2010.

DVBID Laboratory (Ft. Collins, CO)

- CDC completed and occupied an $80 million laboratory in April 2007, partially replacing the existing 40-year-old leased laboratory.
- Completion of the DVBID Lab Building in 2007 met or exceeded the performance measures for scope, schedule, budget, and quality, helping the program meet its performance assessment goal of having greater than or equal to 90 percent of projects meet/exceed the performance measures.

NIOSH Laboratories (Cincinnati, OH)

- CDC has completed the environmental and preliminary site analysis for the consolidation of two antiquated NIOSH laboratories.

Nationwide Repair and Improvements (R&I)

In accordance with OMB and Federal Real Property Counsel guidelines, CDC's Nationwide R&I program includes sustaining, improving, and repairing projects needed to maintain or improve the condition of the CDC portfolio of assets; improving the efficiency of mechanical/electrical/water systems, moving CDC towards meeting or exceeding energy reduction goals; supporting program mission needs; and ensuring secure, healthy, and safe facilities.

The R&I program supports "mission critical" and "mission dependent" facilities in accordance with CDC's Sustainment strategy. Repair activities sustain buildings in an “operational status,” while improvement funds modify space to bring it into alignment with current codes and reduce “over utilized” space.

As part of the Real Property Asset Management Initiative within the President’s Management Agenda, CDC has implemented HHS-level Federal Real Property Council (FRPC) performance metrics. Daily use of FRPC metrics allows CDC to obtain positive results in its asset management.

FRPC Performance Metrics

Nationwide Repairs and Improvements (R&I) Program		
FRPC Measure	**Impact**	**Explanation**
Mission Dependency		
Mission Dependency	Positive	R&I funds will be used for "mission critical" and "mission dependent" facilities in accordance with CDC's Sustainment strategy. Repair funds are used to sustain buildings in an “operational status.” Improvement funds are used to modify space to bring it into alignment with current codes and reduce “over utilized” space.
Facility Utilization		
Utilization Status	Positive	R&I funds will be used for "over utilized" and "utilized" facilities in accordance with CDC's sustainment strategy.
Utilization Rate	Positive	R&I funds are used to restore assets to a condition that allows their continued effective designated use, and to improve an asset’s functionality or efficiency, thus maintaining or improving the utilization of the asset.
Retention/Disposal	Positive	CDC intends to use R&I funds to demolish part of 30 identified underutilized, non-mission critical, underperforming assets between 2009-2011, that are not funded through major (Capital) projects, thereby improving portfolio utilization rates and reducing costs.
Facility Condition	Positive	R&I funding will support CDC's sustainment strategy to maintain a portfolio Condition Index (CI) of 90 or better.
Sustainment and Improvement Strategy	Positive	The strategy will allow CDC to return all assets to a CI of 100 percent.

Nationwide Repairs and Improvements (R&I) Program		
FRPC Measure	**Impact**	**Explanation**
Facility Cost		
Operations and Management Cost	Positive	CDC anticipates a positive but unquantified impact on O&M costs resulting from sustainment-level R&I funding. Appropriate R&I and Business Services Support (BSS) funding will ensure that plant and equipment are operated and maintained in accordance with manufacturer's warranties, and will maximize energy and operating efficiencies.
Project Economics	N/A	

FUNDING HISTORY TABLE

Fiscal Year	Amount
FY 2005	$269,708,000
FY 2006	$158,291,000
FY 2007	$134,400,000
FY 2008	$55,022,000
FY 2009	$151,500,000

BUDGET REQUEST

CDC's FY 2010 request includes $30,000,000 for Buildings and Facilities which is $121,500,000 less than the Omnibus. This funding will support CDC's National Repair and Improvements Program at current levels which will continue to meet Federal Real Property Council (FRPC) metrics. This request will support "mission critical" repairs and improvements, including repair projects needed to maintain or improve the condition of CDC's portfolio of assets, improving the energy efficiency of mechanical/electrical/water systems and supporting program mission needs, ensuring secure, healthy and safe facilities.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measures:				
15.E.3: Reduce Energy and Water consumption. Implement high performance energy and water sustainability requirements.	FY 2008: (E) 16.7%; W)2.4%	(E) 12%; (W)4 2%	(E) 15%; (W) 6%	(E) +3%; (W) +2%
15.E.4: Incorporate sustainable practices in building construction, repair, renovation, and modernization projects, according to the Guiding Principles for High Performance and Sustainable Federal Buildings.	FY 2008 3% Met	4	5%	+1%
Long Term Objective 15.2: Execute Earned Value Analysis/Earned Value Management for Project Management.				
15.2.1: Aggregate of scores for capital and repair/improvement projects rated on scope, schedule, and cost.	FY 2008: 99% Exceeded	1.00±0.10	1.00±0.09	Maintain
Long Term Objective 15.3: Execute Business and Project Tactics				
15.3.1: Improve CDC's Buildings and Facilities Office's processes and performance as reflected by two Key Performance Indicators - Work Order Closure Rates and Customer Satisfaction - and by three Federal Real Property Council (FRPC) metrics of Utilization, Mission Dependency, and Facility Condition Index for CDC buildings.				
a) Work Order Closure Rates	FY 2008: 95% (Exceeded)	87%	89%	+2%
b) Customer Satisfaction Survey Results	FY 2008: 94% (Exceeded)	80%	80%	Maintain
c) Condition Index	FY 2008: 93.9 CI (Exceeded)	87.6CI	88.0CI	+0.4
d) Mission Dependency	FY 2008: 0% (Exceeded)	5.48%	5.00%	- 0.48
e) Utilization	FY 2008: 1.8%O, 1.8%U (Exceeded)	6.7%O, 5.12%U	6.7%O, 5.00%U	Maintain; -0.12%
f) Operating Costs	FY 2008: $11.94 (Exceeded)	$10.39	$10.29	$0.10

FACILITIES PROGRAM	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Line/Project
	Actual	Actual	Actual	Actual	Actual	Enacted	Estimate	Plan	Total
MAJOR CONSTRUCTION PROJECTS - New Starts/Continuation *Dollars In Thousands*									
East Campus Consolidated Lab Project, Roybal Campus (#23) Δ		$123,640	$71,254	$120,000	$50,046				$365,336
Research Support Facility (#24)					$7,985 1/	$55,022	$71,300		$134,307
Research Support Facility (#107)							$24,350		$127,000
Research Support Facility (#108)							$24,350		$127,000
Hazardous Materials Handling Facility †									$0
Arctic Investigations Program Lab, Anchorage, Alaska							$3,524 2/	TBD	$3,524
Ft. Collins Lab. Per public law PL 111-006							$1,500		$1,500
DVBID Shell Space Ft. Collins, CO - laboratory					$15,000				$16,0424
Morgantown NIOSH HERL Lab Addition									$0
NIOSH Lake Lyn Laboratory Facility Acquisition ‡						$4.700	$50.3 3/	TBD	$4,750

1/ Reflects prior year adjustments for funds recovered from completed capital projects and an adjustment from R&I to Building 24 as well as funds recovered and allocated to Building 24 and re-allocated to R&I.
2/ Adjustment of $3,524,000 reduced Repairs and Improvement funds and increased funding for the Artic Investigation Program (AIP) Laboratory Renovation and Addition project. The Capital Investment Review Board has approved this project.
3/ Adjustment for $50,000 reducing Building 110 funds and increasing the funds for the Lake Lynn Property Acquisition.

BUSINESS SERVICES SUPPORT

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/-FY 2009
Budget Authority	$371,847,000	$359,877,000	$0	$372,661,000	+$12,784,000
FTEs	1,1158	1,348	$0	1,348	0

AUTHORIZING LEGISLATION

PHSA §§ 301, 304, 307, 310, 317, 317F, 319, 327, 361, 362, 368, 399F; Federal Technology Transfer Act of 1986, (15 U.S.C. 3710) Bayh-Dole Act of 1980, P.L. 96-517

FY 2010 Authorization……Indefinite

Allocation Method……..……Direct/ Federal; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Over the past three years, CDC's business services structures and systems have been significantly enhanced to achieve greater effectiveness. CDC's budget structure was reorganized in FY 2005 to ensure greater transparency and accountability for programmatic dollars by identifying and separating costs related to business operations and processes into the Business Services Support (BSS) budget activity. The work conducted within this activity supports the premier public health programs and science that make CDC the nation's lead public health agency and a respected resource for improving public health worldwide.

CDC has combined best practices of the business community with those of the public sector to become a more efficient and accountable steward of taxpayer dollars. To meet the goal of providing cutting-edge business services, CDC has engaged in numerous business process improvements and continues to adapt to realize additional benefits from advancements in this area.

To ensure business processes are effective and hold business services functions at the agency accountable for the services they provide, CDC devised specific key performance indicators (KPIs) including Web Usage, Hiring Speed, Cycle Time, and ServiceDesk Resolution Time to engender more visibility into various operational areas. Over the course of the past few years, CDC maximized use of those KPIs to realize performance within the Business Services Offices (BSOs) of the Office of the Chief Operating Officer (OCOO).

However, as the agency and HHS continue to increase their focus on performance and accountability, CDC began revising the previously utilized set of KPIs to include not only a high level set of indicators reflecting agency-wide functions but also a more detailed group within each BSO measuring each office's functional performance as it relates to the agency's overall efficiency. Thus, the Business Services Improvement Office (BSIO) was created in FY 2006 and charged with facilitating business services improvements across CDC that increase effectiveness and customer satisfaction. In FY 2008, BSIO developed and began tracking strategic KPIs for each of the BSOs located within OCOO. These strategic KPIs are related to the achievement of strategic goals and objectives, as well as key drivers of business value. The KPIs reflect different critical core processes of participating offices.

The goal of this exercise is to expand business services KPIs to each coordinating center and national center so that the business services functions within each programmatic area are measured as successfully as within the BSOs themselves. Once business services KPIs exist

within the programmatic areas, the agency should be able to realize increased efficiencies within key areas identified through outcome-oriented performance indicators.

The OCOO is responsible for tracking and reporting many business services functions outside of those reported using KPIs. The BSS budget activity is an extension of this system of accountability for business.

The Business Services Support (BSS) budget supports business functions across all of CDC's programs. These functions include:

- Rent, utilities, telecommunications and security for CDC employees and other operational areas,
- Mandatory services and other CDC centralized costs
- Business services functions at CDC (i.e., grants management & budget).
- IT services

To meet the goal of providing cutting-edge business services, CDC continues to engage in numerous business process improvements and efficiencies

The demands on CDC business services continue to grow substantially to fulfill HHS's management objectives, and support CDC programs.

Major activities within the OCOO include:

- Administrative Services and Program
- Alternative Dispute Resolution
- Buildings and Facilities
    - Operates, maintains, repairs, and modifies CDC's Atlanta area plant facilities;
    - Carries out facilities planning functions for CDC, including new or expanded facilities, and a major repair and improvement program;
    - Develops services for new, improved, and modified equipment to meet program needs, i.e., building related and installed equipment such as HVAC, bio safety cabinets, chemical fume hoods, walk-in freezers, etc; and
    - Conducts CDC's real property and space management activities, including the acquisition of leased space, the purchase and disposal of real property, and provides technical assistance in space planning to meet programmatic needs.
- Ethics
- Financial Management
    - Provides leadership, guidance and advice on budgetary matters to CDC/ATSDR, including the development of the Department of Health and Human Services (HHS), the Office of Management and Budget (OMB), and Congressional budget submissions;
    - Maintains liaisons with the Office of the Secretary, OMB, Government Accountability Office (GAO), other government organizations, and Congress on financial management matters; and
    - Participates in budget review and hearings before HHS, OMB, Congress, and advocacy groups.
- General Counsel

- Health and Safety
- Information Technology & Business Systems
  - Personal computing hardware & software;
  - Customer service support & infrastructure directory services;
  - E-mail, remote access, telecommunications, & video conferencing;
  - Mainframe, infrastructure software, application server hosting;
  - Networking, IT security.
- Management Analysis & Service Office (MASO)
  - Policy development, management and consultation;
  - Management studies and surveys;
  - Internal controls program and Information quality;
  - Federal advisory committee management;
  - Electronic forms design and management;
  - Office automation services and support.
- Procurement and Grants
  - Advises the Director, CDC, and the Director's staff, and provides leadership and direction for CDC acquisition, assistance, and materiel management activities;
  - Plans and develops CDC-wide policies, procedures, and practices in acquisition, assistance, and materiel management areas;
  - Obtains research and development, services, equipment, supplies, and construction through acquisition processes;
  - Awards, administers, and terminates contracts, purchase orders, grants, and cooperative agreements; and
  - Maintains liaison with HHS, GSA, and other Federal agencies on acquisition, assistance, and materiel management policy, procedure, and operating matters.
- Security and Emergency Preparedness
  - Coordinates crisis management plans that protect CDC's employees, properties, the science and our national strategic mission;
  - Provides intelligence information and support to the CDC Director, Emergency Operations Center (EOC), and others during times of national stress;
  - Manages and operates the agency's secure communications systems and classified document control procedures;
  - Conducts security awareness briefings for personnel traveling abroad;
  - Provides security equipment and a highly-trained, professional security guard force;
  - Conducts security assessments and corrects identified deficiencies; Operates the security control room 24 hours a day, seven days a week;
  - Manages the internal select agent program's compliance with security provisions identified in the Select Agent Rule; and,

- Conducts fingerprinting and processes personnel suitability and security checks for all CDC personnel. Issues ID badges, cardkeys, and brass keys.

Significant accomplishments include the following:

- Became the first Federal civilian agency to successfully implement a High Performing Organization (HPO), an innovative alternative to public-private competition. As a result, the agency was awarded a President's Quality Award (PQA) in 2007, the highest award given to Executive Branch agencies for management excellence. Furthermore, CDC has successfully implemented the Public Health Integrated Business Services (PHIBS) HPO, which includes a wide spectrum of restructuring activities aimed at optimizing the business services such as acquisition support, business information systems support, facilities, funds management assistance, payroll administration, and property management.
    - OMB has approved several CDC Business Services office and functions approved as HPO's (e.g. FMO and ITSO). Benefits of an HPO include:
        - Savings of $111M from the 3 HPOs;
        - Removes the risk of having multiple service providers across CDC for similar services; and
        - Allows the agency to retain greater control and flexibility of organizational structures and can redirect savings towards mission direct areas.
- Consolidated all common CDC IT infrastructure services, to achieve higher performance at lower cost through the Information Technology Services Office (ITSO). This consolidation reduced operating costs by 38 percent and staff by 26 percent, while increasing service offerings, expanding service hours and locations, improving service levels, and reaching a "best-in-class" customer satisfaction result. Accomplishments demonstrated from this consolidation are:
    - Utilize key performance indicators (KPIs) to evaluate performance and effectiveness related to CDC's business functions. Strategic KPIs are related to the achievement of strategic goals and objectives, as well as key drivers of business value.
    - PGO implemented process improvement measures and KPIs to decrease the amount of time taken to award contracts and grants, thereby increasing the speed with which public health interventions can be put into place.
    - The Unified Financial Management System (UFMS) was successfully implemented and replaced five legacy accounting systems used across HHS Operating Divisions. (CDC was the first and only OPDIV to get federal mandated reports from system).
    - Implemented A-123 (assurance that internal controls are operating effectively) throughout CDC resulting in no material weakness in the design and operation.
    - Ensured that CDC's IT infrastructures services have continued to be best-in-class.
    - Ensured that CDC continues to obtain high scores in the GAO and OMB maturity scale for its enterprise architecture program.
    - Achieved successful OMB and HHS-wide E-Gov initiatives including: E-Vitals, Grants.gov, PMIS, UFMS, and GovTrip.
    - Implemented a new Purchase-to-pay process to ensure data are recorded more accurately and CDC payment process is improved to better achieve prompt pay requirements.

- Developed an Intelligence Operations program that is now used as a benchmark by HHS.
- Developed a continuity of Operations plan that is considered a GAO best practice.

- Experienced over 30 percent growth per year in visits to CDC's website, compounded over the last five years and now averaging 13 to 15 million visitors per month. Visits to the CDC website reflect the quality, timeliness, trust, and value of CDC's information to the public. During public heath emergencies, visits to the site spike dramatically as the public seeks emergency-related information.

FUNDING HISTORY TABLE

Fiscal Year	Amount
FY 2005	$319,152,000
FY 2006	$317,615,000
FY 2007	$378,289,000
FY 2008	$371,847,000
FY 2009	$359,877,000

BUDGET REQUEST

CDC's FY 2010 request includes $372,661,000 for Business Services Support, which is an increase of $12,784,000 above the FY 2009 Omnibus. This increase reflects $2,784,000 for pay increases and $10,000,000 for non-pay increases.

BSS funding supports ongoing services maintained by CDC's business service units, expansion into new business areas that are critical to the success of the agency, and federally mandatory requirements. The requested funding will help CDC fulfill programmatic needs and mandatory requirements such as:

- Addressing current and future threats to CDC's Information Technology Security in order to protect the highly sensitive information assets of national importance which is maintained by CDC.
  - Maintaining proper levels of Information Technology Security to allow information transmitted and housed in CDC's information technology systems to be safeguarded against potential threats.
  - CDC experiences hundreds of thousands of electronic scans and probes a day from around the world testing our defenses.
  - CDC is routinely required to remediate unauthorized penetrations and injections of malicious software on CDC computers.

- Strengthening Information Technology Infrastructure
  - CDC's IT infrastructure supports 20,000 staff and support contractors worldwide in numerous locations and a highly mobile workforce responding to health threats and events globally.
  - The additional funds will help sustain substantial operational improvements which were made in previous years and narrow the gap for technology refreshments, attainment of service levels for CDC customers, and advancement of some new capabilities necessary to support CDC's programs such as collaboration technologies, support of increased teleworking and social networking for CDC's Health Marketing activities.

- Enhancing CDC's Business Management Systems
    - CDC has migrated to numerous new government-wide or HHS-wide administrative and management systems. While these vital systems provide the necessary transactional services for the intended purpose, they each are point solutions for a particular task.
        - There is no integration among those systems.
        - There is no ability to conduct management analyses or business intelligence across the breadth of these individual systems.
    - The increased funding will assist in CDC's efforts to migrate older systems to new platforms and software to enhance functionality and integration and address security issues.
    - The investment will also help to enhance the life-cycle management and tracking of systems development and integration efforts thereby reducing risk and overall cost of delivery.
- Providing for the operations, maintenance, utilities information technology systems, telecommunications, and security for all CDC facilities.
- Converting to new government-wide and HHS-wide initiatives such as:
    - Homeland Security Presidential Directive 12 (HSPD-12), aimed at creating a common identification standard for federal employees and contractors. CDC has begun issuing Personal Identification Verification Cards, or Smart Cards, and is currently pursuing an aggressive schedule to ensure that all personnel including Atlanta are compliant with HSPD-12.
    - Information for Management, Planning, Analysis, and Coordination, Version 2 (IMPAC II), utilized by PGO to manage grants and cooperative agreements.
- Alternate acquisition system which facilitates collaboration and support of the HHS Consolidated Acquisition System (HCAS), utilized by PGO to create and administer contracts and purchase orders.
- Complying with OMB Circular A-123 internal controls over financial reporting.

TERRORISM PREPAREDNESS AND EMERGENCY RESPONSE

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$1,479,455,000	$1,514,657,000	$0	$1,546,809,000	+32,152,000
FTEs	276	328	0	328	0

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

CDC has made all-hazards public health preparedness and emergency response a priority, and continues to build and enhance preparedness and response systems at the federal, state, and local levels. CDC's Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER) provides strategic direction on preparedness to CDC; allocates preparedness and response resources across CDC; serves as point of contact on preparedness for key stakeholders; and reports on progress and challenges in public health preparedness. These activities enable the national public health infrastructure to develop the building blocks needed to respond to varied disaster scenarios including natural, chemical, biological, radiological, and nuclear events.

CDC's work in preparedness builds on Department of Homeland Security (DHS) initiatives, including the National Response Framework and the National Preparedness Guidelines. CDC has established five objectives that derive from the agency's core public health functions, as presented below, and represent CDC's core preparedness programs.

1. Health Monitoring and Surveillance: Maintain situational awareness at the global, national, state, or local level regarding current population health status, real or potential health threats, and/or environmental threats.

   Preparedness objective: Integrate and enhance existing surveillance systems at the local, state, national, and international levels to detect, monitor, report, and evaluate public health threats.

2. Epidemiology and Other Assessment Sciences: Increase essential knowledge of the sources of disease and the context in which it occurs, understand relevant processes to predict or influence risk factors or health outcomes; develop policies, strategies, and programs; evaluate the effectiveness of existing programs; and, apply this knowledge in the development, design, testing, and implementation of new interventions.

   Preparedness objective: Support and strengthen human and technological epidemiologic resources to prevent, investigate, mitigate, and control current, emerging, and new public health threats and to conduct research and development that leads to interventions for such threats.

3. Public Health Laboratory Science and Service: All of CDC's work pertaining to internal or external laboratory research/investigations, workforce development, support services, and partner laboratory support.

   Preparedness objective: Enhance and sustain nationwide and international laboratory capacity to gather, ship, screen, and test samples for public health threats and to conduct research and development that lead to interventions for such threats.

4. Response and Recovery Operations: The systematic response, investigation, and control of urgent or emergency health threats or hazards.

   Preparedness objective: Assure an integrated, sustainable, nationwide response and recovery capacity to limit morbidity and mortality from public health threats.

5. Public Health System Support: Provide resources and technical assistance to state, local, and territorial health departments, nations, non-profit organizations, and others to implement public health programs and interventions to improve the environment, communities, and the health and well-being of individuals.

   Preparedness objective: Expand and strengthen the foundational and surge capacities needed to provide effective assistance to all individuals who need it during public health emergencies.

Cost Effectiveness

Public health emergencies can have severe economic consequences. For example, the economic impact of a bioterrorist attack is estimated to range from $477.7 million per 100,000 persons exposed (brucellosis scenario) to $26.2 billion per 100,000 persons exposed (anthrax scenario).[11] Public health preparedness capabilities at the local, state, and national levels result in improved response to both large-scale and more routine emergencies, such as food borne disease or measles outbreaks, further improving cost effectiveness.

Several studies have focused on the cost effectiveness of strategies for preventing illness in event of a terrorist attack with aerosolized *Bacillus anthracis*. Schmitt et al (2007) found rapid distribution of countermeasures (post-exposure vaccine and antibiotics) to be the most cost effective response, as opposed to pre-exposure vaccination.[12] Another analysis found that the postattack strategy that involved the use of vaccine plus antibiotic prophylaxis was the most effective strategy and resulted in a cost savings of $355 and $859 per person compared to vaccination only and no vaccination or antibiotics, respectively.[13]

Research on the cost effectiveness of public health preparedness programs is limited, but existing studies indicate that these investments can both save lives and health care costs in the event of a disaster. Kaufman et al (1997) argue that the most cost-effective preparedness and emergency response budget (comparable to an insurance premium) reflects the combination of effective countermeasure delivery, laboratory capacity, and establishment of strong preparedness and prevention infrastructure.[14]

This budget request describes CDC's current activities and accomplishments in preparedness, provides an assessment of the effects of current investments on public health preparedness capacities, and describes the activities that will be undertaken with the FY 2010 appropriation, including two major regulatory responsibilities (associated with the Select Agent Program and the Quarantine and Migration Health System).

CDC's FY 2010 request includes $1,546,809,000 for Terrorism Preparedness and Emergency Response, an increase of $32,152,000 above the FY 2009 Omnibus. This increase reflects $664,000 for pay increases and $31,488,000 for non-pay increases. This includes:

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[11] Kaufman A, Meltzer M, Schmid G. "The Economic Impact of a Bioterrorist Attack: Are Prevention and Postattack Intervention Programs Justifiable?" Emerging Infectious Diseases 1997 3(2):83-94.

[12] Schmitt B, Dobrez D, Parada J, Kyriacou D, Golub R, Sharma R, et al. "Responding to a Small-scale Bioterrorist Attack : Cost Effectiveness Analysis of Comparing Preattack Vaccination with Postattack Antibiotic Treatment and Vaccination". Arch Intern Med 2007:67(7):655-62.

[13] Fowler R, Sanders G, Bravata D, Bahman N, Gastwirth J, Peterson D, et al. "Cost-Effectiveness of Defending against Bioterrorism: A Comparison of Vaccination and Antibiotic Prophylaxis against Anthrax". Ann Intern Med. 2005:142:601-610.

[14] Kaufman A, Meltzer M, Schmid G. "The Economic Impact of a Bioterrorist Attack: Are Prevention and Postattack Intervention Programs Justifiable?" Emerging Infectious Diseases 1997 3(2):83-94.

- $761,100,000 for Upgrading State and Local Capacity. These funds support state and local health departments through the Public Health Emergency Preparedness (PHEP) Cooperative Agreement, Centers for Public Health Preparedness, and Advanced Practice Centers.
- $120,795,000 for Upgrading CDC Capacity. These funds support activities in all of CDC's preparedness program areas.
- $69,165,000 for Biosurveillance. These funds include $34,404,000 for BioSense and $26,518,000 for the Quarantine and Migration Health System.
- $595,749,000 for the Strategic National Stockpile (SNS) to continue to store, purchase, and distribute appropriate medical countermeasures and equipment following a public health emergency event.

UPGRADING STATE AND LOCAL CAPACITY

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
BT Cooperative Agreement	$700,465,000	$700,465,000	$0	$714,949,000	+$14,484,000
Centers for Public Health Preparedness	$28,555,000	$30,000,000	$0	$30,013,000	+$13,000
Advanced Practice Centers	$5,261,000	$5,261,000	$0	$5,263,000	+$2,000
All Other State and Local Capacity	$11,758,000	$10,870,000	$0	$10,875,000	+$5,000
Total	$746,039,000	$746,596,000	$0	$761,100,000	+$14,504,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 311, 317, 319, 319A, 319C, 319D, 319F, 319G, 351A, 361-368 (42 USC 262 note), 2801-2811. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pandemic and All Hazards Preparedness Act of 2006.

FY 2009 Authorization……...Indefinite

Allocation Method…….....Competitive Grant/Cooperative Agreements; Formula Grant/Cooperative Agreements

PROGRAM DESCRIPTION

Upgrading State and Local Capacity activities center on providing resources and technical assistance to state, local, and territorial health departments, foreign nations, non-profit organizations, and others to implement public health programs and interventions for public health emergencies. These include the Public Health Emergency Preparedness (PHEP) cooperative agreement, the Centers for Public Health Preparedness (CPHP), the Advanced Practice Centers, and other activities aimed at enhancing state and local preparedness.

Upgrading State and Local Capacity activities anchor CDC's Public Health System Support preparedness program, which serves the general public and state and local health departments through developing and maintaining all-hazards preparedness at the state and local levels, as well as evaluating and ensuring improvements of preparedness throughout CDC and among grantees.

PHEP Cooperative Agreement

The PHEP cooperative agreement provides technical assistance and funding to public health agencies to ensure they can effectively respond to and protect populations from the consequences of terrorist threats, infectious disease outbreaks, natural disasters, and biological, chemical, nuclear, and radiological emergencies. The PHEP cooperative agreement supports 62 grantees including all 50 states, Chicago, New York City, Los Angeles County, Washington D.C., and eight U.S. territories/freely associated states. Through PHEP funding, state and local public health preparedness is stronger and more integrated with federal, state, local, and tribal governments; the private sector; and nongovernmental organizations.

PHEP program accomplishments include:

- All states have plans in place for public health emergency response, pandemic influenza, receipt and distribution of the Strategic National Stockpile, and crisis and emergency risk communication.
- Nineteen U.S. states participate in the Early Warning Infectious Disease Surveillance (EWIDS) program, providing rapid and effective laboratory confirmation of urgent infectious disease case reports in the border regions of the United States, Canada, and Mexico.
- A technical assistance workshop held in the Pacific Islands has strengthened preparedness in the region through the provision of guidance on emerging issues and initiatives and the sharing of lessons learned and promising practices.
- Support of state and local biological and chemical laboratory capacity through the LRN has improved to provide surge capacity to CDC in the event of a national emergency.

CDC's PHEP program received a program assessment in 2003. The program assessment found that the purpose and importance of the program are clear, although results have not yet been demonstrated because of the relative newness of the program and the inherent difficulty of measuring preparedness against an event that does not occur regularly. The Pandemic and All-Hazards Preparedness Act (PAHPA) of 2006 specified the types of program activities and evidence-based outcomes for which CDC and state and local health departments would be held accountable. As a result of the program assessment and the PAHPA, the program has taken steps to develop and conduct independent program evaluations, as well as work with grantees to ensure the availability of performance data, determine when acceptable preparedness has been demonstrated, and target assistance for areas not adequately prepared.

Centers for Public Health Preparedness (CPHP) Program

The CPHP program is a network of academic-based preparedness education and training programs. The CPHP program strives to strengthen state and local public health workforce readiness for all-hazards preparedness and response and share expertise and resources across jurisdictions.

CPHPs conducted 2,361 public health preparedness education and training activities and contributed 1,351 public health preparedness resources to the public domain since the initiation of the program. All 50 states, plus Washington D.C., Puerto Rico, the Virgin Islands, and several U.S. territories are served by CPHP activities. In FY 2008, more than 90 activities addressed the special preparedness needs of at-risk populations including geriatric, pediatric, and racial/ethnic minority populations.

In addition, in 2008 CDC established a new component of the CPHP program by awarding funding to seven accredited schools of public health to form Preparedness and Emergency Response Research Centers (PERRCs). The PERRCs will evaluate the structure, capabilities, and performance of public health systems for preparedness and emergency response activities.

Advanced Practice Centers (APCs)

APCs are local health agencies that improve and evaluate their own infrastructure for public health emergency preparedness and share promising practices with peer local health agencies. APCs are located in California, Georgia, Maryland, Massachusetts, Minnesota, New York, and Washington. Recent APC accomplishments include developing innovative tools and resources that are shared with peer local health agencies through the APC Toolbox, such as "Strategies and Resources for Emergency Preparedness and Response in Rural USA" and "Equity in Emergency Response: Public Health Planning for Vulnerable Populations."

All Other State and Local Capacity

Activities under this budget line support programmatic costs, including oversight and performance measurement, for the PHEP cooperative agreement, CPHPs, APCs, and related activities. For example, CDC routinely receives and reviews narrative reports on the accomplishments and challenges of state and local health departments funded under PHEP. In addition, CDC refocused its measurement and evaluation activities to assess program effectiveness and efficiency (i.e. the capacity to plan for and the operational capability to respond to public health emergencies) as specified in PAHPA. CDC developed and continues to refine a measurement framework in which the grantees report performance metrics reflecting core capacities and capabilities to respond to public health emergencies.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$919,148,000
FY 2006	$823,099,000
FY 2007	$766,660,000
FY 2008	$746,039,000
FY 2009	$746,596,000

BUDGET REQUEST

CDC's FY 2010 request includes $761,100,000 for Upgrading State and Local Capacity activities, an increase of $14,504,000 above the FY 2009 Omnibus. This increase reflects $327,000 for pay increases and $14,177,000 for non-pay increases. This includes:

- $714,949,000 for the PHEP cooperative agreement, an increase of $14,484,000 above the FY 2009 Omnibus. During FY 2010, the PHEP cooperative agreement will continue to provide technical assistance and resources to public health departments to improve their emergency preparedness and response capabilities. The increased funding will be support additional state and local preparedness resources, including improved laboratory capabilities. Specifically, additional funding will bolster chemical laboratory capability for surge capacity and replace instruments that will become obsolete.
- $30,013,000 for the CPHPs. The implementation of CPHP-related PAHPA provisions will change the focus of the CPHP program. PAHPA expanded the work of the CPHPs to encompass public health systems research to improve and enhance federal, state, local, and tribal preparedness capabilities and called for the development of public health response core curricula at the undergraduate and graduate levels.

  These provisions will be addressed in FY 2009 with the establishment of PERRCs. The new centers will investigate the structure, capabilities, and performance of public health systems for preparedness and emergency response activities. Given baseline budget levels, these changes result in a decrease in funding for CPHPs that focus on training and education to fund the newly established research-focused PERRCs. Therefore, the amount of funding available for training/education CPHPs will decrease.

  In FY 2010, CDC will continue to support CPHP activities, comprising both academic CPHPs that focus on educational programs and PERRCs. To comply with PAHPA requirements related to training and education, CDC will release in the spring of 2009 a separate funding mechanism that aligns CPHP program priorities with core public health curriculum directives:

  - Academic-based core curriculum (Sec. 304(d)(3));

- Core competency-based training program (Sec. 304(d)(4)); and,
- Academic-workforce communication (Sec. 304(d)(6).

CDC will also continue to encourage CPHPs to provide relevant education and training to numerous audiences at the state and local levels that often deal with underserved, at-risk, and minority populations, such as tribal communities. Another focus will be addressing the training and education needs surrounding mental health and psychosocial preparedness issues.

- $5,263,000 for APCs. In FY 2010, the APCs will continue to foster improvement in the local public health system through activities such as sharing best practices, developing training and other tools, and building partnerships.
- $10,875,000 for All Other State and Local Capacity. CDC will continue working with HHS, state and local health departments, and national partner organizations (e.g. the Association of State and Territorial Health Officials, the Council and State and Territorial Epidemiologists, the National Association of County and City Health Officials, and the Association of Public Health Laboratories) to develop and implement additional measures of public health preparedness.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.1: Percentage of states that have level three chemical lab capacity, and have agreements with and access to (specimens arriving within 8 hours) a level-one chemical lab equipped to detect exposure to nerve agents, mycotoxins, and select industrial toxins. *(Output)*	FY 2008: 100.0% (Target Met)	100.0%	100.0%	Maintain
Long Term Objective 16.6: Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.				
16.6.1a: Cooperative Agreement recipients acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis *(Outcome)*	FY 2008: 88.0% (Target Exceeded)	85.0%	85.0%	Maintain
16.6.1b: State grantees will have a protocol for testing and documenting send/receive capabilities. *(Outcome)*	FY 2006: 60.0% (Target Not Met)	85.0%	N/A	N/A
16.6.2: Percentage of state public health agencies that are prepared to use materiel contained in the SNS as demonstrated by evaluation of standard functions as determined by CDC. *(Outcome)*	FY 2008: 91.0% (Target Exceeded)	90.0%	90.0%	Maintain
Long Term Objective: Decrease the time needed to implement recommendation from after-action reports following threats to the public's health				
16.9.1: Percentage of public health agencies that directly receive CDC PHEP funding that can convene within 60 minutes of notification a team of trained staff that can make decisions about appropriate response and interaction with partners. *(Output)*	FY 2008: 85.0% (Baseline)	92.0%	97.0%	+5%
16.9.5: Percentage of public health agencies that directly receive CDC PHEP funding that, at least once/year, re-test a response following completion of corrective action(s) identified in a prior actual or simulated response. *(Output)*	FY 2008: 92.0% (Baseline)	94.0%	98.0%	+4%

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure:				
16.E.1a: Decrease the amount of (A) time required for the Division of State and Local Readiness (DSLR) Project Development Officers to conduct technical reviews of work plans and budgets for all 62 grantees by providing appropriate tools and functionality in the DSLR Management Information System (MIS). *(Efficiency)*	FY 2007: 30.0 days (Target Exceeded)	21.0 days	20.0 days	-1.0 days
16.E.1b: Decrease the amount of (B) cost required for the Division of State and Local Readiness (DSLR) Project Development Officers to conduct technical reviews of work plans and budgets for all 62 grantees by providing appropriate tools and functionality in the DSLR Management Information System (MIS). (Percentage reduction). *(Efficiency)*	FY 2007: $0.0 (Target Met)	$97,536.90	$97,030.90	- $506.00
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.6: Percentage of state public health laboratories that directly receive CDC PHEP funding that can correctly subtype E.Coli O157:H7 and submit the results into a national reporting system within four working days for 90% of the samples received. *(Output)*	FY 2007: 46.0 (Baseline)	79.0	96.0	+17
Other Key Outputs:				
16.A: Academic Centers for Public Health Preparedness	27	27	27	Maintain
16.B: Number of states, territories, and major metropolitan areas formally assessing public health capacity and preparedness	62	62	62	Maintain

PUBLIC HEALTH EMERGENCY PREPAREDNESS COOPERATIVE AGREEMENT STATE FUNDING TABLE

PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP) PROGRAM FY 2008 FUNDING	
State/Territory/ Grantee	FY 2008 Funding
Alabama	$10,241,093
Alaska	$5,015,000
American Samoa	$386,338
Arizona	$14,227,671
Arkansas	$7,435,489
California	$50,161,370
Chicago	$11,382,673
Colorado	$11,141,885
Connecticut	$8,927,705
Delaware	$5,000,000
District of Columbia	$6,698,743
Florida	$32,940,501
Georgia	$18,689,009
Guam	$555,484
Hawaii	$5,228,184
Idaho	$5,405,739
Illinois	$19,912,211
Indiana	$13,335,867
Iowa	$7,702,063
Kansas	$7,598,339
Kentucky	$9,750,535
Los Angeles	$22,852,470
Louisiana	$9,998,186
Maine	$5,271,144
Marshall Islands	$390,307
Maryland	$13,038,391
Massachusetts	$14,805,770
Michigan	$20,453,241
Micronesia	$461,346
Minnesota	$12,616,406
Mississippi	$7,629,747
Missouri	$13,029,088
Montana	$5,022,876
Nebraska	$5,877,064
Nevada	$7,652,253
New Hampshire	$5,317,054
New Jersey	$18,788,803
New Mexico	$7,054,780
New York	$22,518,790
New York City	$22,371,459
North Carolina	$16,696,497
North Dakota	$5,023,132
Northern Mariana Islands	$423,185
Ohio	$21,838,104

PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP) PROGRAM FY 2008 FUNDING	
State/Territory/ Grantee	**FY 2008 Funding**
Oklahoma	$8,740,269
Oregon	$9,100,217
Palau	$330,743
Pennsylvania	$23,758,643
Puerto Rico	$8,867,670
Rhode Island	$5,012,619
South Carolina	$9,968,869
South Dakota	$5,000,000
Tennessee	$12,844,807
Texas	$43,355,376
Utah	$7,162,839
Vermont	$5,041,316
Virgin Islands	$462,244
Virginia	$17,222,047
Washington	$14,012,182
West Virginia	$5,933,288
Wisconsin	$12,188,297
Wyoming	$5,000,000
Total Funding	**$704,867,418**

BIOSURVEILLANCE

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
BioSense	$34,389,000	$34,389,000	$0	$34,404,000	+$15,000
Real-time Lab Reporting	$9,022,000	$8,239,000	$0	$8,243,000	+$4,000
Quarantine	$9,870,000	$26,507,000	$0	$26,518,000	+$11,000
Total	$53,281,000	$69,135,000	$0	$69,165,000	+$30,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 311, 317, 319, 319A, 319C, 319D, 319F, 319G, 351A, 361-368 (42 USC 262 note), 2801-2811. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pandemic and All Hazards Preparedness Act of 2006.

FY 2009 Authorization...…….....…… ……..... Indefinite

Allocation Method ……..……Direct Federal/Intramural; Formula Grants/Cooperative Agreements; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Biosurveillance activities serve to improve capabilities of rapid identification and characterization of threats. The Biosurveillance budget line funds BioSense and Real-Time Lab Reporting program activities, which are part of CDC's Health Monitoring and Surveillance program; and the Quarantine and Migration Health System, which is part of CDC's Response and Recovery Operations program. Taken together, these activities provide information that is critical to monitor and respond to public health threats; however, they encompass only a portion of all biosurveillance activities across CDC. CDC acknowledges that effective biosurveillance requires a system of systems that can collaboratively acquire, analyze and disseminate public health information to achieve a real-time reporting capability. The agency has made advancements toward the collaboration across systems through the coordination of programs beyond its flagship program, BioSense. The coordinated effort will improve horizontal and vertical information sharing and enhance our biosurveillance capability through shared responsibility within the agency and among other federal, state, and local entities.

Health Monitoring and Surveillance

CDC's Health Monitoring and Surveillance program allows CDC to maintain situational awareness at the global, national, state, and local levels to detect real or potential public health threats, track their spread, and implement interventions as early as possible to minimize morbidity and mortality. Health Monitoring and Surveillance program activities include BioSense, Real-Time Lab Reporting, and other surveillance initiatives (described under Upgrading CDC Capacity). Currently, work is ongoing to standardize data sharing among programs to provide more accuracy to health monitoring and better timeliness in the agency's response to a public health event.

BioSense

Following the anthrax attacks of 2001, the Public Health Security and Bioterrorism Preparedness and Response Act required the Department of Health and Human Services (HHS) to create a human health surveillance network. In response, CDC created BioSense in 2002 and began receiving data from healthcare facilities in 2004.

Today, BioSense is a national program to improve capabilities for rapid disease detection, monitoring, and real-time situational awareness through access to existing data from health care organizations. BioSense enables local and state public health departments to share and access data, providing a more complete picture of potential and actual health events both locally and across jurisdictional boundaries. The primary objective of the BioSense program is to provide a fully functional national human health surveillance system, which delivers clinical and public health data for decision-making in any type of national health emergency.

Data received into the system are available simultaneously to state and local health departments, participating hospitals, and CDC through a web-based application that is accessed through the CDC Secure Data Network. BioSense securely receives raw data, which are then processed, analyzed, and visualized to assist epidemiological interpretation. This information helps characterize and monitor outbreaks, and enables appropriate and timely public health interventions.

BioSense receives over one million near real-time messages per day from more than 590 acute-care hospitals. The majority of such data are first transmitted to state or local surveillance systems and then forwarded to CDC, making BioSense a "system of systems." Data are also received daily from about 1,200 Department of Defense (DoD) and Veterans Affairs (VA) hospitals and healthcare facilities. BioSense receives microbiology tests and results from two of the nation's largest commercial laboratories, LabCorp and Quest Diagnosis, and outpatient retail anti-infective prescription data from Relay Health (formerly Per-Sė). Monitoring of laboratory and pharmacy data is one way to identify trends in illness and detect earlier natural or intentional health events.

BioSense data sources cover all 50 of the top metropolitan areas and all cities that are part of the BioWatch program (a Department of Homeland Security initiative that uses strategically located air quality monitors for early detection of biological attacks). The BioSense application supports more than 800 users in 149 state and local public health jurisdictions. BioSense also provides a near-real time syndromic surveillance system for jurisdictions that do not have such a system locally. Syndromic surveillance is performed primarily using emergency department (ED) chief complaint data and is useful for monitoring large health events, such as seasonal influenza and gastrointestinal disease, and disaster-related injuries or other illness.

Over the past two years (2006-2008), BioSense has made progress by:

- Creating technical standards used in developing the American Healthcare Information Community (AHIC) Minimum Data Set (MDS);
- Receiving, processing, and displaying data from hundreds of new facilities in real time;
- Creating interfaces for and piloting the use of new data types (e.g. free text chief complaints) and more detailed data types (e.g. laboratory, radiology);
- Collaborating with CDC's Influenza Division to create an influenza surveillance module within the BioSense application;
- Introducing a second-generation web-based application with the capability to index data according to 89 concepts, including infectious diseases, injuries, and chronic diseases;
- Providing funding support to three Health Information Exchanges and four Regional Collaboratives;
- Publishing an article in the MMWR related to surveillance support provided during the 2007 California Wildfires; and
- Successfully piloting the use of the BioSense Integrator for electronic laboratory reporting from a health care system to the state health department.

In 2008, CDC worked with state and local stakeholders to plan a redesign of the BioSense system that transforms the current centralized system to a more robust, failsafe and privacy-oriented federated (distributed) system. Importantly, the plan will increase access to laboratory data for state and local health departments, thereby increasing the speed and accuracy of both routine and emergency surveillance. As planning concludes and initial implementation occurs in FY 2009, this population health surveillance system will advance the monitoring of both the health of the nation and its health care system.

In FY 2010, current and emerging regional, state and local biosurveillance systems will be strengthened and interconnected, further enabling cross jurisdictional surveillance and data exchange and the integration of public health and clinical care data to provide a comprehensive common operating picture of the nation and its sub regions. This will provide unique, useful and timely information for the effective decision making and interventions that are necessary to protect the U.S. population as well as automate and improve routine surveillance activities.

Real Time Lab Reporting

Real time lab reporting activities focus on developing and integrating information systems for public health laboratories.

The Laboratory Response Network (LRN) is a coordinated network of public health and other laboratories for which CDC provides standard assays and protocols for testing biological and chemical agents. The LRN Real Time Lab Information Exchange program equips LRN laboratories to securely share data with public health partners in real time according to industry standards. Its purpose is to improve data quality and availability while decreasing the time needed to detect and respond to public health threats. The program implements infrastructure needed to ensure the availability of laboratory data for integration with other data sets in support of public health situational awareness.

LRN Results Messenger (RM) is a software solution created to provide LRN labs with the immediate ability to manage and share standard LRN-specific laboratory data. As of December 2008, LRN RM is installed in 152 LRN laboratories, including all of the LRN's public health labs. LRN RM provides basic laboratory data management, including the ability to enter and share sample and results data. The application enables labs to submit and respond to electronic test requests from other labs and utilizes CDC’s Secure Data Network and Public Health Information Network (PHIN) Messaging System infrastructure. The LRN RM team maintains continual communication with the LRN business owners to develop and fulfill software requirements, draft communication to labs, and ensure that the data exchange needs of the LRN are met. Laboratories are regularly engaged to provide feedback on LRN RM, including formal feedback sessions.

The Laboratory Information Management System Integration (LIMSi) is a parallel effort to LRN RM. It represents the next generation of the incremental approach to data exchange for the LRN to enable laboratories to fulfill data exchange needs for the LRN using their own systems. LIMSi is currently facilitating collaborative efforts between CDC and public health laboratory subject matter experts to refine system requirements needed to configure LIMS to manage LRN testing. The LIMSi project is also creating a constrained version of the PHIN Laboratory Generic message guide that specifically targets the messaging and data mapping needs for the LRN. The LIMSi team ensures that laboratory LIMSi efforts are in alignment with appropriate PHIN requirements.

Response and Recovery Operations

CDC’s Response and Recovery Operations program focuses on the systematic response to, investigation of, and recovery from public health threats. CDC provides effective and timely response to a threat and takes measures to mitigate the impact of an incident on the public and the

environment. Building on its routine activities, the Quarantine and Migration Health System plays a key role in response to potential health threats through investigation and control activities.

Quarantine and Migration Health System

Growing concern about the threat of importing infectious diseases through mobile populations, animals, cargo, and bioterrorism has prompted CDC to invest in building a "next generation" Quarantine and Migration Health System. The current 20 quarantine stations operated by CDC across the U.S. serve to limit the introduction of infectious diseases into the U.S. and to prevent the spread of diseases such as tuberculosis, smallpox, and cholera. These stations serve the over 150 million airline passengers who fly internationally each year. With delegated authority from the Secretary of HHS, CDC has statutory responsibility for preventing the introduction, transmission, and spread of communicable diseases into the U.S. (42 U.S. Code § 264). CDC fulfills this responsibility through a variety of activities, including the administration of interstate and foreign quarantine regulations (42 CFR Parts 70 & 71), which govern the interstate and international movement of persons, animals, and cargo and the establishment of standards for medical examination of persons destined for the U. S. (42 CFR Part 34).

An Institute of Medicine (IOM) report published in September 2005 recommended that CDC increase the number of quarantine stations from eight to 25. During FY 2008, funding was used to operate 20 domestic stations and provide centralized core support to the Quarantine and Migration Health System. The centralized core support includes maintaining data and surveillance systems; exercising pandemic and all-hazards preparedness; and mapping migration of people, animals, and cargo. CDC works with federal, state, and local partners to develop a comprehensive operational plan for the management of ill and/or exposed travelers at U.S ports of entry during a communicable disease emergency such as an influenza pandemic. CDC also collaborates with the Department of Homeland Security (DHS) to establish operational protocols for issuing a "no boarding" alert for persons diagnosed with a quarantinable disease or a disease of public health significance. CDC leads the federal assessment of all potential public health emergencies of international concern under the International Health Regulations. Additionally, CDC ensures all reports are copied to the states via Epi-X.

In 2008, the Office of Management and Budget (OMB) conducted a program assessment of CDC's Division of Global Migration and Quarantine. As a result of the program assessment review, the program developed new performance measures under the overarching goal of protecting the U.S. population from importation of infectious diseases. These performance measures allow CDC to measure progress toward goals that encompass routine activities of the Division that in turn enable CDC to be more prepared in the event of an emergency health threat or hazard. The program will monitor and report on those new measures annually and continue regular independent evaluations of the Division's core programmatic activities to ensure efficiency, effectiveness, and the achievement of health results.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$79,271,000
FY 2006*	$133,380,000
FY 2007	$71,249,000
FY 2008	$53,281,000
FY 2009	$69,135,000

* Includes DOD Appropriation of $35 million for BioSense and $20 million for Quarantine.

BUDGET REQUEST

CDC's FY 2010 request includes $69,165,000 for Biosurveillance, an increase of $30,000 above the FY 2009 Omnibus for pay increases. This increase includes:

- $34,404,000 for BioSense. This funding will help to enhance capabilities for syndromic surveillance, re-engineer the application to include grid technology, develop capabilities for case-based surveillance, support basic and applied research and evaluation, and help CDC implement connections with emerging Regional Health Information Organizations (RHIOs) and Health Information Exchanges (HIEs) to implement case-based surveillance. Case-based surveillance, which is currently under development, will eventually supplement syndromic surveillance once it becomes feasible and widely implemented via connections to emerging HIEs. The benefit of case-based surveillance is the use of more specific data sources such as laboratory results which permit monitoring of actual (in addition to possible) cases of disease.

- $8,243,000 for Real Time Lab Reporting. While recognizing competing priorities, Real Time Lab Reporting will continue to strengthen preparedness by equipping LRN labs to securely and rapidly share data about potential threats with public health authorities. Activities related to Real Time Lab Reporting will continue to advance capabilities of rapid identification and characterization of threats through established programs in FY 2010.

  CDC will enhance FY 2008 releases of LRN Results Messenger, which will provide for the general availability of LRN-Chemical functionality to support data exchange for LRN laboratories performing chemical terrorism testing in FY 2010. CDC will also work with users and stakeholders to develop enhancements for LRN Results Messenger and Viewer in support of the LRN mission in FY 2010. Overall goals include expanded functionality, increased usability, and improved application performance. Specific goals include the inclusion of functionality to support data exchange for the LRN for Chemical Terrorism (LRN-C). In addition, the LIMSi project will continue to engage with several LRN laboratories to validate LIMS-generated initial Health Level 7 (HL7) messages to support electronic data exchange in FY 2010.

- $26,518,000 for the Quarantine and Migration Health System. Since 2005, CDC has worked successfully to build the Quarantine & Migration Health System per the Institute of Medicine's Report. Expansion to date has included opening 20 domestic quarantine stations and staffing them to 50 percent capacity with existing resources. Some stations are staffed with as few as one person, with a goal of eight staff per station. Increased funding in FY 2009 will be used to begin to adequately staff and operate these stations and maintain centralized core support for the Quarantine and Migration Health System.

  During FY 2010, the Quarantine and Migration Health System will continue to monitor and respond to public health emergencies at U.S. ports of entry, supporting communication of disease intelligence information to domestic and international partners, as well as the expeditious movement of clinical and research materials through ports of entry.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 16.2: Decrease the time needed to classify health events as terrorism or naturally occurring in partnership with other agencies.				
16.2.2: By 2010, the BioSense program will reduce the time needed from a triggering biosurveillance event (the identification of a potential disease event or public health emergency event) to initiate event-specific standard operating procedures (the initiation of a public health investigation and, if needed, subsequent public health intervention) for all infectious, occupational or environmental (whether man-made or naturally occurring) threats of national importance. [1] *(Outcome)*	FY 2008: 7.8 days (Baseline)	7.3 days	6.3 days	-1 day
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.4a: Reduce the time needed for a Laboratory Response Network (LRN) laboratory to enter and message LRN-related standardized results to the CDC: Chemical/ *(Outcome)*	FY 2008: 20 minutes (Target Exceeded)	17 minutes	10 minutes	-7 minutes
16.3.4b: Reduce the time needed for a Laboratory Response Network (LRN) laboratory to enter and message LRN-related standardized results to the CDC: Biological. *(Outcome)*	FY 2008: 20 minutes (Target Exceeded)	16 minutes	5 minutes	-11 minutes
Long Term Objective 16.5: Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.				
16.5.1: Prevent the importation and spread of infectious diseases to the U.S. in mobile populations and non-human-primates, as measured by meeting 4 of 4 targets for the following measures (16.5.2 - 16.5.5) *(Output)* [2]	FY 2007: 1.0 (Baseline)	N/A	N/A	N/A
16.5.2: Increase the proportion of applicants for U.S. immigration screened for tuberculosis by implementing revised tuberculosis technical instruction (TB TI). *(Output)*	FY 2007: 22.0	35.0%	35.0%	Maintain
16.5.3a: Increase the relative likelihood of travelers seeking pre-travel medical advice for travel to Africa. *(Output)*	FY 2007: 44.0	30.0	30.0	Maintain
15.5.3b: Increase the relative likelihood of travelers seeking pre-travel medical advice for travel to Asia *(Output)*	FY 2007: 18.0	19.0	19.0	Maintain
16.5.4: Increase of the percentage of immigrants and refugees with a "Class A or B medical notification for tuberculosis" who undergo medical follow-up after arrival in U.S *(Output)*	FY 2007: 65.0	68.0	68.0	Maintain
16.5.5: Maintain low mortality in nonhuman primates (NHP) imported to the U.S. for science, exhibition, and education. *(Output)*	FY 2008: 1.0% (Target Met)	1.0%	1.0%	Maintain
16.5.6: Protect the U.S. population by increasing the number of 25 US international airports and land borders covered by a communicable disease preparedness plan. *(Output)* [2]	FY 2008: 6.0	N/A	N/A	N/A

[1] The slow decrease in the number of days is because the projected increase in the number of hospitals supplying data to BioSense electronically each year (250 new hospitals in 2009 and 500 in 2010) is a relatively small proportion of the total number of US civilian hospitals (about 4500) plus VA/DoD facilities (about 1,100).
[2] These serve as long-term measures with FY 2015 targets for 16.8.1 is 4 of 4 and for 16.5.6 is 25.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measures:				
16.E.3: Decrease annual costs for personnel and materials development with the development and continuous improvement to the budget and performance integration information system tools. *(Efficiency)*	FY 2008:$ 0.0/BPI and Health Impact System (Target Exceeded)	$0.0	$0.0	Maintain
16.E.4: Decrease the cost of notifying state health departments of disease conditions in incoming refugees and immigrants by implementing the electronic disease notification system. *(Efficiency)*	FY 2008: $838,426.0 (Target Exceeded)	$534,500	$511,000	-$23,500
Long Term Objective 16.2: Decrease the time needed to classify health events as terrorism or naturally occurring in partnership with other agencies.				
16.2.1: Number of top 50 metropolitan areas using BioSense. *(Output)*	FY 2008: 50.0 (Target Met)	50.0	Additional population coverage in Top 50 metropolitan areas	N/A
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.3: Number of Laboratory Response Network member laboratories able to use their current Laboratory Information Management System (LIMS) for LRN-specific electronic data exchange. *(Output)*	FY 2008: 0.0 (Target Not Met)	7.0	15.0	+8
Long Term Objective 16.5: Decrease the time to identify causes, risk factors, and appropriate interventions for those affected by threats to the public's health.				
16.5.7: Increase the number of hospitals with MOAs in priority 1 cities. *(Output)*	FY 2008: 175 (Target Exceeded)	175	175	Maintain
16.5.8: Increase the number of illnesses in persons arriving in the United States that are reported to CDC DGMQ by conveyance operators, CBP, and others. *(Output)*	FY 2008: 1,677 (Target Exceeded)	1,692	1,692	Maintain

UPGRADING CDC CAPACITY

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$120,744,000	$120,744,000	$0	$120,795,000	+$51,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 311, 317, 319, 319A, 319C, 319D, 319F, 319G, 351A, 361-368 (42 USC 262 note), 2801-2811. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pandemic and All Hazards Preparedness Act of 2006.

FY 2009 Authorization …….…… …… Indefinite

Allocation Method …… …… Direct Federal/Intramural; Contracts

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

Upgrading CDC Capacity is comprised of activities across CDC that directly improve all five preparedness objectives: Health Monitoring and Surveillance, Epidemiology and Other Assessment Sciences, Public Health Laboratory Science and Service, Response and Recovery Operations, and Public Health System Support. The related programs collaboratively serve the general public, research scientists, hospitals, and health departments by advancing public health preparedness and response through technical assistance, resource allocation, planning tools, and training.

Health Monitoring and Surveillance

The Health Monitoring and Surveillance program involves conducting surveillance before, during, and after events. Accomplishments are achieved using methods that include the systematic collection, analysis, and reporting of health-related information for the purpose of public health action, including planning, developing, operating, and evaluating surveillance systems. CDC's surveillance activities include:

- The Early Aberration Reporting System (EARS) - CDC has provided EARS, a web-based surveillance tool, at no cost to more than 100 local, state, and international public health organizations. EARS allows users to analyze data from sources including emergency departments, 911 calls, physicians' offices, and over-the-counter drug sales to detect unusual spikes that can indicate a potential health event.
- The Public Health Information Network (PHIN) – Through PHIN, CDC works with state and local public health departments to link public health across jurisdictions (federal, state, and local) and with other first responders to facilitate faster public health response through data exchange. PHIN accomplishes this by developing and promulgating standards, specifications, and tools that make this exchange of health-related data possible to quickly identify health threats, analyze data about them, communicate alerts, and track the results of public health action.

Epidemiology and Other Assessment Sciences

CDC's Epidemiology and Other Assessment Sciences program identifies causes, risk factors, and interventions related to health threats, and supports the epidemiology workforce. Epidemiology is the basic science of public health, enabling the determination of the cause and breadth of public health emergencies. Other assessment sciences refer to a broad group of disciplines involved in

research to understand and predict how demographic, behavioral, cultural and environmental factors influence health. CDC's epidemiology and assessment activities include:

- Preparedness and Response Research - CDC is enhancing the mathematical modeling capacity linked to preparedness and response that will improve CDC's contingency planning, simulations, and exercises, and will benefit real-time decision support. CDC is also assessing the public's emergency knowledge, attitudes and behavior during and after public health emergencies. Information gathered from this assessment will enable CDC to develop communication policies and strategies for public health emergencies that best address the needs of the public. Understanding the needs of vulnerable populations during emergency response and recovery is a priority area in these research efforts for FY 2010.
- Epidemic Intelligence Service (EIS) - EIS is a two-year epidemiology training program modeled on a traditional medical fellowship. The program is primarily funded through CDC's Public Health Workforce Development program, and additional EIS officers are funded through preparedness funds. EIS officers comprise a vital element of the epidemiologic frontlines and serve as one of CDC's primary resources for emergency response. During FY 2008, field EIS officers conducted 331 epidemiologic field investigations in 40 states and 9 other countries. Of these, 17 were multi-state investigations. Additionally, EIS officers conducted 87 (EPI-AIDS[15]), 16 of which were conducted by field EIS officers. Field EIS officers strengthen the collaboration between CDC and state and local health departments. Graduating EIS officers frequently take jobs at the local level, thus building local epidemiologic capacity.

Public Health Laboratory Science and Service

CDC's Public Health Laboratory Science and Service preparedness program spans all of CDC's work pertaining to internal or external laboratory research and investigations, support services, and partner laboratory support, including research, development and validation of new or improved testing methods for biological agents and laboratory-based development of countermeasures. This program serves the general public through the collection and analysis of public health data at the national, state and local levels and provides for evaluation of, and improvements to, laboratory science activities throughout CDC and among CDC grantees. Public Health Laboratory Science and Service activities are completed through activities including:

- Select Agent Regulation - CDC's Select Agent program regulates the possession, use, and transfer of 41 biological agents and toxins that could pose a severe threat to public health and safety, in collaboration with the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), and the Department of Justice's (DOJ) Criminal Justice Information Services (CJIS). CDC maintains active registrations and inspects 327 entities that possess select agents in the U.S., including government agencies, academic institutions, and corporations (as of October 2008). As a result of the Select Agent Regulations, the nation now has a database that identifies entities that possess select agents; minimum safety and security requirements for all entities working with these agents; and national requirements for reporting the theft, loss, or release of select agents.
- CDC Laboratories - CDC laboratories contribute to all-hazards preparedness by conducting bench research on numerous biothreats and causative agents. Research regarding these potential threats is completed at CDC and translated into public health practice for use in state and local health departments and laboratories. CDC continues to develop and share

[15] The EPI-AID mechanism is a means for EIS officers, along with other CDC staff, to provide technical support to state health agencies requesting assistance for epidemiologic field investigations (disease outbreaks or health emergencies).

new methods for measuring, testing, and identifying chemical, biological, and radiological agents that may be associated with public health emergencies. For example, CDC is developing the Urine Radionuclide Screen (URS) to determine whether people have radionuclides in their bodies and how much. Once completed, the URS will be used to assess internal contamination rapidly and accurately for 22 radionuclides. The direct measurement of radionuclides in urine is clearly needed to identify exposed individuals, assess their health risk, and determine effective treatment for those truly affected.

- Laboratory Response Network (LRN) - The Laboratory Response Network (LRN), a network of state, local, federal, and international laboratories, provides rapid testing capacity to respond to biological and chemical terrorism and other public health emergencies. CDC currently supports about 170 public health, military, environmental, food and veterinary laboratories located in all 50 states and several installations abroad. More than 90 percent of LRN laboratories can perform tests for detection of causative agents of anthrax, tularemia, plague, and poisoning from cyanide and heavy metals. Many laboratories can further detect the causative agents of threats such as influenza A/H5 (Avian lineage) virus and poisoning from chemical warfare agents. CDC activities to support the LRN include helping to increase the number of trained laboratory workers in state and local public health facilities; distributing standardized test methods and reagents to local labs; promoting the acquisition of advanced technologies; and supporting facility improvements. Facility improvements include upgrading laboratory equipment and support systems through internally managed funds or through cooperative agreements.

Response and Recovery Operations

CDC's Response and Recovery Operations program focuses on the systematic response to, investigation of, and recovery from public health threats. CDC provides effective and timely response to a threat and takes measures to mitigate the impact of an incident on the public and the environment. Accomplishments are achieved through outbreak investigations, emergency response and support, emergency exercises, health hazard evaluations, hazardous substances assessments, risk and emergency communications, and enhanced public health security at U.S. borders and ports of entry. CDC efforts also focus on assuring that state and local health departments in conjunction with federal teams can quickly restore public health services, and learn and improve from each event. Key response and recovery activities include:

- Emergency Operations - CDC's Emergency Operations Center can respond at any time Emergency operations staff oversees all of the CDC incident plans and corresponding exercise development; manage all deployable personnel preparations and associating communications, travel, and equipment; maintain event awareness 24 hours per day, seven days per week, and 365 days per year; and develop related documents/briefings. Over the years, CDC has participated in multiple internal and national exercises and responded to public health emergencies including the SARS Outbreak (2003); Tsunami Relief (2004): Hurricanes Katrina, Rita, and Wilma (2005); *E.coli* outbreak (2006)– and Rift Valley Fever outbreak and tuberculosis response (2007). During FY 2008, the Emergency Operations Center was activated for the Satellite Intercept; multi-state Salmonella and E. coli outbreaks; Hurricane Dolly; Tropical Storm Edouard; and Hurricanes Hanna, Gustav, and Ike. Also in FY 2008, CDC produced the CDC Emergency Operation Plan, Hurricane Response Annex and Anthrax Annex; and developed the After Action Report for *E. coli* and tuberculosis events.
- Emergency Communications - CDC's emergency communications system enables public health professionals to provide information for an individual, stakeholders, or an entire community to make the best possible decisions during a crisis emergency about their well

being. For example, the emergency response component of the toll-free CDC-INFO hotline enables CDC to respond to inquiries from the general public, clinicians, and emergency responders in the event of an emergency; CDC's "Emergency Preparedness and Response" website covers more than 100 emergency topics and provides timely information on terrorist events, national emergencies, and outbreaks; and CDC can rapidly translate information and emergency requests into nearly 150 languages, enabling a variety of populations to receive crucial information in the event of an emergency.

- Terrorism Injuries Information Dissemination and Exchange (TIIDE) - TIIDE is based on learning from past terrorist events in U.S. and international cities, promoting professional partnerships in public health, public safety, and injury care to enhance information exchange, and developing communications plans for disseminating information to reduce the impact of injuries sustained during a terrorist explosion. For example, TIIDE has developed curricula on the management of blast injuries for acute care providers; translated military injury care practice in Iraq to U.S. civilian health care; and, provided clinical guidance on injuries from explosions, field triage criteria for mass casualty events, and surge capacity following explosions.

Public Health Systems Support

Upgrading CDC Capacity activities within the Public Health System Support program involve CDC's efforts to support state, local, and territorial health departments and other partners. CDC's objective in this area is to expand and strengthen the foundational and surge capacities needed to provide effective assistance to all individuals who need it during public health emergencies. CDC's major efforts in Public Health System Support are described under the Upgrading State and Local Capacity budget line. Additional initiatives are described below.

CDC Public Health Law Program

The principal strategic goal of CDC's Public Health Law Program (PHLP) is to strengthen the legal preparedness of the nation's public health system to address all hazards. PHLP provides expert consultation on legal preparedness to federal, state, tribal, and local public health agencies and their partner agencies. It also develops products these agencies use to strengthen their jurisdictions' public health emergency legal preparedness. PHLP collaborates closely with the U.S. Department of Justice, and partners in the sectors of public health practice and policy, emergency management and law enforcement, the judiciary, health care and health care legal practice, and elective office.

Recent accomplishments include:

- Publishing the first National Action Agenda for Public Health Legal Preparedness with 98 "action options" that state, tribal, and local public health officials and their counterparts in other sectors can take to strengthen their jurisdictions' legal preparedness;
- Sponsoring regional workshops in which state-local teams increase understanding of legal preparedness and develop practical action plans;
- Enabling effective, cross-sector coordination through tools such as public health law "bench books" for state courts and updated curricula for "Forensic Epidemiology" and other subjects; and,
- Conducting the "Social Distancing Law Project" to assess the sufficiency of states' legal preparedness for an influenza pandemic; and commissioning the study and report "Legal Preparedness for School Closures in Response to Pandemic Influenza and Other Emergencies."

Meta-Leadership Summits for Preparedness

The purpose of the Meta-Leadership Summits for Preparedness, a collaborative initiative between the CDC and the CDC Foundation, the National Preparedness Leadership Initiative–Harvard School of Public Health, and the Robert Wood Johnson Foundation, is to bring together business, government, and non-profit/philanthropic leaders from a city or state to learn critical problem-solving skills and build organizational connections to strengthen preparedness for responding to emergencies.

Specific participant learning objectives include:

- Understand the concepts and principles of Meta-Leadership;
- Recognize the advantages of solving preparedness and response problems with an intentional multi-sector strategy;
- Frame a city or state problem in terms that exceed the specific roles and responsibilities of any one sector alone;
- Connect with other leaders in the state or community for the purpose of enhanced preparedness; and,
- Commit to taking action on specific preparedness issues/problems in collaboration with other sectors.

In FY 2008, Summit pilots were conducted in Wichita, Kansas; Denver, Colorado; Louisville, Kentucky, and Princeton, New Jersey. Post-Summit outcomes include harmonization of organizational emergency response plans; planning and participation in multi-sector exercises; agreements to share assets and resources during times of crisis; heightened awareness of emergency preparedness issues, such as vulnerable populations; training in risk communication; and continued quarterly, multi-sector meetings of Summit participants; all leading to increased connectivity/partnerships in Summit sites.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$140,972,000
FY 2006	$136,504,000
FY 2007	$122,928,000
FY 2008	$120,744,000
FY 2009	$120,744,000

BUDGET REQUEST

CDC's FY 2010 budget request includes $120,795,000 for Upgrading CDC Capacity related activities, an increase of $51,000 above the FY 2009 Omnibus for pay increases.

Health Monitoring and Surveillance

CDC's Health Monitoring and Surveillance Program

Health monitoring and surveillance activities will continue working to improve situational awareness of health threats at the local, state, and national levels.

Epidemiology and Other Assessment Sciences

Preparedness and Response Research

CDC will continue to examine the effects of hazardous events on the psychological and behavioral responses of the general public in FY 2010. CDC will also continue to develop modeling capacities related to preparedness and response, as well as improve CDC's contingency planning, simulations, and all hazards exercises. These activities will enable CDC to increase the knowledge base concerning how to improve effectiveness of preparedness and response efforts in the nation's communities. Understanding the needs of vulnerable populations will remain a focus in these research efforts.

Epidemic Intelligence Service (EIS)

EIS officers will continue to serve as a critical element of CDC's response to routine public health problems as well as large scale national emergencies in FY 2010.

Public Health Laboratory Science and Service

Select Agent Program

The program will continue collaborating with USDA's APHIS and the DOJ's CJIS to ensure the safe use, storage, and transfer of select agents. Registrations and inspections of existing and requesting entities will continue to ensure appropriate security and safety measures are in place to deter the theft, loss, or release of select agents. CDC expects to process nearly 2,000 import permits to allow for the importation of etiologic agents, hosts, and vectors into the U.S. CDC's Select Agent Program has implemented a Balanced Scorecard-based accountability monitoring system (the Division of Select Agents and Toxins Organizational Excellence Assessment [OEA]), with goals and objectives linked to a CDC Agency-wide OEA.

CDC Laboratories

CDC laboratories will continue to conduct research and develop all hazards identification methods in FY 2010, including projects investigating the effectiveness of a new ultra-filtration method for recovering bio-threat agents from large-volume environmental water samples; diagnostic capacity for detecting botulism; characterization methods for major bacterial zoonotic agents also classified as biothreats; evaluations of the utility of Pulsed Field Gel Electophoresis (PFGE) for identifying sources of F. tularensis infection (which causes tularemia); and enhancing the national PFGE database for Y. pestis (the bacterium that causes plague).

In addition, CDC will maintain and expand proficiency testing and technology transfer activities to the 62 state and territorial laboratories in order to enhance their capacity to assess exposure to chemical agents using measurement in blood and urine.

Laboratory Response Network (LRN)

CDC will continue to work to strategically expand the network of labs to address preparedness and response needs in FY 2010. At the end of FY08, LRN was comprised of 166 labs. This is a net increase of only two labs, but during FY08 there was a large amount of turnover with some labs leaving the network or being non-functional during this period while several other labs joined the network. At its onset, very few LRN member laboratories were able to rapidly and accurately identify biological threat agents and other agents of public health importance. By the end of FY 2008, the passing rate of LRN laboratories reached 94 percent, exceeding the target.

CDC is working to increase the complexity of the proficiency testing (PT) program to include multiple agents in a single challenge, testing in various non-clinical samples (food, water, and

environmental samples), and requirements to complete a full testing algorithm rather than solely focusing on rapid tests. Laboratories that fail a proficiency test are required to go through remediation steps that may include consultation, successful completion of a follow-up proficiency test, and/or hands-on training. In addition, the LRN will continue to upgrade and revise its test methods in an effort to improve on current clinical and environmental assays available to LRN members.

CDC will continue to increase the capability of the LRN to respond to incidents that involve chemical threat agents. CDC will complete focused efforts to develop methods for identifying all Schedule 1 chemical agents in clinical samples. Based on the recent DHS Chemical Threat Risk Assessment, CDC has identified additional high-priority agents of concern. CDC will develop and validate analytical methods for measuring these additional agents of concern and transfer, as appropriate, the methods to LRN laboratories. CDC will continue to support chemical-agent response methods in LRN laboratories through a broad technology transfer, capability development, and proficiency testing program and carry out response exercises with federal and state partners in order to support coordinated and collaborative response plans and activities.

CDC has also identified the need to expand the LRN's ability to respond to radiation-related events (LRN-R), where selected state public health laboratories would provide surge capacity to analyze samples for priority radionuclides using the Urine Radionuclide Screen (URS). This network would be based on the existing networks for biologic- and chemical-related terrorism.

Response and Recovery Operations

CDC Emergency Operations

CDC will continue to coordinate preparedness and emergency response activities by improving its response infrastructure, processes, procedures, techniques and tactics. In addition to operational activities, lessons learned from exercises and responses will continue to be evaluated in after-action reports and meetings and then implemented to ensure a faster and more comprehensive response for the next public health event.

Emergency Communications

CDC will continue to develop and exercise emergency communications systems, provide ongoing translation services, and support the agency, stakeholders, and constituents in their risk and communication needs.

Terrorism Injuries Information Dissemination and Exchange (TIIDE)

CDC will continue to address critical questions regarding topics such as field triage methodology in disasters, decontamination of blast patients, and surge capacity and to strengthen partnerships in public health, public safety, and injury care in FY 2010. CDC will be able to develop and disseminate information that will reduce the impact of injuries sustained during a terrorist explosion. In addition, the collaborative efforts of the U.S. and international cities will continue to improve public health and health care system preparedness strategies for use in the event of a terrorist explosion.

Public Health Systems Support

Public Health Law Program

In FY 2010, PHLP will continue providing consultation on legal preparedness and develop targeted new tools based on lessons learned from exercises and actual public health emergencies. State, tribal, and local practitioners and policy makers in multiple sectors can use these tools to further strengthen their legal preparedness. PHLP is also working with the PHEP program to collect information on state and local progress toward legal preparedness using standardized measures.

Meta-Leadership Summits for Preparedness

During FY 2010, CDC will continue coordinating and evaluating Meta-Leadership Summits for Preparedness. By the end of FY 2010, the program aims to have reached business, non-profit, and government leaders across the country.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure:				
16.E.3: Decrease annual costs for personnel and materials development with the development and continuous improvement to the budget and performance integration information system tools. *(Efficiency)*	FY 2008: $0/BPI and Health Impact System (Target Met)	$0.0	$0.0	Maintain
Long Term Objective 16.3: Decrease the time needed to detect and report chemical, biological, radiological agents in tissue, food, or environmental samples that cause threats to the public's health.				
16.3.2: Percentage of Laboratory Response Network (LRN) labs that pass proficiency testing for Category A and B threat agents. *(Output)*	FY 2008: 94.0% (Target Exceeded)	92.0%	92.0%	Maintain
Long Term Objective 16.9: Decrease the time needed to implement recommendation from after-action reports following threats to the public's health				
16.9.3: Improve the on-time achievement of individual project milestones for Epidemiology, Laboratories and Emergency Response. *(Output)*	FY 2008: 89.0% (Target Not Met)	95.0%	96.0%	+1%
16.9.4: Achieve progressive improvements in the quality of projects submitted for TPER Upgrading CDC Capacity funding consideration. *(Output)*	FY 2008: 83.0% (Target Exceeded)	85.0%	87.0%	+2%

STRATEGIC NATIONAL STOCKPILE (SNS)

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$551,509,000	$570,307,000	$0	$595,749,000	+$25,442,000

AUTHORIZING LEGISLATION

PHSA §§ 301, 307, 311, 317, 319, 319A, 319C-1, 319D, 319F, 319G, 351A, 361-368 (42 USC 262 note), 2801-2811. Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Pandemic and All Hazards Preparedness Act of 2006.

FY 2009 Authorization ..... Indefinite

Allocation Method .....Direct

PROGRAM DESCRIPTION

SNS activities are a key part of the Response and Recovery Operations program. CDC's Response and Recovery Operations program focuses on the systematic response to, investigation of, and recovery from public health threats. CDC provides effective and timely response to a threat and takes measures to mitigate the impact of an incident on the public and the environment. Accomplishments are achieved through outbreak investigations, emergency response and support, emergency exercises, health hazard evaluations, hazardous substances assessments, risk and emergency communications, and enhanced public health security at U.S. borders and ports of entry. CDC efforts also focus on assuring that state and local health departments in conjunction with federal teams can quickly restore public health services, and learn and improve from each event.

Strategic National Stockpile (SNS)

CDC's Strategic National Stockpile (SNS) is a national repository of life-saving pharmaceuticals, medical supplies, and equipment available for rapid delivery in the event of a catastrophic health event. The SNS has expanded from its initial concept—providing large quantities of pharmaceuticals against biological agents that pose a risk to national security—to a concept providing a broader emergency response capability, including response to natural disasters and pandemic influenza. CDC manages the science, acquisition, storage, and logistical operations of a national countermeasures inventory for use during a public health emergency.

The SNS is organized for flexible response. The first line of support when the threat is unknown or is ill-defined lies with 12-hour Push Packages—so called because they can be delivered anywhere in the U.S. within 12 hours of the federal decision to deploy. If the nature of a public health emergency is well-defined, CDC's Division of Strategic National Stockpile (DSNS) can ship Managed Inventory supplies. Managed Inventory is maintained at facilities managed by DSNS or the manufacturer, enabling the delivery of customized pharmaceuticals, supplies, and equipment specific to the suspected or confirmed threat. CDC can deliver Managed Inventory within 24 to 36 hours of the federal decision to deploy.

The Pandemic and All-Hazards Preparedness Act (PAHPA) and Homeland Security Presidential Directive 21 (HSPD-21) established formal processes to determine acquisition goals and targets for SNS; strengthen associated science and research; require annual formulary reviews and deployment and use strategies; set forth a framework for ensuring processes and plans are in place to assist state and local partners; and leverage the resources of both private and governmental

entities. The BioShield Act of 2004 established Project BioShield, which facilitates the research, development, and acquisition of countermeasures to chemical, biological, radiological, and nuclear (CBRN) threats that affect national security. The SNS provides subject matter expertise, complies with these directives and currently stores and maintains the BioShield products.

SNS demonstrates continuous improvement in management and distribution through systems derived from proven practices and innovative solutions for acquisition, flexible storage, configuration, and emergency response support. Each year, SNS provides technical assistance and conducts exercises with state and local public health representatives and emergency response personnel to enhance their ability to receive, stage, store, distribute, and dispense SNS assets. These efforts help state and local health departments, in conjunction with federal teams, learn and improve from each exercise, leading to rapid and effective response.

SNS also maintains other emergency response capacities. For example, Technical Advisory Response Unit (TARU) teams are deployed by CDC in the event of a national emergency to support state and local officials in requesting, receiving, and managing SNS assets. In addition, the Federal Medical Station (FMS) program began with four prototype sets (each with 250 beds) to provide hospital bed surge for low- to mid-acuity patients. Hurricanes Katrina and Rita triggered the rapid development of FMS, resulting in the deployment of 5,500 beds to provide care for the victims of these disasters. Subsequently, FMS sets have been utilized for deployments to hurricanes Dean, Hanna, Ike and Gustav, as well as to North Dakota for the recent flood response. To date, FMS has built 65 250-bed sets that are stored and maintained in the SNS.

Cities Readiness Initiative (CRI)[16]

CRI is designed to increase bioterrorism preparedness in 72 metropolitan statistical areas, covering about 55 percent of the nation's population and funding at least one city in every state. CRI aids state and local officials to develop and test their ability to dispense prophylaxis to 100 percent of the identified population within 48 hours of a federal decision to deploy SNS assets. CRI metropolitan statistical areas receive supplemental funding from the Public Health Emergency Preparedness cooperative agreement to support this goal.

As part of the CRI program, CDC annually conducts training and exercises with cities to prepare for mass dispensing of countermeasures during public health emergencies and provides planning guides, educational web-casts, and other tools. CDC also evaluates a city's ability to develop and test plans for dispensing medical countermeasures on a semi-annual basis.

Recent accomplishments include:

- In collaboration with the National Association of County and City Health Officials (NACCHO) and the Association of State and Territorial Health Officials (ASTHO), CDC conducted its first Annual Summit with approximately 400 attendees where state and local public health agencies could share promising practices.
- Through public and private partner collaboration and a series of meetings around the U.S., SNS developed a closed POD (point of dispensing) concept and the implementation tools for use by state and local health preparedness planners to assist them with recruiting businesses and other large organizations to dispense medical countermeasures to their

[16] CRI funding is administered through the Public Health Emergency Preparedness (PHEP) Cooperative Agreement. The FY 2009 funding formula for CRI is calculated using $0.31 per capita using the U.S. Census 2006 population estimates with two exceptions: 1) those CRI Metropolitan Statistical Areas (MSAs) that would have received less than $200,000 based on the Budget Peridod (BP) 10 population formula. These areas were given a base funding of $200,000; and 2) those CRI MSAs that would have received a greater than 25 percent reduction in funding (Chicago, Denver, Las Vegas, New York City and Washington D.C), were allocated 75 percent of their FY 08 award level.

defined population. The intent of this concept is to offer an alternate mode of dispensing medications to the public within a 48-hour timeframe and would be used in conjunction with public PODs during a public health emergency. Significant progress has been made in recruiting federal employers that have partnered with state and local jurisdictions to establish policies and protocols for providing mass prophylaxis to their federal employees upon a declared public health emergency.

- CDC developed modeling and simulation projects with partners and subject matter experts to help test and validate state and local plans and is currently providing technical assistance in the application of these tools.
- The number of participants in the CRI who have achieved significant improvement in SNS readiness levels has increased by 30 percent (representing 43 out of 72 meeting the level of 69 and above) over the past fiscal year and the initiative has strengthened community readiness by improving staffing and resources to streamline distribution and dispensing methods.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2000	$52,000,000
FY 2001	$52,000,000
FY 2002	$645,000,000
FY 2003	$298,050,000
FY 2004	$397,640,000
FY 2005	$466,700,000
FY 2006	$524,339,000
FY 2007	$496,348,000
FY 2008	$551,509,000
FY 2009	$570,307,000

BUDGET REQUEST

Strategic National Stockpile

CDC's FY 2010 request includes $595,749,000 for the Strategic National Stockpile program, an increase of $25,442,000 above the FY 2009 Omnibus. This increase reflects $256,000 for pay increases and $25,186,000 for non-pay increases. The non-pay increases are targeted for increased product replacement costs.

Although CDC's Shelf-Life Extension Program (SLEP) has worked to extend the shelf-life of certain SNS product, SLEP is not applicable for all products in the SNS. Furthermore, product replacement costs will increase each fiscal year because additional product will expire. Product replacement needs are expected to total more than $300 million for FY 2010 and more than $1.4 billion for a 4-year cumulative total by the end of FY 2012 (figures include estimates for Panflu and Bioshield). Increased funds for FY 2010 will be used to cover a portion of this cost.

Furthermore, funds are requested to fully fund only one SNS aircraft for public health emergencies. This aircraft will be used to transport CDC personnel to a site of a public health emergency to help receive and distribute SNS assets. CDC has made significant progress in advancing the ability of states to operate independently or with more limited technical assistance from CDC. Therefore, one aircraft will fully support SNS missions.

FY 2010 funding for the SNS program will enable CDC to continue to purchase, warehouse, and manage medical countermeasures necessary to provide an adequate response during a

catastrophic public health event to treat affected populations, prevent additional illness, and provide medical supplies and equipment. The implementation of PAHPA, HSPD-21, and the Biomedical Advanced Research and Development Authority (BARDA) will continue to provide further guidance on future expansions of SNS, management strategies, and emergency support operations.

The FMS program will continue to advance in FY 2010. Strategies include building and kitting additional FMS units to meet the long term goal of 120 sets. This type of emergency response support and forward deployment strategies will contribute to mitigating the potential effects of a public health emergency.

To prepare for a potential influenza pandemic, the SNS inventory has grown to a current capacity of 52.8 million antiviral regimens, 104.9 million N95 respirators, and 51.5 million surgical masks. Other significant SNS pandemic influenza preparedness planning includes conducting multiple drills, tabletop simulations, and major functional exercises; and, contributing to HHS and CDC operational planning.

CDC will also continue working towards the achievement and sustainment of 100 percent preparedness of state and local public health agencies regarding the use of materials contained in the SNS as demonstrated by evaluation of standard functions that are determined by CDC. As of mid-FY 2009, 100 percent of project areas (50 states and 4 directly funded localities) were performing within the acceptable range. Preparedness to receive, stage, store, and distribute SNS material is essential to saving lives during a public health emergency. CDC will continue to evaluate the preparedness planning efforts of state and local public health agencies through exercises and reviews of SNS distribution and dispensing plans.

Cities Readiness Initiative (CRI)[17]

Moving forward, CDC will continue to collaborate with the Assistant Secretary for Preparedness and Response (ASPR) in HHS to integrate the efforts of state and local postal planning into a national strategy for rapidly dispensing countermeasures to the population where feasible. To further strengthen the CRI program, CDC will continue to apply core infrastructure standards and require drills designed to test state and local SNS preparedness capabilities against innovative performance metrics developed to indicate a seamless, no point of failure readiness level from state distribution down to local dispensing. In FY 2010, SNS will continue to explore non-traditional methods of distribution and dispensing of countermeasures to the population within 48 hours to include public-private collaborations, and the implementation of the closed POD concept. This concept involves distributing countermeasures to a specific business or governmental entity for dispensing to their employees. Such alternate methods relieve the projected demand on open, public PODs.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective 16.6: Decrease the time needed to provide countermeasures and health guidance to those affected by threats to the public's health.				
16.6.3: Number of treatments/prophylaxis for the appropriate response to known terrorist threats or public health emergencies for chemical, biological, radiological and nuclear threats in millions. [1] *(Outcome)*	FY 2003: 0.2, 1.4, 0.4 (Baseline)	N/A	N/A	N/A

[17] CRI funding is administered through the Public Health Emergency Preparedness (PHEP) Cooperative Agreement.

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
16.6.4: The number of successful annual exercises that test response to multiple events with a 12-hour response time. *(Outcome)*	FY 2008: 1.0 (Target Met)	1.0	1.0	Maintain
16.6.5: Number of trained and ready Technical Advisory Response Units (TARU) for response to multiple events. *(Output)*	FY 2008: 9.0 (Target Met)	7.0	7.0	Maintain
16.6.6: Percentage of inventory discrepancies that are reduced by using quality inventory management systems. *(Outcome)*	FY 2008: 0.9 (Target Exceeded)	5.0	5.0	Maintain

[1] This long-term measure is dependent upon BARDA legislation, therefore targets cannot be set at this time.

OUTPUT TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Efficiency Measure:				
16.E.2: Dollars saved per $1 invested in the Food and Drug Administration's (FDA) Shelf Life Extension Program (SLEP) for available projects. *(Efficiency)*	FY 2008: 10.0 (Target Not Met)	28.0	28.0	Maintain

REIMBURSEMENTS AND TRUST FUNDS

AUTHORIZING LEGISLATION

Public Health Services Act §§ 301, 306(b)(4), 353; User Fee: Labor-HHS FY Appropriations.

REIMBURSEMENTS AND TRUST FUNDS	FY 2008 ACTUAL	FY 2009 ESTIMATE	FY 2010 ESTIMATE	FY 2010 +/- FY 2009
BA	$673,030,000	$439,215,000	$439,215,000	$0

STATEMENT OF THE BUDGET

The FY 2010 estimate for Reimbursements and Trust Funds of $439,215,000 reflects level funding with FY 2009 Estimate.

PROGRAM DESCRIPTION

CDC's reimbursable activities provide technical assistance and consultation to other agencies and organizations. CDC has a long history of working and partnering with other federal agencies in the shared interest of public health improvement and prevention programs.

CDC will continue its longstanding agreements with other agencies of the Public Health Service, HHS, and others associated with CDC's Health Statistics studies. CDC will continue to provide consultation and technical assistance in areas such as genetic diseases, laboratory tests, investigations and diagnostic reagents, development of worker safety guidance, and training and model screening programs.

CDC provides a wide range of support and assistance to other agencies. For instance, CDC is working with the United States Agency for International Development on various projects to support infectious disease and family planning. In another agreement, CDC is assisting the Department of Homeland Security in evaluating and assessing fire prevention grants to firefighters. CDC also works with the Department of Justice on the assessment of hand-held assays for threat agents. Also, CDC collaborates with the Environmental Protection Agency and the Federal Emergency Management Administration on several projects of public health concern.

The Division Vector-Borne Infectious Disease (DVBID), Arborvitae Diseases Branch, under the National Center for Zoonotic, Vector-Borne and Enteric Diseases (NCZVED) is working with the Department of Energy institute focusing on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support national security and emergency preparedness and educate the next generation of scientists.

The CDC is also working EPA to build global capacity and collaboration to better understand, investigate, control and prevent environmental and occupational health problems in developing countries and the United States. During the previous agreements, the major emphasis of the program was on epidemiology, risk assessment and surveillance. Subsequently, the major emphasis became prevention and intervention research to reduce risks in participating collaborating countries. The focus in the future will be to address relevant environmental and occupational health issues in the target developing countries and in-country infrastructure development, including human capacity for research (including clinical research), research implementation, bettering public health, information dissemination and mitigation of adverse consequences of environmental exposures and evaluation of success.

RATIONALE FOR THE BUDGET

The FY 2010 estimate for Reimbursements and Trust Funds of $439,215,000 reflects level funding with FY 2009 Estimate.

OUTPUT TABLE

#	OUTPUT TABLE (Dollars in Thousands)	FY 2008 Actual	FY 2009 Enacted	FY 2010 Estimate	FY 2010 +/- FY 2009
18.A	**Agency for International Development** 3 Agreements to Assist developing counties with implementation of population based surveys, and Breast Cancer and Environments Research. (BCERC)	$59,151	$4,503	$4,503	$0
18.B	**Department of Agriculture** 3 Agreements to support Outbreak, and Plant Health Inspection	$1,727	$2,096	$2,096	$0
18.C	**Department of Commerce** 2 Agreements for various projects, Develop Standards for Respiratory Protection Equipment and National Death Index Services.	$3,594	$0	$0	$0
18.D	**Department of Defense** 7 Agreements to Support the Design and Deployment of the Healthcare Safety Network & Electronic Disease Surveillance System for Saudi Arabia National Guard	$3,708	$11,580	$11,580	$0
18.E	**Department of Energy** 3 Agreements to assist with Energy Related Analytical Epidemiologic Research, and School Associated Violent Death Studies.	$19,081	$879	$879	$0
18.F	**Department of Health and Human Services** 67 Agreements to perform various projects, provide ongoing participation in the clinical laboratory improvement, develop questions for the National Health Interview Survey, and an estimated $331,251,000 derived from evaluation funding under section 241 of the Public Health Service Act.	$409,588	$364,413	$364,413	$0
18.G	**Department of Homeland Security** 6 Agreements for Design & Develop of Rapid Method for AMR Susceptibility Testing for Potential BT Agents	$14,898	$929	$929	$0
18.H	**Department of Housing and Urban Development** Public Health Assessment of Air Quality in Temporary Housing	$3,053	$36	$36	$0
18.I	**Department of Interior** 3 Agreements for various projects: Understanding of the Geography and Pathway of West Nile virus, and for the Pacific Emergency Health Initiative.	$253	$0	$0	$0
18.J	**Department of Justice** 4 Agreements for 2009 Nat'l HIVP Clinical Indicator of Sexual Violence Surveillance System	$1,161	$1,252	$1,252	$0
18.K	**Department of Labor** Agreements to provide NIOSH responsibilities under the Energy Employees Occup Illness Compensation Program	$60	$19,779	$19,779	$0

#	OUTPUT TABLE (Dollars in Thousands)	FY 2008 Actual	FY 2009 Enacted	FY 2010 Estimate	FY 2010 +/- FY 2009
18.L	**Department of State** 10 Agreements for Field Assignee to assist with various States: Delaware and Iowa and Laboratory Testing.	$281	$632	$632	$0
18.M	**Department of Transportation** 2 Agreements for various projects including: carbon monoxide houseboats study and for a public health assessment	$314	$0	$0	$0
18.N	**Environmental Protection Agency** 16 Agreements to Collaborate Studies Occupational and Environmental Risk; Waterborne Contaminant and Diseases.	$581	$891	$891	$0
18.O	**Federal Emergency Management Agency** 12 Agreements for Emergency Responses; and Public Health Assessment of Air Quality in Temporary Housing.	$34,158	$17,521	$17,521	$0
18.P	**Various Agencies/Organizations** 40 Agreements for surveillance and Standardization of Genetic Testing for the Environmental Determinants for Diabetes in Young (TEDDY)	$4,325	$14,117	$14,117	$0
18.Q	**Department of Navy** 2 Agreements for various Border Infectious Disease Surveillance Project (BIDS). Survey and diagnose cases of Febrile Respiratory Illnesses (FRI) on the Mexican border; clothing and studies.	$0	$494	$494	$0
18.R	**Department of Veterans Affairs** 6 Agreements for the Development of Electronic Surveillance and Control of Nosocomial Infections and Antibiotic Resistance. Salary & Benefits for Robert Gaynes	$0	$93	$93	$0

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

	FY 2008 APPROPRIATIONS	FY 2009 OMNIBUS	FY 2009 RECOVERY ACT	FY 2010 PRESIDENT'S BUDGET	FY 2010 +/- FY 2009
Budget Authority	$74,039,000	$74,039,000	$0	$76,792,000	+$2,753,000
FTEs	313	292	$0	306	0

AUTHORIZING LEGISLATION

The Great Lakes Critical Programs Act of 1990, 33 U.S.C. § 1268, Section 104(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), 42 U.S.C § 9604(i), The Defense Environmental Restoration Program, 10 U.S.C. § 2704, The Resource Conservation and Recovery Act, as amended, 42 U.S.C § 321 et seq, The Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

FY 2009 Authorization…..……..……..Indefinite

Allocation Methods……Direct Federal/Intramural; Competitive Grants/Cooperative Agreements; Contracts; Other

PROGRAM DESCRIPTION AND ACCOMPLISHMENTS

In 1980, the Agency for Toxic Substances and Disease Registry (ATSDR) was created by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as the Superfund Law. ATSDR's purpose is to lead federal public health efforts at Superfund and other sites with known or potential toxic exposures. Its mission is to use the best science, take responsive action, and provide trustworthy health information to prevent and mitigate harmful exposures and related disease.

ATSDR shares common concerns with other federal agencies and institutes, such as the Environmental Protection Agency (EPA), the National Institute for Occupational Safety and Health (NIOSH), and the Chemical Safety and Hazard Investigation Board (CSHIB). What distinguishes ATSDR is its unique focus. In the area of toxic substances, other federal agencies' efforts address substances in the environment and/or the workplace. ATSDR concentrates almost exclusively on the human health effects of substances. A non-regulatory agency, ATSDR often serves in an advisory capacity to other agencies, delivering authoritative scientific expertise on the human health effects of hazardous environmental exposures. ATSDR's programs are also distinctive in their emphasis on both community involvement and environmental justice.

The ATSDR Cooperative Agreement Program helps the Agency accomplish its mission in communities nationwide. This extramural grant program funds 29 states and one tribal government to build their ability to assess and respond to site-specific issues involving human exposure to hazardous substances in the environment. The Agency's partners use these funds to support approximately 100 environmental public health professionals who serve as front-line responders in site assessments, emergency spills, and community concerns. In addition, ATSDR maintains regional staff located in EPA regional offices around the country. This structure enables ATSDR to respond quickly to emergencies.

ATSDR is directed by Congressional mandate to perform specific activities concerning the effect on public health of hazardous substances in the environment. These activities generally fall into one of four functional areas:

1) Protecting the public from hazardous exposures – ATSDR applies its public health expertise to the task of identifying, preventing, and responding to exposures at hazardous waste sites. The Agency also leads the public health component of responses to acute or short-term releases of hazardous substances resulting from accidents, natural disasters, and terrorist events. An important feature of this work is respectful, culturally sensitive, inclusive engagement with communities. To accomplish this work, ATSDR assesses and evaluates exposures to hazardous substances and documents its findings through the following:

   - *Public Health Assessments (PHAs)* document findings from a review of information about hazardous substances found at a waste site. PHAs document scientists' evaluations of whether people living or working at the site or nearby may be exposed to harmful levels of these substances. These assessments may also contain recommendations for EPA or other agencies to take certain actions to protect public health, such as conducting blood tests for children, providing clean drinking water, or remediating a waste site. ATSDR conducts a PHA for each site proposed for the National Priorities List (NPL) and for other sites in response to petitions from communities.

   - *Exposure Investigations* are the scientific collection and analysis of data from biological tests and environmental sampling. ATSDR scientists use the results of these investigations to determine whether people have been exposed to hazardous substances.

   - *Health Consultations (HCs) are a mechanism for ATSDR scientists to* provide guidance on specific, health-related questions about hazardous wastes in communities. ATSDR scientists use health consultations to convey information and provide recommendations in a concise and focused manner.

   - *Technical Assistance* reports are mechanisms for ATSDR scientists to provide public health input to address specific requests from regulatory agencies, public health agencies, and the public, related to hazardous waste sites, chemical releases, hazardous chemicals, and related environmental public health issues. ATSDR scientists use technical assistance reports to provide timely information for requests that do not require an evaluation of data.

   - *Emergency Responses* are conducted by ATSDR scientists to provide immediate help to protect the public's health during emergencies. ATSDR provides resources, staff, and technical assistance when needed anywhere in the U.S.

- 2) Building the science base on toxic substances – ATSDR increases knowledge of the scientific community, decision-makers, and the general public regarding the human health effects from toxic substances by regularly reviewing existing scientific knowledge and synthesizing this work in a variety of state-of-the-art scientific publications. ATSDR also identifies information gaps and takes steps to fill these data gaps by encouraging research by others, conducting research, or sponsoring partners. Under this function, ATSDR's products and services include:

   - *Toxicological Profiles (ToxProfiles)* interpret, evaluate, and synthesize available data and possible health effects of hazardous substances found at NPL sites. To date, 302 toxicological profiles have been published or are under development. Of these, 289 profiles have been published as final, seven are being revised on the basis of public comments, and four are out for public comment. These profiles are regularly updated and are used by health and scientific professionals worldwide.

- *Toxicologic Research*, especially computational toxicology, provides rapid, cost-effective information on health effects of chemicals, especially useful in assessing emergency releases.
- *Collaboration in interagency research priorities* with EPA, NIOSH and the National Institute for Environmental Health Sciences (NIEHS). This Tri-Agency Superfund Applied Research Committee (TASARC) coordinates research related to filling priority data needs. ATSDR partners with industry via a voluntary research program to aid in the completion of research questions related to hazardous substances.
- *Health Studies* help determine whether exposures to hazardous substances can lead to increased risk for various health problems such as cancer, birth defects, auto-immune or neurological disorders, respiratory diseases, and other illnesses. ATSDR conducts its own health studies and supports others through agreements with state health departments and universities.
- *ATSDR's Hazardous Substances Emergency Events Surveillance (HSEES)* System is recognized as the only federal database collecting information on the public health impact of acute hazardous substance releases. In collaboration with 14 state agencies and the National Response Center, HSEES tracks and reports hazardous substances releases, enabling ATSDR and its partners to depict patterns of releases and plan for release prevention and response.

- 3) Educating health care providers and the public about toxic chemicals – ATSDR translates and communicates scientific information on the human health effects of exposures to toxic substances and provides education to community groups and health professionals on how to prevent or mitigate the health effects of toxic substance exposures. Education is provided directly to the public and local health care providers to meet local circumstances and nationally, via the Internet. ATSDR's products and services include:
  - *Community Health Education Services.* ATSDR health educators and communication specialists provide information and promote adoption of protective behaviors or actions that individuals and/or communities can take to assess, control, or prevent exposure to hazardous substances in their environment.
    - ATSDR Community Environmental Health Education Presentations are 20-minute instructional presentations that can be used in face-to-face education with community groups to increase environmental health literacy. Community Environmental Health Education presentations are available in two versions: Community Environmental Health Instructional Presentation Kits, and Community Environmental Health Web Stream Presentations. Presentation kits consist of detailed scripts, PowerPoint slides, and learner support materials.
  - *Community Involvement Services.* ATSDR health educators and communication specialists provide culturally appropriate messages and materials to enhance the ability of cooperative agreement partners, programs, and community organizations to reach out to affected communities at hazardous waste sites. Community Involvement products include risk communication training and presentations; community involvement training; needs assessments; focus group and community meeting facilitation; and tool kits with PowerPoint slides.
    - *Basic Community Site Kit.* Tools that allow ATSDR site teams to have a more uniform and comprehensive approach to site work.

- *Community Environmental Health Literacy Kit*. Tools designed to help community members analyze their situation and make decisions regarding environmental health concerns.

- *Health Professional Education Services.* Enhances the environmental medicine capacity of physicians, nurses, and other professionals to prevent environmental exposures through patient counseling, to detect environmentally related illnesses, and to mitigate health effects through patient's treatment or referral to specialty care.
  - ATSDR Case Studies in Environmental Medicine (CSEM) are self-instructional, continuing-education primers designed to increase primary care providers' knowledge of hazardous substances and aid in the evaluation of patients potentially exposed to hazardous substances. Each CSEM comes with companion Patient Education and Care instruction sheets.
  - ATSDR Grand Rounds in Environmental Medicine (GREM) are 1-hour seminars and video Web streams designed for medical educators, health-care providers, and other professionals involved in environmental health. GREM can be used for face-to-face education and are available in two versions: 1) Instructional Presentation Kits, containing a detailed script, PowerPoint slides, learner support materials, Patient Education and Care Instruction sheets; and 2) Video recorded Web streamed presentations.
- *ATSDR ToxGuides*™ are quick reference pocket guides. Developed for field use, they provide information such as chemical and physical properties, sources of exposure, routes of exposure, minimal risk levels, children's health issues, and health effects from exposure. The ToxGuides™ also discuss how the substance might interact in the environment. ToxGuides™ are excerpted from the corresponding toxicological profiles.
- *ToxFAQs*™ provide a shortened, simple version of ATSDR's ToxProfiles™ and Public Health Statements. Each document provides answers to the most frequently asked questions (FAQs) about exposures to hazardous substances found around sites and the effects of these exposures on human health. The ToxFAQs™ and Public Health Statements have been translated into Spanish.

- 4) Maintaining registries – ATSDR maintains selected exposure registries that enumerate people with defined exposures to toxic substances, track them over time to understand associated health impacts, and provide health information to registrants as appropriate. Registries can help scientists understand the extent of exposures and provide data that can be used to demonstrate exposures and health outcomes. The *Rapid Response Registry (RRR*) instrument was developed and tested for data collection in a terrorism or emergency event of public health significance. The RRR is capable of responding to any size event and any type of agent (e.g., weapon of mass destruction, radiological dispersal device [RDD] and other radiological and nuclear, biological or chemical). ATSDR is currently maintaining two registries:
  - *Tremolite Asbestos Registry* traces, locates, and tracks individuals affected by the tremolite asbestos mined in Libby, Montana.
  - *World Trade Center Registry* tracks long-term health effects among workers, residents, and school children who were most directly exposed to smoke, dust, and debris resulting from the World Trade Center disaster. This registry is maintained in collaboration with the New York City Department of Health and Mental Hygiene.

Significant accomplishments:

The following are examples of recent ATSDR accomplishments at various sites across the nation:

Alaska

- Alaska health officials, funded through a cooperative agreement with ATSDR, took quick actions to protect the health of a high school rifle team from a community near Fairbanks. Teenagers from the rifle team were being exposed to unhealthy levels of lead while using the high school rifle range. An investigation by state health officials revealed that members of the rifle team were being exposed to lead dust because of poor ventilation and cleaning practices. Once discovered, health officials working with parents and school officials took actions that included working with the community to correct the problems and minimize the exposures of students and high school staff.

Pennsylvania

- The Pennsylvania Department of Health, an ATSDR Cooperative Agreement partner, identified potentially harmful levels of volatile organic compounds (VOCs) inside homes of 25 persons in Lancaster County, Pennsylvania. Groundwater under the affected homes was contaminated with chemicals used during the manufacturing process at the Berkley Products Company. As a result, vapors seeped into the homes through basements and foundations. State health department staff worked with local, state, and federal authorities to assist in the installation of home exhaust systems and to provide health education to health care providers and the community. These efforts helped to reduce and eliminate exposures of impacted residents, thereby preventing a number of possible adverse health effects.

Washington

- Making school grounds safe for students and visitors - School officials and families of the 354 students at Apple Valley Elementary School in Yakima, Washington, are now taking appropriate actions to reduce exposure to lead arsenate pesticides in their school yard playground. Through an ATSDR Cooperative Agreement, the Washington State Department of Health (DOH) found potentially harmful levels of arsenate pesticides on the school grounds. State health officials advised state regulatory and school officials on the actions needed to reduce the health threat posed by the contamination and coordinated with both groups as well as students and parents to provide information on ways to keep school yard playgrounds and children safe.

Ohio

- The Ohio Department of Health (ODH) in partnership with ATSDR, U.S. EPA, and the Public Health Departments of Dayton & Montgomery County took actions to protect the health of Dayton residents impacted by groundwater contamination from the Delphi facility. Investigations in this area identified 30 homes which had been impacted by the infiltration of chemical vapors from groundwater contaminants. Contaminant levels in the air within these homes posed a public health hazard and prompted actions by federal, state, and local health and environmental authorities to work with homeowners and private industry to install vapor abatement systems (VAS) in the affected homes. To protect other residential areas from being impacted by the groundwater contamination, Delphi company representatives installed a large-scale soil vapor extraction system on their property.

Connecticut

- Investigations by ATSDR's cooperative partners in the Connecticut Department of Public Health identified arsenic contaminated soil that posed a hazard to children attending the "My School Daycare" in Hampton. The daycare was located at a former waste site, and although the site had been cleaned prior to the construction of the daycare facility, contaminant levels in the playground area had never been tested. Immediate actions were taken to minimize exposures at the daycare. Health officials also engaged the Daycare Licensing Program to evaluate daycares that may be located on or near industrial sites and developed a draft protocol for evaluating new daycares and daycares up for license renewal to ensure that children are not exposed to contaminants from past industrial use.

Libby, Montana Vermiculite Sites

- ATSDR, in collaboration with state health department partners, conducted evaluations of 28 sites that received asbestos-containing vermiculite from a mine in Libby, Montana. These 28 site evaluations focused on potential past, current, and future pathways of exposure to the asbestos associated with vermiculite from the Libby mine. Most of the processing facilities at these sites operated for different time periods in the past, during the 1920s to the early 1990s. The *Summary Report: Exposure to asbestos-containing vermiculite from Libby, Montana, at 28 processing sites in the United States* offers valuable information about facilities that exfoliated asbestos-containing vermiculite, identifies groups who experienced exposure to asbestos from these sites, and recommends re-evaluating existing data for former exfoliation sites where residual asbestos may be present. The report also proposes important public health activities to increase awareness about this type of asbestos exposure.

Wisconsin

- During the summer of 2008, ATSDR's cooperative agreement partners in the Wisconsin Division of Public Health (DPH) staff were involved with providing a comprehensive public health response to widespread flooding that has occurred in Southern Wisconsin. DPH personnel staffed the Wisconsin Emergency Operations Center; presented on and coordinated daily DPH conference calls for local public health departments (LPHDs); enlisted experts from other agencies to provide LPHDs with technical advice related to flooding that has public health implications; coordinated the testing of flood-impacted private wells; developed and disseminated public health information (minutes from interagency meetings, media releases, public health fact sheets, updated flood information on agency web sites, linking with other relevant information resources); and, provided technical advice on mosquito control and disease prevention, volunteer health and safety issues, flooded and failed septic systems, beach safety, and surface water contamination and safety.

PROGRAM ASSESSMENT RESULTS

When ATSDR was reassessed by the Office of Management and Budget (OMB) in 2007, the Agency achieved an "Effective" rating, the highest rating for federal programs. OMB cited ATSDR's ability to demonstrate impact on the health of people living in communities exposed to toxic substances as strong attributes of the program.

Currently, CDC is undergoing an agency-wide process to achieve significant efficiencies through the Public Health Integrated Business Services High Performing Organization (PHIBS HPO). The PHIBS HPO was approved by OMB in March of 2007.

GOALS AND MEASURES

CDC implemented four overarching Health Protection Goals (described earlier in the Program Description and Accomplishments section) to ensure efficient and effective use of resources to achieve health impact. The following goals guide activities and performance, organize the Agency's portfolio by priority to activities that have the greatest health impact and reduce health disparities, align the agency's annual budget to the priorities, and demonstrate accountability. ATSDR's actual performance results are reported in the Agency's on-line performance appendix, www.hhs.gov/budget/docbudget.htm.

Efficiency Goal: *Reduce the cost to deliver health findings and recommendations.*

Measure: *Reduce the average cost per site to deliver public health findings and recommendations to the public.*

In the event of a known or suspected public health threat, the timeliness with which critical information is delivered to the public may greatly influence the speed with which site managers, public health agencies, and the American people can take protective actions. Toward this end, ATSDR is working to provide critical public health findings and recommendations to the public in the most expedient manner. Historical data demonstrate that ATSDR's Health Consultations can be conducted in a fraction of the time (and therefore at less cost) required to conduct PHAs. In many cases, HCs are sufficient to provide the public with the information it needs; therefore, ATSDR is working to increase the proportion of sites that are addressed with HCs rather than PHAs, where appropriate.

Goal 1: *Assess current and prevent future exposures to toxic substances and related human health effects.*

Measure: *Reduce exposures to toxic substances and mitigate the likelihood of future toxic exposures by increasing EPA's, state regulatory agencies', or private industries' acceptance of ATSDR's recommendations at sites with documented exposures.*

ATSDR responds to toxic substance releases when they occur or as they are discovered. One of the agency's primary responsibilities during these events is to provide information and to recommend actions, from a public health perspective, to the agency or industry responsible for cleaning up the released toxins and/or mitigating the likelihood of future releases. Since ATSDR serves in an advisory capacity, with no regulatory or enforcement authority, the protection of the public's health from toxic substance releases is dependent on the extent to which ATSDR's recommendations are adopted by those entities that do have enforcement authority (e.g., EPA and state regulatory agencies), and private industries adhere to ATSDR's recommendations and regulations. This measure reports the percentage of ATSDR's public health and safety recommendations accepted by EPA, state regulatory agencies, and private organizations. The annual results may fluctuate as decisions are made regarding pending adoption of ATSDR recommendations.

Goal 2: *Determine human health effects associated with exposures to priority hazardous substances.*

Measure 1: *Advance understanding of the relationship between human exposures to hazardous substances and adverse health effects by completing toxicological profiles for substances hazardous to human health.*

A significant part of ATSDR's work is determining the relationship between human exposures to hazardous substances and health effects. As required by law, ATSDR prepares ToxProfiles™ for hazardous substances found at the NPL sites and upon request

from the scientific community. This “Priority List of Hazardous Substances” is a catalog of the hazardous substances most commonly found at NPL facilities and those that pose significant potential threat to human health. Hazardous substances may be added or deleted from the NPL annually; therefore, each year there may be substances for which ToxProfiles™ must be developed.

To date, 302 Toxicological Profiles have been published, or are under development. Of these, 289 profiles have been published as final, seven are being revised on the basis of public comments, and four are out for pubic comment.

Each profile provides a comprehensive evaluation and interpretation of available scientific information on a substance. Because ToxProfiles™ are intended to be comprehensive in nature, when there are insufficient data to provide a complete picture of the health effects of a toxic substance, ATSDR identifies what data are needed and works to collect needed information to complete the profile. This measure tracks the number of identified data gaps that are resolved annually.

Measure 2: *Fill data needs for human health effects/risks relating to hazardous exposures.*

ATSDR works to determine the relationship between toxic exposures and disease through health studies, disease tracking, and surveillance activities. ATSDR's research findings help determine whether exposures to hazardous substances can lead to increased risk for various health problems such as cancer, leukemia, multiple sclerosis, asthma, and other illnesses.

This measure tracks the number of data needs (i.e., gaps in knowledge about effects from exposure to hazardous substances) that ATSDR fills through the completion of site-specific or broader research studies. A data need is a specific question posed by a community or other stakeholders at sites where ATSDR provides services. It may also be a question ATSDR seeks to answer under its research agenda.

Goal 3: *Mitigate the risks of human health effects from toxic exposures.*

Measure*: Protect human health by preventing or mitigating human exposures to toxic substances or related health effects at sites with documented exposures.*

This outcome measure captures the impact of the agency on human health in communities where actual or potential exposures exist. The long-term measure tracks the percentage of sites where human health risks or effects have been mitigated. The measure compares documented human health risks or effects at the time of the initial site assessment to those after intervention, thus measuring the reduction in people’s actual or potential exposures. Depending on the toxic substance(s) and route(s) of exposure, the impact of interventions on human health can be measured through the following:

- Morbidity/Mortality rates that measure, for example, the reduction in childhood cancer or birth defects rates.
- Biomarkers, which signal the presence of toxic substances in the body, are used in cases where reliable and affordable tests are available.
- Environmental monitoring that measures reduction in environmental contaminants to levels below human health concern.
- Behavioral change that documents changes in behavior that prevent future exposures.

FUNDING HISTORY TABLE

FISCAL YEAR	AMOUNT
FY 2005	$76,041,000
FY 2006	$74,905,000
FY 2007	$75,212,000
FY 2008	$74,039,000
FY 2009	$74,039,000

BUDGET REQUEST

CDC's FY 2010 request includes $76,792,000 for ATSDR, an increase of $2,753,000 above the FY 2009 Omnibus. This reflects $753,000 for pay increases and $2,000,000 to conduct epidemiologic studies of health conditions caused by non-occupational exposures to uranium released from past mining and milling operations on the Navajo Nation.

FY 2010 funds will support public health activities to identify and evaluate exposures to hazardous substances and to take appropriate actions to prevent and mitigate future exposures. Findings of these investigations will be documented through:

- Public health assessments of waste sites.
- Public health consultations concerning specific exposure scenarios and hazardous substances.
- Health surveillance and registries.
- Responses to emergency releases of hazardous substances.
- Applied research in support of public health assessment activities.
- Information development and dissemination.
- Education and training concerning exposure and hazardous substances.
- Support of approximately 30 cooperative agreement programs to states and other partners who work in concert with ATSDR to protect the public health of impacted communities.

Examples of ATSDR current and FY 2010 activities include the following:

- Brownfield Sites – Brownfield sites are defined as properties whose expansion, redevelopment, or reuse may be complicated by the presence of hazardous substances. Redevelopment is occurring nationwide, with approximately 450,000 sites being re-utilized. There are public health concerns regarding redevelopment of these properties. Engagement by local public health officials in land reuse decisions is limited because of the shortage of environmental public health staff at the municipal level. In order to optimize the participation of the available environmental health staff in redevelopment issues, ATSDR is developing a number of tools to help health officials prioritize which sites need their immediate attention. ATSDR has funded seven community-based health projects for land reuse and land redevelopment.
- Mercury Vapors – Synthetic gymnasium flooring and outdoor track surfaces installed in schools from the 1960s to the 1980s were formulated with polyurethane containing mercury. Over the past several years, ATSDR has addressed health concerns that mercury vapors may have been released from the flooring at levels that cause health effects. School-age children are the most likely receptor of these exposures. There is a

high degree of variability in the mercury vapor concentrations released from the flooring. In order to be able to make generalized conclusions about why some floors are emitting unacceptable amounts of mercury vapor while others are not, ATSDR has analyzed the conditions of several school sites and will continue to monitor other schools to determine what conditions result in exposure risks to students.

- The 11 Pediatric Environmental Health Specialty Units (PEHSUs) are a source of medical information and advice on environmental conditions that influence children's health. PEHSUs are academically based, typically at university medical centers, and are located across the United States. These PEHSUs form a network that is capable of responding to requests for information throughout the U.S. and offering advice on prevention, diagnosis, management, and treatment of environmentally related health effects in children. The overall intent of the PEHSU program is to improve children's environmental health through medical consultation, health education, and specialty care referral.
- Evaluating Environmental Exposures – ATSDR funds the development of physiologically based pharmacokinetic models that will evaluate environmental exposures to a class of emerging environmental contaminants called perfluorochemicals (PFCs). These chemicals have documented endpoints for cancer and noncancer effects in rats, mice, rabbits, monkeys, and humans. However, numerous uncertainties, extreme species, and gender variability have slowed the understanding of the toxicological and public health issues surrounding PFCs. They are resistant to both physical and biological degradation, and very recent investigations have shown that the contaminants are persistent in humans, wildlife, and the environment world-wide. PFCs are widely used as water, stain, and grease repellants for food wrappings, carpet, furniture, and clothing. The completion of the project is expected to produce exposure evaluation tools that will have applications world-wide.
- Environmental Exposure to toluene diisocyanate (TDI) and Respiratory Effects – ATSDR is supporting the North Carolina Department of Health and Human Services in a study of environmental exposures to TDI and respiratory health effects, as some workers exposed to this chemical develop asthma. TDI is a chemical used in production of many products, including polyurethane foam (used for bedding, furniture, and automobiles), and floor coatings. The purposes of the study are to determine whether community members living near TDI sources (such as foam factories) have a higher proportion of residents reporting asthma-like symptoms than those living further away; whether community members living near TDI sources have more antibodies to this chemical in their blood than people living further away; and, if air samples collected in communities near these facilities detect this chemical in the air more often than in communities further away.
- Asbestos Exposure Review – ATSDR is helping protect Americans from exposures to asbestos fibers and resulting health effects. Over 200 facilities around the country received and processed vermiculite ore from Libby, MT., which is known to have contained asbestos. ATSDR's national Asbestos Exposure Review continues to investigate these sites and is helping local agencies educate those who may have been exposed to asbestos, particularly plant workers and their families, about preventing and coping with asbestos-related disease. ATSDR is also conducting the National Asbestos Health Project (NAHP) to identify persons with past radiographic or spirometry-related evidence of asbestos associated health conditions. To date, the NAHP has successfully screened former workers of the former Zonolite/W.R. Grace & Company site in Hamilton Township, NJ and their household members. In 2007, the NAHP conducted additional

screenings at additional facilities in California, Arizona, and Minneapolis. A manuscript will also be developed detailing reported exposure and frequency of radiographic and spirometry-related abnormalities.

- Tremolite Asbestos Registry (TAR) – ATSDR implemented the registry in FY 2003 to include persons eligible for medical testing (e.g., chest x-rays and pulmonary function tests) as well as vermiculite workers and their household contacts. In cooperation with the Montana Department of Health and Human Services, ATSDR also invited participants in the Montana Asbestos Screening and Surveillance Activity (MASSA) to enroll in the TAR. To date, 83 percent of former workers and their household contacts in Libby, MT, have been located. Approximately 4,600 persons from the MASSA program and the first new screening site have been added to the TAR. The MASSA program ceased screening in September 2008 and, consequently, ATSDR is no longer actively enrolling registrants in the TAR. ATSDR is currently (Spring 2009) exploring options for restarting screening in Libby and TAR enrollment.
- World Trade Center Health Registry – Over 71,000 registrants in the World Trade Center Health Registry, launched in September 2003, will be interviewed periodically over the next 20 years to track the long-term health effects of exposure during the event. The first follow-up interviews were conducted in November 2006 and continued through 2008. Data collected from participants on health outcomes will be analyzed and reported in quarterly newsletters and peer reviewed publications.
- Great Lakes Human Health Effects Research Program – ATSDR's Great Lakes program is designed to characterize exposure to toxic chemicals via fish consumption and investigate the potential for short- and long-term health outcomes from that exposure in vulnerable populations. The program has established cohorts of over 30,000 people, and identified sensitive human health endpoints. Research findings have established body burden levels of Persistent Toxic Substances (PTSs), (i.e., PCBs, methylmercury, dioxin, mirex, dieldrin and toxaphene) in the populations. Certain PTSs were eight times greater in sport fish consumers in comparison to background levels found in the general U.S. population. In working with partners in the Great Lakes region, these health findings were instrumental in the implementation of a uniform Great Lakes sport fish advisory used by all eight Great Lakes states. Because of these human health findings, ATSDR is working with the Great Lakes State Health Departments to develop culturally appropriate messages to help interdict future exposures to persistent toxic substances.
- Hazardous Substances Emergency Events Surveillance (HSEES) System – ATSDR's HSEES System is the ongoing, systematic collection, analysis, and interpretation of information that describes the characteristics of acute uncontrolled and/or illegal releases of hazardous substances as well as the injuries and evacuations associated with such events. The system has critical uses both in public health and terrorism planning and response, and 14 states currently participate: Colorado, Florida, Iowa, Louisiana, Michigan, Minnesota, New Jersey, New York (Hinchey–D, NY), North Carolina, Oregon, Texas, Utah, Washington (Dicks–D, WA; Appropriations Chair), and Wisconsin (Obey–D, WI). The goal of HSEES is to reduce the injury and death that result from hazardous substances events, which are experienced by first responders, employees, and the general public. HSEES data and research have been used in numerous instances by states and their partners to forge new legislation and laws covering hazardous substances releases. For example, HSEES data and publications have been used in several states to develop laws regarding methamphetamine production in homes where children are present. Additionally, data was used in

Minnesota to create a law to cease the selling of mercury thermometers. HSEES has also been cited as a preferred data collection method in several federal legislative bills.

- National Chemical Incidence Surveillance and Prevention Program - This initiative aligns with the Department of the Homeland Security Presidential Directives and fulfils the mandates of multiple federal agencies and is therefore proposed as a multi-agency initiative with multiple facets. In the U.S. there is no cohesive national system that actively tracks acute hazardous substance releases and subsequent public health impacts. Tracking these incidents will improve emergency response and preparedness planning for incidents as well as the development of prevention-based interventions to reduce the number of releases and their public health impact.
- Building the Nations' Environmental Health Capacity - The ATSDR Cooperative Agreement Program provides funding to build the capacity of 29 states, and one tribal nation to evaluate environmental public health issues at toxic waste sites. Funding levels range from $125,000 to $750,000 per partner. This Program supports about 100 environmental public health professionals in state and tribal health departments. The primary goal of the ATSDR's Cooperative Agreement Program is to provide training, guidance, and administrative support to each of the partners so that they can assess and respond to public health issues related to human exposure to hazardous substances. Another important goal is for funded programs to collaborate their site activities with communities, EPA, and other state and local agencies so that actions to stop exposure to hazardous materials can be implemented as quickly as possible. In 2008 ATSDR's Cooperative Agreement Program evaluated over 300 sites and implemented activities to protect the health of impacted communities. The close collaboration between federal and state health agencies has greatly enhanced ATSDR's ability to support the development and growth of the nation's environmental public health capacity.
- Amyotrophic Lateral Sclerosis (ALS) - ATSDR, will begin working with several state health departments on establishing state-wide ALS registries to support a National ALS/MND (Motor Neuron Disease) registry. Also, ATSDR will be working with the the Kaiser Permanente Northwest and some other member sites of the HMO Center for Health Research (HMORN) on advancing and enhancing methods of ALS/MND cases' ascertainment to support a national ALS/MND registry. Additionally, ATSDR/DHS will work on maintaining the National ALS Registry web portal it is currently completing.
- Polycythemia Vera (PV) - ATSDR will implement projects to: 1) improve the reporting of PV to state-cancer registries, 2) educate and encourage doctors to use the appropriate diagnostic techniques when evaluating patients who may have this condition, and 3) continue evaluating the PV cluster in Pennsylvania to identify potential risk factors for this cancer.

OUTCOME TABLE

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long Term Objective: Reduce cost to deliver health findings and recommendations.				
17.E.1: Reduce the average cost per site to deliver public health findings and recommendations to the public. *(Efficiency)*	FY 2008: 15% (Target Not Met)	16%	17%	Maintain
Measure	**Most Recent Result**	**FY 2009 Target**	**FY 2010 Target**	**FY 2010 +/- FY 2009**
Long Term Objective: Assess current and prevent future exposures to toxic substances and related human health effects.				
17.1.1: Reduce exposures to toxic substances and mitigate the likelihood of future toxic exposures by increasing EPA's, state regulatory agencies', or private industries' acceptance of ATSDR's recommendations at sites with documented exposures. *(Outcome)*	FY 2008: 96% (Target Exceeded)	84%	85%	+1
Measure	**Most Recent Result**	**FY 2009 Target**	**FY 2010 Target**	**FY 2010 +/- FY 2009**
Long Term Objective: Mitigate the risks of human health effects from toxic exposures.				
17.3.1: Protect human health by preventing or mitigating human exposures to toxic substances or related health effects at sites with documented exposures. *(Outcome)*	FY 2008: 82% (Target Exceeded)	74%	74%	Maintain

OUTPUT TABLE

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
Long-Term Objective 2: Determine human health effects associated with exposures to priority hazardous substances				
17.2.1: Advance understanding of the relationship between human exposures to hazardous substances and adverse health effects by completing toxicological profiles for substances hazardous to human health. (Output)	FY 2008: 16 (Target Not Met)	18	18	Maintain
17.2.2: Fill data needs for human health effects/risks relating to hazardous exposures. (Output)	FY 2008: 35 (Target Not Met)	34	34	Maintain
Long Term Objective: Mitigate the risks of human health effects from toxic exposures.				
17.3.2: Provide services to mitigate the risks of health effects from exposure to hazards from disasters. (Output)	FY 2008: 100% (Target Met) (Deploy staff as requested to emergency events in a timely manner 100% of the time)	100%	100%	Maintain
Other Outputs:				
1. Cooperative Agreements	FY 2008: 30	30	30	Maintain
2. Sites Evaluated/Chemical Release Responses	FY 2008: 590	500	500	Maintain
3. Public Health Assessments/Health Consults (includes chemical specific health consults)	FY 2008: 398	300	300	Maintain
4. Technical Assists[2]	FY 2008: 1569	1400	1400	Maintain

Key Outputs	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
5. Exposure Investigations	FY 2008: 9	9	9	Maintain
6. Emergency Responses and Exercises	FY 2008: 132	58	58	Maintain
7. Health Studies	FY 2008: 45	45	45	Maintain
8. Surveillance (# of states) and Registries (# of registries by exposure type)	FY 2008: 11	11	11	Maintain
9. Hazardous Substances Emergency Event Surveillance (states and events)	FY 2008: 14 states/ 10,316 events	14 states/ 8,062 events	14 states/ 8062 events	Maintain
10. Great lakes Research Projects (studies)	FY 2008: 4	4	4	Maintain
11. Minority health Professions Foundation (grants)	FY 2008: 5	2[6]	2	Maintain
12. Toxicological Profiles	FY 2008: 13	13	13	Maintain
13. Information Dissemination	FY 2008: 8,195,132[7]	8,400,000[7]	8,820,000[7]	+ 420,000
14. Pediatric Environmental health Specialty Units	FY 2008: 11	11[5]	11[5]	Maintain
15. Health Professionals Trained	FY 2008: 73,586	63,600	63,600	Maintain
16. Community Members Educated	FY 2008: 251,513	133,000	133,000	Maintain

[1] In FY 2005, outputs were reorganized into different categories. Information comprising FY 2004 outputs are not consistent with those reported in FY 2005 and beyond.

[2] FY 2007 actual represents Technical Assists which were ATSDR –specific. For FY 2007 and forward, Technical Assists are now accomplished among other CDC CIOs (CDC Information Center, the Director's Emergency Operations Center, and the Office of Terrorism Preparedness and Emergency Response) and therefore not tabulated by ATSDR. Future target years have been adjust to reflect this change.

[3] In FY 2007, the Great Lakes Human Health Effects Research (GLHHRP) program began its new cycle of competitive funding which resulted in funding 4 projects.

[4] The outputs/outcomes are not necessarily reflective of all programmatic activities funded by the appropriated amount.

[5] A new funding announcement is planned for release in FY 2009.

6. In FY 2009, the AMHPS program will change its approach to addressing minority health professions and will announce a funding opportunity announcement to fund 2 projects.

7. The 2008 target was not met because of the following circumstances. As a result, future targets have been changed. 1) When the Library MEO stood up in early 2008, the ATSDR/NCEH library was moved to NCPHI. Therefore, library-related statistics included in the past as part of information dissemination outputs could no longer be included in the 2008 result. CDC changed the date for the Library MEO to stand up several times without prior notice, so we had no way of determining when we would no longer include library-related statistics. 2) During 2008, ATSDR completed its transition to the CDC/ATSDR toll-free number (1-800-CDC-INFO) system. Calls that at one time came directly to ATSDR started going to CDC-INFO which is located in NCHM. Therefore, public inquiry statistics we included in the past did not exist in 2008 because those inquiries were handled by CDC-INFO. The transition was gradual, and we did not know when the transition would be completed. We had to wait until NCHM completed the transition to be able to give an updated set of targets. 3) In 2008, there was a change in statistics relates to the Web. Based on user-centered research conducted in 2007 and early 2008, ATSDR reconfigured the information architecture for the ATSDR Web site. This new information architecture resulted in smaller folders and fewer site files. Therefore, when we generated our statistics, we had a smaller number of folders and files to report about.

SUPPLEMENTAL INFORMATION

BUDGET AUTHORITY BY OBJECT

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
OBJECT CLASSIFICATION - DIRECT OBLIGATIONS
(DOLLARS IN THOUSANDS)

Object Class	FY 2009 Estimate	FY 2010 Estimate	FY 2010 +/- FY 2009
Personnel Compensation:			
Full-Time Permanent(11.1)	587,091	608,552	21,461
Other than Full-Time Permanent (11.3)	71,881	70,389	(1,492)
Other Personnel Comp. (11.5)	32,963	32,644	(319)
Military Personnel (11.7)	66,103	65,288	(815)
Special Personal Service Comp. (11.8)	1,286	1,020	(266)
Total Personnel Compensation	**759,324**	**777,893**	**18,569**
Civilian personnel Benefits (12.1)	178,178	189,442	11,264
Military Personnel Benefits (12.2)	44,870	43,865	(1,005)
Benefits to Former Personnel (13.0)	0	0	0
SubTotal Pay Costs	**982,372**	**1,011,200**	**28,828**
Travel (21.0)	54,529	54,083	(446)
Transportation of Things (22.0)	13,849	13,735	(113)
Rental Payments to GSA (23.1)	20,859	18,336	(2,523)
Rental Payments to Others (23.2)	2,788	2,765	(23)
Communications, Utilities, and Misc. Charges (23.3)	44,617	46,605	1,988
NTWK Use Data TRANSM SVC (23.8)	412	409	(3)
Printing and Reproduction (24.0)	8,320	8,661	341
Other Contractual Services:			0
Advisory and Assistance Services (25.1)	418,069	414,651	(3,417)
Other Services (25.2)	201,892	200,241	(1,650)
Purchases from Government Accounts (25.3)	380,184	377,076	(3,108)
Operation and Maintenance of Facilities (25.4)	75,144	74,530	(614)
Research and Development Contracts (25.5)	69,587	69,018	(569)
Medical Services (25.6)	8,160	8,093	(67)
Operation and Maintenance of Equipment (25.7)	24,175	23,978	(198)
Subsistence and Support of Persons (25.8)	40	0	(40)
Consultants, other and misc (25.9)	10,875	10,895	19
Subtotal Other Contractual Services	**1,188,126**	**1,178,482**	**(9,643)**
Supplies and Materials (26.0)	493,357	489,324	(4,033)
Equipment (31.0)	57,254	56,786	(468)
Land and Structures (32.0)	8,620	8,549	(70)
Investments and Loans (33.0)	0	0	0
Grants, Subsidies, and Contributions (41.0)	3,407,804	3,423,232	15,428
Insurance Claims and Indemnities (42.0)	53	53	(0)
Interest and Dividends (43.0)	391	387	(3)
Refunds (44.0)	0	0	0
Subtotal Non-Pay Costs	**5,300,978**	**5,301,408**	**430**
Total Budget Authority	**6,283,350**	**6,312,608**	**29,258**

SALARIES AND EXPENSES

FY 2010 BUDGET SUBMISSION CENTERS FOR DISEASE CONTROL AND PREVENTION SALARIES AND EXPENSES (DOLLARS IN THOUSANDS)			
	FY 2009 Estimate	FY 2010 Estimate	FY 2010 +/- FY 2009
Personnel Compensation:			
Full-Time Permanent(11.1)	$587,091	$608,552	$21,461
Other than Full-Time Permanent (11.3)	$71,881	$70,389	($1,492)
Other Personnel Comp. (11.5)	$32,963	$32,644	($319)
Military Personnel (11.7)	$66,103	$65,288	($815)
Special Personal Service Comp. (11.8)	$1,286	$1,020	($266)
Total Personnel Compensation	**$759,324**	**$777,893**	**$18,569**
Civilian personnel Benefits (12.1)	$178,178	$189,442	$11,264
Military Personnel Benefits (12.2)	$44,870	$43,865	($1,005)
Benefits to Former Personnel (13.0)	$0	$0	$0
SubTotal Pay Costs	**$982,372**	**$1,011,200**	**$28,828**
Travel (21.0)	$54,529	$54,083	($446)
Transportation of Things (22.0)	$13,849	$13,735	($113)
Rental Payments to Others (23.2)	$2,788	$2,765	($23)
Communications, Utilities, and Misc. Charges (23.3)	$44,617	$46,605	$1,988
Printing and Reproduction (24.0)	$8,320	$8,661	$341
Other Contractual Services:			
Advisory and Assistance Services (25.1)	$417,884	$414,465	($3,418)
Other Services (25.2)	$201,892	$200,241	($1,650)
Purchases from Government Accounts (25.3)	$380,184	$377,076	($3,108)
Operation and Maintenance of Facilities (25.4)	$75,144	$74,530	($614)
Medical Services (25.6)	$8,160	$8,093	($67)
Operation and Maintenance of Equipment (25.7)	$24,175	$23,978	($198)
Subsistence and Support of Persons (25.8)	$40	$0	($40)
Subtotal Other Contractual Services	**$1,107,478**	**$1,098,383**	**($9,095)**
Supplies and Materials (26.0)	$493,357	$489,324	($4,033)
Subtotal Non-Pay Costs	**$1,724,938**	**$1,713,557**	**($11,381)**
Total Salary and Expense	**$2,707,310**	**$2,724,757**	**$17,447**
Direct FTE [1]	**8,489**	**8,639**	**150**

[1] This table reflects CDC Direct FTEs only.

DETAIL OF FULL-TIME EQUIVALENT EMPLOYMENT (FTE)

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
DETAIL OF FULL-TIME EQUIVALENT EMPLOYMENT (FTE)

	FY 2008			FY 2009 [1]			FY 2010		
	Civilian Actual	Military Actual	Total Actual	Civilian Actual	Military Actual	Total Estimate	Civilian Actual	Military Actual	Total Estimate
Infectious Diseases	2,430	367	2,797	2,724	364	3,088	2,803	364	3,167
Health Promotion	954	78	1,032	1,022	75	1,097	1,022	75	1,097
Health Information and Service	863	39	902	965	37	1,002	965	37	1,002
Environmental Health and Injury Prevention	508	56	564	543	50	593	543	50	593
Occupational Safety and Health	1,087	90	1,177	1,049	85	1,134	1,049	85	1,134
Global Health	112	17	129	126	18	144	183	19	202
Public Health Research [2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Public Health Improvement and Leadership	492	111	603	493	127	620	493	127	620
Preventive Health & Health Services Block Grant (PHHSBG) [3]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Business Services Support	1,140	18	1,158	1,331	17	1,348	1,331	17	1,348
Terrorism [4]	242	34	276	292	36	328	292	36	328
Agency for Toxic Substances and Disease Registry	271	42	313	251	41	292	266	40	306
TOTAL, CDC/ATSDR FTE	**8,099**	**852**	**8,951**	**8,796**	**850**	**9,646**	**8,947**	**850**	**9,797**

[1] The FY 2009 FTE levels are based on January 31, 2009 PSC report.

[2] Public Health Research FTEs are reported under Public Health Improvement and Leadership.

[3] PHHSBG FTEs are reported under Health Promotion.

[4] Previous CDC FTE tables displayed all FTEs funded by Terrorism funds under this line regardless where the FTE were located in CDC. This FTE table displays only those FTEs that work in COTPER. The FTEs funded by COTPER but work in other Centers are displayed under the Center they work for.

DETAIL OF POSITIONS

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
PROGRAM ADMINISTRATION
DETAIL OF POSITIONS [2]

	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate
Executive Level			
Executive level I	-	-	-
Executive level II	-	-	-
Executive level III	-	-	-
Executive level IV	-	-	-
Executive level V	-	-	-
Subtotal	**-**	**-**	**-**
Total-Executive Level Salary	**-**	**-**	**-**
Total - SES	***31***	***31***	***31***
Total - SES Salary	**$4,990,034**	**$4,990,034**	**$4,990,034**
GS-15	535	535	535
GS-14	1,470	1,470	1,470
GS-13	2,184	2,184	2,184
GS-12	1,225	1,225	1,225
GS-11	761	761	761
GS-10	65	65	65
GS-9	465	465	465
GS-8	101	101	101
GS-7	366	366	366
GS-6	85	85	85
GS-5	76	76	76
GS-4	56	56	56
GS-3	23	23	23
GS-2	3	3	3
GS-1	0	0	0
Subtotal	***7,415***	***7,415***	***7,415***
Total - GS Salary	**$638,876,711**	**$657,404,136**	**$676,468,856**
Average GS grade	12.0	12.0	12.0
Average GS salary	86,160	88,659	91,230
Average Special Pay Categories			
Average Comm. Corps Salary[1]	77,476	80,110	82,834
Average Wage Grade Salary	52,503	54,026	55,592

[1] Includes special pays and allowances.

[2] This table reflects "positions" not full-time equivalent(s) (FTEs)

PROGRAMS PROPOSED FOR ELIMINATION

The following table shows the programs proposed for elimination in the President's FY 2010 Budget request. Termination of these two programs allow the agency to redirect approximately $31.4 million- based on FY 2009 levels – for priority health programs that have a demonstrated record of success, or that hold significant promise for increasing accountability and improving health outcomes. Following the table is the rationale for the elimination of the program.

PROGRAM	REDUCTION AMOUNT (DOLLARS IN MILLIONS)
Anthrax	$ 7.9
Public Health Improvement and Leadership	$22.0
Mind-body Research Program	$ 1.5
Total	$31.4

Anthrax (-$7.9 million).

The FY 2010 request includes no funding for the Anthrax program. Anthrax vaccine research activities at CDC began in FY 1999 because of a mandate by the U.S. Congress. This mandate directed funding to CDC to conduct studies of safety and efficacy of the U.S. licensed Anthrax vaccine, Anthrax Vaccine Adsorbed (AVA, BioThrax), resulting in the Anthrax Vaccine Research Program (AVRP). In FY 2009, the anthrax vaccine research program will achieve its stated goals, which include an FDA-approved reduced dosage schedule and new administration route, as well as the conclusion of long-term safety studies for the AVA vaccine.

Public Health Improvement and Leadership (-$22 Million)

Funding is reduced for the Public Health Improvement and Leadership Program in the area of congressionally determined projects. This line was funded as a one-time project whose selection was incorporated into law by reference.

Mind-Body Institute (-$1.5 million)

The FY 2010 request includes a decrease of $1,500,000 for the Mind, Body Research program. This program has ended its five-year cooperative agreement cycle. The activities supported by the Mind Body Research Program could be supported through other competitive grants offered by CDC

E-GOV INITIATIVES

The CDC will contribute $4,848,033 of its FY 2010 budget to support Department enterprise information technology initiatives as well as E-Government initiatives. Operating Division contributions are combined to create an Enterprise Information Technology (EIT) Fund that finances both the specific HHS information technology initiatives identified through the HHS Information Technology Capital Planning and Investment Control process and E-Government initiatives. These HHS enterprise initiatives meet cross-functional criteria and are approved by the HHS IT Investment Review Board based on funding availability and business case benefits. Development is collaborative in nature and achieves HHS enterprise-wide goals that produce common technology, promote common standards, and enable data and system interoperability.

Of the amount specified above, $801,389.16 is allocated to support E-Government initiatives for FY 2010. This amount supports the E-Government initiatives as follows:

FY 2010 HHS Contributions to E-Gov Initiatives*	CDC
Line of Business - Geospatial	$33,417.65
Line of Business - Federal Health Architecture (FHA)	$596,552.96
Line of Business - Human Resources	$17,770.83
Line of Business - Grants Management	$17,382.78
Line of Business - Financial	$20,202.84
Line of Business - Budget Formulation and Execution	$13,434.90
Line of Business - IT Infrastructure	$22,627.20
Disaster Assistance Improvement Plan	$80,000.00
E-Gov Initiatives Total	**$801,389.16**

*The total for all HHS FY 2010 inter-agency E-Government and Line of Business contributions for the initiatives identified above, and any new development items, is not currently projected by the Federal CIO Council to increase above the FY 2009 aggregate level. Specific levels presented here are subject to change, as redistributions to meet changes in resource demands are assessed.

Prospective benefits from these initiatives are:

Lines of Business-Geospatial: Promotes coordination and alignment of geospatial data collection and maintenance among all levels of government: provides one-stop web access to geospatial information through development of a portal; encourages collaborative planning for future investments in geospatial data; expands partnerships that help leverage investments and reduce duplication; and, facilitates partnerships and collaborative approaches in the sharing and stewardship of data. Up-to-date accessible information helps leverage resources and support programs: economic development, environmental quality and homeland security. HHS registers its geospatial data, making it available from the single access point.

Lines of Business-Federal Health Architecture: Creates a consistent Federal framework that improves coordination and collaboration on national Health Information Technology (HIT) Solutions; improves efficiency, standardization, reliability and availability to improve the exchange of comprehensive health information solutions, including health care delivery; and, to provide appropriate patient access to improved health data. HHS works closely with federal partners, state, local and tribal governments, including clients, consultants, collaborators and stakeholders who benefit directly from common vocabularies and technology standards through increased information sharing, increased efficiency, decreased technical support burdens and decreased costs.

Lines of Business-Human Resources Management: Provides standardized and interoperable HR solutions utilizing common core functionality to support the strategic management of Human Capital. HHS has been selected as a Center of Excellence and will be leveraging its HR investments to provide services to other Federal agencies.

Lines of Business-Grants Management: Supports end-to-end grants management activities promoting improved customer service; decision making; financial management processes; efficiency of reporting procedure; and, post-award closeout actions. An HHS agency, Administration for Children and Families (ACF), is a GMLOB consortia lead, which has allowed ACF to take on customers external to HHS. These additional agency users have allowed HHS to reduce overhead costs for internal HHS users. Additionally,

NIH is an internally HHS-designated Center of Excellence and has applied to be a GMLOB consortia lead. This effort has allowed HHS agencies using the NIH system to reduce grants management costs. Both efforts have allowed HHS to achieve economies of scale and efficiencies, as well as streamlining and standardization of grants processes, thus reducing overall HHS costs for grants management systems and processes.

Lines of Business –Financial Management: Supports efficient and improved business performance while ensuring integrity in accountability, financial controls and mission effectiveness by enhancing process improvements; achieving cost savings; standardizing business processes and data models; promoting seamless data exchanges between Federal agencies; and, strengthening internal controls.

Lines of Business-Budget Formulation and Execution: Allows sharing across the Federal government of common budget formulation and execution practices and processes resulting in improved practices within HHS.

Lines of Business-IT Infrastructure: This initiative provides the potential to leverage spending on commodity IT infrastructure to gain savings; to promote and use common, interoperable architectures that enable data sharing and data standardization; secure data interchanges; and, to grow a Federal workforce with interchangeable skills and tool sets.

Disaster Assistance Improvement Plan (DAIP): The DAIP, managed by Department of Homeland Security, assists agencies with active disaster assistance programs such as HHS to reduce the burden on other federal agencies which routinely provide logistical help and other critical management or organizational support during disasters.

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2008)

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION – FY 2008
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		1,904,535											**1,904,535**
Health Promotion			961,193										**961,193**
Health Information and Service				276,778									**276,778**
Environmental Health and Injury Prevention					289,323								**289,323**
Occupational Safety and Health						381,954							**381,954**
Global Health							302,371						**302,371**
Public Health Research										31,000			**31,000**
Public Health Improvement and Leadership									158,255	32,635	34,009		**224,899**
Preventive Health and Health Services Block Grant			97,270										**97,270**
Buildings and Facilities										55,022			**55,022**
Business Services Support												371,847	**371,847**
Terrorism								1,479,455					**1,479,455**
Total, CDC	**4018**	**1,904,535**	**97,270**	**276,778**	**289,323**	**381,954**	**302,371**	**1,479,455**	**158,255**	**55,022**	**34,009**	**371,847**	**6,375,647**
Agency for Toxic Substances and Disease Registry	74,039												**74,039**
Vaccines for Children		2,719,702											**2,719,702**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**78,057**	**4,624,237**	**97,270**	**276,778**	**291,549**	**381,954**	**302,371**	**1,479,455**	**158,255**	**55,022**	**34,009**	**371,847**	**9,171,614**

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2009)

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION – FY 2009
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		1,947,827											**1,947,827**
Health Promotion			1,019,708										**1,019,708**
Health Information and Service				279,356									**279,356**
Environmental Health and Injury Prevention					330,657								**330,657**
Occupational Safety and Health						360,059							**360,059**
Global Health							308,824						**308,824**
Public Health Research										31,000			**31,000**
Public Health Improvement and Leadership									149,332	24,945	34,859		**209,136**
Preventive Health and Health Services Block Grant			102,000										**102,000**
Buildings and Facilities										151,500			**151,500**
Business Services Support												359,877	**359,877**
Terrorism								1,514,657					**1,514,657**
Total, CDC	**4019**	**1,947,827**	**102,000**	**279,356**	**330,657**	**360,059**	**308,824**	**1,514,657**	**149,332**	**151,500**	**34,859**	**359,877**	**6,614,601**
Agency for Toxic Substances and Disease Registry	74,039												**74,039**
Vaccines for Children		3,377,911											**3,377,911**
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)					55,358								**55,358**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**78,058**	**5,325,738**	**102,000**	**279,356**	**388,241**	**360,059**	**308,824**	**1,514,657**	**149,332**	**151,500**	**34,859**	**359,877**	**10,124,135**

CROSSWALK – FUNDING BY PROGRAM AND ORGANIZATION (2010)

FY 2010 BUDGET SUBMISSION
CENTERS FOR DISEASE CONTROL AND PREVENTION
FUNDING BY PROGRAM AND ORGANIZATION – FY 2010
(DOLLARS IN THOUSANDS)

	ATSDR	CCID	CCHP	CCHIS	CCEHIP	NIOSH	COGH	COTPER	L&M	OD	OWCD	BSS	Total
Infectious Diseases		2,019,622											**2,019,622**
Health Promotion			1,038,255										**1,038,255**
Health Information and Service				291,784									**291,784**
Environmental Health and Injury Prevention					335,016								**335,016**
Occupational Safety and Health						368,388							**368,388**
Global Health							319,134						**319,134**
Public Health Research										31,170			**31,170**
Public Health Improvement and Leadership									149,986	2,948	35,652		**188,586**
Preventive Health and Health Services Block Grant			102,034										**102,034**
Buildings and Facilities										30,000			**30,000**
Business Services Support												372,662	**372,662**
Terrorism								1,546,809					**1,546,809**
Total, CDC	**4020**	**2,019,622**	**102,034**	**291,784**	**335,016**	**368,388**	**319,134**	**1,546,809**	**149,986**	**30,000**	**35,652**	**372,662**	**6,643,460**
Agency for Toxic Substances and Disease Registry	76,792												**76,792**
Vaccines for Children		3,323,770											**3,323,770**
Energy Employees Occupational Illness Compensation Program Act (EEOICPA)						55,358							**55,358**
Other User Fees					2,226								**2,226**
Total, CDC/ATSDR	**80,812**	**5,343,392**	**102,034**	**291,784**	**337,242**	**423,746**	**319,134**	**1,546,809**	**149,986**	**30,000**	**35,652**	**372,662**	**10,101,606**

SIGNIFICANT ITEMS

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – HOUSE

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2010 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

HOUSE REPORT NO. 110-XXX

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

Pandemic Influenza Preparedness for Healthcare Workers --The Institute of Medicine of the National Academies recently issued a report, "Preparing for an Influenza Pandemic: Personal Protective Equipment for Healthcare Workers", which outlines the critical need to better understand the airborne transmissibility of pandemic influenza and other pathogenic bioaerosols to protect healthcare workers. To address this concern, the Committee includes $5,000,000 within CDC's National Institute for Occupational Safety and Health (NIOSH) for a new initiative to enhance the Personal Protective Technology program. The Committee further urges NIOSH to design and promote the next generation of user friendly respirators designed for use by healthcare workers to address the unique challenges posed by the healthcare environment. (Page 39)

Action taken or to be taken

FY 2009 research will focus on understanding influenza transmission and on improving and strengthening personal protective equipment design, testing and certification. This includes research to measure the amount and size of airborne particles contained in influenza virus. Research to examine the efficacy and effect of simple decontamination procedures and to examine the risks associated with handling filtering facepiece respirators (FFR) exposed to viral aerosols will continue in FY 2009. FY 2009 funds will also be used within the area of respirator fit test science.

Item

Public Health Response to Climate Change --The Committee provides $7,500,000 in new funding for CDC's National Center for Environmental Health to develop a program to help the nation prepare for and adapt to the potential health effects of global climate change. Scientific evidence suggests that global climate change may cause events such as heat waves, catastrophic storms, forest fires, and food supply disruptions that could have a wide range of negative health outcomes. In addition, global climate change may already be contributing to a number of adverse health effects: respiratory diseases, injuries, water-borne and vector-borne diseases, and mental health stresses. In developing this program, the committee urges CDC to develop expertise in epidemiologic and laboratory science, infectious disease ecology, modeling and forecasting, climatology and earth science, communication and behavioral change science, and to support public health research in these areas. (Page 41)

Action taken or to be taken

While climate change is recognized as a global issue, the effects of climate change will vary across geographic regions and populations. Certain groups are at higher risk for health consequences from climate change than others. These groups include: children and the elderly; people of low socioeconomic status; members of racial and ethnic minorities; and people with certain pre-existing health conditions or disabilities. Other health effects could

result from changes in the food supply and from population dislocation, which would be most severe in developing nations.

CDC is committed to leading efforts to address anticipated health effects of climate change, to assure that systems are in place to detect and track the effects, and to take steps to prepare for, respond to, and manage associated risks. Congressional funding for public health actions related to climate change will be used to support a wide range of public health activities involving diverse parts of CDC and will not only build on existing experience and expertise, but will consolidate, extend and deepen this work. Within CDC, major efforts will include data collection and surveillance; research on the domestic and global health impacts of climate change and responses, on adaptation and communication strategies, and on preparedness plans; provision of scientific information to other agencies, policy-makers, health professionals, and the public; preparedness planning for various climate change scenarios; partnership development with a range of existing and new agencies, governmental and non-governmental organizations; training on public health aspects of climate change; and technical assistance to state and local health departments. Externally, CDC will support academic research and state and local public health preparedness planning related to climate change.

Item

Evidence-Based Prevention Interventions --The Committee is concerned with the increased number of new HIV infections among men who have sex with men (MSM), particularly among African Americans and Latinos. The Committee urges CDC to allocate its prevention funding and programs to those communities who are most at risk for HIV infection. The Committee also is concerned that of the 49 evidence-based prevention interventions contained in the Updated Compendium of Evidence-Based Interventions, only four target MSM and none target African American MSM and none target Latino MSM. The Committee urges CDC to increase the number of interventions for these populations and to work with the National Institutes of Health and other behavioral research groups to accomplish this work. (Page 111)

Action taken or to be taken

CDC is using several different methods to increase prevention programming and the number of evidence based interventions available for prevention programs for minorities and MSM. CDC is evaluating a number of new locally-developed and investigator-developed interventions for MSM, particularly African-American MSM, and is conducting research to adapt existing effective behavioral interventions (EBIs) for new populations. Funds will be provided to support trainings for capacity building assistance providers and to deliver the training to more than 200 community-based organizations (CBOs) serving African-American MSM in 2009. In addition to the EBIs targeting MSM, another six EBIs developed for HIV-infected individuals were tested with a study sample including a majority of MSM. These interventions are: Healthy Relationships; Choosing Life: Empowerment, Actions, Results (CLEAR); Partnership for Health; Together Learning Choices (TLC); Healthy Living Project, and Positive Choice: Video Doctor. In addition, CDC's Latino and African American Men's Project (LAAMP) is funding the testing of six different interventions for MSM—four for African American MSM and two for Latino MSM.

CDC is requesting an increase of $53,054,000 in FY 2010 for HIV/AIDS prevention activities. A portion of these funds would be used to provide training and support to health departments and CBOs to deliver effective evidence-based HIV prevention interventions to high-risk populations such as communities of color and MSM of all races. CDC would reduce by 50 percent the backlog of organizations currently on waiting lists to receive training in effective HIV prevention interventions through CDC's Diffusion of Effective Behavioral Interventions (DEBI) program.

CDC is collaborating with the National Institutes of Health (NIH) in a five-city study to prepare for a randomized trial of a community-level, multi-component intervention to reduce HIV incidence among African-American MSM. The intervention is designed to decrease a participant's individual risk of acquiring or transmitting HIV by addressing their personal risk factors (e.g., identifying and treating undiagnosed HIV or STIs).

Item

HIV Testing in the Hispanic Community -- The Committee commends CDC for the domestic HIV/AIDS testing initiative for increased testing among African American populations. The Committee urges CDC to expand this program to additional jurisdictions and recommends that CDC consider a similar campaign among other high risk populations, such as the Hispanic community. (Page 111-112)

Action taken or to be taken

CDC recognizes that the HIV/AIDS epidemic is a serious threat to the Hispanic/Latino community and has made commitments to address the epidemic within this population. The Hispanic/Latino population is one of CDC's three priority populations for HIV prevention efforts. CDC supports HIV prevention activities for HIV-infected Hispanics/Latinos and those at-risk for HIV through funding to community-based organizations (CBOs) and state and local health departments.

In FY 2008, CDC held a national Hispanic/Latino consultation on HIV prevention. The consultation included community leaders and representatives from various Hispanic-serving organizations, as well as academic researchers, policy makers, public health practitioners, program specialists, community members, and representatives from federal, state, and local agencies. CDC plans to use recommendations made at the consultation to assist in the development of an action plan.

Item

Chronic Hepatitis -- The Committee encourages the Division of Viral Hepatitis to enhance prevention, surveillance, and education programs in the populations most affected by chronic Hepatitis B and Hepatitis C. The Committee also appreciates the ongoing efforts of CDC to prevent acute viral hepatitis infectious (A, B, and C), which are central to preventing morbidity and mortality from chronic infections. (Page 112)

Action taken or to be taken

CDC currently provides funding for Adult Viral Hepatitis Prevention Coordinators (AVHPCs) in 49 state and six local health departments to provide leadership in the integration of viral hepatitis prevention activities into existing public health programs. CDC also supports perinatal hepatitis B prevention coordinators in every state to prevent transmission from HBV-infected mothers to their infants and to help HBV-infected mothers and other family members receive recommended prevention and care services. CDC is also implementing a hepatitis B vaccine initiative to increase immunization of at-risk adults. To improve detection of viral hepatitis, CDC has developed a national plan for viral hepatitis surveillance guided by best practice models. Finally, CDC awards approximately $1 million to governmental and community-based partners to develop and sustain integrated training and education programs directed toward risk populations, and public health and care providers.

Item

Hepatitis B -- The Committee supports CDC's continuing efforts to improve public health interventions to prevent Hepatitis B virus infection and urges an increased focus on the

development and testing of evidence-based interventions to prevent HBV infection. …The Committee urges an expansion of cooperative agreements to test and validate interventions focused on the mother-child transmission issue and other efforts targeted on the prevention of HBV in the Asian-American community where currently one in ten individuals are infected with HBV. (Page 112)

Action taken or to be taken

In FY 2008, CDC published chronic hepatitis B screening recommendations that identify the populations in greatest need of HBV testing. The recommendations also address the steps needed to delay or halt the progression of HBV-related liver disease and to prevent HBV transmission to others. CDC works with multiple governmental and Asian American/ Pacific Island community partners to implement these recommendations and ensure appropriate screening, referral and treatment for viral hepatitis in outreach, clinical and public health settings. CDC also has contracted with the Institute of Medicine (IOM) to study viral hepatitis prevention in the United States and identify effective strategies for screening to prevent and control disease and death associated with chronic hepatitis infection. CDC is studying new strategies for HCV testing to improve the proportion of persons aware of their HCV infection. CDC continues to monitor progress towards development of a rapid anti-HCV test and to prepare for the routine use of this type of test in the U.S.

Hepatitis B vaccination and a dose of hepatitis B immunoglobulin administered 12—24 hours after birth, followed by completion of a three-dose vaccine series, has been demonstrated to be 85 to 95 percent effective in preventing HBV infection in infants born to HBV-infected mothers. CDC funds five cooperative agreements to assess and improve public health programs to prevent perinatal HBV and ensure all infants born to HBV-infected women are protected from HBV infection.

Item

Hepatitis C - The Committee commends the development of the National Hepatitis C Prevention Strategy, but urges CDC to update it based on input from the stakeholder community. The Committee continues to be concerned that fewer than half the people infected with HCV are aware of their condition and encourages any update of the strategy to include an aggressive screening program. (Page 112)

Action taken or to be taken

CDC has contracted with the Institute of Medicine to study viral hepatitis prevention in the United States and identify effective strategies for HCV screening, counseling, and referral to prevent and control disease and death associated with chronic HCV infection. CDC is studying new strategies for HCV testing to improve the proportion of persons aware of their HCV infection and is working with governmental, community, and industry partners to implement these strategies. CDC also continues to monitor progress towards development of a rapid anti-HCV test and to prepare for the potential impact of such HCV testing in the U.S.

Item

Liver Wellness -- The Committee is concerned about the lack of primary prevention activities regarding the negative health outcomes that result from engaging in unhealthy, liver damaging lifestyle behaviors. The Committee encourages CDC to undertake efforts to focus on liver wellness and to increase prevention education in this area, especially amongst adolescents. (Page 112)

Action taken or to be taken

CDC's Coordinated School Health Program provides a model for organizing health programs within schools to maintain and promote the well-being of young people, including liver wellness. CDC funds education and health agencies to help schools prevent sexual risk behaviors that result in HIV infection, especially among youth who are at highest risk. Since several strains of hepatitis are spread through sexual contact, funding for prevention of sexual risk behaviors supports the goal of decreasing the prevalence of hepatitis and thus promotes liver wellness.
In FY 2008, CDC funded six governmental and community-based organizations to develop and sustain integrated training and education programs directed toward risk populations, and public health and care providers.

Item

Global Tuberculosis -- To address the increasing global and domestic emergence of multi-drug resistant and extensively drug resistant TB, the Committee urges CDC to continue developing improved TB treatments, diagnostics, and control measures. (Page 113)

Action taken or to be taken

CDC's Tuberculosis Trials Consortium (TBTC) conducts programmatically relevant research to develop treatment regimens that are shorter, safer, and less costly for programs to deliver (owing to reduced staff time for delivering therapy, reduced patient time in treatment, and higher completion rates) than current standard therapy. CDC uses TBTC clinical trials results to form the basis for national treatment and prevention/control guidelines. Currently, TBTC is evaluating regimens that could reduce current treatment times in half, and has initiated a pilot study to evaluate a drug regimen to treat multi-drug resistant TB. CDC also works closely with the US Agency for International Development and the World Health Organization to provide operations research that will improve overseas TB programs, support infection control procedures to prevent transmission of TB and drug resistant TB in communal settings, and improve laboratory diagnostic testing.

Item

Tuberculosis among African Americans -- The Committee recognizes that TB rates remain disproportionably high among African Americans and lower socio-economic groups and that TB in the foreign-born population continues to increase. The Committee urges CDC to develop and implement, in coordination with the Advisory Council for the Elimination of Tuberculosis, a new national plan to meet this continuing public health challenge and lead the U.S. toward the elimination of TB, as called for in the Comprehensive TB Elimination Act, and to enhance its role in global TB control activities. (Page 113)

Action taken or to be taken

With guidance and consultation from CDC and others, the STOP TB USA Elimination Plan Committee (formerly The National Coalition for the Elimination of Tuberculosis) is now developing *A Call for Action on the Tuberculosis Elimination Plan for the United States.* This national plan updates the TB elimination plan of the United States, and is intended to serve as a guide for national organizations to set new interim goals and implement specific action plans to accelerate TB elimination. CDC will be a primary implementing partner in this national plan and has already taken steps to shift a portion of TB control resources to jurisdictions experiencing higher morbidity among special populations including racial and ethnic minorities, persons affected by homelessness and substance abuse, and foreign born persons, including those along the U.S.-Mexico border.

The Comprehensive TB Elimination Act of 2008 lists as a priority those projects that prevent, control, and eliminate TB, and provide research, training and education activities related to TB control. In addition to its domestic work to control and prevent TB disease, CDC is involved in global TB control activities that work toward the goals of the Act. For example, CDC is currently piloting projects to expand and augment existing infection control practices in outpatient and inpatient settings in several sites in Mexico to control TB along the U.S.-Mexico border. One of these projects will also include an interactive skills-building training workshop on infection control best practices using appropriate information from CDC guidelines. In sub-Saharan Africa, where the HIV epidemic has caused tremendous increases in the burden of TB, CDC is collaborating with the Botswana Ministry of Health on a national clinical trial to assess promising drug regimens to prevent TB.

Item

Tuberculosis Prevention Awards -- The Committee understands that CDC uses an administratively-determined formula in distributing TB prevention awards to State and local health departments and is pleased with CDC's ongoing efforts to convene a workgroup of CDC officials, outside TB professionals, and State and local public health officials to review and revise the TB funding distribution formula. The Committee urges CDC to evaluate the distribution of TB funding to reflect jurisdictions' demographics, morbidity, and complexity of cases. Additionally, the Committee directs CDC to reevaluate the jurisdictions deemed eligible to apply directly for funding under the program in order to ensure that cooperative agreement funding aligns with the epidemiological trends of the disease and the criteria of the 2002 revision of the distribution formula. (Page 113)

Action taken or to be taken

In FY 2005, CDC began distributing a portion of the TB prevention, control, and laboratory funds according to a funding formula that used weighted factors and five-year average of TB morbidity data. Currently, 35% of TB funds are distributed according to such a formula.

In 2008, CDC convened a workgroup (made up of representatives from the Advisory Council for the Elimination of TB (ACET), the National TB Controllers Association (NTCA), the Association of Public Health Laboratories, TB controllers and laboratory directors from high, medium and low-incidence states, big cities, and CDC employees involved in TB surveillance, program, and laboratory analysis) to make recommendations for a funding formula to be used in CDC’s next TB funding cycle.

The Workgroup examined TB morbidity trends and factors affecting morbidity such as the number of cases among racial and ethnic minorities, foreign-born persons, immigrant persons requiring follow-up for latent TB, and persons with HIV coinfection, TB drug resistance, alcohol and substance abuse, and homelessness. The workgroup also made recommendations on how to distribute funds among low, medium, and high-incidence jurisdictions, and for distributing laboratory funds to address workload associated with various diagnostic procedures. CDC will consider these recommendations in making funding awards for FY 2010 and beyond.

Item

Antimicrobial Resistance -- The Committee is concerned that there are significant gaps in CDC's ability to track and monitor life-threatening antimicrobial resistant pathogens, such as Klebsiella species, Pseudomonas aeruginosa, and methicillin-resistant Staphylococcus aureus, as these emerge in hospital and community settings. In particular, the Committee is concerned about the lack of capacity to do essential surveillance to describe and confirm regional outbreaks, and urges CDC to build upon existing structures, as well as add new sites, to cultivate a geographically distributed sentinel surveillance network. This network should collect

and analyze a variety of locally available clinical specimens and help CDC to describe, confirm, and intervene against emerging outbreaks of resistant pathogens. (Page 114)

Action taken or to be taken

CDC shares the Committee's concern regarding the rise of antimicrobial resistant pathogens in both healthcare and community settings. In response to this concern, CDC has developed enhancements to the National Healthcare Safety Network (NHSN) to monitor resistance. Enhancements include Multidrug Resistant Organism (MDRO) and *Clostridium difficil*e-Associated Disease (CDAD) modules to provide information on methicillin-resistant Staphylococcus aureus (MRSA), vancomycin resistant *Enterococcus, Klebsiella*, *Acinetobacter*, and *Clostridium difficile*-associated disease. NHSN is a secure, internet-based surveillance system that enables healthcare facilities to collect and use data about healthcare-associated infections (HAIs), adherence to clinical practices known to prevent HAIs, and other adverse events. Currently, over 2000 healthcare facilities from 47 states are enrolled in NHSN, including facilities from 19 states mandating public reporting using NHSN. To complement NHSN data, CDC continues to support the Emerging Infection Program which monitors MRSA in nine states and, beginning in 2009, will monitor *Clostridium difficile* infection in eight states. In addition, CDC continues to maintain and strengthen relationships with state health departments. This includes providing assistance to state health departments in identifying and investigating possible outbreaks including resistant organisms in healthcare and community settings.

Item

Cancer Death Disparities -- Cancer deaths have increased at a faster rate among Asian Americans, Native Hawaiians, and Pacific Islanders than any other racial and ethnic population. Asian American women are the first U.S. population to-experience cancer as the leading cause of death. The Committee urges CDC to prioritize developing and evaluating culturally competent interventions directly in Asian American, Native Hawaiian, and Pacific Islander communities. (Page 116)

Action taken or to be taken

According to the latest Annual Report to the Nation on the Status of Cancer, 1975-2005, death rates for Asian/Pacific Islander men and women have declined. The 2001-2005 rate for Asian /Pacific Islander men is 138.8 per 100,000 persons and the 2001-2005 rate for Asian/Pacific Islander women is 95.9 per 100,000 persons.

CDC provides funding to all 50 States, the District of Columbia, seven tribal governments and organizations, and seven U.S. Associated Pacific Islands and territories to establish cancer coalitions, assess the burden of cancer, determine priorities, and develop and implement comprehensive cancer control (CCC) programs. In 2008, CDC funded nine national organizations to develop and disseminate programs or strategies designed to improve cancer prevention, early detection, and/or survivorship among minority and underserved populations, including Vietnamese, Hispanic, Asian, and African Americans, and adolescents. The nine national organizations are increasing awareness about cancer prevention and control through education and tailored outreach methods to reduce the burden of cancer in these priority populations.

CDC's National Program of Cancer Registries (NPCR) identifies minority groups that experience health disparities in cancer and aids in state cancer planning.

CDC in collaboration with the National Cancer Institute (NCI) established the Cancer Prevention and Control Research Network (CPCRN). The CPCRN forms a subgroup of Prevention Research Centers (PRCs), which are CDC's flagship program for preventing and controlling

chronic diseases. The CPCRN works with communities and other partners to develop interventions to increase screening for cancer, especially for the Asian American and Pacific Islander populations. The CPCRN Centers at the University of Washington and the University of Los Angeles focus on Asian Americans for partnerships, intervention development and testing, and building capacity of community organizations to value, locate, select, adapt and use evidence-based interventions to increase cancer screening.

Item

Chronic Kidney Disease -- The Committee has included funding to continue planning for capacity and infrastructure at CDC for a kidney disease program and to institute a CKD surveillance system. The Committee is pleased that CDC convened an expert panel on CKD and urges CDC to prioritize and begin implementation of the recommendations. The Committee also has included funding to support additional grants for State-based, culturally appropriate, community demonstration projects for CKD detection. This shall include efforts to track the progression of CKD in patients who have been identified with CKD, as well as identify the onset of CKD among individuals who are members of high risk groups but have not been diagnosed. (Page 116-117)

Action taken or to be taken

The expert panel meeting reaffirmed CDC's on-going efforts in developing a public health program for Chronic Kidney Disease (CKD). The proceedings, recommendations and supplement from the expert panel meeting are currently in press and will be published around World Kidney Day in March 2009. In FY 2009, CDC will continue to fund eight demonstration projects in four states for CKD detection.

CDC is currently working with the Veterans Administration (VA) on the natural history of Chronic Kidney Disease (CKD) using data from the VA medical records system to study the evolution of CKD and factors involved in progression and outcome of CKD. The VA also contributes data to the development of a National CKD surveillance system.

Item

Chronic Obstructive Pulmonary Disease -- Chronic Obstructive Pulmonary Disease (COPD) is the fourth leading cause of death in the U.S. and the only one of the top five causes of death that is on the rise. The Committee is pleased that CDC has taken initial steps to collect COPD-related data in the National Health and Nutrition Examination Survey. The Committee encourages CDC to expand the data collection effort to other survey instruments, including the Behavioral Risk Factor Surveillance Survey and the National Health Interview Survey. Additionally, the Committee urges CDC to establish a COPD program, including the development of a national action plan for COPD. (Page 117)

Action taken or to be taken

CDC recognizes that COPD is a serious public health issue, given that it is the fourth leading cause of death and a major contributor to disability and impaired quality of life in this country. There is a clear need to further examine what public health should do regarding COPD. The CDC is interested in developing a roadmap to explore the public health issues related to COPD, which would include addressing the public health role in prevention, treatment, and management. This would include the examination of the best strategies to address surveillance of COPD. CDC supports the initial assessment and planning for public health in this important area.

Item

Colorectal Cancer -- The Committee is pleased with the leadership of CDC's National Colorectal Cancer Roundtable in promoting the availability and advisability of screening to health care providers and the general public. The Committee encourages CDC to continue its partnerships with State health departments, professional and patient organizations, and private industry to combat this devastating disease. (Page 117)

Action taken or to be taken

CDC works with national and state partners to address colorectal cancer control, conducts epidemiologic and behavioral science research and colorectal cancer surveillance, and educates providers and the public about colorectal cancer control.

CDC established a four-year Colorectal Screening Demonstration Program at five sites across the U.S. in 2005, to increase screening among low-income men and women who have inadequate or no health insurance coverage for colorectal cancer screening. The demonstration project will conclude in August 2009. The sites provide screening, and diagnostic follow-up services; conduct public education and outreach; assure tracking and follow-up of clients screened; provide patient navigation and support services; establish standards, systems, policies and procedures; develop partnerships; collect and track data; and evaluate the effectiveness of the demonstration program. More than 3,500 men and women have been screened for colorectal cancer and 11 persons have been detected with cancer and treatment initiated.

CDC is closely evaluating these programs to understand effective program development, monitor the number of clinical outcomes as they vary by program design and screening test type, and measure costs and cost efficiencies. During late 2008, CDC obtained key stakeholder input through four in-person meetings with state health departments, Comprehensive Cancer Control Program Directors and State Chairpersons, nationally recognized clinical experts, health economists, and other federal health agencies on the design of a second CDC-funded screening program focused on integrating colorectal cancer screening with other cancer or chronic disease programs, which will be initiated in late 2009.

Item

Epilepsy -- The Committee supports the CDC epilepsy program, which has made considerable progress over the past decade in establishing and advancing a public-health agenda to meet the needs of Americans with epilepsy. The Committee encourages CDC to establish a quality of life registry for epilepsy to capture the impact the condition has on employment, school, social life, and general well-being. The registry also will document the critical areas of research related to quality of life issues, will help families understand the relationship of medications and co-morbid conditions to the disease, and will build a platform for a national call to action for additional training for schools, employers, and adult day care providers. (Page 117)

Action taken or to be taken

In partnership with the National Epilepsy Foundation and research partners, CDC has established public health approaches to epilepsy. The epilepsy program has developed, evaluated, refined and disseminated programs, materials, and research findings to improve epilepsy public awareness at local and national levels and promote education, communication, and improved quality of life for people with epilepsy.

In 2008, program activities included a national epilepsy awareness media campaign that focused on minority populations and underserved groups; implementation of an educational

curriculum for middle school and high school students; implementation of a school nurse training program; an educational program focused on caregivers of seniors with seizures; a curriculum for police and emergency responders; an employment program for those who are transitioning into the workforce; formation of national and local youth councils to consult on materials and outreach tailored to young adults; strategic planning to promote understanding of cognition issues; and planning to address traumatic brain injury and post traumatic epilepsy.

Intramural and extramural research is underway in order to better understand the epidemiology of epilepsy, specifically the incidence and prevalence of the condition in diverse populations in the United States; risk factors and severity of epilepsy in these populations; and health disparities among people with epilepsy. Some of this research focuses on higher-risk sub-populations, specifically older adults and children. In addition, research on self-management interventions, depression prevention strategies, and the stigma of both epilepsy and mental illness is underway. Analysis of epilepsy-related state surveillance data will provide population-based estimates of the prevalence of epilepsy and burden of impaired quality of life in persons with epilepsy by race/ethnicity and seizure frequency and identify levels of psychological distress, health disparities and unmet mental health needs associated with the disorder in adults with epilepsy.

As demonstrated by many of the CDC epilepsy activities mentioned above, CDC appreciates the impact that epilepsy can have on quality of life issues related to employment, school, social life and general well-being. CDC could work with partners to determine the best mechanism to use to capture and document information related to these issues. This could help to guide future research and clarify the continuing education and training needs of those with epilepsy and their communities.

Item

Excessive Alcohol Use -- The Committee supports the recommendations of the Surgeon General's Call to Action on Under Age Drinking, including the call for ongoing independent monitoring of youth exposure to alcohol advertising. The Committee recognizes the importance of monitoring risk factors, which science has demonstrated contribute to youth drinking, and therefore urges CDC to develop and continue its work to monitor and report on the level of risk faced by youth from exposure to alcohol advertising. (Page 117)

Action taken or to be taken

Nearly half (45 percent) of all high school students in the U.S. report past-month alcohol consumption, and nearly two-thirds (64.2 percent) of those who drink report past-month binge drinking, usually on multiple occasions. Binge drinking is strongly associated with a wide range of other risk behaviors among youth, including sexual activity, smoking, physical fighting and poor school performance. CDC has been able to work with the Center on Alcohol Marketing and Youth (CAMY) to assess the proportion of alcohol advertising that appears in media venues that have a large youth audience. This approach to underage drinking is consistent with the 2003 Institute of Medicine report *Reducing Underage Drinking: A Collective Responsibility* that concluded that the most effective way to reduce the impact of alcohol advertising on youth is through restrictions on the placement of alcohol advertisements. One of these investigations, published in 2007, assessed the proportion of alcohol advertising that appeared in magazines with a disproportionately large youth audience (more than 15 percent). The researchers found that almost 45 percent of alcohol advertisements were placed in magazines with a youth-oriented readership, and that these ads accounted for more than 80 percent of all youth exposure to alcohol advertising in magazines.

Item

Genetics of Diabetic Kidney Disease -- The Committee recognizes CDC for its management of the SEARCH for Diabetes in Youth Study and the Genetics of Kidneys in Diabetes (GoKinD) Study, both of which have generated unique and valuable collections of biological samples from diabetic patients and their relatives. The Committee strongly urges CDC to continue its long-standing tradition of making biosamples available to the broader research community by taking immediate steps to ensure the widespread availability and accessibility of the SEARCH and GoKinD biosample collections. (Page 117)

Action taken or to be taken

CDC strongly supports the distribution of data and samples from the Genetics of Kidneys in Diabetes (GoKinD) collection and has met all requests that have been approved by the GoKinD Executive Committee while funded by the Special Statutory Type 1 Diabetes Funding, administered by the National Institutes of Diabetes, and Digestive, and Kidney Diseases (NIDDK). CDC developed a plan in collaboration with the co-owner of the collection, the Juvenile Diabetes Research Foundation (JDRF) and NIDDK to continue the distribution of the samples. Aliquots of the collection that met the ethical criteria of the plan are being shipped to the NIDDK repository for DNA preparation and distribution to NIH researchers, and CDC continues to maintain the collection to meet any future needs as funding allows.

CDC and NIDDK continue to work closely with SEARCH study grantees to assess the burden of type 1 and type 2 diabetes, in U.S. children and youth, less than 20 years of age. SEARCH has recently published the first nationwide estimates of type 1 and type 2 diabetes, in U.S. children and youth. The SEARCH study has research underway to monitor trends in diabetes by type, to learn more about how diabetes affects the daily lives of children and youth and to learn how their care and medical treatment can be improved. The SEARCH study has become a valuable resource for studies on children with diabetes and has already generated numerous federally and non-federally funded ancillary studies. SEARCH has also developed a comprehensive website with information on data and resources that are available to the scientific research community. SEARCH investigators are working closely with CDC, NIDDK, and collaborators such as the Juvenile Diabetes Research Foundation to facilitate studies on children with diabetes.

Item

Glaucoma -- Glaucoma has been called the silent thief of sight because it attacks without symptoms. The condition causes no pain, nor does it leave visible physical traces. A person with glaucoma can still have 20/20 vision straight ahead even as the disease is robbing its victims of peripheral vision inexorably until eyesight has been completely lost. Yet it is well known that for the vast majority of individuals with glaucoma, the chances of preserving threw sight are significantly improved if diagnosed and treated early. The Committee urges CDC to continue working on efforts to increase screenings, diagnosis, and treatment of glaucoma. (Page 117-118)

Action taken or to be taken

In FY 2008, CDC funded the Friends of the Congressional Glaucoma Caucus Foundation to conduct public awareness and screening for glaucoma. The Foundation uses a three-step procedure for their screening program. These steps are: 1) Public Awareness to educate communities about the risks of glaucoma and other blindness-causing eye diseases; 2) Detection to provide free public screenings to all people for glaucoma and other potentially vision-destroying diseases; and 3) Follow-up to ensure, to the greatest extent possible, that

anyone whose screening test indicated a problem sees an ophthalmologist to be thoroughly examined and treated.

The Foundation uses mobile eye screening units that contain at least two screening stations and a small private consulting office. The Foundation has conducted approximately 45,000 screenings per year for the past two years. In 2008-2009, the Foundation has set a goal of screening 50,000 Americans. Previously, screenings have been held in 38 of the lower 48 states. In 2008, glaucoma screenings were conducted in the following states: Wisconsin, South Dakota, Utah, Oregon, and Washington.

Item

Gynecologic Cancer Education and Awareness Program -- The Committee is encouraged by the progress that has been made by CDC, in coordination with the Office of Women's Health, to initiate a National Education Campaign on Gynecologic Cancers and available prevention strategies, working with qualified nonprofit private sector entities. The Committee urges the rapid expansion of current public education activities to increase women's knowledge regarding gynecologic cancers. Additionally, the Committee urges the creation of a strategy for improving efforts to increase awareness and knowledge of primary heath care providers with respect to the prevention and appropriate identification of and treatment of gynecological cancers. (Page 118)

Action taken or to be taken

CDC, in collaboration with the Department of Health and Human Services (DHHS) Office of Women's Health, established the *Inside Knowledge: Get the Facts About Gynecologic Cancer* campaign to increase awareness and knowledge among women and health care providers about gynecologic (GYN) cancers, focusing primarily on the five major GYN cancers: cervical, ovarian, uterine, and vaginal, and vulvar. Educational materials developed thus far, focus on symptoms, risk factors, prevention strategies, and screening (when recommended).

CDC also is conducting research to inform ongoing campaign development. Baseline research is being conducted with consumers and health care providers through participation in annual consumer and physicians surveys, in order to inform campaign development and measure GYN cancer knowledge, attitudes, and behaviors. CDC will purchase survey questions annually to enable long-term campaign evaluation. In addition, CDC plans to conduct focus groups in English and Spanish to: better understand the target audiences' knowledge, behaviors and attitudes related to GYN cancers; test and refine campaign messages and strategies; and test creative concepts for public service announcements. Upon completion of this research, CDC plans to develop public service announcements and other materials and strategies in order to have the greatest impact possible on women and health care providers.

Item

Healthy Brain Initiative -- Studies have indicated that cumulative risks for vascular disease and diabetes also increase the risk of cognitive decline and Alzheimer's disease. In 2005, the Committee called upon CDC to launch an Alzheimer's-specific segment of the Healthy Aging Program, to aggressively educate the public and health professionals about ways to reduce the risks of developing Alzheimer's by maintaining a healthy lifestyle. The Committee recommends funding to continue this program and encourages CDC to support the evaluation of existing population-based surveillance systems, with a view toward developing a population based surveillance system for cognitive decline, including Alzheimer's disease and dementia. (Page 118)

Action taken or to be taken

CDC's Healthy Aging Program is excited to be a part of the national efforts to address the impact of cognitive impairment and Alzheimer's disease in the public health arena. CDC and the Alzheimer's Association, in collaboration with many local, state and national-level partners developed *The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health* (www.cdc.gov/aging). The *Road Map* is a call for action and a guide for implementing an effective and coordinated approach to addressing cognition as a public health issue. Ten priority actions were identified. One of the ten priority actions focuses on the need for state and community-level data on the perceived impact of cognitive impairment.

CDC's Healthy Aging Program is developing a set of questions to provide data on the perceived impact of cognitive impairment and to develop measures to be included in the Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is the world's largest, on-going telephone health survey system, tracking health conditions and risk behaviors in the United States yearly since 1984 (www.cdc.gov/brfss) The purpose of the "Impact of Cognitive Impairment" Module is to derive state-level, health-related data on the impact of cognitive impairment among American adults aged 18 years and older. Questions will assess the number of households impacted by cognitive impairment, impact of cognitive impairment on activities within and external to the household, types of assistance needed, and diagnosis by a health care provider.

CDC's Healthy Aging Program funded the Healthy Aging Research Network, a network of nine CDC Prevention Research Centers, to identify how diverse groups of older adults understand cognitive health and which health promotion approaches related to cognitive health may have the most public appeal. This project also examines the perceptions of caregivers and healthcare providers. Among many of the dissemination efforts is a special 2009 issue of *The Gerontologist* that will highlight many of the research findings. Understanding the public's perceptions about cognition will help to develop strategies about how best to speak to the public about cognitive health and associated risk factors.

Item

Inflammatory Bowel Disease -- It is estimated that up to 1.4 million people in the U.S. suffer from Crohn's disease or ulcerative colitis, collectively known as inflammatory bowel disease (IBD). The Committee continues to prioritize support for CDC's inflammatory bowel disease epidemiology study and has included funding to continue this important initiative. The Committee also encourages CDC to initiate the establishment of a pediatric patient registry. (Page 118-119)

Action taken or to be taken

CDC's epidemiologic studies are making significant contributions to the field of Crohn's disease and ulcerative colitis. During fiscal years 2005-2007, funds were used to collaborate with the Crohn's and Colitis Foundation of America (CCFA) and a large health maintenance organization to better understand the natural history of IBD and factors that predict the course of disease. This initial research addresses questions regarding potential differences in the quality of treatment given to patients with IBD in the community setting, including patient, provider, or clinic predictors of treatment differences and possible effects on patient outcomes. The first collaborative projects were: the study of factors that influence quality of care for IBD; the review of the use of biologics in the treatment of IBD; and the variation in treatment and outcomes in relation to time and the clinic in adult Crohn's disease and in ulcerative colitis (1996-2005).

Other current projects include examining provider variation in the treatment of Crohn's disease, disparities in mortality for IBD patients, disparities in surveillance for colorectal cancer

associated with IBD, and variation in outcomes in relation to race. Studies of pediatric variation in IBD and the natural history of IBD among children are being conducted as well.

Item

National Sleep Awareness Roundtable -- The Committee is pleased with the activities of the National Sleep Awareness Roundtable (NSART), a partnership between CDC, other Federal agencies, and the voluntary health community. The Committee expects CDC to support NSART and has provided funding within the Community Health Promotion program for this initiative and to incorporate sleep and sleep-related disturbances into established CDC surveillance systems. (Page 119)

Action taken or to be taken

CDC has partnered with the National Sleep Foundation (NSF) to develop the National Sleep Awareness Roundtable (NSART), a coalition of about 40 governmental and professional organizations. CDC funded the NSF to support NSART to raise public awareness about sleep and sleep outcomes; to promote science-based public policies; and to promote recognition of insufficient sleep as a public health problem and the need for care for individuals with sleep disorders. In 2008, CDC collaborated with the NSF to hold three NSART meetings. CDC also has worked collaboratively with staff from the NSF to formulate outreach efforts pertaining to cognitive health/impairment and sleep and sleep disorders.

In collaboration with sleep experts from the NSF, CDC developed a five-question optional module for inclusion on the Behavioral Risk Factor Surveillance System (BRFSS)**.** The five sleep measures are: hours of sleep; snoring; insufficient sleep; daytime sleepiness; and drowsy driving. CDC funded 16 states to administer this module on the BRFSS in 2009. Additionally, beginning in 2008 a question on insufficient sleep was added to the BRFSS core questionnaire, which is asked by all states.

Item

Obesity -- To effectively address this epidemic, the Committee urges CDC to provide leadership and coordination for the Federal government's efforts to address the overweight and obesity epidemic. In this leadership role, CDC should develop a national plan to prevent overweight and obesity among children, adolescents, and adults. On an annual basis, the Committee encourages CDC to issue a report to the Nation on trends, research, and prevention efforts related to overweight and obesity in children, adolescents, and adults, including CDC's investments in State and community obesity prevention programs. (Page 119)

Action taken or to be taken

In FY 2008, CDC engaged in several activities that extend its leadership and coordination in the Federal government’s efforts to prevent and control overweight and obesity. CDC issued a new Funding Opportunity Announcement (FOA) for its nutrition, physical activity, and obesity state-based program. Under the new FOA, 23 states received an average award of $750,000, for a five-year period, to conduct policy and environmental change initiatives through six target areas – increase physical activity, consumption of fruits and vegetables, and breastfeeding, and reduce TV-viewing time, consumption of sugar sweetened beverages, and consumption of high density, low nutritional value foods.

At the same time, CDC initiated a process to develop a national roadmap for obesity prevention and control which will outline and integrate policy and environmental strategies that can be implemented across the intervention settings to affect the six target areas to reduce overweight and obesity.

In 2008, CDC staff made substantial contributions to the HHS Physical Activity Guidelines providing the first set of guidelines for the amount of physical activity needed to see health benefits. CDC hosted the National Summit on Legal Preparedness for Obesity Prevention and Control to assess the use of laws as a tool to prevent and control obesity. CDC also hosted the Community Approaches to Obesity Prevention meeting to identify promising community-based obesity prevention practices. Lastly, CDC released the state specific prevalence of obesity data in its MMWR which show that there was no statistical change in obesity rates for men or women. Ogden et. al, State-Specific Prevalence of Obesity Among Adults --- United States, 2007, MMWR 57(28); 765-768 (July 18, 2008).

Item

Oral Health -- The Committee recognizes that reducing disparities in oral disease will require additional and more effective efforts at the State and local levels. The Committee provides funding for States to strengthen their capacities to assess the prevalence of oral diseases and the associated health burden, to target resources and interventions, including proven preventive strategies, such as school-linked sealant programs, to the underserved, and to evaluate changes in policies and programs. The Committee encourages CDC to advance efforts to reduce the health disparities and burden from oral diseases, including those that are linked to chronic diseases such as diabetes and heart disease. (Page 119)

Action taken or to be taken

In FY 2009, CDC is working with 16 states to build capacity for effective oral health prevention programs and to reduce disparities among disadvantaged populations. This effort includes working with states to develop school-based or school-linked programs to reach children at high risk of oral disease with proven prevention services, such as dental sealants. CDC also works with states to expand the fluoridation of community water systems and operates a fluoridation training and quality assurance program. In addition, CDC will expand its efforts to assess the extent of oral diseases, target prevention programs and resources to those at greatest risk, fund prevention research, and evaluate changes in policies and programs to reduce disparities. CDC will continue to develop methods to identify and reach adults at greatest risk of oral diseases associated with other chronic diseases (e.g., diabetes and heart disease) and their risk factors.

Item

Psoriasis -- The Committee recognizes that there is a lack of epidemiological and longitudinal data on individuals with psoriasis and encourages CDC to support such data collection in order to better understand the co-morbidities associated with psoriasis and the relationship of psoriasis to other public health concerns, such as the high rate of smoking and obesity among those with the disease. The Committee believes that a national registry that collects such data will help improve the care and outcomes for people with these diseases by increasing understanding of the risk factors and the incidence and prevalence of co-morbidities. (Page 120)

Action taken or to be taken

Psoriasis and psoriatic arthritis can compromise the quality of life for people affected by the condition by affecting basic life functions such as sleeping, preventing work in certain occupations, staying physically active, and causing psychological distress. The CDC Arthritis Program is consulting with the National Psoriasis Foundation (NPF) on how a public health approach to these problems might complement the existing clinical, research, and educational approaches. This will help assess the current status of psoriasis and psoriatic arthritis from a public health perspective and suggest possible next steps.

CDC's National Center for Health Statistics obtains data on psoriasis through its National Health and Nutrition Examination Survey (NHANES). Data obtained from 2003-2006 provide estimates of psoriasis and severity for the U.S. population ages 20 to 59. For 2009-2010 NHANES participants ages 16 and older will be asked if they have ever been told by a doctor or other health care professional whether they had psoriasis. Also, study participants who indicate that they have had arthritis are asked about the type of arthritis and for 2009-2010 NHANES will include an option for recording a response of "psoriatic" arthritis.

Item

Pulmonary Hypertension -- The Committee continues to be interested in Pulmonary Hypertension (PH) and encourages CDC to expand its efforts to increase awareness of this devastating disease among the general public and health care providers. (Page 120)

Action taken or to be taken

Early diagnosis and treatment are critical to improve the prognosis of those with pulmonary hypertension, so increased public and health care provider awareness of the signs and symptoms of pulmonary hypertension is important. To that end, CDC currently funds the Pulmonary Hypertension Association to conduct an outreach and awareness campaign. Additionally, CDC has published an analysis of data on hospitalizations and deaths in U.S. men and women with pulmonary hypertension entitled *Pulmonary Hypertension Surveillance* – United States, 1980-2002.

Item

Scleroderma -- The Committee is aware that scleroderma, an over-production of collagen resulting in the hardening of skin and joints, affects an estimated 300,000 people in the U.S. The Committee encourages CDC to undertake steps to increase awareness in the public and larger healthcare community to allow for earlier diagnosis and treatment. (Page 120)

Action taken or to be taken

CDC recognizes the severity of disease that affects less than one percent of Americans. Scleroderma is one of the more than 100 conditions that comprise arthritis and other rheumatic conditions. At present, CDC does not have a program to undertake steps to address scleroderma from a public health perspective.

Item

Trigeminal Neuralgia -- Trigeminal neuralgia is a facial pain that is described as among the most acute known to humankind and is referred to by many as the suicide disease. The Committee encourages CDC to establish an epidemiology study to identify people with trigeminal neuralgia and their families. (Page 120)

Action taken or to be taken

Trigeminal Neuralgia is a rare chronic condition characterized by severe burning or shock-like face pain, typically felt on one side of the jaw or cheek. The onset is sudden and the frequency is sporadic -- episodes can last from days to months at a time and then disappear for months or years. The presumed cause of Trigeminal Neuralgia is a blood vessel pressing on the trigeminal nerve in the head as it exits the brainstem. It can be difficult to diagnose, but treatments include medicines like anticonvulsants and tricyclic antidepressants, surgery, and complementary techniques. Currently, CDC does not have a program to address this condition.

Item

Cerebral Palsy -- The Committee understands that CDC is preparing a report on the types of data most needed for a public health response to cerebral palsy and the strengths and weaknesses of the various methods of collecting epidemiologic data in this population. As a result of the report's findings, the Committee encourages CDC to establish cerebral palsy surveillance and epidemiology systems that would work in concert with similar disorders. (Page 121-122)

Action taken or to be taken

CDC prepared a Report to Congress, in September 2008, on the types of data needed for a public health response to cerebral palsy, including a critical evaluation of epidemiologic methods. CDC continues to share the Committee's concern on public health needs for surveillance and research on cerebral palsy. CDC has monitored the prevalence of cerebral palsy in metropolitan Atlanta since the early 1980's. In 2002, two of CDC's autism and developmental disability monitoring (ADDM) sites expanded their surveillance activities to include cerebral palsy. In 2006, the number of sites also tracking cerebral palsy increased to four. CDC is supportive of expanding the surveillance of cerebral palsy within this established network utilizing already existing systems.

Item

Dandy-Walker Syndrome -- The Committee urges CDC to conduct an epidemiological study or surveillance program capable of producing an accurate estimate of prevalence for the spectrum of abnormalities classified as Dandy-Walker Syndrome, Dandy-Walker Malformation, and Dandy-Walker Variant. (Page 122)

Action taken or to be taken

CDC is aware of the public health concerns regarding Dandy-Walker syndrome and shares the Committee's concerns. Currently, Dandy Walker malformation is part of the National Birth Defects Prevention Study, conducted by CDC's Centers for Birth Defects and Research Prevention. One site has proposed an analysis to assess potential risk factors for Dandy-Walker and will do this using pooled data from all the sites. The proposed analysis will assess exposures during pregnancy reported by mothers during a telephone interview.

Item

Hemophilia -- The Committee recognizes the many accomplishments of the Blood Disorders Division at CDC, especially those achieved through its partnership with the network of Hemophilia Treatment Centers. The Committee encourages CDC to continue its efforts to support and expand access to comprehensive chronic disease management for people with bleeding and clotting disorders and to improve outreach to the growing numbers of women with bleeding disorders. (Page 122)

Action taken or to be taken

CDC continues to support and expand outreach for people affected by bleeding and clotting disorders. CDC has expanded the scope of its hemophilia surveillance program to include women, and persons with other rare bleeding disorders, such as von Willeband disease. CDC supports an outreach program that is intended to increase awareness among healthcare providers and women with heavy menstrual periods who may have a bleeding disorder.

Item

Folic Acid Education Campaign -- The Committee continues to be concerned that, according to a recent CDC analysis, 60 percent of American women of childbearing age are not consuming the recommended amount of folic acid. Within the funds provided, the Committee urges CDC to expand the folic acid education campaign and inform more women and healthcare providers about the benefits of folic acid, particularly the Hispanic population. (Page 122)

Action taken or to be taken

While decreases in blood folate levels have been observed in all race and ethnic groups, CDC has focused on Hispanic women of reproductive age because they have well documented higher rates of neural tube defects (NTDs) than other groups. For this reason, CDC has spent the last three years conducting formative research with Spanish-speaking Latinas of childbearing age with the goal of developing new educational materials and media messages. Focus groups and interviews were segmented by women's level of acculturation and multivitamin use status. Based on the findings from the research, new materials and messages were developed, printed and made available to the public. Media buys for radio and print were purchased and aired during National Folic Acid Awareness Week in January 2008. In addition, CDC is working with partners to explore the impact of fortifying corn masa flour with folic acid.

Item

Limb Loss -- The Committee urges CDC to continue programs that advance the quality of life of individuals with limb loss through research and support. Specifically, the Committee continues to support CDC's resource and information center, which assists individuals living with disabilities, and their families, in need of information on medical, physical, and emotional resources and support to reintegrate socially and economically into society. (Page 122)

Action taken or to be taken

CDC continues its programs to improve the quality of life for individuals with limb loss through work with our partner Amputee Coalition of America (ACA) to develop and operate the National Limb Loss Information Center (NLLIC). It includes a national hotline, a website, referral services, educational curricula, youth programs, a national peer network, consumer publications, fact sheets and a library catalog. The NLLIC has been funded for a total of 9 years. ACA successfully re-competed for an additional 4 years funding.

Item

Marfan Syndrome -- The Committee continues to be interested in Marfan Syndrome. Many individuals affected by Marfan Syndrome are undiagnosed or misdiagnosed until they experience a cardiac complication. Increasing awareness of this genetic condition is vital to ensuring timely diagnosis and treatment. The Committee encourages CDC to engage in efforts to increase awareness of this disease among the public and health care providers. (Page 122-123)

Action taken or to be taken

CDC is aware of the public health concerns regarding Marfan syndrome and shares the Committee's concerns. CDC has included Marfan syndrome in an External Partner's Group within CDC's National Center for Birth Defects and Developmental Disabilities (NCBDDD) to work collaboratively with other similar groups interested in disabling conditions.

Item

National Birth Defects Prevention Study -- The Committee encourages CDC to continue the promising research being conducted by the regional centers for birth defects research and prevention. The Committee has included sufficient funding to maintain the current level for States to continue birth defects surveillance systems, programs to prevent birth defects, and activities to improve access to health services for children with birth defects. The Committee encourages CDC to expand the birth defects studied in the National Birth Defects Prevention Study to include single gene disorders, like Fragile X. (Page 123)

Action taken or to be taken

CDC shares the concern of the Committee about the 1/33 babies born with birth defects and in improving access to health services for these children. Because approximately two thirds of the causes of birth defects remain unknown, CDC continues to work closely with its grantees and funded partners to establish priorities for birth defects surveillance, research, and prevention and to advance efforts in these areas. The CDC-funded Centers for Birth Defects Research and Prevention rely on pooled data from state tracking programs to conduct the largest study of the causes of birth defects ever conducted, the National Birth Defects Prevention Study. Recently, the decade-long investment in this collaborative research effort has yielded a significant return on investment with the publication of several important findings on advanced reproductive technology (ART), medication use, smoking, and obesity, among others, and their relationship to birth defects. Additional findings are being prepared for publication, and collaborators continue to collect and analyze data in an effort to find additional causes of birth defects.

In FY 2008, CDC recompeted the grant award for the eight, previously funded Centers for Birth Defects Research and Prevention and was able to award funding to five of the grantees. These centers will continue to conduct existing activities of the National Birth Defects Prevention Study.

Item

Racial and Ethnic Disparities -- The Committee understands that birth defects are a leading cause of infant mortality affecting about 120,000 babies each year, and that while both genetic and environmental factors can cause a birth defect, the causes of 70 percent of birth defects are unknown and exhibit significant racial and ethnic disparities. The Committee understands that racial and ethnic disparities in health outcomes are complex and not fully understood. Therefore, within the sums provided, the Committee urges CDC to expand and coordinate research, and develop public education campaigns on racial and ethnic disparities targeted at birth defects, enhancing the quality of life, and preventing secondary conditions among people who are living with mental or physical disabilities. (Page 123)

Action taken or to be taken

Addressing racial and ethnic disparities for children with birth defects and individuals affected by disabilities is an important priority for CDC. Currently, CDC is developing an education and outreach effort for sickle cell disease, a condition which predominately affects those of African or Mediterranean origin. Additionally, CDC continues to support its long-standing outreach campaign, aimed at increasing folic acid consumption among Hispanic women of childbearing age in order to reduce the occurrence of neural tube defects. Future plans include further research into causes of racial and ethnic disparities among individuals with disabilities and targeted outreach through non-traditional channels (such as through faith-based and other community organizations), aimed at addressing the special health care concerns of minority groups.

Item

Spina Bifida -- The Committee recognizes that Spina Bifida is the leading permanently disabling birth defect in the U.S. While Spina Bifida and related neural tube defects are highly preventable through adequate daily folic acid consumption, and its secondary effects can be mitigated through appropriate and proactive medical care and management, such efforts have not been adequately supported to result in significant reductions in these costly conditions. The Committee encourages CDC to use FY 2009 resources to support the development of a National Spina Bifida Patient Registry and for efforts to improve care in the nation's Spina Bifida clinics. The Committee continues to support CDC's collaboration with the Agency for Healthcare Research and Quality to develop this registry. (Page 123)

Action taken or to be taken

CDC continues its programs to promote maternal folic acid consumption and to promote the health and well-being of children and adults living with spina bifida. With regards to the latter activity, CDC supports the efforts of the national Spina Bifida Association to enhance and market prevention education to health care professionals; to expand prevention and quality of life programs through local chapters; to evaluate information resources and the provision of these resources and information to the public; to identify ways to utilize a spina bifida clinic network to demonstrate program effectiveness; and to improve care in spina bifida clinics. CDC continues to support the national spina bifida clearinghouse and resource center and other information and support activities provided by the Spina Bifida Association. CDC also continues to work in collaboration with the Agency for Healthcare Research and Quality to establish a spina bifida clinic registry for the purposes of improving care and advancing understanding of interventions that will improve health and quality of life for children and adults living with spina bifida.

Item

Spinal Muscular Atrophy (SMA) -- The Committee is concerned that although SMA carrier testing is available to help persons of childbearing age make more informed reproductive decisions with regard to the risk of SMA in their offspring, it is poorly utilized due to minimal familiarity and understanding of the disease and limited awareness of the existence of a carrier test among the general public and professional communities. The Committee urges CDC to promote education and awareness of SMA and SMA carrier screening among professional communities and the public. (Page 123-124)

Action taken or to be taken

CDC is aware of the public health concerns regarding Spinal Muscular Atrophy and shares the Committee's concerns. At present, CDC is not able to promote educational or awareness campaigns on SMA carrier screening. If resources become available, CDC would undertake this activity, and incorporate it into some of our existing programs.

Item

Asian/Pacific Islander Data -- The Committee is concerned with the lack of accurate national statistics regarding the number of Asian Americans, Native Hawaiians, and Pacific Islanders infected with Hepatitis B and other diseases, as existing population-based surveys that test for Hepatitis B, such as NHANES, have under sampled Asian/Pacific islander groups. The Committee urges the National Center for Health Statistics (NCHS) to devote more resources/efforts to increasing the sampling of Asian Americans, Native Hawaiians, and Pacific Islanders in NHANES in order to reduce this disparity. (Page 124)

Action taken or to be taken

CDC's National Center for Health Statistics (NCHS) continues to work to obtain data for the U.S. population and for a variety of communities within the overall population. The nationally representative National Health and Nutrition Examination Survey (NHANES) oversamples non-Hispanic blacks and Hispanics so that estimates can be made for these groups which results in lowering the number of other respondents, including Asian/Pacific Islanders, by a small amount. CDC is examining survey design changes beginning in 2011 to allow for cumulating four years of data to provide some estimates for the Asian population.

Even with four years of data, it is not feasible, given the relatively small size of the NHANES sample (approximately 5000 participants per year), to consider oversampling of Asian subgroups and Native Hawaiians and Other Pacific Islanders. A national NHANES is not an appropriate vehicle for examining health conditions within these smaller subpopulations; however, other NCHS data collections are able to obtain some information on the smaller subpopulations. Vital statistics data are currently available which include information on births and deaths for Asian Americans, Native Hawaiians, and Pacific Islanders. Also, the National Health Interview Survey includes an oversample of Asians, Native Hawaiians, and Pacific Islanders and includes data on Hepatitis B vaccination as well as on a variety of health conditions.

Item

Data Disaggregation -- The Committee is concerned that not all populations in the U.S. are represented in NCHS data collection efforts. The Committee urges NCHS to prioritize research that will increase understanding end develop baseline and disaggregated health information that is non-existent on Asian American, Native Hawaiian, and Pacific Islander communities in order to establish health equity in data. The Committee further urges CDC to comply with the 1997 Office of Management and Budget Standards on collecting, maintaining, and Federal data on race and ethnicity and disaggregate data on Asian Americans from data on Native Hawaiians and Pacific Islanders. (Page 124)

Action taken or to be taken

CDC's National Center for Health Statistics (NCHS) collects survey data that are nationally representative of the U.S. population and, in the case of vital statistics, collects information on all births and deaths that occur in the U.S. It is also possible to make estimates for population subgroups as defined by race/ethnicity, geography, age, gender, and socioeconomic status. The information that is collected regarding race and ethnicity is in compliance with the 1997 OMB standards. Presenting data specific to racial and ethnic groups is a longstanding NCHS priority. Data are not provided in the case of racial and ethnic subgroups or other groups, however, if there are not sufficient numbers of cases to ensure that the estimates are reliable and confidentiality is maintained.

In order to increase the number of cases to permit more extensive data analysis, on some surveys, NCHS will oversample a specific group in the population. The National Health Interview Survey (NHIS) oversamples Asian American, Native Hawaiian, and Pacific Islander communities. Currently, NCHS is developing reports that contain more detailed reliable NHIS estimates of the health of Asian Americans, Native Hawaiians, and Pacific Islanders while insuring that the confidentiality of the participants in the survey is maintained. In addition, CDC has issued two funding announcements that encourage research on methodologies to improve the sampling of smaller populations and the protection of the confidentiality of survey participants.

Item

National Health Interview Survey -- The Committee is concerned over the lack of health care data about the lesbian, gay, hi-sexual and transgender (LGBT) community. The Committee urges CDC to enhance the National Health Interview Survey to collect data regarding the sexual and gender identity of survey respondents using tested methods for collecting this data with the greatest possible accuracy. (Page 124)

Action taken or to be taken

Important questions about sexual identity have been asked successfully on surveys conducted by CDC's National Center for Health Statistics (NCHS) that offer respondents a private atmosphere in which to respond. One such survey – the National Survey of Family Growth - uses a computerized self-administered questionnaire that prevents others in the household from hearing or seeing the questions and answers. Another survey – the National Health and Nutrition Examination Survey - administers sensitive questions in its Mobile Examination Center which has the semblance of a medical office and offers a private setting. The National Health Interview Survey (NHIS), however, is a "face to face", household survey with several possible respondents per household, and is conducted in a family or group atmosphere. This setting does not lend itself to reading aloud questions of a highly personal or sensitive nature. Alternative methods of administration are needed if sensitive questions are to be included on the NHIS, and CDC is exploring the possibility of using a computer assisted technology that allows the respondent to read or hear questions in private. Also, the addition of sensitive questions on the survey can only be undertaken if the questions are likely to produce accurate data without jeopardizing the integrity of the survey.

With regard to the logistics of incorporating sensitive questions into the NHIS, CDC has discussed accomplishing this using their current equipment with the Census Bureau (the data collection contractor for the NHIS). The Census Bureau, however, has not used the audio computer assisted self interviewing methodology before and has not developed internal expertise.

Item

Asthma -- The Committee applauds CDC for convening the 2007 asthma policy meeting to facilitate the coordination of Federal initiatives on asthma treatment and prevention. The Committee urges CDC to continue its work to develop evidence-based best practices for policy interventions that will reduce asthma morbidity and mortality, with specific emphasis on indoor and outdoor air pollution. (Pages 126)

Action taken or to be taken

CDC's completed systematic review of effective multi-component, multi-trigger home visit interventions with an environmental focus was presented to the US Task Force on Community Preventive Services. This review defines a scientific standard for judging asthma interventions and provides justification for developing and supporting evidence-based best practices for policy interventions that will reduce the burden of asthma. CDC continues to explore the impacts of indoor and outdoor air pollution on human health. Specifically, CDC has been engaged in activities related to the impact of indoor exposures such as carbon monoxide (CO) poisonings/exposure on health to effectively develop evidence-based practices for policy interventions to reduce morbidity and mortality associated with CO exposures.

In addition, CDC is engaged in surveillance activities related to CO poisoning to determine the magnitude and distribution CO exposure, to understand the health and economic burden of CO, and to assist in developing targeted public health prevention messages.

These surveillance efforts include incorporating CO-related questions in national surveys to assess the national prevalence of CO detector and generator use, and enhancing its surveillance efforts at the national level to collect mortality data, emergency department visits, and hospitalization data. The results have been the first national estimates of CO-related hospitalizations reported in MMWR this year, and a new national surveillance system to capture the number of individuals receiving hyperbaric oxygen treatment for CO was developed this year.

Item

Biomonitoring -- The Committee applauds the CDC's biomonitoring efforts. CDC's National Report on Human Exposure to Environmental Chemicals is a significant information database that provides invaluable information for setting research priorities and for tracking trends in human exposures over time. The Committee encourages CDC to implement the July 2006 recommendations of the National Research Council of the National Academy of Sciences with regard to enhancement of efforts to communicate biomonitoring results in context. Among other activities, funds may be used to develop communications principles, guidelines and case studies that can be applied both within CDC and to biomonitoring efforts at the State level. (Page 126)

Action taken or to be taken

In an effort to respond to recommendations from the National Research Council, CDC's Environmental Health Laboratory has embarked on a multi-year communication research project to explore knowledge, attitudes, and beliefs about biomonitoring among a variety of scientific and non-scientific audiences. This research will be used to develop communication goals and strategies that will guide CDC and others in their efforts to better communicate biomonitoring findings.

On strategy to improve communications involves CDC's effort to disseminate biomonitoring information more quickly. CDC's Environmental Health Laboratory instituted a new approach to publishing biomonitoring exposure results. CDC publishes peer-reviewed journal articles to describe the exposure of the U.S. population to specific chemicals or groups of chemicals as soon as they are available. The abstracts and links to the full-text articles are posted on CDC's website as soon as they are published to make this information readily accessible to the public and scientific community. CDC will continue periodic releases of the *Report*, which will provide summarized results of chemical measurements for all environmental chemicals measured in participants from the National Health and Nutrition Examination Survey (NHANES).

Item

Childhood Lead Poisoning Screening -- The Committee commends CDC for supporting the development of a Clinical Laboratory Improvement Amendments (CLIA)-waived, point-of-care lead poisoning screening device. This Food and Drug Administration approved technology holds great promise for increasing testing rates in underserved communities. The Committee encourages CDC, to promote broader use of this screening tool among its lead poisoning prevention grantees. (Page 126)

Action taken or to be taken

The Childhood Lead Poisoning Prevention Program has implemented several active measures to increase the visibility and use of point-of-care lead poisoning screening devices. The major benefit of these devices is their ability to provide point of care service to children from low income backgrounds, especially racial and ethic minorities living in substandard, poorly maintained housing built before 1950. This population often lacks transportation and logistical

means for screening activities at health facilities. To increase the use of point of care instruments CDC has implemented the following measures: 1) Provided guidelines to grantees stressing the importance of reaching a screening level of 85 percent in high risk areas and target populations: 2) Facilitated the process whereby the manufacturer informs the states of the purchasers of the instrument on a regular basis, so that they can inform them of the state blood lead reporting laws; 3) Provided technical assistance to grantees to work with their state Medicaid programs, so that adequate reimbursement is provided for performance of the testing; 4) Communicated with Centers for Medicaid Services regional representatives when state Medicaid reimbursement for the testing is inadequate to cover material costs and 5) Highlighted the instruments" capabilities at the 2008 National Healthy Housing Conference Expo which was attended by all 40 grantees.

Item

Climate Change -- The Committee provides $7,500,000 in new funding for CDC to develop and enhance programs to help the nation prepare for and adapt to the potential health effects of global climate change. In developing this program, the Committee urges CDC to develop additional expertise in epidemiologic and laboratory science, infectious disease ecology, modeling and forecasting, climatology and earth science, communication and behavioral change science, and to support public health research in these areas. (Page 127)

Action taken or to be taken

While climate change is recognized as a global issue, the effects of climate change will vary across geographic regions and populations. Certain groups are at higher risk for health consequences from climate change than others. These groups include: children and the elderly; people of low socioeconomic status; members of racial and ethnic minorities; and people with certain pre-existing health conditions or disabilities. Other health effects could result from changes in the food supply and from population dislocation, which would be most severe in developing nations.

CDC is committed to leading efforts to address anticipated health effects of climate change, to assure that systems are in place to detect and track the effects, and to take steps to prepare for, respond to, and manage associated risks. Congressional funding for public health actions related to climate change will be used to support a wide range of public health activities involving diverse parts of CDC and will not only build on existing experience and expertise, but will consolidate, extend and deepen this work. Within CDC, major efforts will include data collection and surveillance; research on the domestic and global health impacts of climate change and responses, on adaptation and communication strategies, and on preparedness plans; provision of scientific information to other agencies, policy-makers, health professionals, and the public; preparedness planning for various climate change scenarios; partnership development with a range of existing and new agencies, governmental and non-governmental organizations; training on public health aspects of climate change; and technical assistance to state and local health departments. Externally, CDC will support academic research and state and local public health preparedness planning related to climate change.

Item

Healthy Homes -- The Committee recognizes the synergies that can be gained by a holistic approach to analyzing and addressing health threats in houses. Lead-based paint, fires, injury hazards, disease carrying vectors, such as rodents and insects, drinking water contamination, asthma triggers, mold, and radon are some of the examples of health threats people can face in their homes that can be addressed with existing strategies. The Committee believes that advances in public health can be made by assessing and addressing these threats in an

integrated fashion. As part of a new healthy housing effort, the Committee urges CDC to begin to incorporate a broader focus on research, interventions, capacity building, and outreach related to health hazards in houses to complement existing childhood lead elimination activities. (Page 127)

Action taken or to be taken

CDC's Childhood Lead Poisoning Program has begun to incorporate a broader focus in its activities with the goal of transforming itself into a Healthy Housing Program. Childhood lead poisoning prevention activities have reduced the prevalence of lead poisoning more than 10-fold since 1976. Our nation is close to realizing the dream of eliminating childhood lead poisoning as a large-scale public health issue, which will be an outstanding public health success. Because the Childhood Lead Poisoning Prevention Program has worked closely with state, local, tribal, and private officials to eliminate childhood lead poisoning, a nationwide network of trained personnel knowledgeable about lead poisoning prevention and related activities has been created. In addition to lead paint hazards, this network is now poised to address in an integrated and holistic fashion additional hazards in houses, including radon, injury hazards, disease carrying rodents and insects, mold, fires, contaminated drinking water, septic systems, and asthma triggers. A detailed operational plan has been created to expedite the program's transformation into a Healthy Housing Program. Next steps include continuing to research science-based interventions to reduce health hazards in houses and to establish pilot projects to create and test models for future healthy housing programs. Pilot project awardees will submit data to CDC that will provide a view of the potential structures for healthy housing programs at the state/tribal, and local level, as well as the programs' ability to ensure healthy housing training takes place, establish referral networks, and to collect and analyze program data. Additionally, the CDC National Lead Poisoning Prevention Training Center will expand its training capacity from 160 in FY 2008 to 200 in FY 2009. The Healthy Housing Component will be expanded in the curriculum.

Item

Injury Control Research Centers -- Within the total for Injury Prevention and Control, the Committee includes funding for the injury control research centers. Funds are provided to support their core operations and to expand research to improve translation of effective interventions. The Committee is pleased with CDC's work to establish a new injury control research center that will focus on research and prevention related to children and adolescents. With injury still the leading cause of death and disability among children and youth, the Committee encourages CDC to continue its efforts to support the new center in order to prevent and reduce injury in this population. The Committee also encourages CDC to work closely with each center to ensure each is funded at a level commensurate with CDC's programmatic expectations. (Page 129)

Action taken or to be taken

The Injury Control Research Centers (ICRC) program has made significant contributions to the translation of injury prevention research findings into state and national policies and programs. CDC currently funds 13 ICRCs, including the newly established center in Columbus, OH. In FY 2009, CDC will continue to fund this newly established ICRC, which is focused on children's and adolescents. In an attempt to assure that CDC funds the strongest injury research teams, CDC opened up funding opportunities in FY 2008 to nationwide competition for the first time without restrictions on the number of ICRCs per region. These awards will be made in FY 2009.

Item

National Violent Death Reporting System -- The National Violent Death Reporting System (NVDRS) is a State-based program that links data from public health, law enforcement, medical examiner, and social service agencies to create a more complete picture of the circumstances surrounding violent death. Informed by the information gleaned from this data, States and communities are able to develop effective strategies to prevent violent death, including those caused by suicide, homicide, child abuse, and domestic violence. The Committee is supportive of the NVDRS and encourages CDC to continue to work with private health and education agencies as well as State agencies in the development and implementation of this injury reporting system. (Page 129)

Action taken or to be taken

Established by the CDC in FY 2002, the National Violent Death Reporting System (NVDRS) allows states and communities to develop a system to collect timely, complete and accurate information about violent deaths by linking information from law enforcement agencies, medical examiners and coroners, health providers, crime laboratories and other agencies. As of December 2008, CDC funds 17 states to implement NVDRS. CDC continues to work with state health departments, academic institutions, health care providers, national organizations, health care providers, national organizations, and others regarding the system's development and implementation.

Item

Trauma Centers -- Research conducted by CDC's National Center for Injury Prevention and Control has shown that care at a level I trauma center lowers the risk of death of injured patients by 25 percent. The Committee further recognizes that more programs are needed to determine and evaluate the components of trauma systems that contribute to improved outcomes for the acutely injured, especially among survivors and their families in the context of community-based injury prevention. The Committee encourages CDC to develop and disseminate best practices guidelines in the field of acute trauma care and further encourages CDC to issue competitively awarded grants to trauma centers for field testing of best practices guidelines, including programs for survivors and their families. (Page 129)

Action taken or to be taken

CDC has collaborated with several national trauma-related organizations to develop the "Field Triage Decision Scheme: The National Trauma Triage Protocol," (Decision Scheme) which will be published and disseminated in 2009. In addition, the CDC will distribute supporting materials for EMS professionals to use to conduct trainings for EMS providers nationally. Also, CDC will work with key partners and stakeholders to identify opportunities and resources to help with implementation, and with evaluation of the impact of the Decision Scheme and protocol. Investments in implementation will not only yield valuable information in identifying gaps within the trauma field but will also inform efforts in improving effectiveness of the Decision Scheme and protocol.

Item

Healthcare Worker Occupational Health and Safety Research -- The Committee urges NIOSH to establish an extramural Healthcare Worker Occupational Health and Safety Research Program within the National Occupational Research Agenda to better characterize healthcare worker exposures and conduct research on better intervention strategies. To facilitate the adoption of the interventions, the Committee encourages NIOSH to provide grants to non-profit

organizations to train nurses and other frontline healthcare workers on workplace hazards and their control. (Page 130-131)

Action taken or to be taken

In FY 2008, NIOSH funded twenty-four extramural research projects that were focused on healthcare workers. An additional sixteen projects were funded by NIOSH that address the healthcare worker population along with other worker populations. Subsequent to the passage of the Occupational Safety and Health Act in 1970, NIOSH initiated a grant program and began funding training project grants (TPGs) throughout the country in several core disciplines. In 1977, the training grant program expanded with the establishment of eleven Educational Resource Centers, later renamed as the Education and Research Centers (ERCs), in universities throughout the country. There are currently 17 ERCs and 32 TPGs across the country. One of the goals of the NIOSH training program has been to provide graduate training at the masters and doctoral level to Occupational Health Nurses (OHNs). This includes training related to the prevention of injuries and illnesses that are experienced by healthcare workers. Since 1980, NIOSH-funded academic training programs have produced 1,268 masters' graduates and 76 doctoral graduates. Currently NIOSH is supporting OHN training programs at 14 of the 17 ERCs across the country.

NIOSH has also worked actively with stakeholders to identify and communicate the health and safety issues of healthcare workers. As part of its National Occupational Research Agenda (NORA) process, NIOSH has formed a "Healthcare Sector Council" representing a broad range of stakeholders. This group has drafted a "State of the Sector" document detailing key health and safety issues in the healthcare and social assistance sector and is making recommendations through a broad range of multidisciplinary research efforts. The final document will be available early in calendar year 2009 and will be a valuable resource for those interested in improving the state of occupational safety and health in the sector.

Item

Pandemic Influenza Preparedness for Healthcare Workers -- According to the 2008 report issued by the Institute of Medicine of the National Academies, "Preparing for an Influenza Pandemic: Personal Protective Equipment for Healthcare Workers", there is a critical need to better understand the airborne transmissibility of pandemic influenza and other pathogenic bioaerosols to protect healthcare workers and to gauge the efficacy of the currently recommended types of respirators. The Committee includes $5,000,000 within the total for Personal Protective Technology for NIOSH to better characterize the airborne transmissibility of bioaerosols and to evaluate filtering face piece respirators. other types of respirators, and other personal protective equipment to determine whether suitability of these products offer sufficient protections under actual working conditions for healthcare workers and other first responders from bioaerosol exposures. The Committee further urges NIOSH to design and the next generation of user friendly respirators for use by healthcare workers to address the unique challenges posed by the healthcare environment. (Page 131)

Action taken or to be taken

FY 2009 research will focus on understanding influenza transmission and on improving and strengthening personal protective equipment design, testing and certification. This includes research to measure the amount and size of airborne particles contained in influenza virus. Research to examine the efficacy and effect of simple decontamination procedures and to examine the risks associated with handling filtering facepiece respirators (FFR) exposed to viral aerosols will continue in FY 2009. FY 2009 funds will also be used within the area of respirator fit test science.

Item

Global Health Programs -- The Committee commends the efforts of the CDC's Global AIDS and Global Malaria Programs in implementing, respectively, the President's Emergency Plan for AIDS Relief (PEPFAR) and the President's Malaria Initiative (PMI). The Committee observes that PEPFAR and PMI are limited in geographic scope. They do not include research to develop improved treatments to combat drug resistance, research to develop new preventive tools such as vaccines and microbicides, ramping up of laboratory capacity, and operational research to ensure that interventions are implemented successfully. The Committee encourages expansion of the CDC's Global AIDS and Malaria program activities beyond PEPFAR and PMI. The Committee finds that the global burden of neglected tropical diseases, one billion people annually, is staggering. These diseases pose risks to American troops and others traveling abroad. The Committee encourages CDC to ramp up its efforts to develop treatments, diagnostics, vaccines, and improved control measures for neglected tropical diseases such as leishmaniasis, denure fever and African Sleeping Sickness. (Page 132-133)

Action taken or to be taken

In accordance with the July 30, 2008 PEPFAR reauthorization legislation, CDC will play an enhanced role in carrying out and expanding program monitoring, impact evaluation research and analysis, and operational research. In addition, CDC will advise the Malaria Coordinator on priorities for operations and implementation research and to become a key implementer of this research. Finally, CDC will play an enhanced role in biomedical research including microbicides and anti-retroviral treatment resistance as well as building laboratory capacity that includes TB and malaria diagnostic capabilities. These expanded activities as well as CDC's on-going PEPFAR contributions to health systems strengthening will help to build mainstream healthcare capacity in resource-constrained countries that will positively impact neglected tropical disease program activities and service delivery. This impact will also extend beyond the existing 70 PEPFAR countries CDC currently supports as the geographic scope of PEPFAR increases over the next five years.

In the area of Neglected Tropical Diseases (NTDs), CDC currently delivers community-based treatment interventions, develops monitoring and evaluation guidelines, provides technical assistance to other countries on a variety of NTDs, evaluates field diagnostic tools, and collaborates with multiple international organizations to diagnose, document, and treat NTDs.

Item

Malaria -- The Committee is concerned that funding for CDC's global malaria activities has decreased over the past several years. As progress is made in the global fight against malaria, CDC's technical expertise and experience in program implementation are vital in these efforts. Insecticide resistance and drug resistance have the real potential to compromise global malaria efforts and point to the need for the development and testing of new technologies and materials for insecticide treated nets and new antimalarial therapies. The Committee is concerned that failure to support these efforts could seriously impair future control efforts. The Committee urges CDC to expand these research efforts, including the areas of Insecticide Treated Bed Nets and Intermittent Preventative Treatment in pregnancy. The Committee also urges CDC to expand its technical assistance, monitoring and evaluation efforts, in particular its assistance to the President's Malaria Initiative, the World Bank, the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and other malaria control initiatives. (Page 133)

Action taken or to be taken

CDC's Malaria program focuses on prevention and control of malaria throughout the world in partnership with local, state, and federal agencies in the United States, medical and public

health professionals, national and international organizations, and foreign governments. CDC partners with the United States Agency for International Development (USAID) to implement the President's Malaria Initiative, and provides leadership in monitoring and evaluation of malaria control activities. CDC also provides technical assistance, including monitoring and evaluations, to the World Health Organization (WHO), the World Bank, the United Nations' Children's Fund (UNICEF), the United Nations Foundation (UNF), and USAID in malaria endemic countries in Africa, Asia, and the Americas in support of the global Roll Back Malaria Program and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

Operational research is needed to refine current existing malaria prevention and control tools and strategies and to develop new ones to keep ahead of the curve in the fight against malaria. For example, Insecticide resistance and drug resistance have the potential to compromise global malaria efforts. CDC is involved in a variety of research efforts to develop these refined or new tools and strategies, and to then work with in-country partners to implement and evaluate them. Examples include conducting field studies in Kenya to assess durability and effectiveness of different long-lasting insecticide treated nets (LLIN), as well as assessing the following: durability of different indoor residual insecticides; prevalence and extent of counterfeit drugs and their contribution to drug resistance; intermittent preventive treatment for pregnant women and infants; access top artemisinin-containing combination drug regimens and their associated impacts; the interaction of HIV and malaria; and, mosquito larval ecology for the reduction of vector breeding.

In addition to conducting activities in the President's Malaria Initiative countries (in Africa), CDC also conducts research in non-African setting such as Indonesia, South America, India, and Southeast Asia. These initiatives may bring about new insights and collaborations that could be applied in African countries affected by malaria.

Item

Public Health Professionals -- The Committee is concerned about documented shortages in State health departments of applied epidemiologists and laboratory scientists-core public health professionals. Within the funds provided, the Committee urges CDC to expand the training capacity of existing fellowship training programs designed to alleviate these shortages, including fellowship training of public health informatics specialists to increase State, local, and Federal disease detection capacity. (Page 135)

Action taken or to be taken

Training of professionals and public health research scientists are important CDC priorities and consequently CDC has supported several research training programs, including mentored research awards (K01), institutional training grants (T01), and dissertation research awards (R36), since 2004 for an overall investment of over $42 million. CDC will continue to support training of public health professionals and research scientists through various mechanisms and programs.

Item

Social Work Research -- The Committee commends CDC for greater engagement with the social work research community and encourages CDC to develop a plan to expand the involvement of social work researchers in assisting the CDC in meeting the goals of "Advancing the Nation's Health: A Guide to Public Health Research Needs, 2006-2015". (Page 135)

Action taken or to be taken

Critical to CDC's mission is new scientific knowledge that can accelerate the translation of research findings into public health practice. Social work researchers are in a unique position to

help move the best science into practice, which is essential to protect and improve health. Through its yearly research funding opportunity announcements, many of which focus on translation research, CDC encourages and engages with social work researchers to help meet its goals of protecting and improving the public's health.

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – SENATE

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2010 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

SENATE REPORT NO. 110-410

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

Antimicrobial Resistance -- The Committee is concerned by the emergence of life-threatening antimicrobial resistant pathogens in hospital and community settings. The Committee encourages CDC to explore the model of ''sentinel'' surveillance to describe and confirm regional outbreaks. (Page 70)

Action taken or to be taken

CDC shares the Committee's concern regarding the rise of antimicrobial resistant pathogens in both healthcare and community settings. In response to this concern, CDC has developed enhancements to the National Healthcare Safety Network (NHSN) to monitor resistance. Enhancements include Multidrug Resistant Organism (MDRO) and *Clostridium difficil*e-Associated Disease (CDAD) modules to provide information on methicillin-resistant Staphylococcus aureus (MRSA), vancomycin resistant *Enterococcus, Klebsiella*, *Acinetobacter*, and *Clostridium difficile*-associated disease. NHSN is a secure, internet-based surveillance system that enables healthcare facilities to collect and use data about HAIs, adherence to clinical practices known to prevent HAIs, and other adverse events. Currently, over 2000 healthcare facilities from 47 states are enrolled in NHSN, including facilities from 19 states mandating public reporting using NHSN. To complement NHSN data, CDC continues to support the Emerging Infection Program which monitors MRSA in nine states and, beginning in 2009, will monitor *Clostridium difficile* infection in eight states. In addition, CDC continues to maintain and strengthen relationships with state health departments. This includes providing assistance to state health departments in identifying and investigating possible outbreaks including resistant organisms in healthcare and community settings. Both of these systems provide data on emerging antimicrobial resistance issues, similar to a sentinel surveillance system. In addition, these systems also provide data on overall burden, trends, and impact of prevention of antimicrobial resistance, which is critically important in addressing the full range of antimicrobial resistance issues.

Item

Blood Safety Surveillance -- The Committee understands that CDC's Division of Healthcare Quality Promotion is adding to the National Healthcare Safety Network [NHSN] the collection and analysis of data on medical errors and adverse events occurring during blood donation and transfusion. The Committee encourages CDC to consider mapping out how a blood safety surveillance system would work, the active role of the national blood collection and transfusion community, and the appropriate Federal role. (Page 70)

Action taken or to be taken

The CDC is adding to the National Healthcare Safety Network (NHSN), a module that will enable the collection and analysis of data on medical errors and adverse events occurring during blood transfusion in a public-private partnership with the transfusion community. CDC is

not involved in the collection of information related to blood donations. FDA requires reporting of serious blood donor adverse events, and a more comprehensive system is being developed in public-private partnership between AABB and HHS/OS. CDC is currently in the process of developing a strategic plan for a blood safety surveillance program related to blood transfusion, including how the surveillance system will function and federal resources needed to sustain the program. The strategic plan will be provided as a Report to Congress by April 15, 2009.

Item

Zoonotic, Vector Borne, and Enteric Diseases -- In addition, the Committee directs the CDC to include in its annual budget justification an itemized expenditure of funds for each CFS research project or activity in the following five functional expense categories: surveillance and epidemiology; clinical assessment and evaluation; objective diagnosis and pathophysiology; treatment and intervention; and education, including the CFS marketing campaign and health care provider education. (Page 70)

Action taken or to be taken

An itemized expenditure of funds for each CFS research project or activity in the predefined five functional expense categories is provided below.

CFS Research Program – FY 2008 Obligated Funds	
Surveillance & Epidemiology	$781,888
Clinical Assessment & Evaluation	$1,622,783
Objective Dx & Pathophysiology	$1,613,502
Treatment & Intervention	$194,753
Provider Education	$352,591
Other - (CFS Advisory Committee)	$37,500
Total	**$4,603,017**

Item

Syringe Re-use -- The Committee is deeply troubled by recent outbreaks of hepatitis caused in some part by the re-use of syringes in outpatient settings. These outbreaks are entirely preventable with well-known infection control practices. The Committee intends that the increased funding provided be used to respond to outbreaks and to ensure that infection control measures are adhered to broadly, including provider education and patient awareness activities. The Committee encourages the CDC to partner with industry and university researchers to identify the best interventions to reduce the possibility of disease transmission in the healthcare setting. (Page 71)

Action taken or to be taken

CDC shares the Committee's concern regarding recent outbreaks resulting from the re-use of syringes in outpatient settings. CDC will continue to provide assistance and respond to outbreaks as requested by state departments of health. CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC) is developing additional infection control guidance specifically for outpatient settings. In addition, with increased funding CDC plans to (1) increase capacity to train surveyors in state and local jurisdictions conducting accreditation surveys to identify safety problems, such as re-use of syringes; (2) work with professional organizations to increase content on safe injection practices in continuing education curricula and licensure examinations; (3) organize a meeting with industry, researchers, and academia to explore the

development of “fail safe” systems and products to improve injection practices; and (4) work with partners in consumer advocacy and other partner organizations to increase patient awareness and empowerment related to infection control practices.

Item

Hepatitis Testing -- The Committee encourages CDC to formulate a plan for significant testing for hepatitis, including the implementation of rapid testing technology as a means of ascertaining the prevalence of hepatitis and taking steps to prevent and treat this disorder. In particular, the Committee encourages CDC to validate interventions focused on preventing mother-child transmission and other efforts targeted to the prevention of HBV, especially in the Asian American community. (Page 71)

Action taken or to be taken

In FY 2008, CDC published chronic hepatitis B screening recommendations that identify the populations in greatest need of HBV testing. The recommendations also address the steps needed to delay or halt the progression of HBV-related liver disease and to prevent HBV transmission to others. CDC works with multiple governmental and Asian American/ Pacific Island community partners to implement these recommendations and ensure appropriate screening, referral and treatment for viral hepatitis in outreach, clinical and public health settings. CDC also has contracted with the Institute of Medicine (IOM) to study viral hepatitis prevention in the United States and identify effective strategies for screening to prevent and control disease and death associated with chronic hepatitis infection. CDC is studying new strategies for HCV testing to improve the proportion of persons aware of their HCV infection. CDC continues to monitor progress towards development of a rapid anti-HCV test and to prepare for the routine use of this type of test in the U.S.

Hepatitis B vaccination and a dose of hepatitis B immunoglobulin administered 12—24 hours after birth, followed by completion of a three-dose vaccine series, has been demonstrated to be 85 to 95 percent effective in preventing HBV infection in infants born to HBV-infected mothers. CDC funds five cooperative agreements to assess and improve public health programs to prevent perinatal HBV and ensure all infants born to HBV-infected women are protected from HBV infection.

Item

HIV Testing -- The Committee recognizes that the domestic HIV/ AIDS testing initiative has resulted in increased testing among African American populations. The Committee encourages CDC to expand this program to additional jurisdictions and recommends that CDC consider a similar campaign among other high risk populations. The Committee is supportive of CDC’s promotion of rapid HIV tests in its HIV/AIDS testing activities. The Committee notes that in FY 2008, six States were awarded incentive grants under the Early Diagnosis and Screening program authorized in section 2625 of the Public Health Service Act. The Committee has provided $30,000,000 in FY 2009 for this program within the HIV testing funding. The funds may be awarded to States newly eligible for the program in FY 2009. No State may be eligible for more than $1,000,000. The Committee intends that the amounts that have not been awarded by May 31, 2009 shall be awarded for other HIV testing programs. (Page 71)

Action taken or to be taken

In FY 2008, CDC was able to fund two additional jurisdictions for the domestic HIVAIDS testing initiative, bringing the total number of funded jurisdictions to 25. While the initiative is focused on areas with the highest burden of AIDS among African Americans, jurisdictions are also encouraged to target testing to other high risk populations, such as Hispanics/Latinos.

In FY 2008, CDC announced the availability of funding for the Early Diagnosis Grant Program, authorized in section 2625 of the Public Health Service Act. Of those states that applied, six provided proof of eligibility, i.e. they had put in place certain policies for HIV testing of pregnant women, infants, and clients of STD clinics and substance abuse treatment centers prior to January 1, 2008. By May 31, 2008 CDC awarded a total of $4.5 million to these states, based on the following epidemiologic criteria: AIDS cases, cases of certain STDs associated with HIV in the U.S., and live births. No state received more than $1,000,000.

In spring 2009, CDC will publish a request for proposals for the Early Diagnosis Grant program for FY 2009 funding. Per directives in the Conference report, CDC will limit overall funding for the program to $15,000,000. CDC will fund only newly eligible applicants and will limit individual awards to $1,000,000 or less, based on standard epidemiologic criteria. Awards will be made by May 31, 2009.

Item

Microbicides -- The Committee requests the CDC include information in the FY 2010 budget justification on the amount of anticipated and actual funding it allocates to activities related to research and development of microbicides for HIV prevention. (Page 72)

Action taken or to be taken

CDC plans to fund research and development for microbicides for HIV prevention in FY 2010 at the same level as FY 2008—$900,000.

Item

Tuberculosis Control -- The Committee recognizes that tuberculosis [TB] rates remain disproportionally high among African Americans and lower socioeconomic groups and that TB in the foreign-born population continues to increase. The Committee encourages the CDC to develop and implement a new national plan to meet this continuing public health challenge. (Page 72)

Action taken or to be taken

With guidance and consultation from CDC and others, the STOP TB USA Elimination Plan Committee (formerly The National Coalition for the Elimination of Tuberculosis) is now developing *A Call for Action on the Tuberculosis Elimination Plan for the United States.* This national plan updates the TB elimination plan of the United States, and is intended to serve as a guide for national organizations to set new interim goals and implement specific action plans to accelerate TB elimination. CDC will be a primary implementing partner in this national plan and has already taken steps to shift a portion of TB control resources to jurisdictions experiencing higher morbidity among special populations including racial and ethnic minorities, persons affected by homelessness and substance abuse, and foreign born persons, including those along the U.S.-Mexico border.

The Comprehensive TB Elimination Act of 2008 lists as a priority those projects that prevent, control, and eliminate TB, and provide research, training and education activities related to TB control. In addition to its domestic work to control and prevent TB disease, CDC is involved in global TB control activities that work toward the goals of the Act. For example, CDC is currently piloting projects to expand and augment existing infection control practices in outpatient and inpatient settings in several sites in Mexico to control TB along the U.S.-Mexico border. One of these projects will also include an interactive skills-building training workshop on infection control best practices using appropriate information from CDC guidelines. In sub-Saharan Africa, where the HIV epidemic has caused tremendous increases in the burden of TB, CDC is

collaborating with the Botswana Ministry of Health on a national clinical trial to assess promising drug regimens to prevent TB.

Item

Immunization and Respiratory Diseases -- The Committee encourages CDC to continue to close the vaccine gap for adults by continuing to support states in their use of section 317 vaccine funds to provide hepatitis B vaccinations to high risk adults in settings such as STD clinics, HIV counseling and testing sites, correctional facilities and drug treatment clinics. (Page 73)

Action taken or to be taken

In 2006, the Advisory Committee on Immunization Practices (ACIP) recommended universal hepatitis B vaccination in STD clinics, HIV testing and treatment facilities, drug treatment and prevention settings, correctional facilities, and other care settings caring for persons at risk for hepatitis B virus (HPV) infection. To support this recommendation, in 2006 CDC requested state immunization programs to consider using Section 317 funds to purchase adult hepatitis B vaccine to help public health programs implement hepatitis B immunization as recommended by ACIP. In jurisdictions that were able to provide Section 317 funds to purchase adult hepatitis B vaccine, CDC also encouraged collaboration among immunization, STD, HIV and viral hepatitis prevention programs to define targeted populations, vaccination settings, number of vaccine doses needed, and the responsibilities of the participating public health programs.

In 2007 CDC launched an Adult Hepatitis B Vaccination Initiative, and $20 million in Section 317 vaccine funds were allocated to 51 state and local health departments in FY 2008. The goal of reducing the incidence of hepatitis B among adults in the United States is supported through this initiative by making hepatitis B vaccine purchase funding available to state and local public health units that work in settings that reach high-risk unvaccinated adults. In FY 2009, $16 million in 317 vaccine funds will be available to support this initiative. CDC has invited the Section 317 immunization grantees to submit proposals to receive this additional funding. As in FY 2008, the funds will be available only for hepatitis B vaccine purchase.

Item

Alzheimer's Disease -- Studies have indicated that cumulative risks for vascular disease and diabetes also increase the risk of cognitive decline and Alzheimer's disease. In 2005, the Committee called upon CDC to launch an Alzheimer's specific segment of the Healthy Aging Program, to educate aggressively the public and health professionals about ways to reduce the risks of developing Alzheimer's by maintaining a healthy lifestyle. The Committee encourages CDC to support the evaluation of existing population based surveillance systems, with a view toward developing a population based surveillance system for cognitive decline, including Alzheimer's disease and dementia. (Page 75)

Action taken or to be taken

CDC's Healthy Aging Program is excited to be a part of the national efforts to address the impact of cognitive impairment and Alzheimer's disease in the public health arena. CDC and the Alzheimer's Association, in collaboration with many local, state and national-level partners developed *The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health* (www.cdc.gov/aging). The *Road Map* is a call for action and a guide for implementing an effective and coordinated approach to addressing cognition as a public health issue. Ten priority actions were identified. One of the ten priority actions focuses on the need for state and community-level data on the perceived impact of cognitive impairment.

CDC's Healthy Aging Program is developing a set of questions to provide data on the perceived impact of cognitive impairment and to develop measures to be included in the Behavioral Risk Factor Surveillance System (BRFSS). The purpose of the "Impact of Cognitive Impairment" Module is to derive state-level, health-related data on the impact of cognitive impairment among American adults aged 18 years and older. Questions will assess the number of households impacted by cognitive impairment, impact of cognitive impairment on activities within and external to the household, types of assistance needed, and diagnosis by a health care provider.

CDC's Healthy Aging Program funded the Healthy Aging Research Network, a network of nine CDC Prevention Research Centers, to identify how diverse groups of older adults understand cognitive health and which health promotion approaches related to cognitive health may have the most public appeal. This project also examines the perceptions of caregivers and healthcare providers. Among many of the dissemination efforts is a special 2009 issue of *The Gerontologist* that will highlight many of the research findings. Understanding the public's perceptions about cognition will help to develop strategies about how best to speak to the public about cognitive health and associated risk factors.

Item

Chronic Obstructive Pulmonary Disease -- The Committee is pleased that the CDC has taken initial steps to collect COPD-related data in the National Health and Nutrition Examination Survey. The committee encourages CDC to consider expanding the data collection effort to other survey instruments including the Behavioral Risk Factor Surveillance Survey and the National Health Interview Survey. (Page 75)

Action taken or to be taken

CDC has been investigating the possibility of obtaining data on COPD by adding to or modifying the current National Health Interview Survey (NHIS) questions on chronic bronchitis and emphysema – the two main conditions which lead to COPD. In the past there was consensus that the term COPD (which can only be diagnosed by measuring respiratory output) would not be understood by most survey respondents. More recently, however, the scientific community has placed increasing emphasis on the term COPD and there is some evidence that the term has become more generally understood. As a result, NCHS is considering including a question on COPD on the NHIS; this effort will be carried out in conjunction with the National Health and Nutrition Examination Survey which also obtains data on lung function.

In the interim, CDC is considering activities that can be undertaken to highlight COPD using existing NHIS data on chronic bronchitis and emphysema, including modification of a routine report to include estimates showing adults with either chronic bronchitis or emphysema. NHIS estimates on chronic bronchitis and emphysema in 2003-07 will also be included in an upcoming report on chronic conditions.

Item

Chronic Obstructive Pulmonary Disease -- The Committee is aware that Alpha-1 Antitrypsin Deficiency (Alpha-1) is the major identified genetic risk factor for developing COPD. The Committee encourages the development of a COPD program that considers genetic related COPD risk factors such as Alpha-1. (Page 75-76)

Action taken or to be taken

CDC recognizes that COPD is a serious public health issue, given that it is the fourth leading cause of death and a major contributor to disability and impaired quality of life in this country. There is a clear need to further examine what public health should do regarding COPD. The CDC is interested in developing a roadmap to explore the public health issues related to COPD,

which would include addressing the public health role in prevention, treatment, and management, and could address genetic related risk factors. CDC is supportive of the initial assessment and planning for public health in this important area.

Item

Diabetes -- The Committee encourages CDC to expand the National Diabetes Education Program with the goal of expanding the availability of public awareness campaign to reach the millions of individuals and high risk populations who have unmanaged diabetes. (Page 76)

Action taken or to be taken

The National Diabetes Education Program (NDEP) goals are to reach individuals and high-risk populations with information to help them prevent and control diabetes. NDEP campaigns and consumer materials are carefully tailored for groups at highest risk for diabetes: older adults, African Americans, American Indians, Alaska Natives, Hispanics and Latinos, Asian Americans, and Pacific Islanders. Many materials are available in 16 languages, from Spanish to Samoan. Translations and adaptations have been pre-tested with intended populations.

NDEP campaign materials and products are field tested, marketed and promoted to a diverse audience, with a focus on ethnic minority groups at high risk for diabetes to address health disparities. Multiple work groups composed of professionals and community partners representing these groups at high risk assist NDEP in the development and dissemination of materials (e.g., African American/African Ancestry Work Group, American Indian/Alaska Native Work Group, Hispanic/Latino Work Group, and Asian American/Pacific Islander Work Group).

Item

Diabetes Epidemiology and Genetics -- The Committee supports the SEARCH for Diabetes in Youth Study and the Genetics of Kidneys in Diabetes [GoKinD] Study, both of which have generated unique and valuable collections of biological samples from diabetic patients and their relatives. The Committee encourages the CDC to continue to ensure the availability and accessibility of the SEARCH and GoKinD biosample collections. (Page 76)

Action taken or to be taken

CDC strongly supports the distribution of data and samples from the Genetics of Kidneys in Diabetes (GoKinD) collection and has met all requests that have been approved by the GoKinD Executive Committee while funded by the Special Statutory Type 1 Diabetes Funding, administered by the National Institutes of Diabetes, and Digestive, and Kidney Diseases (NIDDK). CDC has developed a plan in collaboration with the co-owner of the collection, the Juvenile Diabetes Research Foundation (JDRF) and NIDDK to ensure the continued distribution of the samples. Aliquots of the collection that met the ethical criteria of the plan are being shipped to the NIDDK repository for DNA preparation and distribution to NIH researchers, and CDC continues to maintain the collection to meet any future needs as funding allows.

CDC and NIDDK continue to work closely with SEARCH study grantees to assess the burden of type 1 and type 2 diabetes, in U.S. children and youth, less than 20 years of age. SEARCH has recently published the first nationwide estimates of type 1 and type 2 diabetes, in U.S. children and youth. The SEARCH study has research underway to monitor trends in diabetes by type, to learn more about how diabetes affects the daily lives of children and youth and to learn how their care and medical treatment can be improved. The SEARCH study has become a valuable resource for studies on children with diabetes and has already generated numerous federally and non-federally funded ancillary studies. SEARCH has also developed a comprehensive website with information on data and resources that are available to the scientific research community. SEARCH investigators are working closely with CDC, NIDDK, and collaborators

such as the Juvenile Diabetes Research Foundation to facilitate studies on children with diabetes.

Item

Eating Disorders -- The Committee is pleased that the CDC has made data on eating disorders publicly available. In particular, the Committee appreciates the inclusion of NHANES data on eating behaviors and encourages the CDC to expand their analysis of those data to include disability estimates. The Committee is aware of several studies reporting a 6–10 percent mortality rate for Americans with eating disorders and urges the CDC to collaborate with eating disorders researchers in order to better understand the disparity between these studies and CDC reported morbidity and mortality, focusing on obtaining a clear picture of what might be barriers to the detection and reporting of eating disorders. (Page 76)

Action taken or to be taken

Eating disorders are of particular concern to public health because of their potentially serious health consequences. Obtaining reliable data on eating disorders, however, can be difficult because of the secretive nature of the behavior. Although CDC data systems can collect some data on weight history and eating behaviors, such as selected aspects of health care use associated with eating disorders and mortality due to eating disorders, these data sets are not good sources for estimates of the prevalence of eating disorders nor for disabilities associated with eating disorders. The Substance Abuse and Mental Health Services Administration takes a leadership role in the U.S. for researching the extent of eating disorders, its causes, and effective treatment strategies

Item

Epilepsy -- The Committee supports the CDC's extramural program to train first-responders, educators, school nurses, employers, family caregivers and other health care professionals in the recognition, diagnosis and treatment of seizures. The Committee encourages the CDC to promote public awareness of research efforts for improving care and alleviating the effects of epilepsy. In addition, the Committee encourages the CDC to study the true impact the condition has on employment, school, social life, and general well being. Work should include the critical areas of research related to quality of life issues, help families understand the relationship of medications and co-morbid conditions to the disease, and will build a platform for a national call to action for additional training for schools, employers and adult day care providers. (Page 76)

Action taken or to be taken

In partnership with the National Epilepsy Foundation and research partners, CDC has established public health approaches to epilepsy. The epilepsy program has developed, evaluated, refined and disseminated programs, materials, and research findings to improve epilepsy public awareness at local and national levels and promote education, communication, and improved quality of life for people with epilepsy.

In 2008, program activities included a national epilepsy awareness media campaign that focused on minority populations and underserved groups; implementation of an educational curriculum for middle school and high school students; implementation of a school nurse training program; an educational program focused on caregivers of seniors with seizures; a curriculum for police and emergency responders; an employment program for those who are transitioning into the workforce; formation of national and local youth councils to consult on materials and outreach tailored to young adults; strategic planning to promote understanding of cognition issues; and planning to address traumatic brain injury and post traumatic epilepsy.

Intramural and extramural research is underway in order to better understand the epidemiology of epilepsy, specifically the incidence and prevalence of the condition in diverse populations in the United States; risk factors and severity of epilepsy in these populations; and health disparities among people with epilepsy. Some of this research focuses on higher-risk sub-populations, specifically older adults and children.

Item

National Youth Fitness and Health Study -- Prior to the NCYFS in the mid-1980s, the United States had conducted decennial, national fitness studies in the mid-1950s, mid-1960s, and mid-1970s. After a more than 20 year gap, the Committee believes that repeating and enhancing this survey could be a critical effort towards improving the health of our nation's youth. The Committee encourages CDC to consider conducting this survey, and submit a plan with objectives and resource requirements to accomplish this study. (Page 77)

Action taken or to be taken

CDC recognizes the importance of the National Youth Fitness and Health Study (NCYFS). The last comprehensive assessment of youth fitness (the National Children and Youth Fitness Survey, or NCYFS) in the United States occurred 20 years ago. Since then, the prevalence of obesity has increased dramatically across all age groups. Participation in daily physical education among high school students has declined from 42 percent in 1991 to 25 percent in 1995 and has been generally steady since 2003 at 28 percent.

Item

Oral Health -- The Committee has provided sufficient funding to continue grants to States that strengthen their capacities to assess the prevalence of oral diseases and the associated health burden; to target resources and interventions—including proven preventive strategies like school-linked sealant programs— to the underserved; and to evaluate changes in policies and programs. The Committee encourages the CDC to advance efforts to reduce the health disparities and burden from oral diseases, including those that are linked to chronic diseases such as diabetes and heart disease. (Page 78)

Action taken or to be taken

In FY 2009, CDC is working with 16 states to build capacity for effective oral health prevention programs and to reduce disparities among disadvantaged populations. This effort includes working with states to develop school-based or school-linked programs to reach children at high risk of oral disease with proven prevention services, such as dental sealants. CDC also works with states to expand the fluoridation of community water systems and operates a fluoridation training and quality assurance program. In addition, CDC will expand its efforts to assess the extent of oral diseases, target prevention programs and resources to those at greatest risk, fund prevention research, and evaluate changes in policies and programs to reduce disparities. CDC will continue to develop methods to identify and reach adults at greatest risk of oral diseases associated with other chronic diseases (e.g., diabetes and heart disease) and their risk factors.

Item

Underage Drinking Risk Monitoring Program -- The Committee recognizes the importance of monitoring risk factors which science has demonstrated contribute to youth drinking, and therefore urges the Centers for Disease Control and Prevention to develop and continue its work to monitor and report on the level of risk faced by youth from exposure to alcohol advertising. (Page 78)

Action taken or to be taken

Nearly half (45 percent) of all high school students in the U.S. report past-month alcohol consumption, and nearly two-thirds (64.2 percent) of those who drink report past-month binge drinking, usually on multiple occasions. Binge drinking is strongly associated with a wide range of other risk behaviors among youth, including sexual activity, smoking, physical fighting and poor school performance. CDC has been able to work with the Center on Alcohol Marketing and Youth (CAMY) to assess the proportion of alcohol advertising that appears in media venues that have a large youth audience. This approach to underage drinking is consistent with the 2003 Institute of Medicine report *Reducing Underage Drinking: A Collective Responsibility* that concluded that the most effective way to reduce the impact of alcohol advertising on youth is through restrictions on the placement of alcohol advertisements. One of these investigations, published in 2007, assessed the proportion of alcohol advertising that appeared in magazines with a disproportionately large youth audience (more than 15 percent). The researchers found that almost 45 percent of alcohol advertisements were placed in magazines with a youth-oriented readership, and that these ads accounted for more than 80 percent of all youth exposure to alcohol advertising in magazines.

Item

Birth Defects Surveillance -- The Committee notes the CDC's support of States to continue birth defects surveillance systems, programs to prevent birth defects and activities to improve access to health services for children with birth defects. The Committee encourages the CDC to expand the birth defects studied in the National Birth Defects Prevention Study to include single gene disorders, such as Fragile X. (Page 79)

Action taken or to be taken

CDC shares the concern of the Committee about the 1 in 33 babies born with birth defects and in improving access to health services for these children. Because approximately two thirds of the causes of birth defects remain unknown, CDC continues to work closely with its grantees and funded partners to establish priorities for birth defects surveillance, research, and prevention and to advance efforts in these areas. The CDC-funded Centers for Birth Defects Research and Prevention rely on pooled data from state tracking programs to conduct the largest study of the causes of birth defects ever conducted, the National Birth Defects Prevention Study. Recently, the decade-long investment in this collaborative research effort has yielded a significant return on investment with the publication of several important findings on advanced reproductive technology (ART), medication use, smoking, and obesity, among others, and their relationship to birth defects. Additional findings are being prepared for publication, and collaborators continue to collect and analyze data in an effort to find to find additional causes of birth defects.

In FY 2008, CDC recompeted the grant award for the eight, previously funded Centers for Birth Defects Research and Prevention and was able to award funding to five of the grantees. These centers will continue to conduct existing activities of the National Birth Defects Prevention Study.

Item

Blood Disorders -- The Committee is interested in CDC's efforts to develop a surveillance system on Deep Vein Thrombosis [DVT], blood clots in the leg that can cause significant morbidity and mortality, and notes that the CDC is working with partners to hold a workshop in 2008 to determine the elements of such a system. The Committee requests an update on the recommendations of the workshop and the resources needed to implement a national thrombosis surveillance system. (Page 79)

Action taken or to be taken

In 2008, CDC participated in workshops with national organizations such as the American Society of Hematology (ASH) and the National Alliance for Thrombosis and Thrombophilia (NATT) to discuss the development of a population-based surveillance system that will effectively measure the public health impact of thrombosis. This system will: allow CDC to assess the burden of DVT in the population, provide important information that will direct future research efforts, and evaluate the effectiveness of interventions, designed to prevent DVT and its complications. Additionally, CDC is in the process of developing plans to respond to the 2008 Surgeon General's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism and, in 2009, will update the committee on the status of these plans and the resources needed to implement them.

Item

Folic Acid -- The Committee encourages CDC to inform as many women as possible, particularly non-pregnant Hispanic women and women between the ages of 18 and 24, as well as healthcare providers about the benefits of folic acid. In addition, the Committee is aware of research being done in the United Kingdom which appears to dispel some of the basis for earlier hesitation to expand folic acid fortification into corn-based food products consumed at a higher rate by the Hispanic community. The Committee has included additional funding for the CDC to explore the scientific benefits and concerns about expanding fortification in the United States. The Committee urges the CDC to work closely with the National Institutes of Health, the Surgeon General and the Food and Drug Administration. (Page 80)

Action taken or to be taken

In 2008, data analyses were conducted that provided an estimation for changes in folic acid intake levels in corn masa flour. Corn masa flour, a staple ingredient in the diets of many Hispanic women, specifically Mexican Americans, was fortified with folic acid at a level of 140 mcg/100g of flour. Findings indicated that this level of fortification could increase folic acid levels among Mexican American women without substantially impacting levels of other population segments. This study will be released for publication in January 2009.

Item

Fragile X -- The Committee has provided additional funding to support CDC's continuation of public health activities related to Fragile X. The Committee is concerned that previously allocated funds may have been used for general purposes rather than Fragile X-specific priorities. The Committee urges CDC to focus its efforts on creating positive outcomes for families by increasing epidemiological research, surveillance, and screening efforts to ensure the timely screening, diagnosis, and introduction of early interventions for individuals living with Fragile X. (Page 80)

Action taken or to be taken

In accordance with priorities determined to be the most appropriate and executable, CDC has focused its efforts in Fragile X activities on 1) working in conjunction with the Metropolitan Atlanta Developmental Disabilities Surveillance Program (MADDSP) to conduct surveillance on children with fragile X 2) working with other partners to conduct a national family needs survey involving families affected by fragile X 3) establishing a resource center on fragile X and development and dissemination of tools to develop and critique accurate information on genetics for families and providers and 4) providing support for establishment of an infrastructure for a consortium of fragile X clinics that will provide the means to analyze

treatment options, promote research and develop a patient registry. These priorities are within CDC's scope and focus for the greatest needs of the fragile X community.

Item

Hydrocephalus -- The Committee encourages CDC to increase awareness of the medical issues, prevalence, and societal cost associated with hydrocephalus. (Page 80)

Action taken or to be taken

CDC is aware of the public health concerns regarding Hydrocephalus and shares the Committee's concerns. Less than one percent of Americans have Hydrocephalus.

Item

Marfan Syndrome -- The Committee continues to be interested in Marfan syndrome, a degenerative connective tissue disorder that can result in sudden loss of life from aortic aneurysms. Many individuals affected by Marfan syndrome are undiagnosed or misdiagnosed until they experience a cardiac complication. The Committee encourages CDC to increase awareness of this disease among the general public and health care providers. Further, the Committee requests that CDC coordinate with the National Heart, Lung, and Blood Institute to ensure that patients and health care providers are aware of the most cutting edge treatments and interventions available to them. (Page 80)

Action taken or to be taken

CDC is aware of the public health concerns regarding Marfan syndrome and shares the Committee's concerns. CDC has included Marfan syndrome in an External Partner's Group within CDC's National Center for Birth Defects and Developmental Disabilities (NCBDDD) to work collaboratively with other similar groups interested in disabling conditions.

Item

Spina Bifida -- The Committee encourages the CDC to continue to collaborate with the Agency for Healthcare Research and Quality to develop a national spina bifida patient registry. (Page 80)

Action taken or to be taken

CDC continues its programs to promote maternal folic acid consumption and to promote the health and well-being of children and adults living with spina bifida. With regards to the latter activity, CDC supports the efforts of the national Spina Bifida Association to enhance and market prevention education to health care professionals; to expand prevention and quality of life programs through local chapters; to evaluate information resources and the provision of these resources and information to the public; to identify ways to utilize a spina bifida clinic network to demonstrate program effectiveness; and to improve care in spina bifida clinics. CDC continues to support the national spina bifida clearinghouse and resource center and other information and support activities provided by the Spina Bifida Association. CDC also continues to work in collaboration with the Agency for Healthcare Research and Quality to establish a spina bifida clinic registry for the purposes of improving care and advancing understanding of interventions that will improve health and quality of life for children and adults living with spina bifida.

Item

Data Disaggregation -- The Committee is concerned that certain ethnic minority populations in the United States, particularly the Asian American, Native Hawaiian and Pacific Islander communities, may be under-represented in data collection efforts. The Committee encourages

NCHS where statistically possible to develop baseline and disaggregated health information on our Asian American, Native Hawaiian and Pacific Islander communities. (Page 81)

Action taken or to be taken

CDC's National Center for Health Statistics (NCHS) collects survey data that are nationally representative of the U.S. population and, in the case of vital statistics, collects information on all births and deaths that occur in the U.S. It is also possible to make estimates for population subgroups as defined by race/ethnicity, geography, age, gender, and socioeconomic status. The information that is collected regarding race and ethnicity is in compliance with the 1997 OMB standards. Presenting data specific to racial and ethnic groups is a longstanding NCHS priority. Data are not provided in the case of racial and ethnic subgroups or other groups, however, if there are not sufficient numbers of cases to ensure that the estimates are reliable and confidentiality is maintained.

In order to increase the number of cases to permit more extensive data analysis, on some surveys, NCHS will oversample a specific group in the population. The National Health Interview Survey (NHIS) oversamples Asian American, Native Hawaiian, and Pacific Islander communities. Currently, NCHS is developing reports that contain more detailed reliable NHIS estimates of the health of Asian Americans, Native Hawaiians, and Pacific Islanders while insuring that the confidentiality of the participants in the survey is maintained. In addition, NCHS in conjunction with CDC has issued two funding announcements that encourage research on methodologies to improve the sampling of smaller populations and the protection of the confidentiality of survey participants.

Item

Hypertension -- The Committee encourages the CDC to support the measurement of central blood pressure and arterial stiffness both in children and adults in the next National Health and Nutrition Examination Survey. This type of measurement may provide a more accurate understanding of the prevalence of hypertension and lead to more effective campaigns to treat this disease and prevent the onset of related chronic conditions. (Page 81)

Action taken or to be taken

The National Health and Nutrition Examination Survey (NHANES) – conducted by CDC's National Center for Health Statistics (NCHS) - has tracked the prevalence of hypertension in U.S. children and adults for many years. CDC is always interested in looking at new ways of measuring conditions of public health importance through NHANES. CDC is currently soliciting content for the 2011-2012 survey. CDC will specifically ask collaborators interested in cardiovascular disease to consider this measure for NHANES and review its appropriateness for use in the NHANES.

Item

Vital Statistics -- The Committee again encourages CDC to develop a plan to support directly jurisdictions as they implement electronic systems that will improve the timeliness, quality, and security of birth and death data, and report back to the Committee on the plan. (Page 81-82)

Action taken or to be taken

A longstanding effort to re-engineer vital statistics processing systems and move the states away from outdated vital statistics reporting systems to web-based systems is ongoing at CDC's National Center for Health Statistics (NCHS). This effort will improve the timeliness, quality, and security of vital statistics data and enhance the potential for these data to monitor critical health indicators. CDC is developing a plan that describes how it will support its state and local

partners as they implement electronic systems, and will report on this plan to Committees in both the House and the Senate in April of 2009.

Item

Asthma -- The Committee applauds the CDC for convening the 2007 asthma policy meeting to facilitate the coordination of Federal initiatives on asthma treatment and prevention. The Committee encourages the CDC to develop evidence-based best practices for policy interventions that will reduce asthma morbidity and mortality, with specific emphasis on indoor and outdoor air pollution. In addition, the Committee is pleased with the efforts that the CDC has taken to monitor lung function and other asthma interventions for Native Hawaiian children. (Page 83)

Action taken or to be taken

CDC's completed systematic review of effective multi-component, multi-trigger home visit interventions with an environmental focus was presented to the US Task Force on Community Preventive Services. This review defines a scientific standard for judging asthma interventions and provides justification for developing and supporting evidence-based best practices for policy interventions that will reduce the burden of asthma. In addition, CDC continues to explore the impacts of indoor and outdoor air pollution on human health. Specifically, CDC has been engaged in activities related to the impact of indoor exposures such as carbon monoxide (CO) poisonings/exposure on health to effectively develop evidence-based practices for policy interventions to reduce morbidity and mortality associated with CO exposures.

CDC provides assistance to the Hawaii Department of Health for the Childhood Rural Asthma (CRA) Project, which focuses on building the capacity of community health centers to effectively identify, treat, and educate pediatric asthma sufferers and their families located on islands in the State of Hawaii. The program builds community capacity to control factors which contribute to asthma severity and developing strategies to control indoor environmental asthma triggers that exacerbate asthma. Through funding from CDC, the CRA Project has shown an increase in the number of asthmatic children receiving case-management, education, and referrals which allowed for a shift in emphasis to "planned" visits instead of "acute" visits. The community centers have extended their networks, improved curriculums, added infrastructure to track patients, and increased the number of key staff who had access to appropriate trainings.

Item

Biomonitoring -- The Committee applauds the CDC's biomonitoring efforts. CDC's National Report on Human Exposure to Environmental Chemicals is a significant information database that provides invaluable information for setting research priorities and for tracking trends in human exposures over time. The Committee encourages the CDC to implement the July 2006 recommendations of the National Research Council of the National Academy of Sciences with regard to enhancement of efforts to communicate biomonitoring results in context. Among other activities, CDC should develop communications principles, guidelines and case studies that can be applied both within CDC and to biomonitoring efforts at the State level. (Page 83)

Action taken or to be taken

In an effort to respond to recommendations from the National Research Council, the Environmental Health Laboratory has embarked on a multi-year communication research project to explore knowledge, attitudes, and beliefs about biomonitoring among a variety of scientific and non-scientific audiences. This research will be used to develop communication goals and strategies that will guide CDC and others in their efforts to better communicate biomonitoring findings.

On strategy to improve communications involves CDC's effort to disseminate biomonitoring information more quickly. CDC's Environmental Health Laboratory instituted a new approach to publishing biomonitoring exposure results. CDC publishes peer-reviewed journal articles to describe the exposure of the U.S. population to specific chemicals or groups of chemicals as soon as they are available. The abstracts and links to the full-text articles are posted on CDC's website as soon as they are published to make this information readily accessible to the public and scientific community. CDC will continue periodic releases of the *Report*, which will provide summarized results of chemical measurements for all environmental chemicals measured in participants from the National Health and Nutrition Examination Survey (NHANES).

Item

Nontuberculous Mycobacteria [NTM] -- The Committee encourages the CDC to identify the internal leadership and CDC staff responsible for analyzing research and epidemiology studies regarding NTM prevalence, geographic, demographic and host specific data. (Page 83)

Action taken or to be taken

CDC is in the process of identifying the appropriate internal leadership and CDC staff with the knowledge and expertise needed to oversee NTM activities at the agency. Once determined, this information will be shared with the Committee.

Item

National Violent Death Reporting System -- The Committee urges the CDC to continue to work with private health and education agencies as well as State agencies in the development and implementation of this injury reporting system. (Page 84)

Action taken or to be taken

Established by the CDC in fiscal year 2002, the National Violent Death Reporting System (NVDRS) allows states and communities to develop a system to collect timely, complete and accurate information about violent deaths by linking information from law enforcement agencies, medical examiners and coroners, health providers, crime laboratories and other agencies. As of December 2008, CDC funds 17 states to implement NVDRS. CDC continues to work with state health departments, academic institutions, health care providers, national organizations, health care providers, national organizations, and others regarding the system's development and implementation.

Item

Trauma Centers -- The Committee encourages CDC to develop and disseminate best practice guidelines in the field of acute trauma care. (Page 84)

Action taken or to be taken

CDC has collaborated with several national trauma-related organizations to develop the "Field Triage Decision Scheme: The National Trauma Triage Protocol," (Decision Scheme) which will be published and disseminated in 2009. In addition, the CDC will distribute supporting materials for EMS professionals to use to conduct trainings for EMS providers nationally. Also, CDC will work with key partners and stakeholders to identify opportunities and resources to help with implementation, and with evaluation of the impact of the Decision Scheme and protocol. Investments in implementation will not only yield valuable information in identifying gaps within the trauma field but will also inform efforts in improving effectiveness of the Decision Scheme and protocol.

Item

Worker Injury Statistics -- The Committee is particularly concerned with injuries experienced in the self-employed population. In addition, the Committee notes that while there is much attention paid to acute injuries and illnesses at work places, there is less focus on how chronic illnesses intersect with workplaces. The Committee encourages NIOSH to consider developing a research agenda with this in mind. Finally, the Committee encourages NIOSH to continue to work with the Bureau of Labor Statistics to improve the statistics that direct Federal enforcement and compliance efforts aimed at preventing illness and injury at our Nation's workplaces. (Page 85-86)

Action taken or to be taken

NIOSH is working on several fronts to examine injuries experienced among self-employed workers and to address surveillance of work-related chronic diseases. As part of the National Center for Health Statistics' 2010 National Health Interview Survey, NIOSH will collect information on health status and injuries on the job from workers who are self-employed and employed by others. NIOSH is also developing a proposal to study the extent and potential causes of worker injuries and illnesses not being recorded by employers and/or reported by employees among individuals treated in U.S. emergency departments identified through the US Consumer Product Safety Commission's National Electronic Injury Surveillance System (NEISS) and NIOSH's work-related injury/illness supplement (NEISS-Work)]. The Bureau of Labor Statistics is one of NIOSH's principal partners in the effort to capture useful information on workplace injuries and illnesses. Collaborative efforts to ensure correct capture of such data are ongoing.

NIOSH has a strong tradition of conducting etiologic research to establish the relationship between health effects and many workplace exposures. NIOSH surveillance of chronic disease, particularly of respiratory diseases, continues to find significant adverse health effects of exposure to airborne particulates, particularly among miners and workers exposed to silica. However, chronic disease surveillance is greatly needed for conditions such as dermatitis, hearing loss, psychiatric disorders, musculoskeletal disorders, reproductive effects, cancers and others. Efforts to put all medical, health and vital records into electronic systems provides future opportunities to evaluate how chronic illnesses and diseases intersect with workplace, with the proviso that occupation and industry or the workplace address is included in the electronic health record. NIOSH is working with public and private partners to ensure that key workplace factors are included on the electronic health records.

Item

Worklife Initiative -- As this network begins to focus on chronic illness in the workplace, the Committee encourages researchers to collaborate with other parts of NIOSH to explore the best methods for improving our Nation's workplace illness surveillance systems with respect to less acute illnesses. (Page 86)

Action taken or to be taken

WorkLife Initiative scientists are engaging with the Surveillance Cross-sector program to improve chronic disease surveillance relevant to planning, conducting, and evaluating integrated workplace programs for sustaining and improving health and well-being. An important focus and goal of this collaboration will be inclusion of industry and occupation information in the core of the electronic health record in order to set workplace program priorities and evaluate their impact.

Item

Global Health Programs -- The Committee commends the efforts of the CDC's Global AIDS and Global Malaria Programs in implementing PEPFAR and the President's Malaria Initiative [PMI]. The Committee encourages global AIDS and malaria program activities beyond PEPFAR and PMI countries. (Page 86-87)

Action taken or to be taken

As a key implementer of the President's Emergency Plan for HIV/AIDS Relief (PEPFAR), CDC contributions strengthen health systems, building infrastructure and regional capacity beyond PEPFAR and PMI countries. For example, in 2008 CDC launched the South Africa Regional Training Laboratory to serve as a reference lab for the region and as a regional training ground for public health professionals in laboratory science and epidemiology.

CDC PEPFAR activities will continue to expand in areas of laboratory capacity building as well as building public health workforce capacity; scaling up HIV/AIDS treatment, care and prevention programs; expanding operational and impact evaluation research activities; and developing data collection systems for program monitoring and informed decision-making.

With the expansion of PEPFAR's to additional countries, CDC will move program activities into these additional countries and staff up additional field offices as needed. Currently, CDC supports 70 countries and 39 field offices that establish and scale up in-country HIV/AIDS treatment, care and prevention programs that are integrated with malaria, tuberculosis, and food and nutrition interventions.

Item

Global Malaria -- The Committee encourages the CDC to expand these research efforts, including the areas of Insecticide Treated Bed Nets and Intermittent Preventative Treatment in pregnancy. The Committee also urges the CDC to expand its technical assistance, monitoring and evaluation efforts, in particular its assistance to the President's Malaria Initiative, the World Bank, the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and other malaria control initiatives. These programs are in need of greater expertise and capacity in monitoring and evaluation to support documentation of impact of efforts. Finally, the Committee is concerned that while there have been much-need increases in funding for malaria efforts in Africa, that there must also be attention paid to malaria control efforts in Asia and the Americas. CDC should play an active role in these efforts. In addition, the Committee encourages CDC to continue its ongoing support of research and development toward new anti-malarial drugs. (Page 87)

Action taken or to be taken

CDC's Malaria program focuses on prevention and control of malaria throughout the world in partnership with local, state, and federal agencies in the United States, medical and public health professionals, national and international organizations, and foreign governments. CDC partners with and the United States Agency for International Development (USAID) to implement the President's Malaria Initiative, and provides leadership in monitoring and evaluation of malaria control activities. CDC also provides technical assistance, including monitoring and evaluations, to the World Health Organization (WHO), the World Bank, the United Nations' Children's Fund (UNICEF), the United Nations Foundation (UNF), and USAID in malaria endemic countries in Africa, Asia, and the Americas in support of the global Roll Back Malaria Program and the Global Fund to Fight AIDS, Tuberculosis, and Malaria.

Operational research is needed to refine current existing malaria prevention and control tools and strategies and to develop new ones to keep ahead of the curve in the fight against malaria.

For example, insecticide resistance and drug resistance have the potential to compromise global malaria efforts. CDC is involved in a variety of research efforts to develop these refined or new tools and strategies, and to then work with in-country partners to implement and evaluate them. Examples include conducting field studies in Kenya to assess durability and effectiveness of different long-lasting insecticide treated nets (LLIN), as well as assessing the following: durability of different indoor residual insecticides; prevalence and extent of counterfeit drugs and their contribution to drug resistance; intermittent preventive treatment for pregnant women and infants; access to top artemisinin-containing combination drug regimens and their associated impacts; the interaction of HIV and malaria; and, mosquito larval ecology for the reduction of vector breeding.

In addition to conducting activities in the President's Malaria Initiative countries (in Africa), CDC also conducts research in non-African setting such as Indonesia, South America, India, and Southeast Asia. These initiatives may bring about new insights and collaborations that could be applied in African countries affected by malaria.

Item

State and Local Capacity -- The Committee urges the Department to assure that performance metrics intended to measure public health preparedness include evidence-based measures that can be scaled to measure the performance of local health departments in the context of their own communities' emergency management systems. (Page 87-88)

Action taken or to be taken

CDC, in collaboration with numerous partners, is developing and implementing evidence-based measures of public health preparedness to:

- monitor, for accountability purposes, the extent to which grantees are able to demonstrate performance on specific preparedness and response capabilities; and
- support program improvement through targeted technical assistance and training

CDC has taken several steps to ensure its performance measures are relevant to local health departments (LHDs). LHD representatives are included in the identification, development, and review of performance measures. Local activities and the local applicability of the measures are considered when measurement priorities are set and when identifying measurement points, with only those processes or short-term outcomes relevant in both state and local settings moving forward. The measures are designed to be flexible enough to enable them to be locally relevant and for the data to be feasibly collected at the local level.

SIGNIFICANT ITEMS IN APPROPRIATIONS REPORTS – OMNIBUS

SIGNIFICANT ITEMS FOR INCLUSION IN

THE FY 2010 CONGRESSIONAL JUSTIFICATION

AND OPENING STATEMENTS

EXPLANATORY STATEMENT TO H.R. 1105

CENTERS FOR DISEASE CONTROL AND PREVENTION

Item

HIV/AIDS Prevention and Research Programs -- The bill includes $15,000,000 within the total for the Domestic HIV/AIDS Testing Initiative for the Early Diagnosis and Screening Program authorized in section 2625 of the Public Health Service Act. These funds shall be awarded to States newly eligible for the program in FY 2009 and no State may be eligible for more than $1,000,000. Any amounts that have not been awarded by May 31, 2009 shall be awarded for other HIV testing programs.

Action taken or to be taken

In FY 2008, CDC was able to fund two additional jurisdictions for the domestic HIVAIDS testing initiative, bringing the total number of funded jurisdictions to 25. While the initiative is focused on areas with the highest burden of AIDS among African Americans, jurisdictions are also encouraged to target testing to other high risk populations, such as Hispanics/Latinos.

In FY 2008, CDC announced the availability of funding for the Early Diagnosis Grant Program, authorized in section 2625 of the Public Health Service Act. Of those states that applied, six provided proof of eligibility, i.e. they had put in place certain policies for HIV testing of pregnant women, infants, and clients of STD clinics and substance abuse treatment centers prior to January 1, 2008. By May 31, 2008 CDC awarded a total of $4.5 million to these states, based on the following epidemiologic criteria: AIDS cases, cases of certain STDs associated with HIV in the U.S., and live births. No state received more than $1,000,000.

In spring 2009, CDC will publish a request for proposals for the Early Diagnosis Grant program for FY 2009 funding. Per directives in the Conference report, CDC will limit overall funding for the program to $15,000,000. CDC will fund only newly eligible applicants and will limit individual awards to $1,000,000 or less, based on standard epidemiologic criteria. Awards will be made by May 31, 2009.

Item

Zoonotic, Vector-borne, and Enteric Diseases -- CDC is directed to include in its annual budget justification an itemized expenditure of funds for each CFS research project or activity in the following five functional expense categories: surveillance and epidemiology; clinical assessment and evaluation; objective diagnosis and pathophysiology; treatment and intervention; and education, including the CFS marketing campaign and healthcare provider education.

Action taken or to be taken

An itemized expenditure of funds for each CFS research project or activity in the predefined five functional expense categories is provided below.

CFS Research Program – FY 2008 Obligated Funds	
Surveillance & Epidemiology	$781,888
Clinical Assessment & Evaluation	$1,622,783
Objective Dx & Pathophysiology	$1,613,502
Treatment & Intervention	$194,753
Provider Education	$352,591
Other - (CFS Advisory Committee)	$37,500
Total	**$4,603,017**

Item

Preparedness, Detection, and Control of Infectious Diseases -- Also within the total for Preparedness, Detection, and Control of Infectious Diseases, the bill includes $2,500,000 to be used to respond to outbreaks of disease caused in some part by the re-use of syringes in outpatient settings and to ensure that infection control measures are adhered to broadly, including provider education and patient awareness activities. CDC is encouraged to partner with industry and university researchers to identify the best interventions to reduce the possibility of disease transmission in the healthcare setting.

Action taken or to be taken

CDC shares the Committee's concern regarding recent outbreaks resulting from the re-use of syringes in outpatient settings. CDC will continue to provide assistance and respond to outbreaks as requested by state departments of health. CDC's Healthcare Infection Control Practices Advisory Committee (HICPAC) is developing additional infection control guidance specifically for outpatient settings. In addition, with increased funding CDC plans to (1) increase capacity to train surveyors in state and local jurisdictions conducting accreditation surveys to identify safety problems, such as re-use of syringes; (2) work with professional organizations to increase content on safe injection practices in continuing education curricula and licensure examinations; (3) organize a meeting with industry, researchers, and academia to explore the development of "fail safe" systems and products to improve injection practices; and (4) work with partners in consumer advocacy and other partner organizations to increase patient awareness and empowerment related to infection control practices.

Item

Eating Disorders -- The CDC is urged to collaborate with eating disorders researchers in order to better understand the disparity between outside studies and CDC reported morbidity and mortality, focusing on obtaining a clear picture of what might be barriers to the detection and reporting of eating disorders.

Action taken or to be taken

Eating disorders are of particular concern to public health because of their potentially serious health consequences. Obtaining reliable data on eating disorders, however, can be difficult because of the secretive nature of the behavior. Although NCHS data systems can collect some data on weight history and eating behaviors, selected aspects of health care use associated with eating disorders and mortality due to eating disorders, these data sets are not good sources for estimates of the prevalence of eating disorders nor for disabilities associated with eating disorders. The Substance Abuse and Mental Health Services Administration takes a leadership role in the U.S. for researching the extent of eating disorders, its causes, and effective treatment strategies

Item

Sodium -- A diet high in sodium is a major cause of heart disease and stroke. CDC is encouraged to work with major food manufacturers and chain restaurants to reduce sodium levels in their products.

Action taken or to be taken

CDC is committed to addressing sodium consumption in the population because this single outcome has the potential to significantly reduce rates of heart disease and stroke in the United States. CDC has several ongoing projects that will add to the knowledge and practice base for preventing, detecting, and controlling hypertension scheduled for rollout over the coming year:

In FY 2008, CDC commissioned an IOM study on strategies to reduce sodium intake. This report is expected to be released publicly by February 2010. Prior to the release of the report, CDC will continue to build the public health foundation for addressing sodium. To provide background, CDC will explore existing national and international public and private initiatives to reduce sodium in the food supply.

In fiscal years 2009-2010, CDC plans to convene public and private stakeholders to build relationships and partnerships to investigate approaches for reducing sodium consumption. CDC also will explore knowledge gaps, utilizing our data systems to analyze and release pertinent sodium related data.

Item

Nutrition, Physical Activity, and Obesity -- Within the total provided for Nutrition, Physical Activity, and Obesity, the bill includes $500,000 for a study by the Institute of Medicine (IOM) that will examine and provide recommendations regarding front-of-package nutrition symbols. These should include, but not be limited to, a review of systems being used by manufacturers, supermarkets, health organizations, and governments in the United States and abroad and the overall merits of front-label nutrition icons, the advantages and disadvantages of various approaches and the potential benefits of a single, standardized front-label food guidance system regulated by the Food and Drug Administration. Based upon its work, the I0M should recommend one or several of the systems, along with means of maximizing the use and effectiveness of front-label symbols, that it has identified as best at promoting consumers' health.

Action taken or to be taken

CDC will support a study through the Institute of Medicine that will examine and provide recommendations regarding effective front of package food labeling strategies to promote consumers' health. Once the study is completed, CDC will evaluate the recommendations and consider potential strategies to implement them.

Item

Folic Acid -- There is significant concern about the disparity in the rates of folic acid intake and neural tube defects, particularly in the Hispanic population. Within the funds provided for folic acid, CDC is encouraged to provide increased funding to expand the folic acid campaign to inform more women and healthcare providers about the benefits of folic acid and to explore the scientific benefits and concerns about expanding folic acid fortification in the United States.

Action taken or to be taken

With this funding, CDC will expand on existing projects to promote folic acid to all women of child-bearing age through targeted campaigns at health care providers and their patients.

Special emphasis will be made to reach rural, low socioeconomic status, and minority women and their families. Further monitoring of the research on folic acid consumption will continue to be a priority of CDC.

Item

Birth Defects Research and Prevention -- CDC is encouraged to continue the promising research being conducted by the regional centers for birth defects for research and prevention. The bill includes sufficient funding to maintain the current level for States to continue birth defects surveillance systems, programs to prevent birth defects, and activities to improve access to health services for children with birth defects.

Action taken or to be taken

With this appropriation, CDC funds eight Centers for Birth Defects Research and Prevention located in Arkansas, California, Iowa, Massachusetts, North Carolina, Utah, New York and Texas.

CDC currently funds 15 states or territories to conduct state-based birth defects surveillance. In FY 2010, a new state surveillance funding opportunity will be announced

Item

Climate Change Initiative -- Within the total for Environmental Health Activities, the bill includes $7,500,000 for a new a Climate Change initiative to develop and enhance programs to help the nation prepare for and adapt to the potential health effects of global climate change. CDC is urged to develop additional expertise in epidemiologic and laboratory science, infectious disease ecology, modeling and forecasting, climatology and earth science, communication and behavioral change science, and to support public health research in these areas.

Action taken or to be taken

While climate change is recognized as a global issue, the effects of climate change will vary across geographic regions and populations. Certain groups are at higher risk for health consequences from climate change than others. These groups include: children and the elderly; people of low socioeconomic status; members of racial and ethnic minorities; and people with certain pre-existing health conditions or disabilities. Other health effects could result from changes in the food supply and from population dislocation, which would be most severe in developing nations.

CDC is committed to leading efforts to address anticipated health effects of climate change, to assure that systems are in place to detect and track the effects, and to take steps to prepare for, respond to, and manage associated risks. Congressional funding for public health actions related to climate change will be used to support a wide range of public health activities involving diverse parts of CDC and will not only build on existing experience and expertise, but will consolidate, extend and deepen this work. Within CDC, major efforts will include data collection and surveillance; research on the domestic and global health impacts of climate change and responses, on adaptation and communication strategies, and on preparedness plans; provision of scientific information to other agencies, policy-makers, health professionals, and the public; preparedness planning for various climate change scenarios; partnership development with a range of existing and new agencies, governmental and non-governmental organizations; training on public health aspects of climate change; and technical assistance to state and local health departments. Externally, CDC will support academic research and state and local public health preparedness planning related to climate change.

Item

Injury Prevention and Control -- Within the total for Injury Prevention and Control, the bill includes funding for the injury control research centers (ICRSs) to support their core operations and to expand research to improve translation of effective interventions. Injury is the leading cause of death and disability among children and youth. CDC is encouraged to continue its support for all ICRSs to ensure that each ICRC is funded at a level commensurate with programmatic expectations, including the new injury control research center that will focus on research and prevention related to children and adolescents.

Action taken or to be taken

The Injury Control Research Centers (ICRC) program has made significant contributions to the translation of injury prevention research findings into state and national policies and programs. CDC currently funds 13 ICRCs, including the newly established center in Columbus, OH. In FY 2009, CDC will continue to fund this newly established ICRC, which is focused on children's and adolescents. In an attempt to assure that CDC funds the strongest injury research teams, CDC opened up funding opportunities in FY 2008 to nationwide competition for the first time without restrictions on the number of ICRCs per region. These awards will be made in FY 2009.

Item

National Institute for Occupational Safety and Health -- The bill includes $3,000,000 within the total for Personal Protective Technology for NIOSH to research modes of transmission of influenza and to evaluate filtering face piece respirators, other types of respirators, and other personal protective technology equipment. Further, NIOSH is urged to design and promote the next generation of personal protective equipment for healthcare workers and first responders to address the unique challenges posed by the healthcare environment.

Action taken or to be taken

NIOSH research activities are underway to address issues of pandemic preparedness and personal protective equipment for healthcare workers. Research is focused on understanding influenza transmission and improving and strengthening personal protective equipment design, testing and certification. Research to measure the amount and size of airborne particles contained in influenza virus was continued during the 2009 influenza season and involves sampling for airborne particles in a hospital setting. Research is also underway to simulate exposure of healthcare workers to infectious aerosols. This research is being conducted using cough and breathing simulators. Controlled studies to address the efficacy of surgical masks and filtering facepiece respirator use in preventing transmission of influenza have been initiated.

Research to examine the efficacy and effect of simple decontamination procedures and to examine the risks associated with handling filtering facepiece respirators (FFR) exposed to viral aerosols is progressing. Several methods for decontamination of viral contamination have been identified for further evaluation. Collaborative research with the Veterans Administration is underway to determine the ideal characteristics that would be required for a healthcare worker-specific respirator with eventual prototype development/manufacture. This could lead to potential respirator design improvements that could improve comfort and usability of respirators in the healthcare setting. Research in the area of respirator fit test science has begun. This research will assess the rate at which respirator fit changes as a function of time and will also assess factors that effect change in respirator fit.

Item

Anti-malarial Drugs -- CDC is encouraged to continue its support of research and development toward new anti-malarial drugs.

Action taken or to be taken

CDC is involved in a variety of strategic research efforts to develop new and refine existing products and distribution strategies with regard to new antimalarial drugs. CDC works with in-country partners to develop, implement and evaluate these products and strategies. Examples specific to the support of research and development toward new anti-malarial drugs include: conducting field research to assess different strategies to improve population access to new artemisinin-containing combination therapies (ACTs);field evaluation of new pediatric formulations of ACTs to assess acceptability and efficacy; field research to evaluate new drug regimens for the treatment and prevention of malaria during pregnancy and infancy; and assessment of the efficacy of antimalarials in HIV-infected populations.

CDC also conducts laboratory and field research in support of malaria vaccine development, including evaluation of candidate vaccine antigens in non-human primates, development of laboratory assays to assess vaccine induced antimalarial immunity, and clinical trials of the most advanced malaria vaccine candidate.

Item

Public Health Emergency Preparedness Cooperative Agreements Program -- With the level of funding provided in the bill for the Public Health Emergency Preparedness Cooperative Agreements program, CDC is expected to issue a full year of grants rather than reducing the grant cycle to nine months and three weeks as proposed in the budget request.

Action taken or to be taken

CDC will provide a full year (12 months) of cooperative agreement funds using FY 2009 funding for the Public Health Emergency Preparedness Cooperative Agreement program. The funding announcement and continuation guidance is expected to be issued in April 2009, and the funding will be awarded in August 2009.

Item

Institutional Research Training Grant Program -- The CDC is encouraged to continue the Institutional Research Training Grant program, funded through the CDC's Health Protection Research Initiative.

Action taken or to be taken

Training of professionals and public health research scientists are important CDC priorities and consequently CDC has supported these projects since their inception with an overall investment of over $15 million. As is likely known, the initial awards were set for three years as specified in the FY 2004 Funding Opportunity Announcement. In 2007, these awards were re-competed and an additional two-year period was granted.

Item

Healthcare-Associated Infections -- As part of an HHS-wide initiative to reduce healthcare-associated infections (HAIs) coordinated by the HHS Office of the Secretary, the bill includes language that each State must certify that it will submit a plan by January 1, 2010 to the Secretary of Health and Human Services for reducing HAIs to be eligible for the full allotment in this Act under the Preventive Health and Health Services Block Grant. State plans shall be

consistent with the Department of Health and Human Services national action plan for reducing such infections.

Action taken or to be taken

As the nation's health protection agency, CDC is committed to helping all Americans receive the best and safest care when they are treated at a hospital or other healthcare facility and recognizes the importance of reducing healthcare-associated infections (HAIs). In collaboration with CDC's established program to prevent HAIs (the Division of Healthcare Quality Promotion), PHHS Block Grant staff are working to provide guidance to states on the development of state plans to reduce HAIs. This process will ensure that states submit a plan and that the state plans are consistent with the HHS Action Plan To Prevent Healthcare-Associated Infections.

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