



**DEPARTMENT  
of HEALTH  
and HUMAN  
SERVICES**

**Fiscal Year  
2010**

**Agency for Healthcare  
Research and Quality**

***Online Performance  
Appendix***

## **Introduction**

This FY 2010 Online Performance Appendix 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/budget/docbudget.htm>.

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.

**Transmittal Letter**

**Agency for Healthcare Research and Quality  
HHS FY 2010 Online Performance Appendix  
Data Quality Assurance Statement**

The Department of Health and Human Services (HHS) hereby publishes the Agency for Healthcare Research and Quality component of the FY 2010 Online Performance Appendix, which features program performance data that have been provided by my Operating Division. As required by the Reports Consolidation Act of 2000, the Secretary of HHS will provide an assessment of the completeness and reliability of the performance data presented in this report. As part of this assessment, the Secretary will describe any material inadequacies in the accuracy, completeness, and reliability of the data and will identify actions that can be taken to resolve such inadequacies.

I recognize that the Secretary relies upon the assurances provided by my Operating Division in providing this assessment. To the best of my knowledge, the performance data reported by my Operating Division for inclusion in this FY 2010 Online Performance Appendix is accurate, complete, and reliable.

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Carolyn M. Clancy, M.D., Director  
Agency for Healthcare Research and Quality

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Date

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## American Reinvestment and Recovery Act

The American Reinvestment and Recovery Act (ARRA) was signed into law by President Obama on February 17, 2009. It is an unprecedented effort to jumpstart our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Act is an extraordinary response to a crisis unlike any other since the Great Depression, and includes measures to modernize our Nation's infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need.

ARRA contains \$1.1 billion for comparative effectiveness research. Of the total, \$300 million is for the Agency for Healthcare Research and Quality (AHRQ). Of the remaining funds, \$400 million will be transferred to the National Institutes of Health (NIH), and \$400 million will be allocated at the discretion of the HHS Secretary. The legislation calls on the Institute of Medicine to recommend research priorities for the Secretary's funds and gather stakeholder input. In addition, the Federal Coordinating Council for Comparative Effectiveness Research has been created to offer guidance and coordination on the use of these funds. Reports are due from both groups by June 30, 2009.

AHRQ is gearing up to make the most of this additional funding. We are undertaking a process to determine what will be funded. We are working closely with NIH and the Office of the Secretary to ensure that we use these funds in the most effective manner and that we are coordinating our plans to maximize effectiveness of this important investment.

AHRQ will use ARRA funds to expand and broaden comparative effectiveness research activities initiated at the Agency in response to Section 1013 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, legislation designed to increase the availability of research that would inform the real-world decisions facing patients and clinicians. AHRQ's investments using ARRA funds will expand its Effective Health Care (EHC) Program. This effort will increase the national output of comparative effectiveness research; in addition, it may build research infrastructure and capacity, allowing future studies to address questions where data are currently not sufficient to provide guidance about competing alternatives and to improve the efficiency with which the research infrastructure is able to respond to pressing health care questions. Research activities will be performed using rigorous scientific methods within a previously established process that emphasizes stakeholder involvement and transparency, that was designed to prioritize among pressing health issues, and whose products are designed for maximum usefulness for health care decisionmakers.

More information on these and other ARRA programs can be found at <http://www.hhs.gov/recovery>.

### **Changes to Comparative Effectiveness Performance Measures Based on ARRA Funds**

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The existing measures currently used to report AHRQ's comparative effectiveness programs performance will be used. Performance measure targets and results will be adjusted to reflect ARRA funds once AHRQ's spend plan for comparative effectiveness funding for ARRA has been approved and announced to the public. We will report outcome and outputs, to the extent

possible, supported with funding appropriated under ARRA as an incremental change from those supported by regular appropriations.

**Changes to Performance Measures Based on ARRA Funds**

Measure	Most Recent Result	FY 2009 Target	FY 2010 Target	FY 2010 +/- FY 2009
<p><u>1.3.24</u>: Decrease mortality from and increase receipt of recommended care for subset of diseases measured and reported on in the National Health Care Quality Report<sup>1</sup> <i>(Developmental)</i> <i>(Interim Output)</i></p>	<p>FY 2008: Measures have been identified but a subset based on priority conditions has not yet been selected. (Target Met)</p>	<p>1st and 2nd Qtr – Obtain baseline measures  3rd and 4th Qtr – Set targets for FY 2010 – 2019</p>	<p>N/A</p>	<p>N/A</p>
<p><u>4.4.5</u>: Increase # of systematic reviews (SR) and summary guides (SG) produced per year<sup>1</sup> <i>(Outcome)</i></p>	<p>FY 2008: 7 SR 12 SG (includes 2 SG translated into Spanish) (Target Met)</p>	<p>10 SR 22 SG  3rd and 4th Qtr – Set targets for FY 2010 – 2019</p>	<p>TBD</p>	<p>TBD</p>
<p><u>1.3.25</u>: Increase # of organizations disseminating systematic reviews and summary guides to their constituents.<sup>1</sup> <i>(Output)</i></p>	<p>FY 2008: Have not completed identifying methods for systematically identifying organizations that are disseminating systematic review and summary guides. (Target Met)</p>	<p>1st and 2nd Qtr – Obtain baseline data for this performance measure  3rd and 4th Qtr – Set targets for FY 2010 – 2019</p>	<p>N/A</p>	<p>N/A</p>

<b>Measure</b>	<b>Most Recent Result</b>	<b>FY 2009 Target</b>	<b>FY 2010 Target</b>	<b>FY 2010 +/- FY 2009</b>
<p>1.3.26: Increase amount of evidence from the Comparative Effectiveness (CE) Portfolio policymakers use as a foundation for population-based policies.<sup>1</sup></p> <p><i>(Interim Output)</i></p>	<p>FY 2008: Worked with Medicaid Medical Directors Learning Network to develop process for identifying how CE Portfolio products are used by these State clinical policymakers (Target Met)</p>	<p>1st and 2nd Qtr – Obtain baseline data for this performance measure</p> <p>3rd and 4th Qtr – Set targets for FY 2010 – 2019</p>	N/A	N/A
<b>Program Level Funding (\$ in millions)</b>	\$30	\$50	\$50	0
<b>ARRA Level Funding for AHRQ Comparative Effectiveness Research (\$ in millions)</b>	N/A	\$300		N/A

<sup>1</sup>Targets for 2009 and 2010 will be adjusted to reflect ARRA funds once AHRQ's spend plan for comparative effectiveness funding for ARRA has been approved and announced to the public.

## Summary of Measures and Results Table

<b>Fiscal Year</b>	<b>Total Number of Targets</b>	<b>Targets with Results Reported</b>	<b>Percent of Targets with Results Reported</b>	<b>Total Targets Met</b>	<b>Percent of Targets Met</b>
2007	41	36	88%	34	94%
2008	47	41 <sup>1</sup>	87%	36	88%
2009 <sup>2</sup>	40	October 2009			
2010 <sup>3</sup>	40	October 2010			

<sup>1</sup>Six measures for Health Insurance Decision Tools under the Value Portfolio have no actuals because no funding was appropriated for FY 2009.

<sup>2,3</sup>Data are not yet available for FY 2009 and FY 2010.



## Performance Detail (by Activity)

### **Research on Health Costs, Quality and Outcomes (HCQO):**

#### **Comparative Effectiveness**

The Effective Health Care Program, launched in September 2005, supports the development of new scientific information through research on the outcomes of health care services and therapies, including drugs. By reviewing and synthesizing published and unpublished scientific studies, as well as identifying important issues where existing evidence is insufficient and undertaking new research, the program helps provide providers, clinicians, policymakers and consumers with better information for making informed health care treatment decisions. In this program, AHRQ seeks an emphasis on timely and usable findings, building on the thoroughness and unbiased reliability that have been hallmarks of efforts so far. Equally important is broad ongoing consultation with stakeholders, which helps ensure that the program responds to issues most pressing for health care decisionmakers. Collaboration is also a key principle of the program and AHRQ works closely with many HHS agencies to identify topics for research under the program and to communicate findings, including identified research gaps.

One measure the Effective Health Care Program uses to evaluate its success is the amount of evidence made available to the public. In FY 2006, the program released four systematic reviews and one summary guide. In FY 2007, the program released four systematic reviews and eight summary guides. Four new research reports, including a user's guide to registries evaluating patient outcomes and a *Medical Care* journal supplement on emerging methods in comparative effectiveness and safety, were also released. In FY 2008, the program released 7 systematic reviews and 12 summary guides, including 2 guides that were translated into Spanish. In FY 2009, the program anticipates releasing 10 systematic reviews and 22 summary guides, including some translated into Spanish. The targets for FY 2009 are reported in key output #4.4.5 in section D, Outcome and Output Tables. In addition, several research topics for systematic reviews and new research reports are in development and will be awarded for research in FY 2010.

All reports produced by the program are available on the Effective Health Care Web site, <http://www.effectivehealthcare.ahrq.gov>. The Web site also includes features for the public to participate in the Effective Health Care Program. Users can sign up to receive notification when new reports are available. They can also be notified when draft key questions for research, draft reports, and other features are posted for comment, and can submit comments through the Web site. The public is also invited to use the Web site to nominate topics for research by the Effective Health Care Program. Also on the Web site is information about the expanded list of priority conditions that guide the work of the program. The priority conditions are targeted to Medicaid, Medicare, and State Children's Health Insurance Program (SCHIP) beneficiaries (see text box below).

There is growing interest in, and attention to, enhancing the role of the Effective Health Care Program's research in our health care system. For example:

- Consumer Reports Best Buy Drugs, a public education product of Consumers Union, uses findings from the program to help clinicians and patients determine which drugs

and other medical treatments work best for certain health conditions. Over the course of the project, over 1 million reports have been downloaded. In addition to disseminating the consumer materials and reports via the Web site, Best Buy Drugs has an outreach program that links to existing groups with statewide reach and credibility throughout the medical community.

- The National Business Group on Health also uses findings from the Effective Health Care Program in their Evidence-based Benefit Design initiative to provide employers and their employees with the best available evidence for designing benefits and making treatment choices.
- Omnicare, Inc., a leading provider of pharmaceutical care for the elderly, uses Effective Health Care Program summary guides as a tool for its consultant pharmacists and facilities, which are primarily nursing homes. Omnicare serves approximately 1.4 million residents in more than 15,000 long-term care facilities in 47 States, Washington, DC, and Canada.
- Su Clinica Familiar, a multi-office health clinic in south Texas, uses AHRQ's Effective Health Care Program summary guides for clinicians and patients to better address concerns of patients and as teaching resources for patients.
- Medscape and the American Academy of Family Physicians offer CME credits based on comparative effectiveness reviews and numerous other organizations use the findings in their deliberations on patient care, formulary design, and areas for needed research.

These examples of organizations disseminating evidence from the Effective Health Care Program to their constituents are directly linked to key output (#1.3.25) listed in section D, Outcome and Output Tables.

Key output (#1.3.26) in section D, Outcome and Output Tables, increased amount of evidence from the Comparative Effectiveness (CE) Portfolio policymakers use as a foundation for population-based policies, helps guide our relationship with the AHRQ-sponsored Medicaid Medical Director's Learning Network. Twenty State Medicaid Medical Directors report that they use Effective Health Care Program resources in a variety of ways. For example, they are incorporated into clinical guidelines created and disseminated by the States, incorporated into health plan education materials, and used to inform coverage decisions and to set criteria for prior authorization.

The FY 2010 President's Budget Request for Comparative Effectiveness is \$50,000,000, maintaining the FY 2009 funding level. In FY 2010, a total of \$50,000,000 will support:

- Planned dissemination outreach to stakeholders to engage them in the Effective Health Care Program. Topics for research in the Effective Health Care Program are selected and refined based on input from the public. The Effective Health Care Program considers public suggestions and examines the impact and relevance of the proposed topics to the Medicare, Medicaid, and SCHIP populations. The Effective Health Care Program also considers the importance of a potential topic, such as how many people are affected and the level of uncertainty for doctors and other decisionmakers, whether the topic has already been covered by research that has been completed or is in progress, and for research reviews, the amount and type of research available.
- Systematic research reviews to inform decisions and promote effective health care. Research reviews from the Effective Health Care Program are reported in several formats. Comparative Effectiveness Reviews (CERs) and Effectiveness Reviews aim to

provide comprehensive appraisal and synthesis of evidence. Updates apply systematic methods to bring CERs and Evidence Reviews up to date by reviewing the current literature. Technical Briefs aim to provide an overview of key issues related to an emerging diagnostic or therapeutic intervention. FY 2010 funding will allow AHRQ to continue to develop and make available to the public systematic reviews. These outputs are a critical component to reach our long-term objective to improve a patient's quality of care and health outcomes through informed decisionmaking.

- Advancement of systematic review methodologies. AHRQ understands the importance of and is fully committed to improving the consistency and quality of systematic reviews, including comparative effectiveness reviews. AHRQ has been an international leader in this area. The science of systematic reviews is evolving and dynamic, and AHRQ is looked to as a promoter of gold standard methods development and dissemination on best ways to do systematic review. Advancement of systematic review methodologies means identifying key issues at each step involved in researching, writing, and translating a systematic review, conducting research on these issues, and then providing recommended approaches for addressing these difficult, frequently encountered methodological issues. The Effective Health Care Program will soon publish the *Methods Guide for Comparative Effectiveness Reviews*, both on the Effective Health Care Web site and in the scientific literature. Additional methods workgroups will be formed and the Methods Guide will be expanded.
- Effectiveness research in priority condition areas to develop new scientific evidence regarding the effectiveness and long-term treatment effects of diagnostic and therapeutic interventions and to address important knowledge gaps confronting health care decisionmakers.
- Multicenter research cooperatives for comparative and clinical effectiveness studies in diabetes, cancer, and cardiovascular disease. In FY 2010, the multicenter research cooperatives will continue to work closely with AHRQ to carry out coordinated and collaborative research agenda that address stakeholder questions about the comparative effectiveness, safety, and clinical effectiveness of therapies used in diabetes, cancer, and cardiovascular disease.
- Translation and dissemination work of the John M. Eisenberg Clinical Decisions and Communications Science Center. The Eisenberg Center will continue to facilitate access to and use of evidence-based clinical and health care delivery information, and foster informed health care decisions by patients, providers, and policymakers. As shown in the output table (#4.4.5), FY 2010 funding will allow for 22 Summary Guides to be produced.
- Building and enhancing the research and methodological capacity for conducting comparative and effectiveness research using the most rigorous methods possible and for the integration of evidence into practice and decisionmaking.
- Evaluating new clinical data sources and important clinical information (e.g., lab values, blood pressure readings) and performing more rigorous comparisons of treatments to draw inferences about complex clinical outcomes. This will increase the ability of clinicians to provide the right treatment to the right patient. Researchers will also work on the development and use of medical record and electronic administrative data systems.

- Continue efforts to train and develop the new generation of comparative effectiveness researchers. It is expected that three to four career development awards will be made in FY 2010, with a 3- to 5-year funding commitment for each award. Training and development activities will be closely tied to the programmatic strategic directions and the needs and challenges as identified by the Effective Health Care Program.
- Consultation and collaboration with HHS agencies and other stakeholders to identify topics for research, communicate findings, identify research gaps, and to ensure the Effective Health Care Program is responsive to the most pressing issues for health care decisionmakers.

**Long-Term Objective 1:** Improve patients' quality of care and health outcomes through informed decisionmaking by patients.

Measure	FY	Target	Result
1.3.24: Decrease mortality from and increase receipt of recommended care for subset of diseases measured and reported on in the National Health Care Quality Report <sup>1</sup> (Developmental) (Interim Output)	2010	TBD	Oct 31, 2010
	2009	1st and 2nd Qtr – Obtain baseline measures 3rd and 4th Qtr – Set targets for FY 2010 – 2019	Oct 31, 2009
	2008	Identify measures and limit to a subset based on priority conditions; work with AHRQ's planning, evaluation, and analysis contractors to limit to ~3 metrics to be tracked	Measures have been identified but a subset based on priority conditions has not yet been selected (Target Met)
	2007	N/A	AHRQ created new Comparative Effectiveness Portfolio
	2006	N/A	AHRQ launched new Effective Health Care Program, authorized under Section 1013 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (Target Met)
	2005	N/A	List of priority conditions for research under Medicare Modernization Act released (Target Met)
4.4.5: Increase # of systematic reviews (SR) and summary guides (SG) produced per year (Output)	2010	TBD	Oct 31, 2010
	2009	10 SR 22 SG	Oct 31, 2009
	2008	7 SR 8 SG	7 SR  12 SG (includes 2 SG translated into Spanish) (Target Met)

Measure	FY	Target	Result
	2007	N/A	4 SR 8 SG (Target Met)
	2006	N/A	4 SR 1SG (Target Met)
	2005	N/A	N/A
1.3.25: Increase # of organizations disseminating systematic reviews (SR) and summary guides (SG) to their constituents <sup>2</sup> (Output)			
	2010	TBD	Oct 31, 2010
	2009	1st and 2nd Qtr – Obtain baseline data for this performance measure 3rd and 4th Quarter – Set targets for FY 2010 – 2019	Oct 31, 2009
	2008	Work with AHRQ Effective Health Care's Eisenberg Center, Scientific Resource Center, and Stakeholder Group to identify methods for systematically identifying organizations that are disseminating SR and SG	Have not completed identifying methods for systematically identifying organizations that are disseminating SR and SG (Target Met)
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A
1.3.26: Increase the amount of evidence from the Comparative Effectiveness (CE) Portfolio policymakers use as a foundation for population-based policies <sup>3</sup> (Developmental) (Interim Output)	2010	TBD	Oct 31, 2010
	2009	1st and 2nd Qtr – Obtain baseline data for this performance measure 3rd and 4th Qtr – Set targets for FY 2010 – 2019	Oct 31, 2009
	2008	Work with the Medicaid Medical Directors (AHRQ Learning Network) and Health Plans to identify methods for systematically reviewing policy decisions for references to evidence from the Portfolio	Worked with Medicaid Medical Directors Learning Network to develop process for identifying how CE Portfolio products are used by these State clinical policymakers (Target Met)
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A

<sup>1</sup> Baseline data will be established in FY 2009. Intermediate process measures will be used during the interim.

<sup>2</sup> Baseline data will be established in FY 2010. Intermediate process measures will be used during the interim.

<sup>3</sup> Baseline data will be established in FY 2010. Intermediate process measures will be used during the interim.

Measure	Data Source	Data Validation
1.3.24	National Healthcare Quality Report (NHQR) Appendix A: Data Sources provide information about each database analyzed for the NHQR, including data type, sample design, and primary content.	Data are validated annually by Federal public release data source NHQR. Data are analyzed, synthesized, and reported using established methodology
4.5.4	All AHRQ systematic reviews and summary guides are entered into a database, which is used to populate the AHRQ Effective Health Care Program Web site, <a href="http://effectivehealthcare.ahrq.gov/">http://effectivehealthcare.ahrq.gov/</a> .	Effective Health Care Program staff will develop and document a methodology that will be used annually to check data
1.3.25	Requests for copies of AHRQ publications (ordered by title and publication number) are made to the AHRQ Publications Clearinghouse. Data will be provided bi-annually from the Publications Clearinghouse on the number of organizations requesting more than 50 copies of AHRQ comparative effectiveness research reports and summary guides.	Effective Health Care Program staff will develop and document a methodology that will be used annually to check data
1.3.26	Data from this output is available from AHRQ's Medicaid Medical Director's Learning Network (MMDLN). At an annual meeting, members of MMDLN report on how they use AHRQ's comparative effectiveness research reports and summary guides.	MMDLN members report their usage in a written document and AHRQ staff follow-up with members to verify information provided

## **Prevention/Care Management**

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The purpose of AHRQ's Prevention/Care Management portfolio is to improve the quality, safety, efficiency, and effectiveness of the delivery of evidence-based preventive services and chronic care management in ambulatory care settings. We seek to accomplish our mission by:

1. Supporting clinical decisionmaking for preventive services through the generation of new knowledge, the synthesis of evidence, and the dissemination and implementation of evidence-based recommendations; and,
2. Supporting the evidence base for and implementation of activities to improve primary care and clinical outcomes through
  - health care redesign;
  - clinical-community linkages;
  - self-management support;
  - integration of health information technology; and
  - care coordination.

### **Generation of New Knowledge:**

In FY 2009, several activities have been undertaken to accelerate the pace of research on complex patients (patients with multiple chronic conditions). First, Portfolio staff convened a meeting of the 18 investigators who were awarded grants in this area in FY 2008. The purpose of the meeting was to encourage the investigators to explore opportunities for collaboration as an efficient way to move the field ahead more rapidly. Portfolio staff also issued a funding opportunity limited to these 18 institutions to support collaborations that will advance the creation of large, clinically focused data sets and the refinement of methods to study complex patients.

AHRQ deliberately limited the competition to these 18 institutions. In FY 2008, in reviewing applications for the original grant award, we learned that little work is being done in the field of understanding prevention and care management for people with multiple chronic conditions. We awarded 18 grants to the most advanced investigators in this field. In FY 2009, we brought the investigators together for an in-person meeting to encourage them to form collaborations to accelerate the pace of knowledge generation in this area. In spite of the challenges faced by the grantees, most were making significant progress toward the goal of better understanding the prioritized health care needs of patients with multiple chronic conditions.

In order to leverage limited funding resources to achieve maximum progress in the field and to encourage collaboration among these research leaders, we then issued an announcement for a limited competition R21 grant opportunity among the original 18 institutions. This will allow a few of the original 18 grantees to build bridges between their projects, for example, by merging data into shared databases or refining methodologies to better study this population. Our goal for this work is to expand the research infrastructure for future investigations on the population of patients with multiple chronic diseases.

## Knowledge Synthesis and Dissemination:

The Portfolio fulfills AHRQ's congressionally mandated role to convene the U.S. Preventive Services Task Force (USPSTF). The USPSTF is mandated to conduct scientific evidence reviews of a broad array of clinical preventive services (screening, counseling, and preventive medication) and to develop recommendations for the health care provider community. The Portfolio provides ongoing administrative, research, technical, and dissemination support to the USPSTF, which is an independent panel of nationally renowned, non-Federal experts in prevention and evidence-based medicine comprising primary care clinicians (e.g., internists, pediatricians, family physicians, gynecologists/obstetricians, nurses, and health behavior specialists) with strong science backgrounds.

The USPSTF develops and releases evidence-based recommendations for the health care provider community to improve the delivery of appropriate preventive services in the clinical setting. The multi-year process of generating a recommendation begins with a solicitation of topic nominations through a Federal Register notice and consultation with stakeholders. The USPSTF prioritizes nominated topics for review and for updating. From the pool of USPSTF prioritized topics, portfolio staff selects specific clinical preventive service(s) based on Agency and Departmental strategic goals to focus the portfolio's work.

In FY 2009 (as of April 13, 2009) the USPSTF has released six recommendations on clinical preventive services: three for screening services, two for counseling services, and one for preventive medication. Five other recommendations are pending publication, and work was either been initiated or continued on approximately 30 topics.

As reflected in key outcome measures for FY 2008 and FY 2009, and to continue through 2014, portfolio staff have prioritized knowledge generation, dissemination, and implementation work in the area of screening for colorectal cancer (CRC). This preventive service has been prioritized because current rates of uptake of screening for CRC are low, CRC is the third most common cancer in the United States, and there are health disparities in receipt of the service.

In 2009, two reports were published in the *Annals of Internal Medicine* in conjunction with the publication of the updated USPSTF recommendation on Screening for Colorectal Cancer. These included a systematic evidence review conducted by the Oregon Evidence-based Practice Center<sup>1</sup> and a decision analysis of CRC screening tests that focused on age to begin and end screening, and on screening intervals. This work was conducted by the Cancer Intervention and Surveillance Modeling Network (CISNET).<sup>2</sup>

Based on this evidence, the USPSTF recommended screening for CRC using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults beginning at age 50 years and continuing until age 75 years. For the first time, the USPSTF recommended that screening for CRC should stop after age 85, and it recommended *against routine* screening for adults age 76-85. Finally, the USPSTF found insufficient evidence to assess the benefits and harms of computed tomographic colonography and fecal DNA testing as screening modalities for CRC.

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<sup>1</sup> Whitlock EP, Lin JS, Liles E, Beil TL, and Fu R. (2008) Screening for colorectal cancer: A targeted, updated systematic review for the U.S. Preventive Services Task Force. *AIM*; 149 (9): 638-658.

<sup>2</sup> Zauber AG, Lansdorp-Vogelaar I, Knudsen AB, Wilschut J, van Ballegooijen M, and Kuntz KM. (2008). Evaluating test strategies for colorectal cancer screening: A decision analysis for the U.S. Preventive Services Task Force. *AIM*; 149 (9): 659-669.



USPSTF recommendations provide one essential foundation for dissemination, implementation, and integration activities within the portfolio. In FY 2009, Portfolio staff worked with The Centers for Medicare and Medicaid Services (CMS) and the National Committee on Quality Assurance (NCQA) to inform national coverage decisions and performance measures on screening for CRC. For example, Portfolio staff, the Chair of the USPSTF, and the principal investigators of the evidence reports referenced above gave several presentations on the evidence regarding screening for CRC using CT colonography and the rationale for the USPSTF recommendations. These presentations were made to staff at CMS and the Medicare Evidence Development & Coverage Advisory Committee (MEDCAC).

In FY 2009, Portfolio staff continued to serve as full and active members of the National Colorectal Cancer Roundtable, and a joint project is underway with Federal and non-Federal partners to translate implementation guidance into more accessible electronic formats to improve the delivery of screening. This electronic tool should be finalized in FY 2009.

In FY 2008, portfolio staff selected a counseling service, Counseling to Promote a Healthy Lifestyle (which includes diet and physical activity), as a second priority area for work in upcoming years. In FY 2009, AHRQ commissioned a work plan from the Oregon Evidence-based Practice Center to update the USPSTF recommendations on counseling to promote a healthy diet and physical activity. The final work plan approved by the USPSTF is primarily designed to address the effectiveness of primary care-relevant counseling interventions to improve diet and physical activity, with a focus on the reduction of cardiovascular disease and related chronic diseases in adults. In addition to examining behavioral outcomes, the final evidence review will also report on relevant intermediate outcomes (e.g., measures related to diabetes, hypertension, dyslipidemia, and weight), and distal health outcomes (death and morbidity related to cardiovascular disease). The final evidence report will be completed in FY 2010.

### **Implementation & Use of Knowledge:**

In FY 2008, with the American Medical Association and the Association of State and Territorial Health Officials, AHRQ co-sponsored *Linking Clinical Practice and the Community for Health Promotion*, a summit aimed at encouraging collaboration, coordination, and integration among health care providers, institutions, and community resources. Participants examined successful partnerships at health system, community, and State levels, and identified strategies to overcome partnership barriers.

In FY 2009, in order to facilitate ongoing collaboration among summit participants and to disseminate their work to a larger audience, a special resource page was added to AHRQ's Web-based Innovations Exchange (<http://www.innovations.ahrq.gov>). Innovation profiles and tools from the Innovations Exchange collection address promoting healthy behaviors and linkages among health care delivery, public health, and community-based interventions.

The FY 2010 President's Budget for Prevention and Care Management is \$7,100,000, a level equal to the FY 2009 Omnibus level. These funds will allow AHRQ to continue funding important research on prevention and care management, including the following activities:

- provide support to large and small grants related to prevention and care management research, with a focus on grants that implement findings from the exploratory work completed in FY 2009 on optimizing prevention and care management in complex patients.

- provide support to rapid-cycle grants to study ambulatory practices across the U.S. that have attempted to transform their practices into patient-centered medical homes.
- support Evidence-based Practice Centers to conduct systematic evidence reviews for use by the USPSTF in making recommendations on clinical preventive services.
- generate and synthesize knowledge regarding the ways in which new recommendations and evidence-based services are incorporated into clinical practice and/or health care systems.
- promote the implementation and use of appropriate evidence-based clinical services.
- convene the USPSTF three times during the fiscal year.
- support the training of preventive medicine residents in evidence-based medicine.

By 2010, integration of Prevention and Care Management into one Portfolio will be complete and work will continue to support the new strategic goals. In FY 2009, work began with Agency-sponsored evaluators to establish performance measures and data sources to reflect the work of the new integrated Prevention and Care Management Portfolio.

In addition, as shown in the Outputs and Outcomes Tables below, in FY 2010 AHRQ will establish the baseline screening rate for men and women age 50+ who report having been screened for CRC. AHRQ faces many challenges in being able to measure the impact of the Portfolio on screening rates, including the availability of trend data. Specifically, the Prevention/Care Management Portfolio does not direct or control how preventive services usage data are gathered via the National Health Information Survey (NHIS), or how and when the data are presented in the National Healthcare Quality Report (NHQR) and National Healthcare Disparities Report (NHDR) (which also must rely on how questions are worded in the NHIS and other national surveys).

In 2010, work will be completed on two systematic evidence reviews, one on counseling to promote a healthy diet and one on counseling to promote physical activity. These reports will assist the Task Force in making a bundle recommendation on counseling to promote a healthy lifestyle to be implemented in clinical practice. Portfolio staff will finalize the strategic plan for dissemination and implementation work in this topic area. These interim outputs ultimately support the appropriate delivery of this service to Americans.

Findings from the grant program, Optimizing Prevention and Healthcare Management in Complex Patients, will be available in 2010. The results may be used to guide the development of a funding opportunity announcement for grants that implement the results of the exploratory studies.

**Long-Term Objective 1:** To translate evidence-based knowledge into current recommendations for the provision of clinical preventive services that are implemented as part of routine clinical practice, thereby contributing to improvements in the quality of preventive care and improved health outcomes in the general population and in priority populations.

Measure	FY	Target	Result
2.3.4: Increase the percentage of men and women age 50 or older who report having been screened for colorectal cancer by issuing a USPSTF recommendation re: screening for colorectal cancer (based on NHQR/NHDR) (Output)	2010	Retire measure	NA
	2009	Release updated USPSTF recommendation on screening for CRC	Oct 31, 2009
		Finalize modification of ACS colorectal screening implementation toolkit (via IAA with CDC) to electronic format. 11.	
	2008	Finalize evidence report and decision analysis screening for CRC	Evidence report and decision analysis completed. Evidence report and decision analysis on CRC submitted to <i>Annals of Internal Medicine</i>
		Finalize dissemination & implementation situational analysis for screening for CRC AHRQ Prevention staff participate as full members of National Colorectal Cancer Round Table	Situational analysis for screening for CRC completed and disseminated  AHRQ staff participated as members of the Colorectal Cancer Round Table (Target Met)
	2007	N/A	N/A
	2006	N/A	N/A
2005	N/A	N/A	
2.3.5: Increase rates of additional Portfolio-prioritized clinical preventive service(s) by issuing a workplan for additional preventive services (Developmental) (Output)	2010	Retire measure	NA
	2009	Finalize work plan for an EPC evidence report and dissemination & implementation situational analysis for additional Portfolio-prioritized clinical preventive service(s).	Oct 31, 2009
		Publish Federal Register notice soliciting new topic nominations for USPSTF review  USPSTF will prioritize nominated topics for review  Portfolio will prioritize clinical preventive service(s) in alignment with strategic goal areas	Solicitation for nominations for new topics published in the Federal Register February 20, 2008  The USPSTF prioritized four topics for potential review  Portfolio prioritized clinical preventive service: Counseling to Promote a Healthy Lifestyle (Healthy Diet and Physical Activity). (Target Met)
	2007	N/A	N/A

Measure	FY	Target	Result
	2006	N/A	N/A
	2005	N/A	N/A
2.3.6: Improve integration of prevention and care management (CM) activities (Output)	2010	Retire Measure	NA
	2009	Award 3-5 collaborative grants to accelerate the pace of discovery and achieve the goals of the "Optimizing Prevention and Healthcare Management for the Complex Patients"	Oct 31, 2009
	2008	Launch new Prevention/ Care Mgmt Portfolio and create key outcome measures for care mgmt	Launched new Prevention/ Care Mgmt Portfolio Awarded 18 grants to support "Optimizing Prevention & Healthcare Management in Complex Patients" (Target Not Met)
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A

Measure	Data Source	Data Validation
2.3.4	NHQR/NHDR	Data is validated annually by Federal public release data sources including NHQR/NHDR. Data are analyzed, synthesized, and reported using established methodology
2.3.5	The data source is dependent on the prioritized service(s) and could include national sources such as the NHQR/NHDR and/or internal Prevention/CM databases	Reviewed by Prevention/CM Portfolio staff and AHRQ Senior Leadership Team
2.3.6	Internal Prevention/CM planning documents	Reviewed by Prevention/CM Portfolio staff and AHRQ Senior Leadership Team

## Value

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The cost of health care has been growing at an unsustainable rate, even as quality and safety challenges continue. Finding a way to achieve greater value in health care – reducing unnecessary costs and waste while maintaining or improving quality – is a critical national need. AHRQ’s Value Portfolio aims to meet this need by producing the measures, data, tools, evidence, and strategies that health care organizations, systems, insurers, purchasers, and policymakers need to improve the value and affordability of health care. The aim is to create a high-value system in which providers produce greater value, consumers and payers choose value, and the payment system rewards value. In 2010, AHRQ will continue to support the Value Portfolio through four interrelated activities:

- **Measures, Data, and Tools for Transparency.** Any effort to build value must rest on evidence-based measures and solid Federal, State, and local data on cost and quality. AHRQ has a long history of development and maintenance of measures and data that the Department, private purchasers, States, and providers are using for quality reporting and improvement. Examples include the CAHPS<sup>®</sup>, Quality Indicators, National Healthcare Quality and Disparities Reports, Culture of Safety measures, the Healthcare Cost and Utilization Project, and the Medical Expenditure Panel Survey.

A major priority of the Value initiative is development and expansion of measures, data, and tools to support transparency, public reporting, payment initiatives, and quality improvement. We saw several major successes in FY 2008: The National Quality Forum endorsed 41 of our Quality Indicators for public reporting, and CMS selected 9 of these for use in inpatient payment. CMS also began to report data from AHRQ’s Hospital CAHPS measure. The National Healthcare Quality and Disparities Report had an efficiency chapter for the first time, and we published a comprehensive Evidence Review on Efficiency measures. By the end of FY 2008, 15 States had public report cards on health care quality, more than double the number anticipated.

Most of the States doing public reporting are also opting to use AHRQ measures. By summer of 2009, 15 States, covering more than half the U.S. population, will be publicly reporting on hospital quality using AHRQ’s Quality Indicators. A new Quality Indicators Learning Institute helps these States use the indicators effectively, and provides technical assistance to new States or communities as they plan their public reporting efforts. In 2009 we also began beta-testing a new tool – My Own Network AHRQ (MonAHRQ) that gives States, communities, and others the software they need to build their own Web sites for public reporting and quality improvement.

Another major effort of the Value Portfolio in 2009 has been development of a plan to synchronize and improve the information available for health care reform. The goal is to bring together and improve information from across the Agency and outside the Agency. In spring of 2009 we held an expert meeting on Data for Health Care Reform designed to identify major data needs, data gaps, and strategies for filling these needs. In 2010, we will continue to build and refine measures of quality and efficiency, and produce data and tools to track, report, and improve value and efficiency. A major push for 2010 will be developing further synergies among AHRQ’s measurement and data efforts particularly as they relate to health care reform.

- **Evidence to support reporting, payment, and improvement strategies.** A second component of the Value-Driven Healthcare Initiative is to provide evidence on when and how public reporting strategies are most likely to work, what payment strategies and community approaches are most likely to improve value, and what redesign initiatives are likely to reduce waste. Through this activity, in 2008 we were able to provide policymakers, system leaders, and regional health improvement collaboratives with 13 new tools, reports, and evaluations (more than double the number anticipated) on topics such as provider incentives, consumer incentives, measuring efficiency, consumer-friendly public reporting templates, ways to identify populations with high numbers of potentially preventable hospital admissions, strategies for achieving waste, etc. This material provided the core curriculum for various Learning Networks and achieved wide visibility across the country with employers, providers, consumers, and others seeking major improvements in value. A priority for 2010 is continuing to build the evidence base for value and efficiency, and we expect at least 10 new tools and reports. This is supported by key output measure #1.3.31.
- **Implementation Partnerships.** Because the goal of the portfolio is not simply to produce evidence but to facilitate evidence-based improvements in efficiency and value, a central component of the portfolio is working with key stakeholders who are using measures, data and evidence to bring about change. For example:

**Practice-Based Networks:** AHRQ works with practice-based networks to identify and roll out practices to reduce waste and improve quality. One such network is the Accelerating Change and Transformation in Organizations and Communities (ACTION), a network of 15 practice-based consortia that are based in hospitals, nursing homes, home care agencies, and group practices and that have expertise in rapid deployment of proven best practices. In 2008 and 2009, for example, Denver Health's safety net hospital launched a system redesign project based on Lean/Toyota Production Systems where staff were trained to analyze sources of waste, solve problems, and start implementing solutions in just one week. Teams and individuals came up with short-turnaround ideas for improving care and reducing waste, saving over \$11 million to date. Another ACTION project to develop and implement novel strategies to reduce methicillin-resistant *Staphylococcus aureus* (MRSA) infections in hospitals resulted in a new hybrid approach that was implemented in intensive care units (ICUs) in several hospital systems in Indianapolis. A follow-on project will enhance, expand, and spread these implementation approaches to new hospitals and to additional non-ICU hospital units in the previously participating hospitals.

Similarly, an HIV Research Network (HIVRN) has identified and implemented strategies to reduce the number of drug interactions. Through its data collection across 19 sites of HIV patient care, the HIVRN routinely alerts individual sites about patients who were receiving inappropriate combinations of antiretroviral drugs. This has significantly reduced the number of HIV patients receiving inappropriate HIV drug regimens. For example, over a 2-year period, patients receiving a particular inappropriate drug combination (tenofovir and unboosted atazanavir) was reduced by 34 percent.

**Community-Based Networks:** AHRQ's partnership with a set of 24 regional health improvement collaboratives (RHICs – formerly known as Chartered Value Exchanges) provide a vehicle for community-wide improvement. It takes research findings on public

reporting, payment, waste reduction, and quality improvement and implements them across communities and entire States. The regional health improvement collaboratives are regional and State collaboratives, which consist of representatives of at least four stakeholder groups (public and private purchasers, providers, health plans, and consumers) and, in some cases, State data organizations, Quality Improvement Organizations, and health information exchanges. These organizations work in tandem to improve community-wide quality and value, through public reporting, payment incentives, and quality improvement initiatives.

AHRQ began chartering regional health improvement collaboratives in 2008, and currently 24 communities are chartered (Chartered Value Exchanges). Although AHRQ originally expected the regional health improvement collaboratives to represent 300,000 people by the end of 2008, they currently represent more than one-third of the U.S. population (124 million people) and include over 450 health care leaders. This is primarily because the regional health improvement collaboratives themselves are large, in most cases covering entire States.

Given the broad areas and populations represented by the 24 regional health improvement collaboratives, we plan to focus on meeting the needs of these existing collaboratives through 2010 rather than competing new ones. To help us do so, in 2009 AHRQ recompeted a contract for a Learning Network to provide them with technical assistance and new evidence-based tools for quality/efficiency measurement, public reporting, and quality improvement. This Learning Network gives all the regional health improvement collaboratives access to organized peer learning, Webinars, one-on-one consulting, and other support by top researchers and consultants.

- **Coordination Forum for Public Payers:** The Federal Government is the largest purchaser of health care, and therefore value-driven health care cannot succeed without the active collaboration of Federal payers in this effort. In FY 2008, AHRQ established a forum to facilitate coordination across public payers and this work will continue.

### **In 2010, We Propose to Retire the Following Measures:**

1.3.27: Increase the number of people who are served by community collaboratives that are using evidence-based measures, data, and interventions to increase health care efficiency and quality.

Reason for Retirement: The original target for this measure was 300,000, but by 2008, 124 million was achieved. Since we far exceeded the original target, we plan to now focus on working with the existing 24 Chartered Value Exchanges (CVEs) and the populations they serve.

1.3.28: Increase the # of CVEs

Reason for Retirement: 25 value exchanges were chartered in 2008, and 24 are currently chartered (1 collaborative was de-chartered when it failed to meet the chartering criteria). Given the broad areas and populations represented, we plan to focus on the 24 existing CVEs, to help them in their community-wide and statewide public reporting, payment, and quality improvement efforts, rather than recruit more CVEs.

1.3.29: Increase the number of States or communities reporting market-level hospital cost data.

Reason for Retirement: The original target was for 4 States, but we have already reached the maximum target of 16 States producing cost-level data.

1.3.30: Increase the number of communities or States with public report cards.

Reason for Retirement: This measure should be replaced with one that reflects our work with greater precision – rather than measure the number of States/communities with public report cards, we will measure the number of AHRQ measures and tools used in public report cards.

We plan to replace these retired measures with measures that reflect the work we’re planning for 2010 – to build and refine measures of quality and efficiency and produce data and tools to track, report, and improve value and efficiency; to build the evidence base for value and efficiency and produce new evidence-based reports and tools; and to disseminate measures, products, and tools to key stakeholders who can use them to improve value.

**Long-Term Objective 1:** Consumers and patients are served by health care organizations that reduce unnecessary costs (waste) while maintaining or improving quality.

Measure	FY	Target	Result
1.3.31: Increase the cumulative number of databases, data enhancements, articles, analyses, reports, and evaluations on health care value that are disseminated (Output)	2010	28	Oct 31, 2010
	2009	18	Oct 31, 2009
	2008	5	13 (Target Exceeded)
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A
1.3.27: Increase the number of people who are served by community collaboratives that are using evidence-based measures, data, and interventions to increase health care efficiency and quality	2010	Retire	N/A
	2009	124 million	Oct 31, 2009
	2008	300,000 People	124 million (Target Exceeded)
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A
1.3.28: Increase the number of Chartered Value Exchanges (CVEs)	2010	Retire	N/A
	2009	30	Oct 31, 2009
	2008	15	25
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A



<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
1.3.29: Increase the total number of States or communities reporting market-level hospital cost data	2010	Retire	N/A
	2009	16	Oct 31, 2009
	2008	4	16
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A
1.3.30: Increase the total number of communities or States with public report cards	2010	Retire	N/A
	2009	18	Oct 31, 2009
	2008	5	15
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A

<b>Measures</b>	<b>Data Source</b>	<b>Data Validation</b>
1.3.31	AHRQ staff and contractors for Quality Indicators and Chartered Value Exchanges Learning Network	A yearly review of the posted National State or Community report cards and the number of AHRQ measures they contain, plus the number of report cards that rely upon the use of AHRQ tools such as EQUIPS and the Quality Indicators Learning Institute contractor
1.3.27	Data contained in applications for Chartered Value Exchanges	Reviewed by AHRQ and contractor for validity
1.3.28	AHRQ records	Review of AHRQ records
1.3.29	HCUPnet	Data published on HCUPnet Web site and verified by HCUP Project Officers
1.3.30	Tools tracked by contractor	AHRQ Project Officer oversees contractor work

## Health Information Technology

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As the Nation's lead research agency on health care quality, safety, efficiency, and effectiveness, AHRQ plays a critical role in the drive to adopt health information technology (health IT). Established in 2004, the purpose of the Health IT Portfolio at AHRQ is to develop and disseminate evidence and evidence-based tools to inform policy and practice on how Health IT can improve the quality of American health care. This portfolio serves numerous stakeholders, including health care organizations planning, implementing, and evaluating health IT, health services researchers, policymakers and other decisionmakers. The portfolio achieves these goals through funding research grants and contracts, synthesizing findings, and developing and disseminating findings and tools.

The Health IT Portfolio disseminates its products and delivers technical assistance through its National Resource Center for Health IT (NRC), Web conferences, and through direct participation in select meetings and journals. Usage of the NRC Web site has continued to grow with over 170,000 unique users downloading nearly 160,000 tools, documents, and other resources from the Web site in FY 2008.

Some recent achievements and research findings related to the Health IT Portfolio include:

- Advancement of electronic prescribing, through delivery of a report to Congress and subsequent proposed adoption of standards for Medicare Part D beneficiaries. As shown in the performance table below, AHRQ partnered with CMS to award five pilot projects, which tested several promising standards, and delivered the evidence on those standards through a rigorous evaluation. Although CMS funded the project, AHRQ provided full-time staff and administrative support including: constructing the request for applications (RFAs), competing the RFAs, reviewing the applications, making the awards, and assigning project officers to manage and oversee the projects.
- Demonstration of best practices for health information exchange through projects like the Midsouth eHealth Alliance in Tennessee. Currently entering its fourth year of existence, this data exchange serves all major emergency rooms in Memphis with over 50 million laboratory results and other encounter information available on nearly 1 million individuals.
- Developing evidence and refining principles of privacy and security for health IT systems to respond to consumers' needs and desires. AHRQ has co-funded the Health Information Security and Privacy Collaborative, a 35-State and territory effort, which has defined the privacy and security landscape and has made concrete progress towards addressing inconsistencies and concerns. AHRQ is also conducting focus groups to determine consumers' information needs to improve their health care.
- Leadership in measurement of quality using health IT, including funding of a pivotal report from the National Quality Forum on the readiness of health IT to measure widely adopted consensus measures of quality.

The Health IT program at AHRQ set several ambitious performance measures in 2004, and has seen steady progress on all of the measures and some notable achievements. To meet the President's goals of widespread adoption of electronic health records (EHRs), we partnered with CMS to test and recommend e-prescribing standards for national adoption, which was a requirement of the Medicare Modernization Act of 2003. This major achievement began in May

2005, and over 2 years several pilot projects were solicited, awarded, and conducted, and a detailed evaluation was performed. The result has been a mandated Report to Congress in April 2007, and a Notice of Proposed Rulemaking from CMS to require use of the ready standards for Medicare beneficiaries. As this technology develops further, we look forward to showing the Nation the best ways to use e-prescribing to improve the safety and quality of health care.

EHR adoption has slowly increased – 17 percent of providers have adopted EHRs (data provided from the 2008 National Ambulatory Medical Care Survey (NAMCS) – <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/physicians08/physicians08.pdf>). Our grants and contracts have produced significant insight into the best practices in implementation and use of EHRs, and continue to advance this field of knowledge. External barriers to EHR adoption continue to pose a challenge, including the capital required from providers to purchase the system and uncertainty in the market for these products.

Similarly, hospitals have continued to steadily adopt computerized physician order entry, and in 2007 that technology is being utilized by 27 percent of providers across the Nation. The program awarded \$5 million for two new contracts that will focus on the development, adoption, implementation, and evaluation of best practices using clinical decision support (CDS). This initiative will support the development, implementation, and evaluation of demonstration projects that advance the understanding of how best to incorporate CDS into health care delivery. We continue to develop evidence and tools that inform the best use of these technologies, and will continue to disseminate them through the National Resource Center for Health IT (NRC) and our public and private partnerships.

Supporting improved decisionmaking by health care organizations represents a critical next step beyond adoption of health IT, and represents significant potential for good information systems to help deliver high quality health care. Some of the basic building blocks are in place, as seen through the health IT certification criteria of the Certification Commission for Healthcare Information Technology. Our programs will develop and demonstrate the most effective use of evidence-based information to inform the Nation's health care providers and policymakers.

The Health It Portfolio underwent a program assessment in 2008. The program received a Results Not Demonstrated rating. The assessment cited that: (1) the program lacked performance measures to gauge how well it was developing and disseminating research on how well health IT can improve the quality of health care; (2) the program's Web site struggled to reach its intended audience and lacked practical information; and (3) the program lacked an efficiency measure. As a result of the program assessment, the Health IT program has embarked on a plan to improve the performance and management of the program and has met or exceeded all improvement deadlines. In FY 2008, the program developed and gained Office of Management and Budget (OMB) approval of an efficiency measure. In addition, for activities begun in FY 2008 and completed thus far in FY 2009, the program gained feedback on how to improve its Web site by conducting focus groups of program stakeholders and summarizing the results, developed multiple "how-to guides" for the NRC Web site, and developed and gained OMB approval for a long-term performance measure.

The FY 2010 President's Budget Request for Health Information Technology is \$44,820,000, the same level as the FY 2009 Omnibus Level. This request includes \$29,388,000 in new and continuation support for grants and contracts to support the Ambulatory Safety and Quality Program (ASQ) and other health IT grant activities. In FY 2010, AHRQ will reinvest \$3,842,946 in grants related to ASQ. This integrated set of grant activities is focused on demonstrating

value and best approaches to broader diffusion, implementation, and effective use of health IT to improve the quality and safety of care delivered in the ambulatory setting and across transitions.

In FY 2009, AHRQ announced three new standing funding opportunities to address research to support the program’s three strategic focus areas: the use of health IT to support patient - centered care and transitions in care, CDS and improved decisionmaking, and the effective use of electronic prescribing and medication management. The program will reinvest \$7,500,000 in these grants and fund \$14,545,036 in new grants in FY 2010. A summary of that funding is below:

- Ambulatory Patient Safety Program (ASQ): \$29,388,000
  - New FY 2010 Grants: \$14,545,036
  - Continuation of ASQ and Program Grants funded in FY2008: \$3,842,964
  - Continuation of Program Announcement Grants funded in FY 2009: \$7,500,000
  - Health IT CERTs Grant: \$1,000,000
  - Clinical Decision Support Demonstrations: \$ 2,500,000

In addition, the FY 2010 budget will allow AHRQ to award projects which develop and disseminate evidence and evidence-based tools on the use of health IT to improve quality and support the meaningful use of health IT. AHRQ will continue to partner with our Federal and private sector stakeholders to promote our shared goals. Coupled with effective dissemination efforts, evidence and tools derived from AHRQ Health IT program research can inform implementation and policy activities to overcome barriers and drive adoption and meaningful use of Health IT. A key challenge to reaching FY 2010 performance goals are the many factors outside of AHRQ control which influence use of Health IT, including payment policy, regulatory requirements, and clinical practice standards. Specific activities include:

- National Resource Center for Health IT: \$6,000,000
- Portfolio Assessment and Evaluation Activities: \$1,000,000. The 2010 portfolio assessment and evaluation activities are currently in the planning stages. The program expects to include all relevant health IT Federal stakeholders per the forthcoming operations plan of the HHS Office of National Coordination for Health Information Technology (ONC).
- Dissemination, Translation, and Other Rapid Cycle Research Activities: \$8,432,000

At the FY 2010 President’s Budget Request, a total of \$14.5 million in grants related to the ASQ program end. The FY 2010 President’s Budget will reinvest these funds back into Health IT grants to advance its mission and to support their long-term outcome goals. The FY 2010 President’s Budget Request will also allow AHRQ to continue projects and partnerships which develop and disseminate evidence on the use of health IT to improve quality.

Measure	FY	Target	Result
1.3.52: The percentage of visits to doctors’ offices at which patients with coronary artery disease are prescribed antiplatelet therapy among doctors’ offices that use electronic health records with clinical	2010	TBD	Jan 30, 2012
	2009	TBD	Jan 30, 2011
	2008	TBD	Jan 30, 2010
	2007	Set Baseline	Aug 31, 2009

Measure	FY	Target	Result
decision support (Outcome)	2006	N/A	N/A
	2005	N/A	N/A
1.3.48: Average cost per grantee of development and publication of annual performance reports and final reporting products on the AHRQ National Resource Center for Health IT (NRC) Web site ( <a href="http://healthit.ahrq.gov">http://healthit.ahrq.gov</a> ). (Outcome)	2010	TBD	Jun 30, 2010
	2009	Set Baseline	Jun 30, 2009
	2008	N/A	N/A
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A

Measure	Data Source	Data Validation
1.3.52	National Ambulatory Medical Care Survey (NAMCS)	NAMCS – using a nationally representative sample of primary care, non-pediatric practices and their patients with coronary artery disease
1.3.48	AHRQ Internal Figures	AHRQ Internal Figures – the process includes capturing the per-grantee cost of: developing and posting annual performance summaries for each grant; developing and posting a series of products (short and long summaries) of research findings upon grant completion; and posting final reports in the National Technical Information Service database of government research. The program will monitor the process of developing and publishing these reports online by attaching resource costs to each step of the process by creating a Gantt chart to map the current process, including who currently performs each step of the process and the time that each step takes. Multiplying this by personnel costs and then summing the total costs for each step of the process will produce an annual estimate of the cost to produce these documents per grantee.

## Patient Safety

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The Patient Safety Program comprises two key components: (1) coordination of support for the creation, synthesis, dissemination, implementation, and use of knowledge about patient safety threats and medical errors; and (2) operation of a program to establish Patient Safety Organizations (PSOs), which are a fundamental element of the Patient Safety and Quality Improvement Act (Patient Safety Act) of 2005. The Patient Safety Act provided needed protection (privilege) to providers throughout the country for quality and safety review activities. The Act promotes increased patient safety event reporting and analysis, since event information reported to a PSO is protected from disclosure in medical malpractice cases. This legislation is anticipated to support and spur advancement of a culture of safety in health care organizations across the country. AHRQ administers the provisions of the Patient Safety Act dealing with PSO operations. HHS has issued regulations to implement the Patient Safety Act, which authorizes the creation of PSOs. The final rule became effective on January 19, 2009.

The Patient Safety Program's goal as stated historically is to prevent, mitigate, and decrease the number of medical errors, patient safety risks and hazards, and quality gaps associated with health care and their harmful impact on patients. The Program funds grants, contracts, and interagency agreements (IAAs) to support projects that identify the threats; identify and evaluate effective practices; educate, disseminate, and implement approaches to enhance patient safety and quality; and maintain vigilance.

The Patient Safety Program, which formally commenced in FY 2001, began with AHRQ awarding \$50 million for 94 new projects aimed at reducing medical errors and improving patient safety. Throughout the past 8 years, AHRQ has funded many additional projects and initiatives in a number of areas of patient safety and health care quality. As a result, a large body of research continues to emerge, and numerous surveys, reporting and decision support systems, training and technical assistance opportunities, taxonomies, publications, tools, and presentations are available for general use. AHRQ has addressed these patient safety issues independently and in collaboration with public and private sector organizations.

Some relevant research findings and projects related to Patient Safety include:

### Research Grants

- Through a study funded by AHRQ for which preliminary findings are currently available, it is estimated that 95 percent of hospitals have some type of error reporting system. This is based on a nationally representative sample of 2,000 hospitals with an 81 percent survey response rate. Only about 12 percent of the respondents had a fully computerized system. (FY 2005 funding = \$165,909.) Plans include a repeat survey of hospitals to update this estimate during FY 2009.
- In FY 2005, 17 Partnerships in Implementing Patient Safety 2-year grants were awarded to assist health care institutions in implementing safe practice interventions that show evidence of eliminating or reducing medical errors, risks, hazards, and harms associated with the process of care. The majority of these grants are completed and the resultant tool kits are in the process of being made available to the public and/or further tested in different environments to identify what easily works and what challenges are faced by providers in implementing these safe practice intervention tool kits. (FY 2005 and FY 2006 funds = \$4.7 million).

- In September 2008, AHRQ awarded \$3,708,799 for 13 risk-informed intervention grants. These 3-year projects build on previously funded risk assessment projects funded by AHRQ and support risk-informed development and implementation of safe practice interventions that have the potential of eliminating or reducing medical errors, risks, hazards, and harms associated with the process of care in the ambulatory setting. The objectives of the projects are to: (1) identify, develop, test, and implement safe practice interventions in ambulatory care settings, and (2) share the findings and lessons learned about the challenges and barriers to developing and implementing these interventions through toolkits. (Source: <http://www.ahrq.gov/qual/risk08.htm>.)

### **Training Programs**

- The Patient Safety Improvement Corps (PSIC) is a partnership program between AHRQ and the Department of Veterans Affairs (VA). The primary goal is to improve patient safety by providing to teams of hospital and other staff, including patient safety officers and those responsible for patient safety reporting and analysis, intervention initiatives, as well as the knowledge and skills necessary to:
  - Conduct effective investigations of reports of medical errors (e.g., close calls, errors with and without patient injury) by identifying their root causes with an emphasis on underlying system causes.
  - Prepare meaningful reports on the findings.
  - Develop and implement sustainable system interventions based on report findings.
  - Measure and evaluate the impact of the safety intervention (i.e., that will mitigate, reduce, or eliminate the opportunity for error and patient injury).
  - Ensure the sustainability of effective safety interventions by transforming them into standard clinical practice.
- The PSIC program content spans a number of topics, tools, and methods designed to help participants reduce medical error and improve patient safety. They include patient safety science, human factors, root cause analysis, health care failure mode and effects analysis, probabilistic risk assessment, medical error reporting and analysis, measurement, evaluation, communication, leading and sustaining organizational change, safety culture assessment, high reliability organizations' characteristics and operations, TeamSTEPPS™ team training, mistake-proofing in the delivery of health care, just culture, and other topics such as the Patient Safety and Quality Improvement Act of 2005, PSOs, patient safety indicators, and the National Healthcare Quality and National Healthcare Disparities Reports. (Source: <http://www.ahrq.gov/about/psimpcorps.htm>).
- Each year, PSIC exceeded the target number of organizations marked for training. With the fourth class, the PSIC has trained a team in every State in the United States. Additionally, AHRQ produced a PSIC DVD, which provides a self-paced, modular approach to training individuals involved in patient safety activities at the institutional level. This interactive, 8-module DVD provides information on the investigation of medical errors and their root causes; identification, implementation, and evaluation of system-level interventions to address patient safety concerns; and steps necessary to promote a culture of safety within a hospital or other health care facility. (FY 2009 funding for PSIC = \$300,000.)
- It has been an expectation that “graduates” from the PSIC program will both use their PSIC training to become change agents in their home organizations and go on to implement as well as train others using the knowledge, skills, and patient safety improvement techniques

delivered in their PSIC training. For example, as a result of participating in the PSIC, the State of Maine, in 2008 and 2009, is attempting to train all hospitals in the use of TeamSTEPPS™. The Connecticut Hospital Association and team members from the Connecticut Department of Public Health have also studied Connecticut's adverse event reporting system. This effort helped the Department of Public Health's Quality in Health Care Advisory Committee, which developed formal recommendations to enhance the effectiveness of the State's adverse event reporting system. The Committee's recommendations were incorporated in legislation enacted by the Connecticut legislature in May 2004. In October 2005, the New York State Department of Health rolled out their PSIC-based training program that included more than 700 people from the State's free-standing diagnostic and treatment centers (e.g., Ambulatory Surgery Centers, End Stage Renal Disease Dialysis Centers, Community Healthcare Centers) and selected Department of Health clinics. In Georgia, the Georgia Hospital Association (GHA) developed their PSIC based on GHA's staff participation in the 2004-2005 PSIC program. The GHA PSIC used 5 two-day face-to-face workshops, 8 Webinars, and 4 networking audio conferences. This training enabled the GHA PSIC program attendees to go back to their organizations, train additional staff, and implement patient safety improvement programs.

### **Resources/Tools**

- AHRQ also supports the AHRQ Patient Safety Network (AHRQ PSNet). It is a national Web-based resource featuring the latest news and essential resources on patient safety. The site offers weekly updates of patient safety literature, news, tools, and meetings ("What's New"), and a vast set of carefully annotated links to important research and other information on patient safety ("The Collection"). Supported by a robust patient safety taxonomy and Web architecture, AHRQ PSNet provides powerful searching and browsing capabilities, as well as the ability for diverse users to customize the site around their interests (My PSNet). In addition, AHRQ funds the WebM&M (Morbidity and Mortality Rounds on the Web). WebM&M is an online journal and forum on patient safety and health care quality. This site features expert analysis of medical errors reported anonymously by readers, interactive learning modules on patient safety ("Spotlight Cases"), Perspectives on Safety, and forums for online discussion. Use of these sites has increased over the past 3 years, from approximately 57,000 Web sessions in April 2005, to more than 190,000 in April 2008. (Funding for the PSNet and WebM&M total \$1.3 million in FY 2009).
- In the Institute of Medicine (IOM) 1999 report on medical errors, they suggested that systemic failures were important underlying factors in medical error and that better teamwork and coordination could prevent harm to patients. The IOM recommended that health care organizations establish team training programs for personnel in critical care areas such as emergency departments, intensive care units, and operating rooms. As a follow-up, AHRQ, in partnership with the Department of Defense, developed a teamwork training program, TeamSTEPPS™. It is an evidence-based teamwork system aimed at optimizing patient outcomes by improving communication and other teamwork skills among health care professionals. It includes a comprehensive set of ready-to-use materials and training curricula necessary to integrate teamwork principles successfully into an organization's health care system. TeamSTEPPS™ is presented in a multimedia format, with tools to help a health care organization plan, conduct, and evaluate its own team training program. It includes five components: (1) an instructor guide; (2) a multimedia resource kit including a CD-ROM and DVD with nine video vignettes about how failures in teamwork and communication can place patients in jeopardy, and how successful teams can work to improve patient outcomes; (3) a spiral-bound pocket guide; (4) PowerPoint® presentations; and (5) a poster that tells staff that the organization is adopting



TeamSTEPPS™. In addition, AHRQ has a technical assistance contract in place to support those interested in implementing TeamSTEPPS™. TeamSTEPPS National Implementation continues to grow and expand. As of the end of FY 2008, the project had trained or registered 651 individuals for TeamSTEPPS Master Trainers representing 147 different organizations across the U.S. TeamSTEPPS is now part of the 9th Scope of Work for Quality Improvement Organizations (QIOs). All QIOs have received initial Master Team Training. To date, Master Trainers reported that they have trained 4,780 individuals from 119 organizations. (Technical assistance in FY 2008 and FY 2009.)

### **AHRQ Healthcare-Associated Infections (HAIs) Activities**

The Agency has funded numerous projects to reduce HAIs, including MRSA infections. Following are brief descriptions of some of these projects and initiatives.

- **HAI ACTION Project.** In September 2007, AHRQ awarded task orders to five Accelerating Change and Transformation in Organizations and Networks (ACTION) partners to mitigate HAIs at 34 hospitals. For 6 months, multidisciplinary teams at each hospital used AHRQ-supported evidence-based tools for improving infection safety to facilitate changes in clinician behaviors and habits, care processes, and the safety culture. In addition, AHRQ has funded an assessment program, led by Indiana University, to coordinate project tasks and activities, provide technical assistance to the hospitals, and examine information gleaned from the project. Also, the Agency plans to develop an HAI project toolkit, which will include a case study for health care organizations interested in learning how the HAI project participants implemented infection safety training, the challenges they faced, and how they addressed them.
- **Patient Safety Improvement Corps (PSIC) Fellowship Program on HAIs.** The PSIC is a partnership program between AHRQ and the Department of Veterans Affairs to improve patient safety by providing the knowledge and skills necessary to investigate medical errors and develop and evaluate sustainable system interventions to prevent them. The PSIC Fellowship Program on HAIs is a 1-day program to provide PSIC graduates with an overview of HAIs and to demonstrate different and successful approaches to prevention, reduction, or mitigation of HAIs from different perspectives, including public and private hospital systems, communities, and regions.
- **MRSA Collaborative Research Initiatives.** In October 2007, Congress appropriated \$5 million to AHRQ to identify and help suppress the spread of MRSA and related HAIs. Until then, the only large-scale study that had produced evidence on how to reduce serious HAIs and maintain that reduction was supported by AHRQ and carried out in 127 Michigan hospitals from 2003 to 2006. This new effort to reduce MRSA builds on that experience. In developing the action plan that AHRQ is funding, the Agency has worked in collaboration with the the Centers for Disease Control and Prevention (CDC) and CMS. This action plan will use electronic and administrative data, surveillance, and implementation strategies to:
  - Reduce the burden of MRSA infections via novel interventions aimed at critical control points in a community/region.
  - Determine scope, risk factors, and control measures for hospital-acquired, community-onset MRSA infections.
  - Test methods to reduce hospitalization from community-acquired MRSA.
  - Understand the role of inter-facility MRSA transmission on overall infection rates.
  - Understand the role of nursing home transmission on overall rates and delineate interventions that are effective in reducing such transmission.

- Other proposed MRSA collaborative projects are as follows:
  - Reducing *Clostridium difficile* Infections in a Regional Collaborative of In-patient Healthcare Settings.
  - Reducing the Overuse of Antibiotics by Primary Care Clinicians Treating Patients in Ambulatory and Long-Term Care Settings.
  - Improving the Measurement of Surgical Site Infection (SSI) Risk Stratification and Outcome Detection.
  - Producing Rapid National, Regional, and State-level Estimates of HAIs to Evaluate the Impact of Inter-Agency HAI Initiatives.
  - Reducing Infections Caused by Carbapenem Resistant Enterobacteriaceae (KPC producing organisms) Through Application of Recently Developed CDC/HICPAC Recommendations.

### **Patient Safety Act and PSOs**

AHRQ, in conjunction with the Office of the Secretary and the Office of Civil Rights, has made significant progress in implementing the Patient Safety Act. On November 21, 2008, regulations to implement the Act were published, and the regulations became effective January 19, 2009. In addition, AHRQ has continued development of common definitions and reporting formats (Common Formats) to describe patient safety events. Promulgation of these Common Formats, which will allow aggregation and analysis of events collected by PSOs and national reporting annually on patient safety, was authorized by the Act. AHRQ announced the availability of Common Formats, v 0.1 beta, in a Federal Register notice at the end of August 2008.

Historically, the Patient Safety Program has concentrated most of its resources on evidence generation. While that activity continues to be important for AHRQ, increasingly, program support is moving more toward data development/reporting and dissemination/implementation as the Agency focuses on making demonstrable improvements in patient safety. This reporting and implementation focus has the advantage of providing a natural feedback loop that can highlight areas in which new evidence is most needed to address real quality and safety problems encountered by providers and patients. Additionally, most of the measures for the patient safety program have been modified to better reflect goals. The new measures, effective in FY 2008, are provided in the Performance Table below. The new measures better reflect an emphasis on implementation of evidence-based practices and reporting on their impact. Two of the measures also enable capture of information on two major new Agency initiatives (i.e., PSOs and HAIs).

Currently, only one Patient Safety measure has data to report for FY 2008. For measure 1.3.41, "Increase the number of tools that will be available in AHRQ's inventory of evidence-based tools to improve patient safety and reduce the risk of patient harm," a total of 73 tools are included in the inventory.

The Program took the following actions in 2008 to improve performance:

- Measuring the number of PSOs that become certified based on Patient Safety and Quality Improvement Act legislation. The list of certified PSOs is available on an ongoing basis as PSOs become listed.
- Establishing annual targets around the Patient Safety and Quality Improvement Act.
- Updating performance measures and targets. The Patient Safety program continues efforts to develop a data source to capture the use of AHRQ-supported tools. The program is writing a work assignment to identify and consolidate data collection into a single source.

The Patient Safety program underwent a program assessment in 2003, and was found to be performing adequately. The review cited improvements in the safety and quality of care as a strong attribute of the program. As a result of the program assessment, the program continued to take actions to prevent, mitigate, and decrease the number of medical errors, patient safety risks, and hazards associated with health care and their harmful impact on patients. The Patient Safety program has also benefited from a robust effort aimed at evaluating the impact of projects that have been funded under this portion of AHRQ's budget. In April, summaries of the findings were published in a special issue of the journal, *Health Services Research*. The contents include a description of the evaluation framework and approach, along with other articles that address AHRQ contributions to patient safety knowledge, experiences with implementation research, the Patient Safety Improvement Corps, and trends and challenges in measuring safety outcomes.

### **Patient Safety Research**

The FY 2010 President's Budget Request level for Patient Safety Research is \$48,889,000, the same level as the FY 2009 Omnibus Level. The Patient Safety program is comprised of two research components: Patient Safety Threats and Medical Errors (including HAIs) and Patient Safety Organizations.

#### Patient Safety Threats and Medical Errors

The FY 2010 President's Budget Request level provides \$41,889,000 million for patient safety threats and medical errors, including \$17,304,000 for funds related to reducing Healthcare-Associated Infections (HAIs). This level will enable us to provide continued support for a number of ongoing research contracts, IAAs, and research grants including:

- The AHRQ PSNet and the AHRQ WebM&M, both of which have a growing user base and high levels of customer satisfaction based on annual customer satisfaction surveys
- Patient safety grants focused on diagnostic error, ambulatory care patient safety intervention tool kit development, CERTS pediatric patient safety
- A follow-on effort to the PSIC "graduates" fellowship training
- Patient safety evaluation activities
- Patient safety implementation projects conducted through our ACTION program
- TeamSTEPPS™ technical assistance
- Patient safety knowledge transfer projects

In terms of performance measures, in FY 2007 the patient safety portfolio was able to provide a baseline for the number of U.S. health care organizations using AHRQ-supported tools to improve patient safety – 382 hospitals. The FY 2008 target for this measure is 439 hospitals, increasing to 504 hospitals in FY 2009. In addition, AHRQ intends to increase the number of tools that will be available in AHRQ's inventory of evidence-based tools to improve patient safety and reduce the risk of patient harm. FY 2007 efforts focused on developing a baseline measure. The FY 2007 baseline for the inventory of evidence-based tools is 61. AHRQ's goal is to develop an additional 7 tools in 2008 (for a total of 68), 8 additional tools in FY 2009 (for a total of 76), and 10 additional tools in 2010 (for a total of 86).

As part of ongoing efforts aimed at reducing and eliminating HAIs, AHRQ has helped to coordinate and execute the Department of Health and Human Services National Action Plan related to HAIs. In FY 2009, \$17,304,000 in additional funds were made available for work in this important area. A portion of the additional funds will expand a multistate project (from 10

States to approximately 30 States) to apply the approach that proved to be successful in the Michigan Keystone project to prevent central line-associated blood stream infections (CLABSI). Significant reductions in these infections were achieved through a comprehensive unit-based surveillance program (CUSP) in intensive care units. AHRQ will continue funding HAIs at \$17,304,000 at the FY 2010 President's Budget Request level. Possible topics to be addressed as part of the HAI initiative include projects that focus on other infection sites (e.g., the urinary tract, lungs, surgical sites), hospital locations outside the ICU, and other health care settings (e.g., nursing homes, outpatient clinics, etc.), as well as the prevention of additional types of infections (e.g., *Clostridium difficile*) and contributing factors such as antibiotic overuse.

#### Patient Safety Organizations (PSOs)

The Patient Safety and Quality Improvement Act of 2005 amended the Public Health Service Act to foster a culture of safety in health care organizations. To encourage health care providers to work with PSOs, the Act (and implementing regulations) provides Federal confidentiality and privilege protections to deliberations carried out under the aegis of PSOs. This legal protection of information voluntarily reported to PSOs will promote increased reporting and analysis of patient safety events and subsequent improvements in care. The Act prohibits the use of these analyses in civil, administrative, or disciplinary proceedings and limits their use in criminal proceedings. AHRQ is coordinating implementation of the Act as a science partner to PSOs and health care providers. The Agency's goals are to help advance the methodologies that identify the most important causes of threats to patient safety, identify best practices for addressing those threats, and share the lessons learned as widely as possible. Specific work to carry out the Act includes:

1. Promulgating regulations to implement the Act;
2. Developing systems to allow application by organizations to become PSOs;
3. Listing successful applicant organizations as PSOs;
4. Where appropriate, re-listing and de-listing PSOs;
5. Maintaining a database of PSO administrative information;
6. Providing technical assistance to PSOs; and
7. Holding an annual meeting of PSOs.

Work related to patient safety event information includes:

- specifying common definitions and reporting formats and disseminating it through notification in the Federal Register
- establishing systems to help PSOs de-identify information (data on an individual patient, reporter, provider, or institution)
- developing a network of patient safety databases that will allow exchange of de-identified information among PSOs and reporting to AHRQ
- publication annually in AHRQ's National Healthcare Quality Reports information on national and regional statistics, including trends and patterns of health care errors.

Funding for this important Act will continue at the FY 2010 President's Budget Request at \$7,000,000. This level of support will enable AHRQ, working with the Secretary, to support PSO operations in FY 2009, including publishing the list of operational PSOs. (See measure 1.3.40.)

Long Term Objective: Within 5 years, providers that implement evidence-based tools, interventions, and best practices will progressively improve their patient safety scores on standard measures (e.g., Hospital Consumer Assessment of Healthcare Providers and Systems

(HCAHPS), Hospital Survey of Patient Safety (HSOPS), Patient Safety Indicators (PSIs), and the Medical Office Survey on Patient Safety Culture).

Measure	FY	Target	Result
1.3.37: Increase the percentage of hospitals in the U.S. using computer-based patient safety event reporting systems (PSERS) (Long-Term Outcome)	2010	N/A	N/A
	2009	24%	Oct 31, 2009
	2008	N/A	N/A
	2007	N/A	N/A
	2006	Baseline	12%
	2005	N/A	N/A
1.3.38: Increase the number of U.S. health care organizations per year using AHRQ-supported tools to improve patient safety from the 2007 baseline (new portfolio measure) (Output)	2010	580 hospitals	Dec 31, 2011
	2009	500 hospitals	Dec 31, 2010
	2008	450 hospitals	Dec 31, 2009
	2007	Baseline	382 hospitals
	2006	N/A	N/A
	2005	N/A	N/A
1.3.39: Increase the number of patient safety events (e.g., medical errors) reported to the Network of Patient Safety Databases (NPSD) from baseline (Output)	2010	TBD	Dec 31, 2010
	2009	Baseline	Dec 31, 2009
	2008	N/A	N/A
	2007	N/A	N/A
	2006	N/A	N/A
	2005	N/A	N/A
1.3.5: Percentage reduction in the cost per capita of treating hospital-acquired infections per year Baseline actual in 2003: \$4,437.28 per capita (Efficiency)	2010	-2%	Oct 31, 2012
	2009	-2%	Oct 31, 2011
	2008	-2%	Oct 31, 2010
	2007	-2%	Sep 30, 2009
	2006	N/A	N/A
	2005	N/A	N/A
1.3.40: Patient Safety Organizations (PSOs) listed by HHS Secretary (Outcome)	2010	TBD	Oct 31, 2010
	2009	PSOs listed by Secretary	Oct 31, 2009
	2008	Final Regulation published	PSO Final Regulation Issued (Target Met)
	2007	N/A	N/A

Measure	FY	Target	Result
	2006	N/A	N/A
	2005	N/A	N/A
1.3.41: Increase the number of tools available in AHRQ's inventory of evidence-based tools to improve patient safety and reduce the risk of patient harm (Output)	2010	86	Oct 31, 2010
	2009	76	Oct 31, 2009
	2008	68	73 (Target Exceeded)
	2007	Baseline	61
	2006	N/A	N/A
	2005	N/A	N/A

Measure	Data Source	Data Validation
1.3.37	Survey to be completed every 3 years (contract TBD)	Survey contractor will develop methods to validate survey data
1.3.38	Surveys/Case studies	AHRQ staff (OCKT) and evaluation contractor (TBD) to develop methods to validate survey data and conduct case studies
1.3.39	PSOs (and the privacy center contractor that builds the NSPD)	The privacy center contractor monitors the number of reports in the NSPD that is submitted through the PSOs
1.3.5	HCUP/PSIs	Ongoing HCUP/PSI validation activities (HCUP and QI Project Officers use established methodology to check data).
1.3.40	PSOs listed by HHS Secretary	PSOs listed by HHS Secretary
1.3.41	AHRQ FOAs, grant awards, and contract records	AHRQ staff (i.e., project officers, portfolio leads, grants management and contracts staff) monitor project completion and dissemination of results

### **Crosscutting Activities Related to Quality, Effectiveness, and Efficiency Research**

In addition to our research portfolios, funds are provided in Health Costs, Quality, and Outcomes (HCQO) to support a variety of research projects that support all of our research portfolios. Projects that support all portfolios are kept with the Crosscutting Activities Related to Quality, Effectiveness, and Efficiency portfolio. In order to meet its outcome goals, AHRQ has developed a set of research contract and grant mechanisms that support the work of the portfolios. These activities include data collection and measurement, dissemination, rapid cycle research, research management and salary costs, training, and intramural and extramural research sponsored by multiple portfolios.

Examples of projects that help portfolios with measurement in health care include the Consumer Assessment of Healthcare Providers and Systems (CAHPS), Healthcare Cost and Utilization Project (HCUP), Quality Indicators (QIs), and the National Healthcare Disparities and Quality Reports (NHDR/QR). Additional information about these activities is found in the next section.

Creation of new knowledge is critical to AHRQ's ability to answer questions related to improving the quality of health care. Portfolios rely on intramural and extramural research to accomplish strategic goals. The questions addressed are of interest and contribute to each of the portfolios. These types of research allow portfolios to generate knowledge and test hypotheses. Investigator-initiated research and training projects that have over-arching research topics – not specific to one portfolio – are kept within Crosscutting Activities. In addition, research portfolios use other activities to ensure that their research is being disseminated to the appropriate health care stakeholders and translated to usable information so health care is directly improved. Examples of activities that help with dissemination and translation are the Eisenberg Center, Evidence-Based Practice Centers (EPCs), marketing outreach activities, clearinghouses, and direct dissemination and knowledge transfer activities. Finally, crosscutting activities support Rapid Cycle Research and include Accelerating Change and Transformation in Organizations and Networks (ACTION), Centers for Education & Research on Therapeutics (CERTs), Primary Care Practice-Based Research Networks (PBRNs), and Developing Evidence to Inform Decisions about Effectiveness (DeCIDE Network). These Rapid Cycle Research Activities are found both in Crosscutting Activities and within our research portfolios, depending on the topic.

#### **Research and Training Grants:**

AHRQ-supported grantees in this portfolio are working to answer questions about cost, organization, and socioeconomics; long-term care; pharmaceutical outcomes; training; quality of care; and system capacity and bioterrorism. AHRQ will highlight two grant programs related to Crosscutting Activities: CAHPS and CERTs.

**CAHPS®.** CAHPS is a multi-year initiative of AHRQ. Originally, “CAHPS” referred to AHRQ’s “Consumer Assessment of Health Plans Study.” However, in 2005, AHRQ changed this to “Consumer Assessment of Health Providers and Systems.” This name better reflects the evolution of CAHPS from its initial focus on enrollees’ experiences with health plans to a broader focus on consumer experience with health care providers and facilities. AHRQ first launched the program in October 1995 in response to concerns about the lack of reliable information about the quality of health plans from the enrollees’ perspective. The survey was adopted by CMS, U.S. Office of Personnel Management, and the National Committee for Quality Assurance for public reporting and accreditation purposes. As of 2007, 138,000,000 Americans are enrolled in health plans for which CAHPS data are collected. Over time, the program has expanded beyond its original focus on health plans to address a range of health care services and to meet the various needs of health care consumers, purchasers, health plans, providers, and policymakers. In June 2007, AHRQ funded the third iteration of CAHPS grants to two organizations: RAND and Yale School of Public Health. Though instrument development is a part of CAHPS 3, there is a heavier emphasis on using CAHPS data for quality improvement and expanding our knowledge of how to report quality data to consumers and other audiences. In FY 2009 and FY 2010, AHRQ support for CAHPS grants totaled \$2.9 million. Here are some highlights of the past year:

**TalkingQuality.** *TalkingQuality* is a Web site developed by the CAHPS consortium (AHRQ, the CAHPS grantees, and the CAHPS support contractor). This Web site assembles existing research and best practices about reporting quality information to consumers and other audiences. The intended users are people and organizations who design health care quality

reports. In the past year, the team has begun a large-scale revision to this site, including updating of all information, designating priority content, improvements to site navigation and the possibility of developing new features, such as a 'wiki' type mechanism for linking users with reporting questions or problems. We hope to release an initial version of this improved site in early 2009.

**CAHPS Hospital Survey (HCAPS).** This survey, developed at the request of CMS and jointly funded by CMS and AHRQ, is a standardized survey of the experiences of adult inpatients concerning care and services they received while hospital patients. CMS began voluntary national implementation of the CAHPS Hospital Survey in fall 2006 and publicly reported survey results via the HospitalCompare Web site for the first time in March 2008. In the week before HCAHPS data were added to HospitalCompare, CMS reports that there were 161,000 page views; in the week after, page views increased to 1.4 million.

**CAHPS Clinician and Group Survey.** This survey, which we released in spring 2007, asks patients about their recent experiences with physicians and other office staff. We are currently working with the American Board of Medical Specialties (ABMS) to develop a version of this survey, which ABMS will use as part of their Maintenance of Certification process. ABMS will use survey results to improve physician performance and will ultimately release these data to consumers.

**CAHPS Home Health Care Survey.** We are finishing work on this survey, which asks for patients' assessment of services they received from home health agencies (HHAs). These services include nursing, physical therapy, occupational therapy, or other medical care, as well as personal assistance. The field test involved 34 HHAs in 15 States. The questionnaire is expected to be refined, completed, and sent to CMS by fall of 2008, at which time it will be available to the public free of charge. CMS anticipates submitting the survey for endorsement to the National Quality Forum later this year.

**CAHPS Nursing Home Survey (Family Members).** AHRQ plans to officially transmit the CAHPS Nursing Home Survey for family members to CMS this summer and post the survey and related development documents to the CAHPS Web site. The Technical Expert Panel met in February 2008 to review the final report and comment on the survey and administration protocol.

Surveys modules under development include: Health Literacy, Cultural Competence, and Health Information Technology.

The long-term goals of CAHPS are to ensure that consumers/patients have accurate and timely information about health care providers and facilities to inform their selection decisions, and providers and health care facilities have accurate information from their patients to use as a basis for quality improvement efforts. CAHPS has set a program performance goal of ensuring that CAHPS data will be more easily available to the user community and that the number of consumers who have accessed CAHPS information to make health care choices will increase by over 50 percent from the FY 2002 baseline of 100 million. By moving to create surveys for a range of providers beyond the widely used CAHPS health plan surveys, including clinicians, hospitals, nursing homes, and dialysis facilities, CAHPS is rapidly expanding the capacity to collect data that can be utilized to make more informed choices by the purchasers who contract with and the consumers who visit these providers. In FY 2007, CAHPS met the performance target (see performance measure # 1.3.23) to increase 40 percent over the baseline of the user community. In FY 2007, AHRQ increased this usage to 41 percent over the baseline of 100



million users – 141 million users of CAHPS information – and maintained this performance level in FY 2008.

**CERTs.** The Centers for Education & Research on Therapeutics (CERTs) demonstration program is a national initiative to conduct research and provide education that advances the optimal use of therapeutics (i.e., drugs, medical devices, and biological products). The program consists of 14 research centers and a Coordinating Center and is funded and run as a cooperative agreement by AHRQ in consultation with the U.S. Food and Drug Administration (FDA). The CERTs receive funds from both public and private sources, with AHRQ providing core financial support – \$11.5 million in both FY 2009 and FY 2010. The research conducted by the CERTs program has three major aims:

- To increase awareness of both the uses and risks of new drugs and drug combinations, biological products, and devices, as well as of mechanisms to improve their safe and effective use.
- To provide clinical information to patients and consumers; health care providers; pharmacists, pharmacy benefit managers, and purchasers; health maintenance organizations and health care delivery systems; insurers; and government agencies.
- To improve quality while reducing cost of care by increasing the appropriate use of drugs, biological products, and devices and by preventing their adverse effects and consequences of these effects (such as unnecessary hospitalizations).

#### Upper GI Bleeding: Measures 4.4.3 and 4.4.4

Results show that from FY 2005 through FY 2007, the actual rate of hospitalizations for upper gastrointestinal (GI) bleeding due to adverse effects of medication or inappropriate treatment of peptic ulcer disease in those between 65 and 85 years of age have consistently met or slightly exceeded the targets. In FY 2004, baseline rates were established (55/10,000). In FY 2006, the target was a 1.1-percent drop and the actual result was a 2-percent drop (54.38/10,000). In FY 2007, the target was a 2-percent drop and the actual result was a 5.2-percent drop (51.56/10,000).

The most recent results from FY 2008 also met the corresponding target. In FY 2008, the target was a 1.8-percent drop and the actual result was a 3.5-percent drop (49.75/10,000). Although FY 2007 and FY 2008 had approximately double the targeted decrease in hospitalizations for GI bleeding, we retained the previously modeled FY 2009 target of a 3-percent decrease pending a planned evaluation in FY 2009 as described above under 4.4.2. AHRQ did not revise this target because of an ongoing external evaluation that is currently gathering information on multiple factors that might explain why the rate of GI bleeding hospitalizations is exceeding targeted declines. The evaluation will assess the precision of the annual HCUP measurement of GI bleeding hospitalizations and its ability to discern meaningful changes in annual rates, so AHRQ can determine whether the observed annual changes are sufficiently robust to re-project a new and more ambitious trend. The evaluation will also examine potential contributions from non-pharmaceutical factors (including but not limited to changes in health care systems, treatment methods, and population lifestyle factors such as alcohol and tobacco use) to hospitalizations for GI bleeding, so that changes due to pharmaceuticals can be appropriately attributed and projected.

Results show that from FY 2005 through FY 2007, the number of admissions for GI bleeding have generated a per year drop in per capita charges for GI bleeding and our targets have consistently been met. In FY 2004, baseline rates were established (\$96.54 per capita). In FY 2006, the target was a 3-percent drop and the actual result was a 3.2-percent drop (\$93.36

per capita). In FY 2007, the target was a 4-percent drop and the actual result was a 4.9-percent drop (\$91.81 per capita).

The most recent results from FY 2008 also met the corresponding target. In FY 2008, the target was a 5-percent drop and the actual result was a 5.1-percent drop (\$87.10 per capita). Given the past trend, we believe it is reasonable to expect that hospitalization for upper GI bleeding due to adverse events of medication or inappropriate treatment of peptic ulcer disease in those between 65 and 85 years of age will decrease, and the decreased number of admissions will continue to generate an annual drop in per capita charges for GI bleeding. The target selected for FY 2009 is a 6-percent drop. The target selected for FY 2010 is a 7-percent drop. In FY 2009, the program will assess the ambitiousness of current targets.

Many external factors could have affected this performance trend. For example, upper GI bleeding is common in people taking drugs such as anticoagulants, medications affecting platelet functions, and those affecting gastrointestinal mucosal defenses. Increased or more appropriate monitoring of these drugs could have affected the number of hospitalizations for upper GI bleeding due to adverse events of medication. An increased use of pharmacologic agents such as proton pump inhibitors to prevent gastric irritation in patients could also have affected this performance trend.

The CERTs program initiated a warfarin interaction study to better define the relative safety of commonly used antibiotics and antifungals when co-administered with warfarin. The safety outcome will be major bleeding complications of warfarin, as confirmed by medical record review. This study will test the hypothesis that in a cohort of warfarin users, the risk for major GI bleeding complications differs among the specific study antimicrobials. At present, clinicians cannot make evidence-based choices when prescribing antibiotics and antifungals with warfarin, because the overall quality of interaction literature for warfarin is poor. These data on the relative safety of antimicrobials would inform clinical decisions for this vulnerable population. This research, once complete, will have a direct impact on AHRQ's performance measure 4.4.3: reduce hospitalization for upper GI bleeding due to the adverse effects of medication or inappropriate treatment of peptic ulcer disease in those between 65 and 85 years of age by implementing the research findings.

CERTs, as part of the now obsolete Pharmaceutical Outcomes program, underwent a program assessment in 2004. The program received a Moderately Effective rating. The assessment cited research to be conducted by AHRQ's CERTS program to reduce inappropriate antibiotic use in children, congestive heart failure hospital readmission rates, and hospitalizations for upper GI bleeding due to the adverse effects of medication or inappropriate treatment of peptic ulcer disease. As a result of the program assessment, the CERTs program is taking actions to: (1) analyze trends to determine if targets for measures need to be adjusted; and (2) produce reports on best practices in observational methods research.

#### Research Contracts and IAAs

Examples of types of research contracts and IAAs AHRQ has supported related to Crosscutting Activities includes the following:

**Contracts and IAAs Support the Development and Release of the Annual *National Healthcare Quality Report* and Its Companion Document, the *National Healthcare Disparities Report*.** These reports measure quality and disparities in four key areas of health care: effectiveness, patient safety, timeliness, and patient centeredness. In addition, AHRQ provides a *State Snapshots* Web tool that was launched in 2005. It is an application that helps

State health leaders, researchers, consumers, and others understand the status of health care quality in individual States, including each State's strengths and weaknesses. The 51 *State Snapshots*—every State plus Washington, DC—are based on 129 quality measures, each of which evaluates a different segment of health care performance. While the measures are the products of complex statistical formulas, they are expressed on the Web site as simple, five-color "performance meter" illustrations. Support for these contracts and IAAs totals \$2.9 million in both FY 2009 and FY 2010.

**Contracts and IAAs to Support the National Quality Measures Clearinghouse (NQMC) and Its Companion the National Guideline Clearinghouse (NGC).** The NQMC and the NGC provide open access to thousands of quality measures and clinical practice guidelines to clinicians and health care providers. The NQMC and NGC receive close to two million visits each month. They can be found at <http://www.qualitymeasures.ahrq.gov> and <http://www.guideline.gov>. Support for these two clearinghouses total \$7.0 million in FY 2010.

**Contract Support for HCUP and the AHRQ Quality Indicators (QIs).** Efforts to improve the quality, safety, effectiveness, and efficiency of health care and reduce disparities in the United States require detailed knowledge about how the health care delivery system works now and how different organizational and financial arrangements affect this performance. Improving health care requires easy access to detailed information and data on costs, access to health care, quality, and outcomes that can be used for research and policymaking at the national, State, and local levels. It also requires tools to measure and track progress in these areas. The Healthcare Cost and Utilization Project (HCUP) provides the necessary data through a long-standing partnership with State data organizations, hospital associations, and private data organizations. HCUP is a family of health care databases and related software tools and products that support the mission of AHRQ. HCUP includes the largest collection of all-payer, encounter-level data in the United States, beginning in 1988. It includes detailed information on 90 percent of all inpatient stays in the country – including information about the diagnosis, the procedures, the cost, and who paid for the care, as well as encrypted non-identifiable demographic information. For over 25 States, it also includes ambulatory surgery and emergency department data. Support for the HCUP contract totals \$4.1 million in FY 2009 and 2010. For more information, go to <http://www.hcup-us.ahrq.gov/overview.jsp>.

One widely used HCUP tool is the AHRQ Quality Indicators (QIs), a set of quality measures developed from HCUP data. Support for QIs total \$0.4 million in FY 2010. This measure set is organized into four modules—Prevention, Inpatient, Patient Safety, and Pediatrics. The Prevention Quality Indicators (PQIs) focus on ambulatory care-sensitive conditions that identify adult hospital admissions that evidence suggests could have been avoided, at least in part, through high-quality outpatient care. Inpatient Quality Indicators (IQIs) reflect quality of care for adults inside hospitals and include: inpatient mortality for medical conditions; inpatient mortality for surgical procedures; utilization of procedures for which there are questions of overuse, underuse, or misuse; and volume of procedures for which there is evidence that a higher volume of procedures may be associated with lower mortality. Patient Safety Indicators (PSIs) also reflect quality of care for adults inside hospitals, but focus on potentially avoidable complications and iatrogenic events. Pediatric Quality Indicators (PDIs) reflect quality of care for children below the age of 18 and neonates inside hospitals and identify potentially avoidable hospitalizations among children. These measures are free and made publicly available as part of an AHRQ-supported software package.

The AHRQ QIs are based upon a few guiding principles which make them unique. They:

- Were developed using readily available administrative data (HCUP)

- Use a transparent methodology
- Are risk-adjusted and use a readily available, familiar methodology
- Are constantly refined based on user input
- Are updated and maintained by a trusted source
- Have documentation and program software in the public domain.

The HCUP/QI family of data and products supports the achievements of a number of AHRQ objectives including two major goals:

- Expand and improve data and tools
- Expand use of HCUP and the AHRQ QIs by policymakers and others.

#### Expand and Improve Data and Tools

The HCUP databases have been a powerful resource for the development of tools that can be applied to other similar databases by health services researchers and decisionmakers. The expanded data and tools can then be translated to inform decisionmaking and improve health care delivery. A major achievement in 2008 and 2009 was creation and release of the largest all-payer emergency department database in the United States. The first Nationwide Emergency Department Sample (NEDS) database was created to enable national analyses of emergency department (ED) utilization patterns and support public health professionals, administrators, policymakers, and clinicians in their decisionmaking regarding this critical source of care. The NEDS contains clinical and non-clinical information on patients, regardless of payer—including those covered by Medicare, Medicaid, private insurance, and the uninsured. The ED serves a dual role in the U.S. health care system infrastructure as a point of entry for approximately 50 percent of inpatient hospital admissions and as a setting for treat-and-release outpatient visits.

In FY 2008, AHRQ also met our performance target (see performance table 1.3.15) to increase the number of partners contributing outpatient data to the HCUP databases. AHRQ added data from Maine for a total of 39 statewide data organizations participating in HCUP. The number of State Ambulatory Surgery Databases increased by three partners (California, Maine, and Oklahoma) and the number of State Emergency Department Databases increased by four partners (California, Maine, New York, and Rhode Island). They were selected based on the diversity – in terms of geographic representation and population ethnicity – they bring to the project, along with data quality performance and their ability to facilitate timely processing of data. This outcome exceeded the goal by adding seven new Partner databases instead of four. Progress has already been made on FY 2009 goals with the addition of a 40th partner and two new outpatient databases.

#### Expand use of HCUP and the AHRQ QIs by Policymakers and Others

The AHRQ QIs are widely used for quality improvement and public reporting initiatives. We saw several major successes in FY 2008: The National Quality Forum endorsed 41 of our QIs for public reporting, and there are a growing number of organizations who are using them for public reporting. There are currently over 2,000 subscribers to the AHRQ QI listerv and approximately 150 inquiries are received monthly.

AHRQ has fully met its FY 2008 performance target (see performance table 1.3.22): “3 new organizations use HCUP/QIs to assess potential areas of quality improvement, and at least 2 of them will develop and implement an intervention based on the QIs. Impact will be observed in 1

new organization after the development and implementation of an intervention based on the QIs.”

As the result of NQF endorsement, a growing number of States are using the QIs for public reporting of hospital quality. Most recently, New Jersey and California became the 13th and 14th States to use the AHRQ QIs in a hospital level public report card. Nevada will begin public reporting using the QIs by the end of April 2009. With the addition of Nevada, 15 States, covering more than half the U.S. population, will be publicly reporting on hospital quality using AHRQ’s QIs. A new Quality Indicators Learning Institute helps these States use the indicators effectively, and provides technical assistance to new States or communities as they plan their public reporting efforts.

In addition, CMS has incorporated 9 AHRQ Patient Safety Indicators in its 2009 IPPS Rule (acute hospital inpatient prospective payment system). The CMS has held a national “dry run” of the measures with its hospitals and is planning on releasing the measures by hospital on its Hospital Compare Web site in FY 2010.

HCUP and QI analyses and reports based on these tools have been greatly expanded through statistical briefs, peer-reviewed publications, and Web-based reports. For example, HCUP provides critical information on the U.S. health care system, such as:

- From 1997 to 2006, the number of uninsured hospitalizations increased by 34 percent, which far exceeds the 14 percent overall increase in hospital stays. Relative to all hospital stays, uninsured stays began in the emergency department (ED) much more frequently with nearly 60 percent of these stays originating in the ED compared to 44 percent of hospital stays overall.
- Uninsured patients accounted for 22.0 percent of tuberculosis (TB) stays, though they made up only 5.8 percent of all non-maternal, non-neonatal hospitalizations. Medicaid covered 24.4 percent of all TB stays, though it accounted for only 12.3 percent of all non-maternal, non-neonatal stays.
- In 2006, there were 503,300 total hospital stays with pressure ulcers (a potentially preventable complication) noted as a diagnosis—an increase of nearly 80 percent since 1993. Adult stays totaled \$11 billion in hospital costs in 2006.
- One out of every 5 hospital stays (21.3 percent) had either a principal or secondary diagnosis of a mental health condition. Medicare and Medicaid were the expected payers for 60 percent of mental health stays.
- Potentially preventable hospital stays for chronic conditions were 42 percent higher among Hispanic adults than among non-Hispanic white adults. Disparities between Hispanics and non-Hispanic whites were greater for diabetes (37 versus 17 hospitalizations per 10,000 population, respectively).
- Almost two-thirds of the national bill for hospital care was billed to two government payers, Medicare (\$444 billion) and Medicaid (\$135 billion), while slightly less than one-third (\$287 billion) was billed to private insurance and about 5 percent (\$43 billion) was billed to uninsured individuals.

HCUP and the Quality Indicators projects also began development of a new AHRQ tool, My Own Network AHRQ (MonAHRQ) – a Web site builder that would allow any organization or Agency to input their data and then output a Web site. It is being developed to be used by anyone with access to hospital discharge data and will allow users to generate quality, cost, and utilization statistics for Web sites that will be hosted on local servers by individual organizations.

These Web sites will provide information in a uniform way using uniform measures at whatever level the host user chooses (e.g., county-level, hospital-level) to various audiences (e.g., patients/consumers, constituent hospitals, public health officials). After testing is completed in the spring of 2009, AHRQ anticipates launching the tool for public use in summer 2009. The final Web site will be an interactive querying tool that users can navigate to learn about hospital care in their area. These efforts, along with others to speed up the production of HCUP databases, increase data representativeness, examine data linkages, facilitate the inclusion of clinical information in administrative data, and begin development of the new Web-based tool all combine to ensure future program performance and support of the Agency's portfolios.

### **Research Management.**

Research management activities for the Agency include items such as salaries and benefits, rent, supplies, travel, transportation, communications, printing and other reproduction costs, contractual services, taps and assessments, supplies, equipment, and furniture.

The FY 2009 Estimate level provides \$159,514,000 for Crosscutting Activities Related to Quality, Effectiveness, and Efficiency research, the same level of funding as the prior year. There are two changes within this portfolio that provide a net change of \$0.

- **HCQO: Crosscutting Activities Related to Quality, Effectiveness, and Efficiency – Investigator-initiated Research Grants (-\$2,478,000):** The FY 2009 Estimate includes \$37,124,000 (77 grants) in total research grants funds for HCQO: Crosscutting Activities Related to Quality, Effectiveness and Efficiency. This level provides a decrease of \$2,478,000 in investigator-initiated grants from the FY 2009 level – equivalent to a decrease of approximately 52 small research grants with an average cost of \$50,000. Although the level of funding for total grants decreases from the FY 2009 Omnibus level, the FY 2010 President's Budget Request will fund \$8,421,000 in new investigator-initiated research grants. In addition, the FY 2010 estimate level will provide for noncompeting research grant commitments for several grants programs, including the CAHPS and CERTs programs.

Funding for CAHPS grants will total \$2.9 million in FY 2010. In FY 2010, the CAHPS program will ensure that data will be more easily available to the user community and the number of consumers who have access to CAHPS information to make health choices will increase by 46 percent over baseline (see performance table 1.3.23). If AHRQ meets this target for FY 2010, 146 million consumers will have access to CAHPS information.

A total of \$11.5 million is provided in FY 2010 in continuation grant support for the CERTs program. This program expects decreases in hospitalization for upper GI bleeding due to adverse events of medication or inappropriate treatment of peptic ulcer disease in those between 65 and 85 years of age and decreased number of admissions will continue to generate a per year drop in per capita charges for GI bleeding. The most recent results from FY 2008 did meet the corresponding target. In FY 2008, the target was a 5-percent drop and the actual result was a 5.1-percent drop (\$87.10 per capita). The target selected for FY 2009 is a 6-percent drop (\$90.75) relative to the original baseline, which is \$99.54. The target selected for FY 2010 is a 7-percent drop. In FY 2009 the program will assess the ambitiousness of current targets.

- **Research Contracts and IAAs (\$0):** The FY 2010 President's Budget Request maintains research contract and IAA support at \$57,490,000. This level of support will allow AHRQ to continue core research contracts and IAAs that support Crosscutting Activities Related to Quality, Effectiveness, and Efficiency research.

Contracts that will continue in FY 2010 include HCUP at a total of \$4.1 million. HCUP has set an effectiveness goal that by FY 2010, at least five organizations will use HCUP databases, products or tools to improve health care quality for their constituencies by 5 percent, as defined by AHRQ Quality Indicators. Of those, 3 new organizations use HCUP/QIs to assess potential areas of quality improvement, and at least 2 of them will develop and implement an intervention based on the QIs. Impact will be observed in 1 new organization after the development and implementation of an intervention based on the QIs.” By increasing the number of organizations using HCUP and the Quality Indicator tools, we support the overall program goal. HCUP’s long-term goal for efficiency is to achieve wider access to effective health care services and reduce health care costs by increasing the number of partners contributing data to the HCUP databases. Expanding to add new States and increasing the number of partners that contribute ambulatory surgery and emergency department data improves national and regional representation. AHRQ added data from Maine for a total of 39 statewide data organizations participating in HCUP. The number of State Ambulatory Surgery Databases (AS) increased by three partners (California, Maine, and Oklahoma) and the number of State Emergency Department Databases (ED) increased by four partners (California, Maine, and New York, and Rhode Island). They were selected based on the diversity—in terms of geographic representation and population ethnicity—they bring to the project, along with data quality performance and their ability to facilitate timely processing of data.

- **Research Management (+\$2,478,000):** The FY 2010 President’s Budget Request level provides \$1,872,000 for pay raise costs for AHRQ as a whole. An additional \$606,000 is provided in FY 2010 for required research management increases within AHRQ’s budget, including rent increases, travel, printing, and data costs. In FY 2010, research management costs for AHRQ total \$67,600,000.

**Long-Term Objective 1:** Reduce antibiotic inappropriate use in children between the ages of 1 and 14.

Measure	FY	Target	Result
4.4.1: The number of prescriptions of antibiotics per child aged 1 to 14 in the United States (Outcome)	2010	0.50 per child per year	Oct 31, 2010
	2009	0.51 per child per year	Oct 31, 2009
	2008	0.52 per child per year	0.58 per child (Target Not Met)
	2007	0.53 per child per year	0.52 per child (Target Not Met)
	2006	0.54 per child per year	0.60 per child (Target Not Met)
	2005	0.55 per child per year	0.59 per child (Target Not Met)

Measure	Data Source	Data Validation
4.4.1	MEPS	The MEPS family of surveys includes a Medical Provider Survey and a Pharmacy Verification Survey to allow data validation studies in addition to serving as the primary source of medical expenditure data for the survey. The MEPS survey meets OMB standards for adequate response rates, and timely release of public use data files.

**Long-Term Objective 2:** Reduce congestive heart failure hospital readmission rates in those between 65 and 85 years of age.

Measure	FY	Target	Result
4.4.2: The percentage of hospital readmissions within 6 months for congestive heart failure in patients between 65 and 85 years of age ( <i>Outcome</i> )	2010	34%	Oct 31, 2010
	2009	34.5%	Oct 31, 2009
	2008	35%	31.91% (Target Met)
	2007	35.5%	36.51% (Target Not Met)
	2006	36%	36.74% (Target Not Met)
	2005	37%	36.99% (Target Met)

Measure	Data Source	Data Validation
4.4.2	HCUP	HCUP and QI Project Officers use established methodology to check data.

**Long-Term Objective 3:** Reduce hospitalization for upper GI bleeding in those between 65 and 85 year of age.

Measure	FY	Target	Result
4.4.3: The decrease in the rate of hospitalization for upper GI bleeding due to the adverse effects of medication or inappropriate treatment of peptic ulcer disease in patients between 65 and 85 years of age. ( <i>Outcome</i> )	2010	-4%	Oct 31, 2010
	2009	-3%	Oct 31, 2009
	2008	-1.8%	49.75/10,000 (-3.5%) (Target Exceeded)
	2007	-2%	51.56/10,000 (-5.2%) (Target Exceeded)
	2006	-2%	54.38/10,000 (-1.1%) (Target Not Met)
	2005	-2%	55/10,000 (0%) (Target Not Met)
4.4.4: The cost per capita of hospital admissions for upper GI bleeding among patients aged 65 to 84. ( <i>Efficiency</i> )	2010	\$89.78 per capita	Oct 31, 2010
	2009	\$90.75 per capita	Oct 31, 2009
	2008	\$91.71 per capita	\$87.10 per capita (Target Met)



Measure	FY	Target	Result
	2007	\$92.68 per capita	\$91.81 per capita (Target Met)
	2006	\$93.64 per capita	\$93.36 per capita (Target Met)
	2005	\$94.61 per capita	\$93.20 per capita (Target Met)

Measure	Data Source	Data Validation
4.4.3 4.4.4	HCUP	HCUP and QI Project Officers use established methodology to check data.

**Long-Term Objective 4:** Achieve wider access to effective health care services and reduce health care costs.

Measure	FY	Target	Result
1.3.15: Cumulative number of partners contributing data to HCUP databases will exceed by 5% the FY 2000 baseline of 39 <sup>3</sup> (Output)	2010	Increase # of partners providing data	Oct 31, 2010
	2009	Increase # of partners providing data by 3	Oct 31, 2009
	2008	Increase # of partners contributing to HCUP databases	27 AS 25 ED (Target Met)
	2007	Increase # of partners contributing to HCUP databases	24 AS 22 ED (Target Met)
	2006	N/A	21 Ambulatory Surgery (AS) 17 Emergency Department (ED) (Target Met)
	2005	N/A	5 new outpatient datasets (Target Met)

<sup>3</sup>This measure is annual and represents additional partner data per year. The Healthcare Cost and Utilization Project (HCUP) is a family of health care databases and related software tools and products developed through a Federal-State-industry partnership and sponsored by AHRQ. HCUP databases bring together the data collection efforts of 39 State data organizations, hospital associations, private data organizations, and the Federal Government in a voluntary data sharing partnership to create a national information resource of patient-level health care data. HCUP executes memorandums of agreements with its state-level data partners which specify the partnering arrangements and data permissions and restrictions. At present, only HCUP has held discussions with all the remaining U.S. States that collect and release hospital data to pursue partnership. Four States do not collect hospital inpatient data.

1.3.22: Number of additional organizations per year that use Healthcare Cost and Utilization Project (HCUP) databases, products, or tools in health care quality improvement efforts. (Outcome)	2010	3 organizations	Oct 31, 2010
	2009	3 organizations	Oct 31, 2009
	2008	3 organizations	5 new organizations - Kentucky Hospital Association; SSM Health Care; IN CHCS; Robert Wood Johnson; University Hospital (Target Met)
	2007	3 organizations	3 new organizations – CO Health Institute; OH Department of Health; Harvard Vanguard Medical Association & Atrias Health (Target Met)
	2006	3 organizations	3 new organizations - Organization for Economic Cooperation & Development; CT Office of Health Care Access; Dallas-Fort Worth Hospital Council (Target Met)
	2005	2 organizations	2 organizations (Target Met)

Measure	Data Source	Data Validation
1.3.15	HCUP database	HCUP Project Officer monitors the number of partners and reports by identifying the new data added to the existing baseline.
1.3.22	HCUP database	HCUP and QI Project Officers work with Project Contractors to monitor the field and collect specific information to validate the organizations' use and outcomes.

**Long-Term Objective 5:** Assure that providers and consumers/patients use beneficial and timely health care information to make informed decisions/choices.

Measure	FY	Target	Result
1.3.23: The number of consumers who have access to customer satisfaction data from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) to make health care choices (Outcome)	2010	Increase 46% over baseline (146 million)	Oct 31, 2010
	2009	Increase 44% over baseline (144 million)	Oct 31, 2009
	2008	Increase 42% over baseline (142 million)	41% (141 Million) (Target Not Met)

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
	2007	Increase 40% over baseline (140 million)	41% (141 Million) (Target Met)
	2006	Increase baseline	138 Million (Target Met)
	2005	Increase baseline	135 Million (Target Met)

<b>Measure</b>	<b>Data Source</b>	<b>Data Validation</b>
1.3.23	CAHPS database National CAHPS Benchmarking Database	Prior to placing survey and related reporting products in the public domain, a rigorous development, testing, and vetting process with stakeholders is followed. Survey results are analyzed to assess internal consistency, construct validity, and power to discriminate among measured providers.

## MEPS

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The Medical Expenditure Panel Survey (MEPS), first funded in 1995, is the only national source for annual data on how Americans use and pay for medical care. It supports all of AHRQ's research-related strategic goal areas. The survey collects detailed information from families on access, use, expense, insurance coverage, and quality. Data are disseminated to the public through printed and Web-based tabulations, micro data files, and research reports/journal articles.

The data from the MEPS have become a linchpin for the public and private economic models projecting health care expenditures and utilization. This level of detail enables public and private sector economic models to develop national and regional estimates of the impact of changes in financing, coverage, and reimbursement policy, as well as estimates of who benefits and who bears the cost of a change in policy. No other surveys provide the foundation for estimating the impact of changes on different economic groups or special populations of interest, such as the poor, elderly, veterans, the uninsured, or racial/ethnic groups. Government and non-governmental entities rely upon these data to evaluate health reform policies, the effect of tax code changes on health expenditures and tax revenue, and proposed changes in government health programs such as Medicare. In the private sector (e.g., RAND, Heritage Foundation, Lewin-VHI, and the Urban Institute), these data are used by many private businesses, foundations, and academic institutions to develop economic projections. These data represent a major resource for the health services research community at large. Since 2000, data on premium costs from the MEPS Insurance Component have been used by the Bureau of Economic Analysis to produce estimates of the gross domestic product (GDP) for the Nation. Because of the need for timely data, performance goals for MEPS have focused on providing data in a timely manner. The MEPS program has met or exceeded all of its data timeliness goals. These performance goals require the release of the MEPS Insurance Component tables within 7 months of data collection; the release of MEPS Use and Demographic Files within 12 months of data collection; and the release of MEPS Full Year Expenditure data within 12 months of data collection. In addition, the program has expanded the depth and breadth of data products available to serve a wide range of users. To date, over 200 statistical briefs have been published. The MEPS data table series has expanded to include eight topic areas on the household component and nine topic areas on the Insurance Component. In addition, specific large State and metro area expenditure and coverage estimates have been produced, further increasing the utility of MEPS within the existing program costs. In 2008, further advances in the timeliness of the MEPS Insurance Component data have been initiated through a change in the questionnaire to obtain employer-sponsored coverage information that is in force at the time of data collection, rather than for a prior year retrospective reference period. Further advances in data accessibility have also been achieved by expanding the number of Data Centers across the Nation to permit access to MEPS restricted data through a collaboration with the Bureau of the Census to utilize nine additional Research Data Centers for approved projects. Since its inception in 1996, MEPS has been used in several hundred scientific publications, and many more unpublished reports to inform health policy decisions and practice.

- The MEPS data have been used extensively by the Congressional Budget Office, Congressional Research Service, Department of Treasury, Joint Taxation Committee, and Department of Labor to inform Congressional inquiries related to health care expenditures,

insurance coverage, and sources of payment, and to analyze potential tax and other implications of Federal health insurance policies.

- MEPS data on health care quality, access, and health insurance coverage have been used extensively in the Department's two annual reports to Congress, the National Healthcare Disparities Report, and the National Healthcare Quality Report.
- The MEPS was awarded the American Association for Public Opinion Research's 2008 Policy Impact Award in recognition of the extraordinary, long-term group effort in contributing timely data and research that has informed U.S. health care policy decisions.
- The MEPS has been used in Congressional testimony on the impact of health insurance coverage rate increases on small businesses.
- The MEPS data have informed studies of the value of health insurance in private markets and the effect of consumer payment on health care.
- The MEPS data have been extensively used to inform Congressional inquiries tied to SCHIP reauthorization, with particular emphasis on the change in take-up rates among Medicaid-eligible children over the implementation period of SCHIP and the percent of all uninsured children who are eligible for Medicaid or SCHIP.
- The MEPS-IC has been used by a number of States in evaluating their own private insurance issues, including eligibility and enrollment by the State of Connecticut and by the Maryland Health Care Commission, and for community rating by the State of New York. As part of the Robert Wood Johnson Foundation's State Coverage Initiative, MEPS data was cited in 69 reports, representing 27 States.
- The MEPS data have been used extensively by the Government Accountability Office to determine trends in employee compensation, with a major focus on the percentage of employees at establishments that offer health insurance, the percentage of eligible employees who enroll in the health insurance plans, the average annual premium for employer-provided health insurance for single workers, and the employees' share of these premiums.
- MEPS data have been used in HHS Reports to Congress on expenditures by sources of payment for individuals afflicted by conditions that include acute respiratory distress syndrome, arthritis, cancer, chronic obstructive pulmonary disease, depression, diabetes, and heart disease.
- MEPS data are used to develop estimates provided in the Consumers Checkbook Guide to Health Plans, of expected out-of-pocket costs (premiums, deductibles, and copays) for Federal employees and retirees for their health care. The Checkbook is an annual publication that provides comparative information on the health insurance choices offered to Federal workers and retirees.
- The MEPS has been used to estimate the impact of the Medicare Modernization Act (MMA) by the Employee Benefit Research Institute (the effect of the MMA on availability of retiree coverage), by the Iowa Rural Policy Institute (effect of the MMA on rural elderly), and by researchers to examine levels of spending and copayments.

- MEPS data have been used by the CDC and others to evaluate the cost of common conditions, including arthritis, injuries, diabetes, obesity, and cancer.

Before AHRQ reorganized research portfolios, MEPS was part of the Data Collection and Dissemination portfolio. This portfolio underwent a program assessment in 2002, and was found to be moderately effective. The review cited MEPS as a strong attribute of the program. As a result of the program assessment, the program continues to take actions to reduce the number of months that MEPS data is made available after the date of completion of the survey, increase the number of MEPS data users, and increase the number of topical area tables included in the MEPS Tables Compendia.

The FY 2010 President's Budget Request for the MEPS totals \$55,300,000 in Public Health Service (PHS) evaluation funds, maintaining the FY 2009 Omnibus level. The funding allocation in FY 2010 for the three core MEPS Component Surveys follows: MEPS Household Component (\$33,300,000); MEPS Medical Provider Component (\$12,000,000); and the MEPS Insurance Component (\$10,000,000).

The FY 2010 funding for MEPS will be used to support the sample size and content of the MEPS Household and Medical Provider Surveys necessary to satisfy the congressional mandate to submit an annual report on national trends in health care quality and to prepare an annual report on health care disparities. The MEPS Household Component sample size is specified at 14,000 households in 2010 with full calendar year information. These sample size specifications for the MEPS permit detailed analyses of the quality of care received by special populations meeting precision specifications for survey estimates. This design, in concert with the survey enhancements initiated in prior years, significantly enhances AHRQ's capacity to report on the quality of care Americans receive at the national and regional level, in terms of clinical quality, patient satisfaction, access, and health status both in managed care and fee-for-service settings.

#### **The MEPS Household Component:**

These funds will also permit the continuation of an oversample in MEPS of Asian and Pacific Islanders and an over-sample of African Americans. These enhancements, in concert with the existing MEPS capacity to examine differences in the cost, quality and access to care for minorities, ethnic groups and low income individuals, will provide critical data for the National Healthcare Quality Report and the National Healthcare Disparities Report.

#### **The MEPS Insurance Component:**

Funds will also be allocated to the MEPS Insurance Component to maintain improvements in the availability of data to the States. In FY 2010, data on employer sponsored health insurance will be collected to support separate estimates for all 50 States and these funds would be used to enhance the tabulations we provide to the States to support their analysis of private, employer sponsored health insurance.

#### **The Medical Provider Component:**

FY 2010 funds will also support the MEPS Medical Provider Component, a survey of medical providers, facilities and pharmacies that collects detailed data on the expenditures and sources of payment for the medical services provided to individuals sampled for the MEPS. Such data are essential to improve the accuracy of the national medical expenditure estimates derived from the MEPS and to correct for the item non-response on expenditures by household sample participants.

Recent enhancements to the estimation capabilities of the MEPS Household Component have also been realized and permit the generation of health care utilization, expenditure and health insurance coverage estimates for some large metropolitan areas and for the 10 largest States. This has resulted in visible improvements in the analytic capacity of the survey without any additional increments to the sample size.

**MEPS - Marginal Cost**

The Baseline MEPS sample consists of approximately 14,000 households and 32,000 individuals, and includes over-sampling of African Americans, Hispanics, Asians and low income households. With respect to desired levels of precision for survey estimates, a relative standard error (RSE) specification of less than or equal to 10 percent is recommended for survey estimates that characterize policy relevant population subgroups which include racial and ethnic minorities (RSE (X) = standard error (X) divided by the estimate X.). This precision target is not currently being met for estimates of the health care utilization and expenditure patterns for American Indians/Alaskan Natives, subgroups of individuals of multiple races (e.g. race classifications of both African-American and other race), specific Hispanic subgroups (e.g., Puerto Rican, Cuban, Dominican) and Asian population subgroups (e.g., Chinese, Vietnamese, Asian Indian). The FY 2010 cost estimate for MEPS — at an average cost of \$6,971 per household for the household and medical provider components of the MEPS survey — would allow for the following sample yields for these racial and ethnic minority population subgroups in MEPS.

**MEPS Oversampling**

Subgroup	Baseline – FY 2010 President’s Budget Request	
	Individuals	RSE (for mean expenditures)
Asians	1,300	7.8%
Chinese	160	16.0%
Hispanic Subgroups		
Puerto Rican	700	11.5%
Cuban	300	33.2%
Dominican	225	19.0%
American Indians/Alaskan Natives	400	13.2%
Multiple Races	575	9.0%

The baseline cost components related to the household and medical provider component of MEPS for a full panel of 7,000 households over 3 years are provided below:

Cost Components	Baseline
Households	Full MEPS consists of 14,000 households
(1) Sample Selection	\$0.6 M
(2) Management	\$1.1M
(3) Hire/Train Household/Medical Provider Survey Staff	\$3.4M
(4.a) Conduct Household Interviews	\$20.7M

(4.b)Data Collection-Medical Providers	\$10.9M
(5) Data Processing/Production of Analytical Files	\$12.1M
Total Cost	\$48.8M
Cost per Household	\$6,971

Costs associated with (1) the sample frame preparation and sample selections for the MEPS Household and Medical Provider Surveys and (2) the management tasks are fixed, while costs associated with the remaining data collection and data processing components are variable.

In 2007, a marginal cost analysis was completed to determine the marginal cost of increasing the degree of oversampling in the MEPS sample among certain minority sub-groups. This oversampling would allow estimates for these subgroups to be more precise, allowing the implications of program and policies to be more accurately estimated for these groups using MEPS data. As indicated, many estimates for these subgroups have relative standard errors that are higher than the recommended maximum threshold of 10 percent. The marginal cost to reach the recommended RSE of 10 percent for these minority subgroups in 2010 and 2011 is \$4,300 per additional minority household surveyed, which is lower than the current average cost per household of \$6,971.

The table below indicates the percent reduction in relative standard errors in survey estimates that could be achieved by a targeted MEPS sample augmentation of 1,000 additional households.

Subgroup	RSE (for mean expenditures) with MEPS Sample Augmentation	Reduction in RSE (for mean expenditures) with MEPS Sample Augmentation
Asians	5.9%	24%
Chinese	12.0%	24%
Hispanic Subgroups		
Puerto Rican	9.6%	15%
Cuban	25.7%	23%
Dominican	13.8%	26%
American Indians/Alaskan Natives	10.0%	24%
Multiple Races	7.6%	16%

**Long-Term Objective 1:** Achieve wider access to effective health care services and reduce health care costs.



<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
1.3.16: Insurance Component tables will be available within months of collection (Output)	2010	TBD	Oct 31, 2010
	2009	Set Baseline	Oct 31, 2009
	2008	6	6 (Target Met)
	2007	6	6 (Target Met)
	2006	N/A	6 (Historical Actual)
	2005	N/A	7 (Historical Actual)
1.3.17: MEPS Use and Demographic Files will be available months after final data collection (Output)	2010	11	Oct 31, 2010
	2009	11	Oct 31, 2009
	2008	11	11 (Target Met)
	2007	11	11 (Target Met)
	2006	N/A	11
	2005	N/A	12 (Historical Actual)
1.3.18: Number of months after the date of completion of the MEPS data will be available (Output)	2010	10.8	Oct 31, 2010
	2009	11	Oct 31, 2009
	2008	11	11 (Target Met)
	2007	11	11 (Target Met)
	2006	12 months	12 months (Target Met)
	2005	12 months	12 months (Target Met)
1.3.19: Increase the number of topical areas tables included in the MEPS Tables Compendia (TC) (Output)	2010	Add additional variables to MEPS Net	Oct 31, 2010
	2009	Update State-level tables	Oct 31, 2009
	2008	Add Prescribed Drug Tables	Prescribed Drug Tables Added (Target Met)
	2007	Add Insurance Tables	Insurance Tables Added (Target Met)
	2006	Add State Tables	State Tables Added (Target Met)
	2005	Add Access Tables	Access Tables added (Target Met)
1.3.20: Increase the number of MEPS data users Baseline FY 2005: 10 Data Center	2010	Exceed baseline standard	Oct 31, 2010
	2009	Exceed baseline standard	Oct 31, 2009

Measure	FY	Target	Result
Projects (DCP), 15,900 TC, 13,101 Household Component/Insurance Component (HC/IC) (Outcome)	2008	Exceed baseline standard	41 DCP (Target Met)
	2007	Exceed baseline standard	23 DCP
			19,989 TCP
	2006	Exceed Baseline standard	14 DCP
16,200 TCP			
2005	Maintain Baseline standard	11,600 HC/IC (Target Met)	
		10 DCP	
1.3.21: The number of months required to produce MEPS data files (i.e., point-in-time, utilization and expenditure files) for public dissemination following data collection (Outcome)	2010	10.8 months	Oct 31, 2010
	2009	11 months	Oct 31, 2009
	2008	11 months	11 months (Target Met)
	2007	11 months	11 months (Target Met)
	2006	12 months	12 months (Target Met)
	2005	N/A	N/A
1.3.49: The average number of field staff hours required to collect data per respondent household for the MEPS (at level funding level) (Annual Efficiency Measure)	2010	12.8 hours	Oct 31, 2010
	2009	13.0 hours	Oct 31, 2009
	2008	13.5 hours	13.5 hours
	2007	Baseline	14.2 hours
	2006	N/A	N/A
	2005	N/A	N/A

Measure	Data Source	Data Validation
1.3.16	MEPS Web site	Data published on Web Site
1.3.17 1.3.18 1.3.21	MEPS Web site	Monthly meetings with contractor, careful monitoring of field progress and instrument design, quality control procedures including benchmarking with other national data sources.
1.3.19	MEPS Web site	Data published on Web site.

Measure	Data Source	Data Validation
1.3.20	MEPS data: List of ongoing projects	Publications.
1.3.49		<p>The number of field staff hours required to collect data per respondent household for the MEPS is logged by field staff in an automated system. Data quality and validation is monitored in several ways: (1) validation interviews are conducted for a sample of respondents, in which questions concerning the interview process are asked; (2) response rates are monitored to ensure that they stay high; and (3) the duration of interviews are tracked to ensure that interviewers are following proper protocol and not skipping questions during the interview.</p>

## **Program Support**

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This budget activity supports the overall direction and management of the AHRQ.

### **Strategic Management of Human Capital:**

AHRQ participated in the Federal Human Capital Survey (FHCS) and is assessing the impact of the results at the Office/Center levels and communicating this information to staff. Additionally, Agency staff involved in the Making AHRQ Great Initiative (MAG) has been called upon to foster solutions and ensure issues on a large scale are resolved (e.g., themes which cut across AHRQ). An action plan is currently being developed which will address issues and concerns that were revealed through the survey.

Recently, AHRQ conducted forums to assess the current Performance Management Appraisal Program system (PMAP) and provided responses to the Department suggesting changes to the existing policy. In an effort to ensure full and open conversations, forums and questionnaires were utilized to obtain feedback from managers and employees. Notable suggestions included weighting of the performance elements and implementation of a five tiered appraisal system. AHRQ recently engaged in testing of the new automated performance management application and conducted a pilot test with a small group of staff in the Agency. AHRQ continues to support workforce development programs and initiatives through competency assessment, development and implementation for mission critical activities. The Agency identified a need for, and implemented mandatory Project Management training for all AHRQ staff and participated in the Department-wide effort to identify and establish core competencies across OPDIVs/STAFFDIVs. Finally, AHRQ continues to strive towards meeting the OPM 45-day timeline for hiring and notifying applicants to SES and non-SES vacancies. We are working in collaboration with the Rockville Human Resources Center to ensure timelines are met and we consistently inform selecting officials of this requirement through the issuance of action due dates upon release of certificates identifying eligible applicants.

### **Improve Financial Performance:**

AHRQ is working to demonstrate to the Office of Finance at DHHS effective use of financial information to drive results in key areas of operations and to develop and implement a plan to continuously expand the scope to additional areas of operations. AHRQ has completed the review and updating of all internal controls in light of the transition to an integrated, department-wide financial management solution – the Unified Financial Management System (UFMS). In addition, AHRQ continued to participate in the Department's A-123 internal control efforts and implemented all corrective actions for deficiencies reported as a result of the FMFIA/A-123 internal control processes identified in FY 2008. In FY 2009 AHRQ is also working to update all internal controls based on the transition to the HHS Consolidated Acquisition Solution (HCAS). HCAS is the standardized acquisition system that will be used across multiple OPDIVs, including AHRQ. Finally, AHRQ continues to maintain a low-risk status for improper payments.

### **Electronic Government:**

AHRQ's current activities include:

- Ongoing development of policies and procedures that link AHRQ's IT initiatives directly to the mission and performance goals of the Agency. Our governance structure ensures that all IT initiatives are not undertaken without the consent and approval of AHRQ Senior Management and prioritized based upon the strategic goals and research priorities of the agency.

- Ensuring AHRQ's IT initiatives are aligned with departmental and agency enterprise architectures. Utilizing HHS defined FHA and HHS Enterprise Architectures, AHRQ ensures that all internal and contracted application initiatives are consistent with the technologies and standards and adopted by HHS as well as OMB directives. This uniformity improves application integration (leveraging of existing systems) as well as reducing cost and development time.
- Providing quality customer service and operations support to AHRQ's centers, offices and outside stakeholders. This objective entails providing uniform tools, methods, processes, practices and standards to ensure all projects and programs are effectively managed utilizing industry best practices. These practices include PMI (PMBOK, EVM), RUP (SDLC), CPIC, and EA. These practices have appreciably improved AHRQ's ability to satisfy project objectives to include cost and schedule.
- Ensuring the protection of AHRQ data; commensurate with current and future legislation and OMB directives. AHRQ's security program goals focus on executing the defined goals developed in our strategic and tactical plans which are targeted at three key areas: People, Process and Technology. These goals include but are not limited to: implementation of LOB Information and Security and Privacy Awareness training, System Development Life Cycle and FIPS 140-2 compliant encryption solutions. AHRQ continues to ensure 98 percent or higher of AHRQ's employees will complete the LOB Information Security and Privacy Awareness training. AHRQ will continue to follow the modified systems development life-cycle to ensure that security is addressed throughout each project phase. The agency will deploy encryption solutions for mobile devices, removable media, and data and will ensure FDCC settings are applied to all desktops, laptops, and ensure servers are deployed with departmental approved standard security settings.

### **Performance Improvement:**

General program direction is accomplished through the collaboration of the Office of the Director and the offices and centers that have programmatic responsibility for portions of the Agency's research portfolio. AHRQ created a framework to provide a more thoughtful and strategic alignment of its activities. This framework represents the Agency's collaborative efforts on strategic opportunities for growth and synergy. As the result of increased emphasis on strategic planning, the Agency continues the shift from a focus on output and process measurement to a focus on outcome measures where feasible. These outcome measures cascade down from our strategic goal areas of safety/quality, effectiveness, efficiency and organizational excellence. Portfolios of work (combinations of activities that make up the bulk of our investments) support the achievement of our highest-level outcomes.

Performance data will be tracked electronically using the Agency's electronic performance tracking system and published as soon as it becomes available. Also, work will continue with program staff to establish and display a close alignment of projects and how they support AHRQ's performance measures and the Department's strategic goal areas.

In FY 2008 and 2009, AHRQ continued the implementation of strong budget and performance integration practices through the use of structured Project Management processes. AHRQ has begun a campaign to design and implement a quality improvement process for managing major programs that support the Agency's strategic goals and Departmental strategic goals and specific objectives.

AHRQ has successfully completed comprehensive program assessments on six key programs within the Agency: The Medical Expenditure Panel Survey (MEPS); the Healthcare Cost and

Utilization Project (HCUP); the Consumer Assessment of Healthcare Plans Survey (CAHPS); the Patient Safety Portfolio; the Pharmaceutical Outcomes Portfolio; and most recently the Health Information and Technology Portfolio. These reviews provide the basis for the Agency to move forward in more closely linking high quality outcomes with associated costs of programs. Over the next few years, the Agency will focus on fully integrating financial management of these programs with their performance.

The FY 2010 President's Budget Request for Program Support totals \$2,700,000, the same level of support as the prior year. In FY 2010, AHRQ will:

- Fully implement the Departmental Learning Management System (LMS) for training and development needs (Strategic Management of Human Capital);and
- Complete updating of all internal controls following AHRQ's conversion to HCAS (Improve Financial Management).

**Long-Term Objective 1: Improve performance in all areas of Program Support**

Measure	FY	Target	Result
5.1.1: Improve AHRQ's strategic management of human capital (Output)	2010	Upon Departmental approval, fully implement the new HHS-wide automated performance management system.	Oct 31, 2010
	2009	Fully implement Departmental Learning Management System (LMS) for training and development needs	N/A
	2008	Develop core competencies for selected Agency staff and develop strategies for implementation	Core competencies developed and implementation strategies completed. (Target Met)
	2007	Implement HHS Performance Improvement Initiative	Completed implementation of HHS Performance Improvement Initiative (Target Met)
	2006	N/A	Completed assessment of core competency and leadership models  Identified strategies to infuse new talent into AHRQ (Target Met)
	2005	N/A	Get to Green on Strategic Management of Human Capital Initiative (Target Met)
5.1.2: Maintain a low-risk improper payment risk status (Output)	2010	Complete updating of all internal controls following AHRQ's conversion to HCAS	Oct 31, 2010

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
	2009	Complete updating of all internal controls following AHRQ's conversion to the Uniform Financial Management System (UFMS)	Oct 31, 2009
	2008	Complete all requirements related to OMB revised Circular A-123	Requirements related to OMB revised Circular.
		Begin to update internal controls following AHRQ's conversion to UFMS	Continued to update internal controls. (Target Met)
	2007	Continue to participate in Department A-123 Internal Control efforts	Continued to participate in Department A-123 Internal Control efforts (Target Met)
	2006	N/A	Participated in Department A-123 Internal Control efforts related to improper payments (Target Met)
2005	N/A	Updated AHRQ Improper Payment Risk Assessment  Increased awareness of risk management within AHRQ (Target Met)	
5.1.3: Expand E-government by increasing IT organizational capability ( <i>Output</i> )	2010	TBD	Oct 31, 2010
	2009	TBD	Oct 31, 2009
	2008	Extend Project Management Office (PMO) operations and concepts to AHRQ IT investments	Ongoing (Target Met)
	2007	Develop fully integrated PMO with standardized processes and artifact	Ongoing (Target Met)
	2006	N/A	Completed level 3 maturity in EA as directed by HHS (Target Met)
	2005	N/A	Fully implemented integrated EA, capital planning, and investment review processes (Target Met)

<b>Measure</b>	<b>FY</b>	<b>Target</b>	<b>Result</b>
5.1.4: Improve IT Security/Privacy Output (Output)	2010	Fully implement FDCC and standard security configurations of all systems  Implement FIPS 140-2 encryption solution on all systems to protect sensitive information	Oct 31, 2010
	2009	Integrate and align AHRQ's security program with HHS's Secure One security program	Oct 31, 2009
	2008	Certify and accredit all Level 3 information systems  Review and update security program to reflect current guidance and mandates	Certified and accredited all Level 3 information systems  Reviewed and updated security program (Target Met)
	2007	Certify and accredit all Level 2 information systems  Begin implementation of Public Key Infrastructure with applications	Certified and accredited all Level 2 information systems  Began implementation of Public Key Infrastructure with applications (Target Met)
	2006	N/A	Performed required testing to insure maintenance of security level (Target Met)
	2005	N/A	Fully integrated security approach EA and capital planning process (Target Met)
5.1.5: Establish IT Enterprise Architecture (Output)	2010	Comply with HHS EA requirements for FY 2010	Oct 31, 2010
	2009	Comply with HHS EA requirements	N/A
	2008	Implement Level 3 EA plan  Comply with EA activity as defined by HHS	Implemented Level 3 EA plan  Continued to comply with EA activity set forth by HHS (Target Met)
	2007	Continue Level 3 EA plan	Completed Level 3 EA plan (Target Met)
	2006	N/A	Began work towards Level 3 maturity in EA as defined by HHS (Target Met)



Measure	FY	Target	Result
	2005	N/A	Used EA to derive gains in business value and improve performance related to AHRQ mission (Target Met)
5.1.6: Get to Green and maintain status for Performance (Output)	2010	TBD	Oct 31, 2010
	2009	TBD	Oct 31, 2009
	2008	Continue implementation of software within the portfolios	Continued implementation of software within the portfolios (Target Met)
	2007	Begin implementation of software within the portfolios of work to help facilitate budget and performance integration  Conduct internal alignment of measures by strategic goal areas	Began to implement software with the portfolios  Completed internal alignment of measures (Target Met)
	2006	N/A	Visual Performance Suite software designed and piloted (Target Met)
	2005	N/A	Implemented additional phases of Planning System (Target Met)

Measure	Data Source	Data Validation
5.1.1	Departmental quarterly updates	As the beta site for the Department's Performance Management Appraisal Program (PMAP), AHRQ was required to complete the Performance Appraisal Assessment Tool (PAAT). Out of 100 total points possible, the Agency scored an 87 which, according to OPM, is considered as having "effectiveness characteristics present" – the highest level possible under this rating system.
5.1.2	Departmental quarterly updates; UFMS, IMPAC II, and Payment Management System	SAS 70 Reviews, A-123 reviews, and A-133 audits
5.1.3 5.1.4 5.1.5	Departmental quarterly updates	Compliance with Departmental standards
5.1.6	Departmental quarterly updates	Compliance with Departmental standards; AHRQ logic models and Portfolio plans

## Agency Support for HHS Strategic Plan

	Safety/Quality – Reduce the risk of harm from health care services by promoting the delivery of appropriate care that achieves the best quality outcome.	Efficiency – Achieve wider access to effective health care service and reduce health care costs.	Effectiveness – Assure that providers and consumers/patients use beneficial and timely health care information to make informed decisions/choices.	Organizational Excellence – Develop efficient and responsive business practices
<b>HHS Strategic Goals</b>				
<b>1: Health Care.</b> Improve the safety, quality, affordability and accessibility of health care, including behavioral health care and long-term care.				
1.1 Broaden health insurance and long-term care coverage.				
1.2 Increase health care service availability and accessibility.	<b>X</b>			
1.3 Improve health care quality, safety, cost, and value.	<b>X</b>	<b>X</b>	<b>X</b>	
1.4 Recruit, develop and retain a competent health care workforce.	<b>X</b>		<b>X</b>	
<b>2: Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness.</b> Prevent and control disease, injury, illness and disability across the lifespan, and protect the public from infectious, occupational, environmental and terrorist threats.				
2.1 Prevent the spread of infectious diseases.				
2.2 Protect the public against injuries and environmental threats.				
2.3 Promote and encourage preventive health care, including mental health, lifelong healthy behaviors and recovery.	<b>X</b>			
2.4 Prepare for and respond to natural and man-made disasters.				
<b>3: Human Services.</b> Promote the economic and social well-being of individuals, families and communities.				
3.1 Promote the economic independence and social well-being of individuals and families across the lifespan.				
3.2 Protect the safety and foster the well-being of children and youth.				
3.3 Encourage the development of strong, healthy and supportive communities.				

3.4 Address the needs, strengths and abilities of vulnerable populations.				
<b>4: Scientific Research and Development.</b> Advance scientific and biomedical research and development related to health and human services				
4.1 Strengthen the pool of qualified health and behavioral science researchers.			<b>x</b>	
4.2 Increase basic scientific knowledge to improve human health and development.				
4.3 Conduct and oversee applied research to improve health and well-being.	<b>x</b>		<b>x</b>	
4.4 Communicate and transfer research results into clinical, public health and human service practice.	<b>x</b>	<b>x</b>		

## **Summary of Findings and Recommendations from Completed Program Evaluations**

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### **Prevention and Care Management**

#### Evaluation of the U.S. Preventive Services Task Force Recommendations for Clinical Preventive Services

AHRQ contracted with NORC (a national organization for research) at the University of Chicago to determine how U.S. Preventive Services Task Force (USPSTF) recommendations are integrated into health plans and how to improve dissemination of these recommendations. The USPSTF is an independent panel of experts in primary care and prevention that systematically review the evidence of effectiveness and develop recommendations for clinical preventive services. This study used three separate but interrelated phases: (1) literature review and evaluation design of published and unpublished literature; (2) semi-structured phone and in-person interviews; and, (3) analysis of key crosscutting themes related to the adoption, integration, and delivery of the USPSTF recommendations in health plans.

In February 2007, the study reported that USPSTF recommendations are integrated in health plans through: (1) printed publications, such as health plan provider manuals on clinical preventive services and other publications; (2) electronic use of health IT tools, such as EMRs, clinical reminders, and order sets for clinicians; and (3) incorporation into the plan's patient health education materials that are distributed to the member population.

Suggestions for improving dissemination of the recommendations included: (1) developing new prevention tools designed for nurses delivering counseling recommendations; (2) disseminating more information about the USPSTF methodology to certain members of the health plan staff; and (3) AHRQ staff attending provider professional meetings and presenting on a few of the Task Force recommendations.

Further detail on the findings and recommendations of the program evaluations completed during the fiscal year can be found at <http://www.ahrq.gov/about/evaluations/uspstf/>.

## Discontinued Performance Measures

#	Key Outcomes/ Outputs	FY 2005 Actual	FY 2006 Actual	FY 2007 Target	FY 2007 Actual	FY 2008 Target	FY 2008 Actual	FY 2009 Target
1.3.8	Most Americans will have access to and utilize a Personal Health Record (PHR)	Two EHR Improvements IHS and NASA Health IT	Partnered with CMS on PHR technology	Partner with one HHS Operating Division	Partnered with CMS on PHR technology	Develop tool to assess consumer perspectives on the use of personal EHRs	Developed and deployed tool to assess perspectives of Medicare beneficiaries on using PHRs (as part of Medicare PHR Demonstration Project)	10 organizations will use tools to assess consumer perspectives on the use of personal EHRs
1.3.6	Increase physician adoption of Electronic Health Records (EHRs)	10% Baseline	21.9% of physician practices use e-prescribing	15% from baseline	24.9%	Increase 20% from baseline	38.4% (NCHS 4-8/08 survey – full or partial EMR systems)	Increase 25% from Baseline
1.3.36	Increase the number of ambulatory clinicians using electronic prescribing to over 50%	N/A	12%	15%	ongoing	20%	Developing new data source or 6% (Surescripts National Progress Report on Electronic Prescribing)	Re-baseline (Develop data source, methodology and baseline)
1.3.9	Engineered clinical knowledge will be routinely available to users of EHRs	National summit with National Coordinator for Health HIT and AMIA	Initiated standards development and adoption of engineered clinical knowledge	Standards development organizations will be in early development of tools enabling engineered clinical knowledge transfer	CCHIT certification criteria includes clinical decision support	Award two projects that will deliver best practice recommendations to key stakeholders to create engineered clinical knowledge	Awarded two contracts totaling \$5M to support the development, adoption, implementation, and evaluation of best practices using clinical decision support	Two projects will deliver best practice recommendations to create engineered clinical knowledge

## Full Cost Table

### AHRQ Summary of Full Cost (Budgetary Resources in Millions)

HHS Strategic Plan Goals	FY 2008 Approp.	FY 2009 Omnibus	FY 2009 Recovery Act /1	FY 2010 P.B. Request
<b>1. Health Care.</b> Improve the safety, quality, affordability, and accessibility of health care, including behavioral health care and long-term care.	273	307		307
<b>1.2</b> Increase health care service and accessibility.	11	11		11
<b>1.3</b> Improve health care quality, safety, and cost/value.	261	295		295
<b>1.4</b> Recruit, develop, and retain a competent health care workforce.	1	1		1
<b>2. Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness.</b> Prevent and control disease, injury, illness, and disability across the lifespan, and protect the public from infectious, occupational, environmental, and terrorist threats.	7	7		7
<b>2.3</b> Promote and encourage preventive health care, including mental health, lifelong healthy behaviors, and recovery.	7	7		7
<b>3. Human Services.</b> Promote the economic and social well-being of individuals, families, and communities.	0	0		0
<b>4. Scientific Research and Development.</b> Advance scientific and biomedical research and development related to health and human services.	54	58		58
<b>4.1</b> Strengthen the pool of qualified health and behavioral science researchers.	10	12		12
<b>4.3</b> Conduct and oversee applied research to improve health and well-being.	16	16		16
<b>4.4</b> Communicate and transfer research results into clinical, public health, and human service practice.	28	30		30
<b>TOTAL</b>	<b>\$334</b>	<b>\$372</b>	<b>\$300</b>	<b>\$372</b>

/1 In FY 2009, the American Recovery and Reinvestment Act (ARRA) provided \$1,100,000,000 for Comparative Effectiveness Research. Of this total, \$400 M was transferred to the National Institutes of Health. A total of \$400 M is available for Comparative Effectiveness Research activities to be allocated at the discretion of the Secretary of the Department of Health and Human Services. The Federal Coordinating Council for Comparative Effectiveness Research will help set the agenda for these funds. Once a spend plan has been approved for the \$300 million to be obligated by AHRQ, these funds will be allocated in this full cost table.

## Disclosure of Assistance by Non-Federal Parties

Preparation of Online Performance Appendix is an inherently governmental function that is only to be performed by Federal employees. No material assistance was received from non-Federal parties in the preparation of the AHRQ FY 2010 Online Performance Appendix.