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POLICY DEVELOPMENT AND DISSEMINATION • EDUCATION AND TRAINING • RESEARCH AND DATA COLLECTION, ANALYSIS, AND UTILIZATION • SERVICES

2012 Environmental Justice Strategy and Implementation Plan

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Message from Secretary Kathleen Sebelius

Every American deserves to have a clean, safe and healthy environment. Today, we understand better than ever before that our health is not only dependent on what happens in the doctor's office but is determined by the air we breathe, the water we drink and the communities we call home. Over the past two years, the Administration and our agency have taken unprecedented steps to ensure strong protection from environmental and health hazards for all Americans.

There's nothing more important than health. When we live longer, healthier lives, we have more time to do our jobs, volunteer in our neighborhoods, play with our children, and watch our grandchildren grow up. Health is the foundation of our country's prosperity. Healthy adults are more productive workers, healthy children are better students and healthy families can make bigger contributions to their communities.

In our Environmental Justice Strategy and Implementation Plan, you can find many programs that are already making a difference, such as the National Institute of Environmental Health Sciences (NIEHS) Minority Worker Training Program. This program has awarded grants in more than 30 communities across the United States to recruit and train individuals who live in vulnerable communities at risk of exposure to contaminants for employment in the environmental field.

The Affordable Care Act, the health reform law of 2010, includes a new community transformation grant program that builds on the Economic Empowerment Zone model. By promoting healthy lifestyles, especially among population groups experiencing the greatest burden of chronic disease, these grants help improve health, reduce health disparities, and control health care spending. The Centers for Disease Control and Prevention made 61 awards, totaling approximately \$103 million, to state and local government agencies, Tribes, and territories, and to non-profit organizations. Several awardees are planning to focus on expanding efforts to address healthy and safe physical environments.

With the release of our Strategy and Implementation Plan, we are renewing our commitment to working with our Federal partners to promote environmental justice. Equally important, we are reaffirming our commitment to work with communities who are eager to get involved in this effort. We look forward to this collaboration as we continue to focus on building safe and healthy communities.

Kathleen Sebelius
Secretary, U.S. Department of Health and Human Services



Secretary Sebelius (second from right) at a community roundtable in New Orleans with Dr. Beverly Wright, Deep South Center for Environmental Justice Executive Director (left), and other participants.

2012 HHS ENVIRONMENTAL JUSTICE STRATEGY AND IMPLEMENTATION PLAN

Table of Contents

Executive Summary.....	2
Introduction and Background.....	6
HHS Environmental Justice Strategy Overview	15
Strategic Elements	
I. Policy Development and Dissemination	23
II. Education and Training	35
III. Research and Data Collection, Analysis, and Utilization	42
IV. Services	49
References	56
Appendix A. HHS Environmental Justice Stakeholder Engagement	62
Appendix B. Glossary of Terms	64
Appendix C. Acronyms	73
Appendix D. HHS Organizational Chart.....	74

EXECUTIVE SUMMARY

Environmental Justice is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies”. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations* requires each Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” The Executive Order also states that “each Federal agency responsibility set forth under this order shall apply equally to Native American programs.”

The Executive Order, issued in 1994, required each agency to develop an agency-wide environmental justice strategy specific to that agency’s mission. The Department of Health and Human Services (HHS) issued its first Environmental Justice Strategy in 1995. In response to the reinvigoration of the Federal Environmental Justice effort in 2010, HHS has developed a new Environmental Justice Strategy and related implementation actions. The new strategy, 2012 HHS Environmental Justice Strategy and Implementation Plan (2012 HHS EJ Strategy) builds on collaborative efforts across the Department and focuses on the vision of “a nation that equitably promotes healthy community environments and protects the health of all people”.

To update the 1995 HHS EJ Strategy, HHS created an Environmental Justice Strategic Planning Committee, composed of representatives from agencies and offices across HHS. The Committee reviewed past and current environmental justice programs and accomplishments to glean lessons learned and build upon successful strategies and activities. HHS also engaged multiple stakeholders during the strategic planning process in order to hear community and other stakeholder concerns, discuss best practices and model programs, and learn about ongoing and emerging environmental justice issues impacting Americans.

The 2012 HHS EJ Strategy provides direction for HHS efforts to achieve environmental justice as part of its mission by: (1) identifying and addressing disproportionately high and adverse human health and environmental effects on low-income populations and Indian Tribes, and (2) encouraging the fair treatment and meaningful involvement of affected parties with the goal of

building healthy, resilient communities and reducing disparities in health and well-being associated with environmental factors. Driven by public input and HHS support, the strategy maintains the following three guiding principles:

- Create and implement meaningful public partnerships
- Ensure interagency and intra-agency coordination
- Establish and implement accountability measures

On the basis of the guiding principles, the 2012 HHS EJ Strategy is organized into four strategic elements; (1) Policy Development and Dissemination, (2) Education and Training, (3) Research and Data Collection, Analysis, and Utilization, and (4) Services. The 2012 HHS EJ Strategy reflects new and ongoing actions that are underway or planned for the near term. Each strategic element is aligned with targeted goals, strategies, and actions to be undertaken by HHS. The heightened coordination within and outside of HHS and the engagement of communities and other stakeholders will facilitate the implementation of the 2012 HHS EJ Strategy and support the realization of the vision.

SUMMARY OF STRATEGIC ELEMENTS, GOALS, AND STRATEGIES

Strategic Element I: Policy Development and Dissemination

Goals

- (1) Strengthen the application of health and environmental statutes and policies in minority and low-income populations and Indian tribes.
- (2) Identify and address, as appropriate, human health or environmental effects of HHS programs, policies, and activities on minority and low-income populations and Indian tribes.
- (3) Support and advance a “health in all policies” approach that protects and promotes the health and well-being of minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures.

Strategies

- A. Integrate environmental justice principles and strategies into the implementation of key statutes and policies that may impact minority and low-income populations and Indian tribes.
- B. Incorporate environmental justice principles and strategies into consideration of emerging issues that may disproportionately impact minority and low-income populations and Indian tribes.
- C. Provide consultation and/or partner with other Federal departments, where appropriate and feasible, on environmental policies, programs and initiatives that may impact health and well-being, with particular attention to minority and low-income populations and Indian Tribes.

Strategic Element II: Education and Training

Goals

- (1) Educate communities, workers, the general public, health professionals, human services providers and the HHS workforce about environmental justice and environmental health to empower them to actively participate in the development and implementation of programs, policies and activities impacting and serving minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures.
- (2) Build a health workforce prepared to prevent and diagnose conditions associated with disproportionately high and adverse environmental exposures and to provide high quality, culturally competent care.

Strategies

- A. Educate the public, especially in communities with minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures, about environmental justice, environmental hazards, and healthy community environments.
- B. Enhance health professionals' and human services providers' education and training in environmental health and environmental justice.
- C. Increase the knowledge and understanding of health and environmental justice across HHS agencies and among HHS employees.

Strategic Element III: Research and Data Collection, Analysis, and Utilization

Goals

- (1) Strengthen research and advance data collection on the health and environment of minority and low-income populations and Indian tribes.
- (2) Empower the public to participate in the development and implementation of HHS policies, programs, and interventions by improving access to data and research findings on the risks of adverse environmental exposures.

Strategies

- A. Increase the involvement of minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures in research and in data collection and utilization, and communicate findings to stakeholders.
- B. Identify and characterize environmental and occupational factors that have disproportionately high and adverse human health or environmental effects on minority and low-income populations and Indian tribes.
- C. Bolster the efforts of HHS, state, local, territorial, and tribal agencies, as well as non-governmental organizations, to collect, maintain, and analyze data on disproportionately high and adverse environmental and occupational exposures and on health effects in minority and low-income populations and Indian Tribes.

Strategic Element IV: Services

Goals

- (1) Improve access to and quality of care and services for minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures.
- (2) Advance the economic potential and social well-being of minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures.

Strategies

- A. Increase the capacity of health professionals delivering care and services to minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures to prevent, diagnose, and treat medical and behavioral health conditions associated with adverse environmental exposures.
- B. Identify minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures, as well as the physical and behavioral health conditions and concerns of communities affected by these exposures.
- C. Provide technical assistance and information resources to minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures in order to empower communities to address identified health and human services needs.
- D. Provide funding opportunities and technical assistance to advance the economic potential and social well-being of minority and low-income populations and Indian tribes with disproportionately high and adverse environmental exposures.

INTRODUCTION AND BACKGROUND

HHS Mission and Role in Environmental Justice

The mission of the U.S. Department of Health and Human Services (HHS) is to enhance the health and well-being of Americans by providing for effective health and human services and by fostering sound, sustained advances in the sciences underlying medicine, public health, and social services. HHS is the U.S. government's principal agency for protecting the health of all Americans and providing essential human services, especially for those who are least able to help themselves.

Given the persistent, disproportionate burden of environmental hazards on minority and low-income populations and Indian Tribes, HHS will make achieving environmental justice part of its mission by (1) identifying and addressing disproportionately high and adverse human health and environmental effects on minority and low-income populations and Indian Tribes, and (2) encouraging the fair treatment and meaningful involvement of affected parties with the goal of building healthy, resilient communities and reducing disparities in health and well-being associated with environmental factors.

The 2012 HHS Environmental Justice Strategy and Implementation Plan (2012 HHS EJ Strategy) proposes a set of strategic elements, goals, strategies and actions to achieve the Department's overarching goals, as outlined in the HHS Strategic Plan 2010-2015.¹ As demonstrated in the HHS Strategic Plan 2010-2015, HHS's assets lie in its programs, policies and activities that (1) provide access to health care, (2) help children get a healthy start in life, (3) advance scientific research to promote health and prevent disease, (4) provide human services for the social and economic well-being of individuals and families, (5) promote prevention and wellness for families and communities, (6) protect against domestic and global health threats and (7) ensure the safety of food and drugs. These programs, policies and activities constitute critical tools for achieving health equity and reducing the health disparities that may result from disproportionate exposures to environmental hazards in minority and low-income populations and Indian Tribes.

The Relationship of Health and the Environment

The environment is a leading determinant of human health and well-being.² It is well recognized that the social determinants of health, i.e., the conditions in which people are born, grow, live, work, and play, are important factors in the health and well-being of individuals and communities.³ Thus, the concept of environment has evolved to include both the physical and social environments, as well as the interactions between these environments. The physical environment is comprised of the natural environment (i.e., plants, air, water, and weather) and the built environment (i.e., infrastructure such as buildings, roads, parks, and other spaces).⁴ The social environment is the aggregate of cultural and social institutions, norms, and beliefs that influence the life of an individual or community.⁵ It encompasses health-related behaviors in a community as well as policies within school, work and recreational settings. The social environment also includes socioeconomic conditions (e.g., poverty) and the availability of resources (e.g., educational and employment opportunities, and access to affordable, healthy foods and community-based services) to meet basic daily living needs. The health of communities and populations is further influenced by policies and programs of both governmental and non-governmental sectors.

The impact of the environment on human health cannot be overstated. For example, poor air quality, disproportionate exposure to hazards in the workplace, unhealthy housing conditions (e.g., mold, dampness and pest infestation), and the lack of safe areas for physical activity have been linked to chronic conditions such as asthma and other respiratory diseases, cardiovascular disease and obesity.^{6,7} The built environment can also pose threats to the mental health of individuals, families and communities. For example, studies have shown that housing and neighborhood quality (e.g., condition and functioning) are associated with increased psychological distress and depression.^{8,9} Developmental disabilities have also been associated with prenatal and childhood exposures to environmental toxicants¹⁰.

Environmental disasters, both manmade and natural, have also been shown to be linked to adverse mental health outcomes such as post-traumatic stress disorder (PTSD), depression and anxiety. In the first year after a disaster, the prevalence of PTSD is 30 to 40 percent among those directly exposed, about 10 to 20 percent among rescue workers, and 5 to 10 percent among the general population¹¹. From a global perspective, approximately one-fourth of diseases, and more than one-third of the burden of disease among children, results from modifiable or preventable factors in the environment.¹² In the U.S., the cost of diseases in

children attributed to environmental factors (e.g., lead poisoning and asthma) was estimated at \$76.6 billion in 2008.¹³

Environmental conditions are known to play an important role in producing and maintaining health disparities among minority and low-income populations.¹⁴ For example, it has been shown that race and socioeconomic status are highly correlated with living near harmful sources of pollution.¹⁵ Findings indicating the disproportionate siting of hazardous waste facilities in minority and low-income communities gave rise to the environmental justice movement.

The Roots of Environmental Justice – A National Concern

Environmental justice¹⁶ is defined by the U.S. Environmental Protection Agency (EPA) as:

“the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

In the early 1970s, a body of literature documenting the existence of environmental inequalities in the United States began to develop.¹⁷ These findings led to a series of studies that focused on the location of hazardous waste sites, one of which was conducted in 1983 by the U.S. General Accounting Office (GAO, now called the U.S. Government Accountability Office). The GAO found that blacks comprised the majority of the population in three of four study communities where hazardous waste landfills were located and that the income of at least 26 percent of the populations in all four communities was below the poverty level.¹⁸ The 1987 report, *Toxic Wastes and Race in the United States*,¹⁹ identified significant racial and socioeconomic disparities in the distribution of commercial hazardous waste facilities. They were disproportionately located in areas with predominately poor and minority residents. This report, which helped to launch a national environmental justice movement, called attention to the concentrated burden of environmental pollution on minority and low-income populations and Indian Tribes in the United States. Environmental justice advocates and community

stakeholders called for greater public participation in the permitting process of these facilities and for more opportunities to address their health concerns.

Executive Order Addressing Environmental Justice

On February 11, 1994, President William J. Clinton signed Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.²⁰ The Executive Order requires each Federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”²⁰ The Executive Order also states “each Federal agency responsibility set forth under this order shall apply equally to Native American programs.”²⁰ The Executive Order created the Federal Interagency Working Group on Environmental Justice (EJ IWG), convened by the EPA Administrator, and required each agency to develop an agency-wide environmental justice strategy specific to that agency’s mission.

1995 HHS Environmental Justice Strategy

In accordance with Executive Order 12898, HHS developed its first environmental justice strategy, *Strategic Elements for Environmental Justice* in 1995.²¹ The goal of the 1995 HHS Environmental Justice Strategy (1995 HHS EJ Strategy) was to “ensure that disproportionately high and adverse environmental and health effects experienced by low-income and minority populations are addressed, as appropriate, in the programs of the Department of Health and Human Services (HHS), and that these programs encourage the full involvement of affected parties.”²¹ The objectives of the Strategy addressed six elements: (1) Public Partnerships, (2) Public Education and Training, (3) Services, (4) Data Collection and Analysis, (5) Health Research and (6) Interagency Coordination.

HHS Operating Divisions and Staff Divisions developed and implemented programs, initiatives and activities that addressed the elements of the 1995 HHS EJ Strategy. Operating Divisions and Staff Divisions supported more than 70 different programs, initiatives and activities, ranging from public websites and toll-free numbers to technical assistance programs and cooperative agreements, grants and contracts that addressed the needs of communities with environmental justice issues.

Below are examples of past and current activities supported by HHS that align with the 1995 HHS EJ Strategy's elements.

Public Partnerships

- The **Agency for Toxic Substances and Disease Registry (ATSDR)** implemented Community Assistance Panels (CAPs) in areas where minority and low-income populations and Indian Tribes are exposed to hazardous substances. Through CAPs, communities can participate directly in ATSDR's evaluation of a possible public health impact of environmental contamination in a community. ATSDR seeks to address community concerns in its report back to the community. (1990-present)

Public Education and Training

- Initiated in 1995, the **National Institute of Environmental Health Sciences (NIEHS)** Minority Worker Training Program (MWTP) and Brownfields Minority Worker Training Program (BMWTP) have together awarded grants in more than 30 communities across the United States. The purpose of the MWTP and BMWTP is to recruit and train individuals who live in vulnerable communities at risk of exposure to contaminants, with a special emphasis on obtaining work in the environmental field. Through 2010, awardees have trained more than 8,400 workers across the country and have placed more than 5,700 of these workers in jobs. (1995-present)

Services

- The **Health Resources and Services Administration (HRSA)** Black Lung Clinics Program provides services to coal miners (active and inactive) with the intention of improving the health status of miners and increasing coordination with other services and benefits programs to meet the health-related needs of this population. The program includes: (1) outreach, (2) primary care (including screening, diagnosis and treatment), (3) patient and family education and counseling (including anti-smoking education), (4) patient care and coordination (including individual patient care plans for all patients and referrals as indicated), and (5) pulmonary rehabilitation. In FY2009, the program supported services to 12,436 miners. In fiscal year 2010, 10,554 miners (active and retired) were served. The program also had 23,109 patient encounters. (1980-present)

Data Collection and Analysis

- The **National Center for Health Statistics (NCHS)** has linked air monitoring data to NCHS data files. Pollution averages at air monitoring locations were obtained from the U. S. EPA. Pollution exposures were calculated for several pollutants: carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone and particles. The air pollution data are linked to the 1986-2005 National Health Interview Survey, the 1999-2005 National Hospital Discharge Survey, and the 1986-1994 Third National Health and Nutrition Examination Survey. The linked datasets provide researchers with opportunities to investigate the relationship between demographic variables, air pollution and various health outcomes. Analysis of the data can be conducted by utilizing the NCHS Research Data Center. (Ongoing)

Health Research

- The **National Institute for Occupational Safety and Health (NIOSH)**, through its National Occupational Research Agenda (NORA), supports research and prevention programs, including community empowerment models, that address occupational safety and health concerns specific to minority and low-income workers who are disproportionately impacted by workplace exposures. NIOSH also supports collaborative efforts with Historically Black Colleges and Universities, such as Morehouse College's Project IMHOTEP. The purpose of Project IMHOTEP is to increase underrepresented minority students' knowledge, skills and research training in the areas of biostatistics, epidemiology and occupational safety and health. Since 1994, 166 students in the Project IMHOTEP Program have been assigned to work with NIOSH researchers. (1996-present)

Interagency Coordination

- The **Administration for Native Americans (ANA)**, in collaboration with the Department of Defense, administered the Environmental Mitigation Program. The purpose of the program was to help reduce environmental impacts on Indian lands, including training and technical assistance to Tribes, providing administrative support, and developing a system for prioritizing mitigation efforts. Between 1995 and 2008, ANA awarded 76 environmental mitigation projects. (1995-2008)

Current Landscape of Environmental Justice and Health Disparities

Since the development and implementation of the 1995 HHS Strategy, progress has been made in identifying and addressing disproportionately high and adverse environmental exposures among minority and low-income populations and Indian Tribes, but inequities persist. Race and poverty continue to be critical determinants of disproportionate exposure to environmental hazards. Despite the advances made to elevate environmental justice as an issue, critical health disparities related to environmental exposures remain.

The disparity in asthma prevalence provides a striking example of the effect of disproportionate adverse exposures and health outcomes. The prevalence of asthma is highest among multi-racial Americans, Hispanics of Puerto Rican descent and non-Hispanic blacks, and is also higher among those living in poverty.⁶ Disproportionate exposures to particulate matter and ozone air pollution contribute to differences in asthma severity. Hispanics, Asians, Pacific Islanders and non-Hispanic blacks are more likely to live in a non-attainment area^a for particulate matter air pollution than non-Hispanic whites.⁶

The obesity epidemic has highlighted the interaction of the built environment with other biologic, social and cultural factors in contributing to racial and ethnic disparities in the prevalence of obesity.²² Predominantly minority communities have fewer grocery stores and less access to affordable, healthy foods. Poor neighborhoods disproportionately lack outdoor recreation areas that are safe, have a greater density of fast food locations, and are designed with few opportunities for biking and walking.^{23, 24}

Disparities also exist in housing and workplace settings. Inadequate and unhealthy housing contributes to infectious and chronic diseases, injuries, and adverse childhood developmental outcomes. Non-Hispanic blacks, Hispanics, and American Indians/Alaska Natives are at least twice as likely to live in inadequate housing as non-Hispanic whites.⁶ Workers in lower-status and lower-wage jobs, who are largely minorities, face increased occupational hazards, including chemical exposures, poor working conditions, and psychosocial stressors (e.g., lack of control over working conditions).²⁵

^aNon-Attainment Area: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant (42 USC Chapter 85 – Air Pollution Prevention and Control).

Children and pregnant women are particularly vulnerable to adverse environmental exposures, and minority and low-income children experience significant health disparities due to disproportionate exposure to environmental hazards. Childhood lead poisoning is largely concentrated in poor, minority communities.²⁴ Rates of birth defects in infants born to Navajo women living in uranium mining areas have been shown to be several times higher than the national average.²⁶

Environmental justice and health disparities also cross geographic boundaries impacting urban areas and rural communities. Rural areas share many of the health challenges associated with environmental factors such as obesity, which is in part related to the lack of access to healthy foods. Agricultural workers and communities near industrial farming have unique health issues. Agricultural workers who are licensed pesticide applicators may suffer adverse neurological effects from increased exposure to pesticides in their workplace.²⁷ Industrial farming, in particular concentrated animal feeding operations, can negatively impact health and quality of life. Emissions and chemicals used in such operations have been shown to be disproportionately located in minority and low-income communities of rural areas.²⁸

Studies of extreme weather events, such as heat waves and hurricanes, have demonstrated that low income and minority individuals experience more severe health outcomes and live in communities with less resilience from these disasters than more affluent communities.²⁹ Climate change is anticipated to increase the severity and frequency of such extreme weather events in some parts of the United States. Climate change may also exacerbate problems such as air pollution and inadequate housing quality³⁰, which may lead to health outcomes such as increased prevalence or severity of asthma and other respiratory conditions, and increased prevalence of mental illness.^{31, 32}

Reinvigorating Federal Environmental Justice Efforts

In light of the Obama Administration's commitment to healthy environments for all Americans, the Federal Interagency Working Group on Environmental Justice was reconvened on September 22, 2010 to protect the health and advance the economic potential of communities overburdened by pollution and other environmental hazards. In August 2011, HHS reaffirmed its commitment to environmental justice by joining 16 Federal agencies in signing a Memorandum of Understanding (MOU) on Environmental Justice and Executive Order 12898.³³ The MOU renews each agency's responsibility to develop an environmental justice strategy and

prepare implementation progress reports, establishes structures and procedures to ensure that the Interagency Working Group operates effectively, and identifies areas of focus to be included in agency environmental justice efforts. This agreement provides a roadmap for agencies to coordinate environmental justice efforts and to work together to build healthy and resilient communities.

HHS ENVIRONMENTAL JUSTICE STRATEGY OVERVIEW

The HHS vision for environmental justice is as follows:

***“A NATION THAT EQUITABLY PROMOTES HEALTHY
COMMUNITY ENVIRONMENTS AND PROTECTS THE HEALTH OF
ALL PEOPLE.”***

Development of the 2012 HHS Environmental Justice Strategy

To update the 1995 HHS EJ Strategy, HHS created an Environmental Justice Strategic Planning Committee, composed of representatives from Operating Divisions and Staff Divisions across the Department. The Committee reviewed key historical environmental justice documents, including Executive Order 12898, the 1995 HHS Strategy, the Integrated Federal Interagency Environmental Justice Action Agenda, previous HHS environmental justice implementation progress reports and the 2011 Memorandum of Understanding on Environmental Justice. The HHS Strategic Planning Committee also reviewed past and current environmental justice programs and accomplishments across HHS to glean lessons learned and build upon successful strategies and activities.

Upholding the environmental justice principle of meaningful involvement, HHS engaged stakeholders during the strategic planning process in order to hear community and other stakeholder concerns, discuss best practices and model programs, and learn about ongoing and emerging environmental justice issues impacting communities. Stakeholders included community-based and grassroots organizations; state, local, and tribal governments; academia; non-governmental organizations; and members of the general public. HHS representatives participated in every stakeholder meeting hosted by the Federal Interagency Working Group on Environmental Justice across the country (*Appendix A. HHS Environmental Justice Stakeholder Engagement*). In addition, HHS hosted a listening session in Mobile, Alabama, conducted an environmental justice webinar, and hosted an Environmental Justice Thought Leaders Meeting in Washington, DC.

HHS also held a sixty-day online comment period for the Draft 2012 HHS EJ Strategy.

The public comment period yielded more than one hundred comments from seventeen sources representing non-profit organizations, State and Tribal entities, academic institutions, advocacy

groups and individuals. These comments led to enhancements to the HHS EJ Strategy and affirmed support for the strategy vision, guiding principles, goals, strategies and actions. The Strategy's implementation steps addressed a number of issues raised by commenters. Commenters asked that HHS continue to engage stakeholders as the Strategy is implemented. HHS will continue to engage community and other stakeholders during the implementation of the HHS EJ Strategy.

Guiding Principles and Statutes for the HHS Environmental Justice Strategy

In conceptualizing and implementing the 2012 HHS Environmental Justice Strategy (2012 HHS Strategy), HHS will uphold three guiding principles, of which the first two were elements of the 1995 HHS EJ Strategy:

- (1) Create and implement meaningful public partnerships;
- (2) Ensure interagency and intra-agency coordination; and
- (3) Establish and implement accountability measures.

Environmental justice highlights the importance of meaningful involvement through community partnership and engagement^b. Recognizing that communities with environmental justice concerns often have less capacity to access public participation opportunities, HHS will also bolster compliance with the following existing policies and statutes in order to advance environmental justice:

- ◆ **Culturally and linguistically accessible communications.** Executive Order 13166³⁴, *Improving Access to Services for Persons With Limited English Proficiency*, requires that Federally conducted programs provide improved access to limited English proficient persons. In addition, Section 504 of the Rehabilitation Act of 1973³⁵ prohibits discrimination on the basis of disability in Federally conducted programs and activities, and Section 508 of the Rehabilitation Act of 1973³⁶ requires Federal agencies to make electronic and information technology accessible to people with disabilities.

^bCommunity engagement is defined as “the process of working collaboratively with groups of people who are affiliated by geographic proximity, special interests, or similar situations with respect to issues affecting their well-being.” CTSA Consortium and the Community Engagement Key Function Committee. *Principles of Community Engagement* Second Ed. NIH Publication (No. 11-7782). 2011.

- ◆ **Consultation and coordination with Tribal governments.** According to Executive Order 13175³⁷, *Consultation and Coordination with Indian Tribal Governments*, Federal agencies shall establish regular and meaningful consultation and collaboration with tribal officials when formulating or implementing policies that have tribal implications.
- ◆ **Increase accountability of Federal government programs and activities.** Executive Order 13576³⁸, *Delivering an Efficient, Effective, and Accountable Government*, articulates policy on public access and open government.
- ◆ **Prohibition of discrimination by recipients of Federal assistance.** Title VI of the Civil Rights Act of 1964 states that “no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance”.³⁹ Vigorous enforcement of Title VI promotes greater accountability in environmental and public health programs by ensuring individuals are not discriminated against on the basis of race, color or national origin (including limited English proficiency).

Key Concepts for the HHS Environmental Justice Strategy

The 2012 HHS Strategy builds on the 1995 HHS EJ Strategy and the Institute of Medicine’s (IOM) 1999 report entitled, *Toward Environmental Justice: Research, Education, and Health Policy Needs*. In this report, the IOM assessed potential adverse human health effects caused by environmental hazards in communities of concern and made recommendations in the areas of public health, biomedical research, education and health policy. The IOM described environmental justice as a “concept that addresses in a cross-cutting and integrative manner the physical and social health issues related to the distribution of environmental benefits and burdens among populations, particularly in degraded and hazardous physical environments occupied by minority or disadvantaged populations.”⁴⁰ The concepts, definitions and framework outlined in the IOM report remain relevant to the challenges and opportunities for addressing environmental justice today.

Strategic Elements of the HHS Environmental Justice Strategy

The 2012 EJ HHS Strategy is organized into four interrelated strategic elements that mirror the elements of the 1995 HHS EJ Strategy, and includes a new strategic element on Policy Development and Dissemination. This element was added in recognition of the influence of

Federal, state, local, tribal and territorial policies on health. Furthermore, the Memorandum of Understanding on Environmental Justice and Executive Order 12898 calls for Federal agencies to address topic areas such as Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act and climate change in their updated strategies. These topic areas are addressed under Policy Development and Dissemination.

The four strategic elements are:

- ◆ **POLICY DEVELOPMENT AND DISSEMINATION**
- ◆ **EDUCATION AND TRAINING**
- ◆ **RESEARCH AND DATA COLLECTION, ANALYSIS, AND UTILIZATION**
- ◆ **SERVICES**

For each strategic element, the 2012 HHS EJ Strategy describes background information, specific goals, strategies and actions to be undertaken by designated HHS Operating Divisions and Staff Divisions.

Implementation, Reporting and Accountability

Successful implementation of the 2012 HHS EJ Strategy will require leveraging multiple opportunities. Many of the actions can be accomplished through improved coordination and integration of existing activities, whereas others are subject to the availability of funds. With a focus on efficiency, transparency and accountability, HHS will monitor and assess the 2012 HHS EJ Strategy. The HHS Environmental Justice Working Group, convened by the Office of the Assistant Secretary for Health and composed of representatives from several HHS agencies and offices, will track the progress on implementing the 2012 HHS EJ Strategy. HHS will regularly seek public input, in particular from impacted communities, through mechanisms such as the community outreach efforts of the Federal Interagency Working Group on Environmental Justice. HHS will also prepare Annual Implementation Progress Reports that will be made publicly available, as outlined in the Memorandum of Understanding on Environmental Justice.

Leveraging Key Initiatives

The 2012 HHS EJ Strategy builds upon the Administration's and HHS's commitment to prevention and wellness and the reduction of health disparities. There are several key national and departmental initiatives that HHS can leverage to advance environmental justice and to

promote and protect the health and well-being of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.

- ◆ **Affordable Care Act⁴¹**: This landmark health reform legislation was signed into law in March 2010, putting in place comprehensive health insurance reforms to expand access to health insurance and health care, lower health care costs, and enhance the quality of health care for all Americans. The Affordable Care Act expands access to quality primary health care services by investing \$11 billion in the Health Resources and Services Administration's community health center program over the next five years. It also provides \$1.5 billion over the next five years to expand the National Health Service Corps. These investments are essential to advancing environmental justice and reducing health disparities, as these programs provide health care in underserved communities. Under the Affordable Care Act, a multi-billion dollar investment in community-based prevention programs and public health is made through the Prevention and Public Health Fund. For example, over \$100 million in Community Transformation Grants⁴² was made available to states, territories, Tribes and community-based organizations to implement policy, environmental, programmatic and infrastructure changes to address the leading causes of death and associated risk factors, with a special focus on reducing health disparities.
- ◆ **The National Prevention Strategy⁴³**: Called for under the Affordable Care Act and developed by the National Prevention Council, the National Prevention Strategy is a comprehensive plan to increase the number of Americans who are healthy at every stage of life. Its four Strategic Directions include (1) empowering people, (2) creating healthy and safe community environments, (3) eliminating health disparities and (4) clinical and community preventive services. The Strategy aims to promote health and prevent injury and disease among populations at greatest risk, which include communities with environmental justice concerns. The Strategy advocates for multi-sector partnerships with communities and state, local, territorial and tribal governments, which is a guiding principle of environmental justice.
- ◆ **Healthy People 2020⁴⁴**: The Healthy People 2020 initiative provides science-based, 10-year national objectives for improving the health of all Americans. The launch of Healthy People 2020 represents a renewed focus on the promotion of health and the elimination of health disparities that takes a determinants of health approach. It

features a new overarching goal to create social and physical environments that promote good health for all, underscoring the connection between health and the conditions where people live, learn, work and play. The objectives of Healthy People 2020 elevate environmental justice by expanding its focus beyond the elimination of health disparities to the achievement of health equity. Through the Healthy People 2020 Community Innovations Project, community-based organizations received awards of \$5000 to \$10,000 to address one or more Healthy People 2020 topic areas, with a special emphasis on environmental justice, healthy equity and healthy behaviors across all life stages. Eleven projects have a focus related to environmental justice. The projects began in December 2011 and will end in May 2012.

- ◆ **HHS Action Plan to Reduce Racial and Ethnic Health Disparities⁴⁵**: Together with the National Partnership for Action Stakeholder Strategy for Achieving Health Equity, the HHS Disparities Action Plan provides a coordinated roadmap for a nation free of disparities in health and health care. It identifies and promotes integrated approaches, evidence-based programs and best practices to reduce health disparities. The HHS Disparities Action Plan and the 2012 HHS EJ Strategy are integrally linked to implement actions to promote and protect the health of minority populations with disproportionately high and adverse environmental exposures.
- ◆ **Let's Move!⁴⁶**: Launched by First Lady Michelle Obama, *Let's Move!* is a comprehensive initiative dedicated to solving the problem of childhood obesity within a generation. The *Let's Move!* initiative focuses on five pillars: (1) creating a healthy start for children, (2) empowering parents and caregivers, (3) providing healthy food in schools, (4) improving access to healthy, affordable foods and (5) increasing physical activity. These pillars address challenges that communities with environmental justice concerns face, such as limited access to healthy, affordable foods and fewer opportunities for outdoor play. HHS is an active partner in *Let's Move!* and has also joined with the Treasury Department and the Department of Agriculture in the Healthy Food Financing Initiative to expand the availability of nutritious food in underserved urban and rural communities across the country, including developing and equipping grocery stores, small retailers, corner stores and farmers markets to sell healthy food.

- ◆ **America's Great Outdoors Initiative**⁴⁷: Launched by President Obama, the America's Great Outdoors Initiative promotes a 21st Century conservation and recreation agenda. With a vision statement that includes that "all children, regardless of where they live, have access to clean, safe outdoor places within a short walk of their homes or schools, where they can play, dream, discover, and recreate", the America's Great Outdoors Initiative has an important role in promoting access to safe outdoor play and recreation in minority and low-income communities that disproportionately lack access to such spaces.
- ◆ **HHS Strategic Sustainability Performance Plan**⁴⁸: The HHS Strategic Sustainability Performance Plan, developed in accordance with Executive Order 13514⁴⁹, establishes an integrated strategy to move the Department towards sustainability. To do this, the Executive Order requires all Federal agencies to minimize the environmental impacts of their activities and to strengthen the vitality and livability of the communities in which Federal facilities are located. It also requires agencies to achieve these goals and support their respective missions by prioritizing actions based on a full accounting of both economic and social benefits and costs. An important part of this full accounting is minimizing negative impacts on the health and well-being of vulnerable communities and populations, including communities with disproportionately high and adverse environmental exposures.
- ◆ **National Health Security Strategy**⁵⁰: The National Health Security Strategy (NHSS) is the first comprehensive strategy focusing specifically on the Nation's goals of protecting people's health in the case of an emergency. The purpose of the NHSS is to guide the Nation's efforts to minimize the risks associated with a wide range of potential large-scale incidents that put the health and well-being of the Nation's people at risk, whether at home, in the workplace or any other setting. Its two goals are to build community resilience and strengthen and sustain health and emergency response systems. In this context, national health security is achieved when the Nation and its people are prepared for, protected from, respond effectively to, and able to recover from incidents with potentially negative health consequences. National health security is a shared responsibility among virtually all segments of society and resilient communities. The NHSS advances environmental justice goals by seeking to eliminate health disparities in the face of incidents that threaten public health and by supporting and complementing the principles of environmental justice.

- ◆ **Deepwater Horizon/Gulf Coast Recovery:** The Gulf Coast Ecosystem Restoration Task Force was created by President Obama through Executive Order 13554 on October 5, 2010. Led by U.S. EPA Administrator Lisa P. Jackson, the Task Force is charged with the development of a restoration strategy that proposes a Gulf Coast ecosystem restoration agenda. HHS remains committed to monitoring and addressing the potential long-term health impacts of oil and dispersants, to ensuring the safety of seafood from areas affected by the oil disaster and to continue acting in an advisory capacity to the Task Force. Examples of ongoing HHS activities include the NIEHS GuLF STUDY, the largest study ever conducted on the possible health effects from an oil spill among workers who participated in clean-up activities. NIEHS is also leading a trans-NIH effort to provide \$25 million in research funding over five years to four Gulf area universities that have partnered with community groups to evaluate health concerns identified by impacted communities. SAMHSA developed public education messages to raise awareness in recognizing signs and symptoms of behavioral health issues and created the Oil Spill Distress Hotline, a toll-free helpline that links callers to the closest behavioral healthcare services in their area. CDC and ATSDR have provided health information fact sheets to health care providers and concerned citizens and are responding to individual health questions and concerns on a case-by-case basis as requested.

STRATEGIC ELEMENTS

I. Policy Development and Dissemination

Effective implementation of policies, such as legislation, regulation, executive orders, policy directives and program guidance can serve as key tools to advance environmental justice. In particular, community residents and advocates have frequently cited Title VI of the Civil Rights Act of 1964 and the National Environmental Policy Act as important levers for achieving environmental justice, in addition to Executive Order 12898.^{51, 52} Signed in 2009, Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, represents a new opportunity for environmental justice through its focus on sustainability. All of these directives govern certain actions undertaken by the Federal government and/or entities that receive Federal funding.

Furthermore, the Memorandum of Understanding on Environmental Justice and Executive Order 12898, signed in August 2011 by HHS and 16 other Federal departments and agencies, outlines initial areas of focus for Federal environmental justice activities. These areas of focus include Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act and climate change. HHS can also develop and disseminate policy guidance for specific HHS programs and activities, such as its grant programs.

Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 (“Title VI”) and its implementing regulations at 45 C.F.R. Part 80 serve as tools to assist in the enforcement of environmental justice efforts. Title VI states that “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

HHS has separate responsibilities under Title VI and Executive Order 12898. At HHS, the Office for Civil Rights (OCR) is charged with Title VI enforcement and ensuring that Federal money for health care and social service programs is not used to support programs or activities that discriminate on the basis of race, color or national origin. Where Title VI provides enforceable rights for aggrieved individuals, Executive Order 12898 directs Federal agency action towards achieving environmental justice “by identifying and addressing, as appropriate,

disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations...”²⁰ without providing individual rights or remedies. Therefore, OCR’s Title VI enforcement program is allied with Executive Order 12898, and is an essential component of HHS’s efforts in achieving equitable health outcomes for all.

National Environmental Policy Act

Enacted in 1970, the National Environmental Policy Act (NEPA) sets forth requirements to ensure that environmental factors are considered in Federal agency decision-making.⁵³ NEPA establishes procedural requirements for all Federal agencies in preparing Environmental Assessments (EAs) and Environmental Impact Statements (EISs). EAs and EISs contain statements of the environmental effects of proposed Federal agency actions. Within HHS, many EAs and EISs pertain to proposed decisions concerning facilities, particularly construction or repurposing of facilities. However, other actions are also evaluated for their environmental impact. For example, the Food and Drug Administration considers the environmental impacts (use and disposal) resulting from the Federal action of approving a drug or food/feed additive application.

HHS consideration of environmental justice within the NEPA process can occur in various ways, including:

- Ensuring that NEPA reviews consider the health and socio-economic effects of the proposed action on minority and low-income populations and Indian Tribes;
- Addressing significant and adverse environmental effects of HHS actions on communities with disproportionately high and adverse environmental exposures (1) when identifying mitigation measures as part of an environmental assessment, (2) when making a finding of no significant impact and (3) when developing an environmental impact statement or a record of decision; and
- Providing opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of public meetings, crucial documents and notices.

Federal agencies including HHS are required to periodically update their NEPA policies. After the issuance of Executive Order 12898, the White House Council on Environmental Quality issued guidance in support of identifying and addressing environmental justice concerns in the NEPA process.⁵⁴

Sustainability and Executive Order 13514: Federal Leadership in Environmental, Energy, and Economic Performance

Sustainability has been defined as “the enduring prosperity of all living things.”⁵⁴ By this measure, sustainability is directly linked to the health of humans, the health of the environment and the health of economic systems that support and promote our well-being. Executive Order 13514, signed on October 5, 2009, establishes an integrated strategy towards sustainability in the Federal government and makes reduction of greenhouse gas emissions (GHG) a priority for Federal agencies. The Executive Order requires Federal agencies to reduce GHG emissions caused by their activities and sets goals in other areas of environmental stewardship, such as efficient use of water and reduction of waste. As called for by Executive Order, HHS developed a Strategic Sustainability Performance Plan⁵⁵ that is updated annually.

Through the Performance Plan, HHS will ensure that its actions promote health and well-being and do not add to the burden of illness borne by any community or population, including minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Strategies to accomplish this goal include (1) reducing greenhouse gas emissions through technological, programmatic and behavioral change, (2) decreasing the amount of mercury released into the air from combustion of fossil fuels and (3) reducing other sources of air pollution that are associated with negative health effects.

Other strategies HHS will employ include reducing HHS consumption of resources and responsibly managing our waste, actions that can reduce the amount of toxins that enter water sources and food chains. Reuse and recycling efforts reduce harmful emissions and lessen the amount of land devoted to landfills and raw material extraction. Reduction or elimination of toxic substances in materials and services that HHS uses reduces exposures in communities that produce them and among those exposed to them throughout their lifecycle.

Climate Change Directives

A number of Federal initiatives call for increased awareness of and preparation for the impacts of climate change, including Executive Order 13514 and the recommendations of the Interagency Climate Change Adaptation Task Force.⁵⁶ HHS can improve the resiliency of vulnerable individuals and marginalized communities, through increased understanding of the human health impacts of climate change and preparedness planning at the state and local levels. Health outcomes that are sensitive to climate change include asthma, cardiovascular disease, stroke, heat-related illnesses and deaths, and mental and stress-related disorders.³¹ Populations that are most vulnerable to the effects of climate change include impoverished populations, women, children, racial and ethnic minorities, immigrants, the frail elderly, persons with disabilities and refugees.^{31, 57, 58} Climate change adaptation and mitigation strategies^c should be tailored to the needs of vulnerable communities and populations and not cause adverse impacts on these populations. HHS programs provide services to individuals in these populations, many of which have disproportionate health burdens.

Through policy development and dissemination initiatives, HHS will engage in actions related to Title VI, the National Environmental Policy Act, sustainability, climate change and opportunities to advance health and environmental justice in HHS programs and policies. With regard to climate change and sustainability, multidimensional actions will be undertaken, including research, surveillance, education, services and policy.

^cClimate change adaptation refers to actions being taken to lessen the impact on health and the environment due to changes that cannot be prevented through mitigation. Climate change mitigation refers to actions being taken to reduce greenhouse gas emissions and to enhance the sinks that trap or remove carbon from the atmosphere to reduce the extent of global climate change. A Human Health Perspective On Climate Change: A Report Outlining the Research Needs on the Human Health Effects of Climate Change. 2010

GOALS
(1) Strengthen the application of health and environmental statutes and policies in minority and low-income populations and Indian Tribes.
(2) Identify and address, as appropriate, human health or environmental effects of HHS programs, policies and activities on minority and low-income populations and Indian Tribes.
(3) Support and advance a “health in all policies” ⁵⁹ approach that protects and promotes the health and well-being of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.

Strategies and Actions

- A. Integrate environmental justice principles and strategies into the implementation of key statutes and policies that may impact minority and low-income populations and Indian Tribes (e.g., Title VI of the Civil Rights Act of 1964, the National Environmental Policy Act and Executive Order 13514).

Action A.1 Incorporate, where feasible and appropriate, environmental justice in award criteria of HHS grants and other funding opportunities. Lead: HHS Environmental Justice Working Group

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Develop model language for award criteria to be included in relevant HHS grants 	Draft model language	May 2012
<ul style="list-style-type: none"> Identify those HHS programs related to environmental justice 	List of HHS programs that award funds to address environmental justice issues	Jun 2012
<ul style="list-style-type: none"> Update HHS program compendium to reflect the programs for which environmental justice should be incorporated in award criteria 	Compendium of programs that include environmental justice in award criteria	Oct 2012

Action A.2 Update existing public information materials on Title VI to include information and resources on environmental justice. Update the HHS Office for Civil Rights website, adding a special topic area on environmental justice and information for minority and low-income populations and Indian Tribes. Lead: HHS Office for Civil Rights

Implementation Steps	Product or outcome	Completion date
<i>Public Information Materials</i>		
<ul style="list-style-type: none"> • Identify environmental justice resources that relate to Title VI • Craft environmental justice language, as appropriate, to be included in existing OCR public information materials • Make updated materials and environmental justice resources available to the public via the HHS OCR web site 	Updated OCR Title VI public information materials that include environmental justice	Sep 2012
<i>EJ-specific OCR website</i>		
<ul style="list-style-type: none"> • Using resources previously identified, craft environmental justice language and list of resources to be included on EJ-specific website • Upload content to newly-created page 	New page on OCR website that includes information and resources on Title VI and environmental justice	Sep 2012

Action A.3 Conduct outreach events to educate local communities on the purpose and functions of the HHS Office for Civil Rights and to solicit public input on how the HHS Office for Civil Rights can best serve local communities. Outreach event locations will include communities with minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Information and resources on Title VI and environmental justice will be shared during the outreach events. Lead: HHS Office for Civil Rights

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify appropriate communities for presentations on OCR resources on Title VI and environmental justice • Conduct presentations and share information on environmental justice with attendees • Compile community feedback received during and following outreach events to inform future OCR outreach strategies and public education materials 	Multiple OCR outreach events to be held in locations that include communities with minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures	Sep 2012

Action A.4 Update the HHS NEPA Policy (HHS General Administration Manual 30) to incorporate relevant environmental justice guidance and the principles of environmental justice. HHS will consult with the Council on Environmental Quality and HHS Operating Divisions, review and compare NEPA policy documents from other agencies, assess overall HHS NEPA compliance and update categorical exclusions and relevant procedures. Lead: ASA; Participating: CDC, FDA, HRSA, IHS, NIH

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Conduct comprehensive review of HHS NEPA policy • Review and compare HHS NEPA procedures with procedures followed by other federal agencies 		
<ul style="list-style-type: none"> • Incorporate CEQ guidance and other relevant guidance and procedures on EJ into draft HHS NEPA Policy 	Revised draft of HHS NEPA policy	Aug 2012
<ul style="list-style-type: none"> • Complete HHS review and publish revised NEPA policy incorporating relevant environmental justice principles and guidance 	Publication of revised NEPA policy	Jun 2013

- B. Incorporate environmental justice principles and strategies into consideration of emerging issues that may disproportionately impact minority and low-income populations and Indian Tribes (e.g., climate change and sustainability).

Action B.1 Integrate environmental justice principles and the 2012 HHS Environmental Justice Strategy actions into the HHS Strategic Sustainability Performance Plan (SSPP) to prevent and reduce adverse impacts on vulnerable populations, including minority and low-income populations and Indian Tribes. Lead: ASA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Review and compare HHS EJ Strategy and HHS SSPP to identify EJ principles and actions appropriate for inclusion in HHS SSPP and update 2012 HHS SSPP submission with appropriate, EJ principles and actions. 	Integration of EJ concepts into SSPP	Sep 2012

Action B.2 Conduct a vulnerability assessment of HHS's programs to climate change and develop an adaptation strategy, as required by Executive Order 13514. The vulnerability assessment and adaptation strategy will enable HHS to develop actions to build resilience of the Department to climate change risks and therefore minimize adverse impacts on vulnerable populations, including minority and low-income populations and Indian Tribes. Lead: ASA; Participating: NIH (NIEHS), CDC (NCEH), ACF

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Survey HHS Operating and Staff Divisions on their current climate adaptation strategies and plans • Conduct an in-depth assessment of selected Operating and Staff Divisions to determine how their climate adaptation plans address issues of population vulnerability and equity • Recommend strategy to update appropriate HHS plans and programs to minimize adverse impacts from climate change risks on vulnerable populations 	Report on potential climate vulnerabilities and current HHS Operating and Staff Divisions strategies	Jun 2012

Action B.3 Promote the consideration of factors such as health, environment, distributive impacts and equity in the development of Federal agencies' policies and program planning. Lead: ASA, ASPE; Participating: HHS Environmental Justice Working Group

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Improve the quality of economic analyses that consider health, environment, distributive impacts and equity to inform decision-making. • Raise awareness about the range of methodological tools to inform decision-making. 	Options for better quantifying the economic impact of HHS decision-making, including impacts on minority and low-income populations and Indian Tribes.	Aug 2013

Action B.4 Advance research that contributes to a better understanding of the relationship between health, sustainability, and environmental quality to support environmental justice efforts and initiatives. Lead: NIH (NIEHS)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • NIEHS, through its Partnerships for Environmental Public Health Program, will continue to support community-based participatory research on critical exposures related to sustainability and environmental quality, including air emissions from fossil fuel combustion, water contaminants from resource extraction processes, and other exposures. 	Awarded grants	ongoing

Action B.5 Support research on potential health impacts of climate change, including the impacts of climate mitigation and adaptation measures, that includes methodologies such as community-based participatory research and incorporates environmental justice principles. Lead: NIH (NIEHS)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> NIEHS will continue to lead an NIH-wide funding opportunity on "Assessing and Modeling Population Vulnerability to Climate Change" which addresses these research questions. 	Awarded grants	ongoing

Action B.6 Produce guidance for state, local, territorial, and tribal health departments on integrating extreme weather and public health surveillance systems with special emphasis on communities most vulnerable to changes in extreme weather patterns, including minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Lead: CDC (NCEH)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Collaborate with NOAA to increase the availability, and usefulness to health departments of information on climate, weather, and coastal ecosystem resources for addressing public health issues Host a climate and health symposium to highlight the collaboration of HHS with NOAA on climate and health issues Work closely with CDC-funded Environmental Public Health Tracking states to develop indicators of weather and climate related mortality 	Climate Portal within the Environmental Public Health Tracking Network	Sep 2017

Action B.7 Develop guidance on identifying the spatial and temporal extent of climate and extreme weather vulnerability and risk within communities containing existing environmental inequalities. Lead: CDC (NCEH)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Create, pilot test, and disseminate a guidebook on the CDC's Building Resilience Against Climate Effect (BRACE) framework for use by state and local public health agencies 	<ul style="list-style-type: none"> BRACE Guidebook Training sessions on using the BRACE framework 	Sep 2013

- Conduct webinars for state and local public health agencies on implementing the BRACE framework

Action B.8 Develop guidance on how state, local, territorial, and tribal public health departments can adopt policies and programs that minimize climate-related health impacts among vulnerable populations, including minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Lead: CDC (NCEH)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Develop, pilot, and disseminate a guide about incorporating climate change-related risks for vulnerable populations into Health Impact Assessments (HIA) • Develop and conduct training course for state and local public health agencies and other appropriate groups that conduct HIAs (e.g., universities, public health and related institutes) on the use of this guide 	<ul style="list-style-type: none"> • Guide about incorporating climate change-related risks in Health Impact Assessments • Training courses on use of Guide 	Sep 2013

Action B.9 Build community resilience and sustainable, stronger health and emergency response systems in at-risk populations with disproportionately high and adverse environmental exposures to prevent or reduce emerging health threats and chronic health problems. Strategies and actions undertaken through the implementation of the National Health Security Strategy will support this effort. Participating: ASPR, CDC, other HHS Operating Divisions and Staff Divisions

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Continue to coordinate, integrate, and reassess risk-based approaches for identifying the highest-priority environmental health hazards and preventing their intentional and unintentional release • Support efforts to identify and address disproportionately high and adverse human health or environmental effects experienced by low-income and minority populations 	<ul style="list-style-type: none"> • Better understanding of the disproportionate and adverse health effects caused by environmental factors in at-risk populations • Decreased exposures to environmental 	Ongoing

	health hazards in at-risk populations	
<ul style="list-style-type: none"> • Build partnerships to benefit environmentally distressed communities to ensure prevention and mitigation of environmental and other threats to health through community recovery 	<ul style="list-style-type: none"> • Greater understanding and increased awareness of environmental and other emerging threats • Better mechanisms to prevent and mitigate environmental and other emerging threats • Improved ability to respond and recover from incidents caused by environmental and other emerging threats 	Ongoing
<ul style="list-style-type: none"> • Support preparedness activities for hospitals and health care facilities. Through the ASPR Hospital Preparedness Program, fund grants and cooperative agreements to states, territories, and eligible municipalities to improve surge capacity and enhance community and hospital preparedness for public health emergencies. • Continue to support efforts, including the CDC Public Health Emergency Preparedness cooperative agreements, that help communities respond to all types of public health incidents and build more resilient communities. 	<ul style="list-style-type: none"> • Enhanced community and hospital preparedness for public health emergencies • Enhanced ability of communities to respond to all types of public health incidents and disasters 	Ongoing

Action B.10 Strengthen community partnerships, in particular among vulnerable populations, to organize adaptation measures to prevent health impacts of climate change at the local level. Lead: CDC (NCEH); Participating: ACF, AoA, ASPR, HRSA, IHS, other Operating Divisions and Staff Divisions

Implementation Steps	Product or outcome	Completion date
Develop research and working collaborations with multiple stakeholders including other federal agencies, national laboratories, public health departments, non-government entities and academia in order to expand the understanding of community vulnerability to climate change	Development of decision support tools	Ongoing

- C. Provide consultation and/or partner with other Federal departments, where appropriate and feasible, on environmental policies, programs and initiatives that may impact health and well-being, with particular attention to minority and low-income populations and Indian Tribes.

Action C.1 Collaborate, where appropriate and feasible, with Federal partners on initiatives related to sustainability and healthy settings (e.g. communities, schools, housing and workplaces) to advance a “health in all policies” approach to prevent or reduce negative impacts on minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Lead: OASH; Participating: ASPE, ACF, HHS Environmental Justice Working Group

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Identify non-HHS initiatives related to sustainability and healthy settings for which further collaboration could be feasible 	Compendium of existing and planned initiatives related to sustainability and healthy settings	Aug 2012
<ul style="list-style-type: none"> Increase awareness of program leads identified in the compendium about EJ issues and potential areas of initiatives 		Jun 2013
<ul style="list-style-type: none"> Identify HHS Staff to serve as subject matter experts (SME) or contacts for collaboration with other federal partners 		Ongoing and as necessary, or upon request

II. Education and Training

Education and training are fundamental strategies to achieve environmental justice and build healthy community environments. Through education and training, individuals, families and communities become more informed and empowered to actively address health concerns about harmful environmental exposures. Effective education and training should be comprehensive, targeting not only residents and workers with disproportionately high and adverse environmental exposures, but also health professionals, human services providers, and relevant government officials and employees that develop and implement programs, policies and activities impacting and serving these communities.

The Institute of Medicine (IOM), in its 1999 report *Toward Environmental Justice: Research, Education, and Health Policy Needs*³⁹, described the sentiments of community members the committee met during site visits as “defenseless” and “abandoned” in confronting environmental challenges in their communities. The IOM recognized the importance of education as part of the solution to building a well-informed community. The IOM identified that primary health care providers lack specific training in environmental and occupational medicine. Limited education and training in environmental health and environmental justice is also a challenge in public health professional education. These findings led the IOM to recommend that environmental justice and environmental health should be a focus of educational efforts, specifically by enhancing health professionals’ knowledge and improving the general public’s awareness and understanding of these issues.

Twelve years after the publication of this landmark IOM report, the need for education and training on environmental justice and health remain. Stakeholders and community residents continue to identify the need for access to information on environmental exposures and health effects, the need for community resources to address unmet health and services needs, and the limited availability of providers who understand environmental health concerns. Advocates highlight the importance of public engagement as a fundamental principle of environmental justice. As part of this effort, there are also urgent needs for training government employees and researchers to enhance their skills in community engagement, cultural competency and risk communication. They can then partner with and support communities with disproportionately high and adverse environmental exposures more effectively^{60,61}.

HHS will implement a multi-sectoral approach to education and training in health and environmental justice targeted to the following stakeholders: (1) community and the public, (2) professionals (health care workforce, public health professionals, and human services providers) and (3) the HHS workforce.

GOALS

(1) Educate communities, workers, the general public, health professionals, human services providers and the HHS workforce about environmental justice and environmental health to empower them to actively participate in the development and implementation of programs, policies and activities impacting and serving minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.

(2) Build a health workforce prepared to prevent and diagnose conditions associated with disproportionately high and adverse environmental exposures and to provide high quality, culturally competent care.

- A. Educate the public, especially in communities with minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures, about environmental justice, environmental hazards, and healthy community environments.

A.1 Increase public awareness of and access to information on health and environmental justice by developing an HHS environmental justice website. This website will serve as a point of entry for the public to learn about HHS activities and resources related to environmental justice. Lead: ASH, NIH (NIEHS), ASPA; Participating: ACF, ATSDR, CDC, NIH (NIMHD, NLM)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify and assess existing on-line HHS environmental justice resources for possible use on an HHS EJ website • Develop an HHS EJ Web Site that provides centralized access to useful, existing HHS, other federal government, and private sector EJ on-line information sources • Launch and promote the new HHS EJ website through social media and networking to EJ stakeholders 	HHS Environmental Justice Website	June 2012

Action A.2 Partner with other Federal departments to develop and implement integrated educational outreach and intervention programs for agricultural workers and their families, focused on environmental hazards from the work environment, as well as from unhealthy housing, poor sanitation, food insecurity and other neighborhood environmental issues. Lead: CDC (NIOSH), NIH (NIEHS); Participating: HRSA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify and inventory existing Federal educational outreach programs related to environmental and occupational hazards of agricultural workers and their families. • Convene professionals and community members to determine how educational outreach programs might achieve greater integration and effectiveness • Adopt recommendations for improving educational outreach program integration and effectiveness within the context of available HHS resources 	Improved educational outreach programs and materials for agricultural communities on improving their home, work, and general physical environments.	Oct 2012

Action A.3 Prepare guidance for HHS-funded worker training programs that are designed to assist disadvantaged communities. The guidance will include information on innovative techniques to improve the effectiveness and efficiency of these programs. It will also provide model strategies to address barriers to successful program implementation (e.g., trainees who lack access to transportation or trainees who have low educational attainment). Lead: NIH (NIEHS); Participating: CDC (NIOSH), OMH

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Inventory and review key worker training programs, training materials, and other guidance resources, especially those useful in environmental justice or underserved communities • Identify the most successful models and strategies for addressing barriers to successful outreach to workers in disadvantaged communities 	Training and educational guidance on environmental justice for HHS-funded worker training programs	Aug 2012

- Share these materials and strategies online and via other training venues

B. Enhance health professionals’ and human services providers’ education and training in environmental health and environmental justice.

Action B.1 Expand and promote educational outreach on health and environmental justice, including continuing education programs, to primary health care and behavioral health care providers, other health professionals, public health professionals and the human services workforce. Lead: ATSDR, HRSA; Participating: ACF, CDC (NCEH, NIOSH) , OMH

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Inventory existing professional educational materials in environmental health and environmental justice and create a resource center for curricula and training materials for health professionals. • Explore partnerships with other federal departments, state and local public health agencies, academic institutions, and community-based organizations for educating and training the health care and human services workforces on environmental health and environmental justice • Develop an outreach process to relevant professional societies to promote and support continuing education opportunities for medical and public health providers in environmental health disparities and environmental justice 	Strengthened professional education curricula and programs on environmental justice	Sept 2012

Action B.2 Incorporate environmental justice and environmental and occupational safety and health education in the training curricula of community health workers and Promotores de Salud that is underway as part of the HHS Action Plan to Reduce Racial and Ethnic Health Disparities. Also incorporate this education component into the training curricula of community health representatives within the Indian Health Service

and HRSA, through coordination with OMH. Lead: OMH; Participating: ATSDR, CDC (NIOSH), CMS, IHS, NIH (NIEHS)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Review existing training curriculum for community health workers and Promotores to determine the appropriate length and format of training materials • Inventory existing training programs in environmental justice and occupational health for community health workers and organize by topic, target population, and language • Adapt the curricula for use in training in community health workers • Disseminate curricula and other materials for training community health workers, promotores, and community health representatives within the Indian Health Service 	Training curricula and associated materials for community health workers on environmental justice	July 2012

Action B.3 Increase partnerships with Historically Black Colleges and Universities, Tribal Colleges and Universities, and Hispanic-Serving Institutions. Strengthen collaborations with the academic institutions in the National Institute of Environmental Health Sciences (NIEHS) Partnerships for Environmental Public Health Program, as well as the National Institute for Occupational Safety and Health (NIOSH)-initiated Education and Research Centers. Through these collaborations, promote education and training programs aimed at eliminating disparities in environmental health and occupational safety and health.

Lead: NIH (NIEHS, NIHMD); Participating: ATSDR, CDC (NCEH, NIOSH), HRSA, IHS, OMH

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Hold a workshop with interested parties from other federal departments, state and local public health agencies, academic institutions, and community-based organizations to share and disseminate information on successful academic training and educational programs on environmental justice, health 	Improved academic training programs for health professionals on environmental justice, health disparities, environmental and occupational health	Sep 2012

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- disparities, environmental and occupational health
 - Encourage existing training and education programs to collaborate with the goal of broadening and improving academic training for health professional on environmental justice, health disparities, environmental and occupational health
 - Share information about academic training programs and associated materials via online and other training venues
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C. Increase the knowledge and understanding of health and environmental justice across HHS agencies and among HHS employees.

Action C.1 Develop and implement a training program for HHS employees on the principles and practice of environmental justice, including community engagement. The program will enhance HHS workforce competency on environmental justice and build capacity to work effectively with communities. The program will also improve the effectiveness and efficiency of HHS programs and policies tailored to environmental issues and minority and low-income populations and Indian Tribes. Various mechanisms, such as environmental justice training modules, curricula and webinars, will be used. Lead: ASA, OMH; Participating: ACF, NIH (NIEHS)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Explore the adaptation of existing training resources on environmental justice from other federal agencies and private sector groups for use by HHS for training its employees and contractors • Create, as needed, training resources on environmental health, health disparities, and environmental justice for all HHS employees and contractors • Create an environmental justice awareness training module and webinars and make it available to all HHS employees and contractors through the HHS Learning Portal 	Training module and webinars for HHS employees and contractors on the principles and practice of environmental justice, including community engagement	August 2012

III. Research and Data Collection, Analysis, and Utilization

As early as the 1980s, research and data in the environmental and health sciences provided evidence that minority and low-income populations and Indian Tribes bore disproportionate burdens of exposure to environmental hazards.¹⁹ Mapping, using technology such as geographic information systems (GIS), has been and continues to be one of the leading data collection and analysis tools to plot environmental hazards spatially and then determine the socio-demographics of the potentially affected population in order to assess disproportionate exposure.⁶² Recent studies demonstrate that the disparate distribution of hazardous waste facilities continues to exist.⁶³ Furthermore, minority and low-income populations and Indian Tribes are more likely to live and work in unhealthy environments (e.g., inadequate or unhealthy housing and communities with unhealthy air quality).⁶ Environmental disparities contribute to many health disparities (e.g., low birth weight, infant and adult mortality, asthma, cardiovascular disease and psychosocial stress) between minority and low-income populations and Indian Tribes as compared to the general population.^{17,39}

Current research focuses on assessing environmental exposures through both modeling of exposures and measurement of specific chemicals in residents living adjacent to environmental hazards. This work includes assessments of exposure to multiple hazardous agents and of cumulative exposures over time.^{64,65} Studies have also addressed the relationship between environmental exposures and specific health effects, such as asthma, cancer and chronic lung disease. The clearest relationship between environmental exposures and health is the exposure of children and workers to lead and the presence of elevated lead in their blood.⁶⁶ Many studies have shown the toxic effects of lead on the nervous system, blood and other body systems.

Despite the strong evidence on the health effects of lead exposure, researching and concluding that an environmental exposure causes a specific health effect has proved challenging. Progress has been made over time in data analysis methods, however important limitations persist. A significant limitation is obtaining data that reliably establish a relationship between the environmental exposure and the socio-demographic characteristics of the populations at risk.⁶⁷ Populations that live near environmental hazards are often small and have other risk factors for disease, in part related to their minority and low-income status. These other risk factors may include social, behavioral and economic risk factors for poor health.³⁹ In some cases,

researchers in the field of environmental justice conclude that social factors are integral to understanding the development of disproportionate and adverse environmental exposures and that additional research is needed to better understand the interaction of environmental and social factors in the attainment of environmental justice.¹⁷

In its 1999 report, *Toward Environmental Justice: Research, Education, and Health Policy Needs*, the Institute of Medicine (IOM) noted the need to improve collection and coordination of environmental health information to better link it to specific populations and communities of concern. The IOM recommended that environmental justice research should serve to “improve the science base, involve the affected population, and communicate the findings to all stakeholders.”³⁹ Data collection, essential to understanding environmental hazards and community health status, is an ongoing challenge for communities.⁵⁹

Through the research and data collection, analysis, and utilization strategic element, HHS will strive to address research challenges and data deficiencies related to health and environmental justice in order to contribute to and facilitate an improved understanding of the relationship between exposure to environmental hazards and health effects. This effort will aim to inform programs, policies and interventions to eliminate health disparities associated with preventable environmental factors.

GOALS
(1) Strengthen research and advance data collection on the health and environment of minority and low-income populations and Indian Tribes.
(2) Empower the public by improving access to data and research findings to enable the public to participate meaningfully in HHS efforts to address the risks of adverse environmental exposures.

Strategies and Actions

A. Increase the involvement of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures in research and in data collection and utilization, and communicate findings to stakeholders.

Action A.1 Draft and implement guidance to HHS agencies conducting or funding research in partnership with minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. The guidance will focus on strategies to promote the environmental justice principles of meaningful involvement and timely communication of information to communities and will reflect key statutes such as Title VI of the Civil Rights Act of 1964³⁸ and Section 508 of the Rehabilitation Act of 1973³⁵. Moreover, the guidance should address the following issues, as outlined in Executive Order 12898:

- *In environmental health and health disparities research, include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority and low-income populations, Indian Tribes and workers who may be exposed to substantial environmental hazards;*
- *Identify and analyze, whenever practicable, multiple and cumulative environmental exposures in research on health disparities; and*
- *Provide minority and low-income populations and Indian Tribes the opportunity to comment on the development and design of research strategies. Lead: HHS Environmental Justice Working Group*

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify best practices and effective research designs by reviewing current community-based participatory research programs and outreach strategies used by HHS research agencies • Draft guidance based upon best 	Guidance for HHS agencies on Participatory Research with Environmental Justice Communities	Mar 2013

- practices and model approaches
 - Promote the use of best practices and effective research designs in environmental research that involves minority and low-income populations and American Indian/Alaskan Native Tribes, as appropriate
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Action A.2 Host a Health and Environmental Justice Workshop periodically in conjunction with disproportionately impacted communities. The workshop will (1) present the state of the science in health and environmental justice, (2) explore emerging research areas and existing research and data gaps, (3) solicit public input on research and data needs, and (4) disseminate findings of recent research on health and environmental justice. Lead: HHS Environmental Justice Working Group

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Plan the first workshop, which will focus on the state of the science of health disparities, including environmental justice, • Develop outreach strategy and invite community and other stakeholders • Prepare summary of workshop proceedings and findings for disproportionately impacted communities and other stakeholders and disseminate it to these groups 	<ul style="list-style-type: none"> • EJ Workshops • More informed EJ stakeholders 	First workshop: Oct 2012, Others TBD

Action A.3 Increase public access to information about research and data by expanding the Environmental Justice web pages of the National Library of Medicine's Specialized Information Services to serve as a clearinghouse of basic, clinical, behavioral, health services and health disparities research and to provide access to information resources on health and environmental justice such as databases, funding opportunities, health information, fact sheets and conferences. Lead: NIH (NLM); Participating: OASH, ATSDR, CDC (NCEH, NIOSH), IHS, NIH (NIEHS and other ICs)

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify enhancements for NLM EJ web pages • Conduct cross-walk with EPA to coordinate website content and avoid duplication • Develop marketing and 	<ul style="list-style-type: none"> • Expanded web pages • Increased EJ Stakeholder use of NLM EJ web pages 	Aug 2012

dissemination plan to increase EJ stakeholder use of NLM EJ web pages

B. Identify and characterize environmental and occupational factors that have disproportionately high and adverse human health or environmental effects on minority and low-income populations and Indian Tribes.

Action B.1 Strengthen capacity for research on the health effects of disproportionately high and adverse environmental exposures in minority and low-income populations and Indian Tribes through programs such as (1) the Building Research Infrastructure Capacity and the Centers of Excellence Program at the National Institute on Minority Health and Health Disparities (NIMHD), (2) the Partnerships for Environmental Public Health Program at the National Institute of Environmental Health Sciences (NIEHS), and (3) the Education and Research Centers initiated by the National Institute for Occupational Safety and Health (NIOSH). Participating: NIEHS, NIMHD, NIOSH, IHS, EPA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Compile and share findings from NIMHD-EPA funded research with minority and low-income populations and Indian Tribes and with the environmental research community 	Strengthened research capacity of NIMHD, NIEHS, and NIOSH for addressing environmental justice scientific issues and for identifying complex interactions between natural, built, social and policy environments and health disparities.	Sep 2013 for NIMHD; ongoing for other agencies

C. Bolster the efforts of HHS, state, local, territorial and tribal agencies, as well as non-governmental organizations, to collect, maintain and analyze data on disproportionately high and adverse environmental and occupational exposures and on health effects in minority and low-income populations and Indian Tribes.

Action C.1 Promote inclusion of questions related to industry, occupation and other parameters of the workplace in HHS-supported surveys and other data collection instruments. Promote analysis of data related to occupational safety and health collected from HHS-supported surveys and other data collection instruments. Lead: NIOSH; Participating: NCEH, ASPE, IHS

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Inventory existing HHS-supported 	Improved information on	May 2013

surveys and other data collection instruments for presence of questions on industry and occupation to identify high priority HHS data collections without such questions

- Assess survey and analytic experience with occupational and industrial data collection standards
- Share HHS experience in these enhanced data collection and analysis efforts with state, local, territorial and tribal agencies conducting occupational health research

the relationship of working conditions to health of minority and low-income populations and Indian Tribes

for completion of inventory; others to be determined

Action C.2 Partner with EPA and other Federal departments to review and update community mapping tools and other databases designed to identify minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures and health effects. Through this partnership and in collaboration with impacted communities and other external stakeholders, key environmental and human health indicators for inclusion in these mapping systems will be determined in order to maximize the effectiveness and utility of these databases for communities, governmental agencies, researchers, policymakers and the general public. Lead: CDC (NCEH, NIOSH); Participating: ASPE, IHS, NIH (NIEHS, NIMHD), ONC, EPA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Collaborate with other federal agencies to review existing community mapping tools designed to identify minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures and health effects • Identify opportunities for improving the usefulness and usability of these tools through collaboration with impacted communities and other external stakeholders • Implement identified enhancements and field test with impacted communities and other external 	<p>More effective and useful community mapping tools for identifying minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures and health effects</p>	<p>Ongoing</p>

stakeholders

- Periodically evaluate and update mapping tools to maintain their effectiveness and usefulness

Action C.3 Expand information on health disparities and environmental justice concepts on the National Center for Environmental Health’s (NCEH) National Environmental Public Health Tracking Network and the National Institute for Occupational Safety and Health’s (NIOSH) State–Based Surveillance System to include: (1) additional data and measures to better identify and assess the status of environmental health in minority populations, low-income populations and other vulnerable populations at the local, state and national levels and (2) links to relevant websites and community mapping tools. Lead: CDC (NCEH, NIOSH); Participating: OMH, NIH, IHS, EPA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none">• Establish a joint CDC-EJ working group to review existing EPHTN and NIOSH web sites• Invite stakeholders to participate in review and analysis of usability and usefulness of web sites• Review websites and provide a report to working group members and other EJ stakeholders with recommended enhancements for NCEH’s EPHTN web site and NIOSH’s surveillance web sites to increase their usefulness to stakeholders• Implement identified enhancements, where feasible, and field test with impacted communities and other external stakeholders	Updated and more useful and effective web sites	Ongoing

IV. Services

Health is greatly influenced by the social, economic, policy, built and natural environments. The public's health is at risk when faced with poverty and food insecurity, lack of clean water and air, inadequate or unsafe housing and neighborhood environments, and inadequate health care.⁶⁸ Minority and low-income populations and Indian Tribes have greater exposure to adverse environmental and occupational hazards. For example, people of color make up 56 percent of those living in neighborhoods located near the nation's commercial hazardous waste facilities.⁶² This disproportionate exposure is compounded by the fact that minorities are more likely to have inadequate access to a primary care physician, often receive poorer quality of care and face barriers in seeking preventive and acute care.^{69,70} Such communities often have the most pressing need for health care and social services.⁷¹

Health and human services for minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures should be targeted to meet multiple health and social concerns. Interventions are needed that identify community health needs and link community members to health services and programs. Numerous resources are essential for building community capacity to address environmental health challenges. Assessment tools, appropriate testing for environmental hazards and the extent of human exposures to hazards, technical assistance, access to quality primary and behavioral health care and community-based services are some examples.

Moreover, affected communities should be empowered through active partnership to access, utilize and leverage the resources of government and other institutions.⁷² Tools such as community health assessments (CHA) can be used to identify environmental health issues within a community. Health impact assessments (HIA) can be used to evaluate potential health effects of development projects and land-use decisions.⁷³ CHA and the Community Health Improvement Process help communities prioritize identified health issues, develop action plans and monitor progress. As an emerging field of practice in the United States, the HIA methodology incorporates potential public health impacts into the decision-making process for plans, project, and policies that traditionally fall outside of the public health arena.⁷²

Through the services strategic element, HHS will utilize its resources and collaborations to improve the quality of primary and behavioral health care in minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. HHS will also help build community capacity to identify and address community health needs and economic development.

GOALS
(1) Improve access to and quality of care and services for minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.
(2) Advance the economic potential and social well-being of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.

Strategies and Actions

- A. Increase the capacity of health professionals delivering care and services to minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures to prevent, diagnose and treat medical and behavioral health conditions associated with adverse environmental exposures.

Action A.1 Promote inclusion and use of environmental and occupational exposure history in electronic health records (EHR). Lead: ATSDR, CDC (NIOSH), ONC; Participating: CMS, HRSA, IHS

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Develop electronic versions of the exposure history in-take form for use in EHR 	<ul style="list-style-type: none"> • Electronic form 	2013
<ul style="list-style-type: none"> • Provide health care providers with access to form via web and organized courses 	<ul style="list-style-type: none"> • Form incorporated in EHR 	Ongoing

Action A.2 Promote the availability of specialty resources in environmental health such as the Pediatric Environmental Health Specialty Units (PEHSU) to health care providers for consultation in the care and treatment of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Lead: ATSDR; Participating: HRSA, IHS, SAMHSA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Develop fact sheets and other on-line information about PEHSUs 	<ul style="list-style-type: none"> • Fact sheets on PEHSUs 	2012 and ongoing
<ul style="list-style-type: none"> • Offer workshops that describe PEHSUs 	<ul style="list-style-type: none"> • Workshops and online case study courses on PEHSUs 	

Action A.3 Improve the quality of behavioral health care received by minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures by

- *Raising awareness of health professionals on the impact of natural, built, and social environments and environmental justice on behavioral health on these populations*
- *Facilitating partnerships between national minority behavioral health associations, minority and low-income populations, and Indian Tribes with disproportionately high and adverse environmental exposures, and*
- *Providing technical assistance and resources to health professionals to address trauma and behavioral health issues in these populations through use of SAMHSA’s resources and national centers focusing on trauma Lead: SAMHSA; Participating: ATSDR, CDC, NIH (NIEHS)*

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Identify resources, experts and content on the impacts of natural, built, and social environments on behavioral health • Develop content for informational program for health professionals on the impact of environmental exposures on behavioral health • Identify national minority behavioral health associations and issue invitations to participate in informational program • Conduct informational program and provide follow-up materials to participants, as appropriate 	<ul style="list-style-type: none"> • Informational program for health professionals on the impacts of natural, built, and social environments on behavioral health and on available resources to address these impacts 	2012

B. Improve capacity to identify minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures, as well as the physical and behavioral health conditions and concerns of communities affected by these exposures.

Action B.1 Evaluate the use of health impact assessments^d (HIA) in minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures to achieve risk reduction and reduce health disparities. Lead: OMH, CDC, ATSDR; Participating: ASPE, OASH

^d Though Health Impact Assessment is a generic tool, its foundation has the capability to enhance many environmental justice issues. It provides a framework to systematically approach health, disparities, and vulnerable populations in decision-making processes.

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Continue to conduct CDC's six Healthy Community Design Initiative HIA pilot projects 	<ul style="list-style-type: none"> • HIA training for state, county, and city recipients 	Ongoing
<ul style="list-style-type: none"> • Sponsor a national meeting on HIAs 	<ul style="list-style-type: none"> • National HIA meeting held 	Apr 2012
<ul style="list-style-type: none"> • Evaluate first year of CDC pilot program on use of HIA 	<ul style="list-style-type: none"> • Report on evaluation of first-year CDC pilot program 	Sep 2012
<ul style="list-style-type: none"> • Fund National Research Council report characterizing HIA use in the US and recommending improvements in its use 	<ul style="list-style-type: none"> • Report characterizing HIA use in the US 	Aug 2014
<ul style="list-style-type: none"> • Evaluate CDC pilot programs on use of HIA with a focus on environmental justice 	<ul style="list-style-type: none"> • Report on evaluation of HIA pilot program with EJ focus 	Feb 2015

- C. Provide technical assistance and information resources to minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures in order to empower communities to address identified health and human services needs.

Action C.1 Build community capacity to conduct community health assessments through collaborations with national public health organizations and other Federal agencies and through the development of new tools, or the enhancement of existing tools,^e for identifying minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures and associated health conditions

Lead: CDC, ATSDR; Participating: HRSA, IHS, NIH (NIEHS, NIMHD), SAMHSA

Implementation Steps	Product or outcome	Completion date
Develop or use existing toolkits to assist communities in assessing health status and environmental exposures and building coalitions around identified health issues and adverse exposures	<ul style="list-style-type: none"> • Community mobilization toolkit • Basic environmental health literacy toolkit 	Sep 2012

^e There are a number of existing tools for conducting community health assessments, including MAPP, PATCH, and PACE EH, that could be used or modified for this purpose.

Action C.2 Assess health and human services needs for minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures. Lead: CDC, ATSDR; Participating: ACF, AoA, HRSA, IHS, SAMHSA

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Conduct public health assessments in targeted communities 	<ul style="list-style-type: none"> Completed assessments in specified locations 	Ongoing

Action C.3 Increase outreach to minority populations and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures to raise their awareness of the availability of technical assistance for applying for HHS funding to address their health and human services needs Lead: HRSA, HHS Environmental Justice Working Group

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> Continue cooperative agreements with state Primary Care Associations (PCAs) and National Cooperative Agreements (NCAs) to serve as technical assistance resources to community health centers serving vulnerable populations. Educate appropriate HHS staff and technical assistance providers on EJ issues Identify and provide information to potential grantees about available technical assistance for applying for community health center grants 	<ul style="list-style-type: none"> Continued funding of technical assistance resources Information about available technical assistance provided to potential applicants for community health center grants via webinars and other venues Increased community use of technical assistance for applying for community health center grants 	<p>2012 and ongoing</p> <p>Mar 2015</p>

D. Provide funding opportunities and technical assistance, where appropriate and feasible, to advance the economic potential and social well-being of minority and low-income populations and Indian Tribes with disproportionately high and adverse environmental exposures.

Action D.1 Expand funding opportunities, where appropriate and feasible, to underserved communities for economic development and social services through additional outreach and intra-agency partnerships. Provide outreach to potential applicants who have been underserved by funding in the past and enact policies that

promote funding underserved applicants. Partner within agency programs to allow underserved populations with limited capability to apply for and manage economic development grants, as with the Native Asset Building Initiative. Lead: ACF

Implementation Steps	Product or outcome	Completion date
<ul style="list-style-type: none"> • Fund applicants within the required scoring range for Administration for Native Americans (ANA) grants who have not received ANA funding in the past three years • Share information on funding opportunities for underserved communities using multiple approaches • Support grants, where appropriate and feasible, to underserved communities for economic development and social services through intra-HHS partnerships 		2012 and ongoing

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- ³⁷ Exec. Order No.13175, 65 Fed. Reg. 29003 (Nov. 6, 2000).
- ³⁸ Exec. Order No.13567, 76 Fed. Reg. 15181 (Jun. 13, 2011).
- ³⁹ Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d, et seq.
- ⁴⁰ Institute of Medicine (IOM). *Toward Environmental Justice: Research, Education, and Health Policy Needs*. Washington, DC. The National Academies Press, 1999.
- ⁴¹ Patient Protection and Affordable Care Act of 2010, Pub. L. No. 111-148, 124 Stat.119 (2010).
- ⁴² Centers for Disease Control and Prevention (CDC). “Community Transformation Grants (CTGs).” <http://www.cdc.gov/communitytransformation/>
- ⁴³ National Prevention, Health Promotion and Public Health Council. “National Prevention Strategy.” <http://www.healthcare.gov/prevention/nphpphc/strategy/report.pdf>

⁴⁴U.S. Department of Health and Human Services (HHS).Office of Disease Prevention and Health Promotion, Healthy People 2020. www.healthypeople.gov

⁴⁵U.S. Department of Health and Human Services (HHS), Office of Minority Health.” National Partnership for Action to End Health Disparities.”
<http://www.minorityhealth.hhs.gov/npa/templates/browse.aspx?&lvl=2&lvlid=34>

⁴⁶Let’s Move! “Let’s Move: America’s Move to Raise a Healthier Generation of Kids.”
www.letsmove.gov.

⁴⁷America’s Great Outdoors. “America’s Great Outdoors: A Promise to Future Generations.”
<http://americasgreatoutdoors.gov/>.

⁴⁸ U.S. Department of Health and Human Services (HHS). “2011 Strategic Sustainability Performance Plan.” http://www.hhs.gov/about/sustainability/2011plan_summary.html

⁴⁹ Exec. Order No, 13514, 74 Fed. Reg. 52117 (Oct. 8, 2009).

⁵⁰U.S. Department of Health and Human Services (HHS).Office of the Assistant Secretary for Preparedness and Response. “National Health Security Strategy.”
<http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf>

⁵¹Ross, H.E. Using NEPA in the Fight for Environmental Justice. William & Mary Environmental Law & Policy Review 18(1994): 353-374.

⁵²U.S. Commission on Civil Rights. Not in My Backyard: Executive Order 12898 and Title VI as Tools for Achieving Environmental Justice. Washington, DC: U.S. Commission on Civil Rights. 2003.

⁵³National Environmental Policy Act, 42 U.S.C. Chapter 55, Section 4321.

⁵⁴U.S. Council on Environmental Quality (CEQ). Environmental Justice: Guidance Under the National Environmental Policy Act. Washington, DC: U.S. CEQ. 1997.

⁵⁵U.S Department of Health and Human Services (HHS). 2010 Strategic Sustainability Performance Plan. Washington, DC: U.S. HHS, 2010.

⁵⁶U.S. Council on Environmental Quality, “Interagency Climate Change Adaptation Task Force.”
<http://www.whitehouse.gov/administration/eop/ceq/initiatives/adaptation>

⁵⁷National Wildlife Federation. Facing the Storm: Indian Tribes, Climate-Induced Weather Extremes, and the Future for Indian Country: National Wildlife Federation 2011 Report. Boulder, CO: National Wildlife Federation, 2011.

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- ⁵⁹Stahl, T., Wismar, M., Ollila, E., Lahtinen, E., Leppo, K., editors. *Health in All Policies: Prospects and potentials: European Observatory on Health Systems and Policy; Ministry of Social Affairs and Health, Finland; 2006.*
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- ⁶¹ National Conversation on Public Health and Chemical Exposures. "Addressing Public Health and Chemical Exposures: An Action Agenda." <http://www.nationalconversation.us/docs/national-conversation-document-library/national-conversation-action-agenda.pdf?Status=Master>
- ⁶²Maantay, J. Mapping Environmental Injustices: Pitfalls and Potential of Geographic Information Systems in Assessing Environmental Health and Equity. *Environmental Health Perspectives* 110(2002): 161–171.
- ⁶³Bullard, R.D., Mohai, P., Saha, R., and Wright, B. *Toxic Wastes and Race at Twenty 1987-2007.* The United Church of Christ (2007):1-160.
- ⁶⁴Sexton, K., and Linder, S.H. The Role of Cumulative Risk Assessment in Decisions About Environmental Justice. *International Journal of Environmental Research and Public Health* 7(2010):4037-4049.
- ⁶⁵Su, J.G., Morello-Frosch, R., Jesdale, B.M., Kyle, A.D., Shamasunder, B., and Jerrett, M. An Index for Assessing Demographic Inequalities in Cumulative Environmental Hazards with Application to Los Angeles, California. *Environmental Science Technology* 43(2009):7626–7634.
- ⁶⁶Agency for Toxic Substances and Disease Registry. "Toxicological Profile for Lead." <http://www.atsdr.cdc.gov/ToxProfiles/tp13.pdf>
- ⁶⁷Chakraborty, J., Maantay, J.A., and Brender JD. Disproportionate Proximity to Environmental Health Hazards: Methods, Models, and Measurement. *American Journal of Public Health* (2011):e1-e10.
- ⁶⁸Institute of Medicine (IOM). *The Future of the Public's Health in the 21st Century.* Washington, DC: The National Academies Press, 2003.
- ⁶⁹National Association of Community Health Centers, Inc. "Access Denied: A Look at America's Medically Disenfranchised."

http://www.graham-center.org/PreBuilt/Access_Denied.pdf

⁷⁰Agency for Healthcare Research and Quality (AHRQ). “National Healthcare Disparities Report, 2008.” www.ahrq.gov/qual/measurix.htm

⁷¹U.N Committee on the Elimination of Racial Discrimination. “Unequal Health Outcomes in the United States: Racial and Ethnic Disparities in Health Care Treatment and Access, The Role of Social and Environmental Determinants of Health, and the Responsibility of the State.” <http://www.prrac.org/pdf/CERDhealthEnvironmentReport.pdf>

⁷²Lee, C. Environmental Justice: Building a unified vision of health and the environment. *Environmental Health Perspectives* 110(2002):141–144.

⁷³ Brookings Institute. *Partnering with Communities: Federal Models of Community-Based Programs*. Washington, DC: Brookings Institute, 2010.

Appendix A

HHS Environmental Justice Stakeholder Engagement

HHS participated in and facilitated several events and meetings to seek public input on the 2012 HHS Environmental Justice Strategy. HHS participated in all of the Interagency Working Group on Environmental Justice (EJ IWG) stakeholder listening sessions and served as the Federal agency host for the EJ IWG stakeholder meetings in Boston, Iowa, and Chicago. HHS also hosted an Environmental Justice listening session in Mobile, Alabama, sponsored an Environmental Justice Webinar, and hosted an Environmental Justice Thought Leaders Meeting in Washington, DC.

A list of environmental justice stakeholder meetings that HHS participated in is included in the table below.

Environmental Justice Stakeholder Meetings		
Meeting	Location	Date
American Public Health Association (APHA) Environmental Justice Forum	Denver, CO	November 6, 2010
Institute of Medicine Roundtable	Washington, DC	November 15-16, 2010
White House Forum on Environmental Justice	Washington, DC	December 15, 2010
Alaska Forum on the Environment	Anchorage, AK	February 9, 2011
National Brownfields Conference	Philadelphia, PA	April 3, 2011
State of Environmental Justice in America Conference	Washington, DC	April 28, 2011
Environment, Energy Security, and Sustainability (E2S2) Symposium	New Orleans, LA	May 11, 2011

National Environmental Justice Advisory Council Meeting	Brooklyn, NY	May 12, 2011
New England Asthma Regional Council Meeting	Worcester, MA	May 17, 2011
American Association of State Highway and Transportation Officials	Boston, MA	June 21, 2011
Inter-Tribal Environmental Council Meeting	Tulsa, OK	June 29, 2011
Federal EJ IWG Stakeholder Meeting (Clark Atlanta University)	Atlanta, GA	August 17, 2011
2011 Environmental Justice Conference: One Community-One Environment	Detroit, MI	August 22, 2011
Engaging Communities to Advance Environmental Health Policy	Iowa City, IA	September 8, 2011
Eliminating Health and Safety Disparities at Work	Chicago, IL	September 15, 2011
Working Toward Achieving Environmental Justice Through Scientific Enterprise, Policy Action, and Community Empowerment (APHA Forum)	Washington, DC	November 1, 2011
Community Action for a Renewed Environment (CARE) 2011 Conference	Denver, CO	November 16, 2011

Appendix B

Glossary of Terms

Affordable Care Act – Health reform legislation that was signed into law in March 2010, putting in place comprehensive health insurance reforms to expand access to health insurance and health care, lower health care costs, and enhance the quality of health care for all Americans. *Patient Protection and Affordable Care Act of 2010, Pub.L. No. 111-148, 124 Stat. 119 (2010).*

Built Environment – Human-made (versus natural) resources and infrastructure designed to support human activity, such as buildings, roads, parks, and other amenities. *County Health Rankings - Robert Wood Johnson Foundation, University of Wisconsin Population Health Institute.*
<http://www.countyhealthrankings.org/health-factors/built-environment>

Climate Change Adaptation – Refers to actions being taken to lessen the impact on health and the environment due to changes that cannot be prevented through mitigation. *A Human Health Perspective on Climate Change*
http://www.niehs.nih.gov/health/assets/docs_a_e/climatereport2010.pdf

Climate Change Mitigation – Refers to actions being taken to reduce greenhouse gas emissions and to enhance the sinks that trap or remove carbon from the atmosphere to reduce the extent of global climate change. *A Human Health Perspective on Climate Change*
http://www.niehs.nih.gov/health/assets/docs_a_e/climatereport2010.pdf

Community-Based Participatory Research – An applied collaborative approach that enables community residents to more actively participate in the full spectrum of research (from conception – design – conduct – analysis – interpretation – conclusions – communication of results) with a goal of influencing change in community health, systems, programs or policies. http://obssr.od.nih.gov/scientific_areas/methodology/community_based_participatory_research/index.aspx

Community Engagement – The process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people. It is a powerful vehicle for bringing about environmental and behavioral changes that will improve the health of the community and its members. It often involves partnerships and coalitions that help mobilize resources and influence systems, change relationships among partners, and serve as catalysts for changing policies, programs, and practices. *Principles of Community Engagement, Second Edition*
http://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf

Community Health Assessment – Community health assessment is a call for regularly and systematically collecting, analyzing, and making available information on the health of a community, including statistics on health status, community health needs, epidemiologic and other studies of health problems. Often this can take the form of community needs assessments, which are intended to assist the community in adapting and responding to important health problems and risks. Increasingly, moving beyond problems and deficits toward an analysis of community strengths and resources is becoming recognized as a critical part of understanding a community's health.

Public Health Accreditation Board Acronyms and Glossary of Terms 2011

<http://www.phaboard.org/wp-content/uploads/PHAB-Acronyms-and-Glossary-of-Terms-Version-1.0.pdf>

Cumulative Impacts – The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

CEQ Regulations for Implementing NEPA Part 1508

<http://ceq.hss.doe.gov/nepa/regs/ceq/1508.htm#1508.7>

Cumulative Environmental Exposure – Exposure to one or more chemical, biological, physical, or radiological agents across environmental media (e.g., air, water, soil) from single or multiple sources, over time in one or more locations, that have the potential for deleterious effects to the environment and/or human health.

Council on Environmental Quality, Executive Office of the President. Environmental Justice: Guidance Under the National Environmental Policy Act. Washington, DC: Executive Office of the President; 10 Dec 1997, pages 25-30.

http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf

Disproportionately high and adverse environmental effects – When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

- (a) Whether there is or will be an impact on the natural or physical environment that significantly (as employed by NEPA) and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian Tribes when those impacts are interrelated to impacts on the natural or physical environment; and
- (b) Whether environmental effects are significant (as employed by NEPA) and are or may be having an adverse impact on minority populations, low-income populations, or Indian Tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and

(c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

Council on Environmental Quality, Executive Office of the President. Environmental Justice: Guidance Under the National Environmental Policy Act. Washington, DC: Executive Office of the President; 10 Dec 1997, pages 25-30.

http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf

Disproportionately high and adverse human health effects – When determining whether human health effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

(a) Whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death; and

(b) Whether the risk or rate of hazard exposure by a minority population, low-income population, or Indian tribe to an environmental hazard is significant (as employed by NEPA) and appreciably exceeds or is likely to appreciably exceed the risk or rate to the general population or other appropriate comparison group; and

(c) Whether health effects occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.

Council on Environmental Quality, Executive Office of the President. Environmental Justice: Guidance Under the National Environmental Policy Act. Washington, DC: Executive Office of the President; 10 Dec 1997, pages 25-30.

http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf

Environmental Assessment – (a) A concise public document for which a Federal agency is responsible that serves to (1) briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact (FONSI), (2) aid an agency's compliance with the National Environmental Policy Act when no EIS is necessary and (3) facilitate preparation of an EIS when one is necessary. (b) Includes brief discussions of the need for the proposal, of alternatives as required by section 102(2)(3), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

CEQ Regulations for Implementing NEPA Part 1508

<http://ceq.hss.doe.gov/Nepa/regs/ceq/1508.htm#1508.9>

Environmental Exposure – Contact with a substance by swallowing, breathing, or touching the skin or eyes. Exposure may be short-term [acute exposure], of intermediate duration, or long-term [chronic exposure].

Agency for Toxic Substances and Disease Registry Glossary of Terms

<http://www.atsdr.cdc.gov/glossary.html>

Environmental Hazard – Situations or materials that pose a threat to human health and safety in the built or natural environment, as well as to the health and safety of other animals and plants, and to the proper functioning of an ecosystem, habitat, or other natural resource.

Based on the definition of “Environmental Public Health Hazard” in Public Health Accreditation Board Acronyms and Glossary of Terms Version 1.0, Approved September 2011.

<http://www.phaboard.org/wp-content/uploads/PHAB-Acronyms-and-Glossary-of-Terms-Version-1.0.pdf>

Environmental Health — Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviors. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments. This definition excludes behavior not related to environment, as well as behavior related to the social and cultural environment, and genetics.

World Health Organization – Environmental Health

http://www.who.int/topics/environmental_health/en/

Environmental Impact Statement (EIS) – An EIS is a detailed analysis that serves to insure that the policies and goals defined in the National Environmental Policy Act (NEPA) are infused into the ongoing programs and actions of the federal agency. EISs are generally prepared for projects that the proposing agency views as having significant prospective environmental impacts. The EIS should provide a discussion of significant environmental impacts and reasonable alternatives (including a No Action alternative) which would avoid or minimize adverse impacts or enhance the quality of the human environment. The formal decision document resulting from a completed EIS is termed a “Record of Decision” (ROD).

<http://www.epa.gov/reg3esd1/nepa/eis.htm#ea>

Environmental Justice – The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

<http://www.epa.gov/environmentaljustice/>

Environmental Stressor – Physical, chemical, or biological entities that can induce adverse effects on ecosystems or human health.

U.S. Environmental Protection Agency Terms of Environment: Glossary, Abbreviations and Acronyms

<http://www.epa.gov/OCEPaterms/sterms.html>

Executive Order 12898 – Executive Order entitled *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (1994), requiring each Federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations in the United States

and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands. <http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf>

Executive Order 13514 – Executive Order entitled *Federal Leadership in Environmental, Energy, and Economic Performance* (2009), establishing an integrated strategy towards sustainability in the Federal government and making reduction of greenhouse gas emissions a priority for Federal agencies. The Executive Order requires all Federal agencies to minimize the environmental impacts of their activities and to strengthen the vitality and livability of the communities in which Federal facilities are located.

http://www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf

Fair Treatment – No group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs or policies.

Meaningful Involvement and Fair Treatment by Tribal Environmental Regulatory Programs: A Report of the National Environmental Justice Advisory Council (2004)

<http://www.epa.gov/environmentaljustice/resources/publications/nejac/ips-final-report.pdf>

Health Disparities – A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.

Healthy People <http://www.healthypeople.gov/2020/about/DisparitiesAbout.aspx>

Health Equity – Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.

Healthy People <http://www.healthypeople.gov/2020/about/DisparitiesAbout.aspx>

Health Impact Assessment (HIA) – HIA is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.

Institute of Medicine, Improving Health in the United States: The Role of Health Impact Assessment (2011)

http://www.nap.edu/catalog.php?record_id=13229

Healthy People — Initiative that provides science-based, 10-year national objectives for improving the health of all Americans. www.healthypeople.gov

HHS Action Plan to Reduce Racial and Ethnic Health Disparities — The HHS Action Plan to Reduce Racial and Ethnic Health Disparities provides a coordinated roadmap for a nation free of disparities in health and healthcare. It identifies and promotes integrated approaches, evidence-based programs, and best practices to reduce health disparities. <http://www.minorityhealth.hhs.gov/>

HHS Strategic Sustainability Performance Plan (SSPP) — The HHS Strategic Sustainability Performance Plan, established under Executive Order 13514, affirms that sustainability is integral to the HHS mission, to protect the health of all Americans and provide essential human services, especially for those who are least able to help themselves. Sustainability has been defined as “the enduring prosperity of all living things” and by this measure, is directly linked to the health of humans, the health of the environment, and the health of economic systems that support and promote our well-being. This linkage of human health, environmental health and economic health is referred to as the triple health bottom line and is integral to HHS’s mission and the sustainability mandates of Executive Order (EO) 13514. The HHS SSPP establishes an integrated strategy to move HHS towards sustainability. http://www.hhs.gov/about/sustainability/2011plan_summary.html

Meaningful Involvement — (1) Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public contribution can influence the regulatory agency’s decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected.

Meaningful Involvement and Fair Treatment by Tribal Environmental Regulatory Programs: A Report of the National Environmental Justice Advisory Council (2004)

<http://www.epa.gov/environmentaljustice/resources/publications/nejac/ips-final-report.pdf>

Memorandum of Understanding on Environmental Justice and Executive Order 12898 — Memorandum of Understanding signed by 17 Federal agencies and offices in 2011 with the following purposes: (a) to declare the continued importance of identifying and addressing environmental justice considerations in agency programs, policies, and activities as provided in Executive Order 12898, including as to agencies not already covered by the Order, (b) to renew the process under Executive Order 12898 for agencies to provide environmental justice strategies and implementation progress reports, (c) to establish structures and procedures that ensure that the Interagency Working Group operates effectively and efficiently and (d) to identify particular areas of focus to be included in agency environmental justice efforts. <http://www.epa.gov/compliance/ej/resources/publications/interagency/ej-mou-2011-08.pdf>

Multiple Environmental Exposure – Exposure to any combination of two or more chemical, biological, physical or radiological agents (or two or more agents from two or more of these categories) from single or multiple sources that have the potential for deleterious effects to the environment and/or human health.

Council on Environmental Quality, Executive Office of the President. Environmental Justice: Guidance Under the National Environmental Policy Act. Washington, DC: Executive Office of the President; 10 Dec 1997, pages 25-30.

http://www.epa.gov/compliance/ej/resources/policy/ej_guidance_nepa_ceq1297.pdf

National Environmental Policy Act (NEPA) – An environmental law enacted in 1970 that requires Federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. *U.S. Environmental Protection Agency National Environmental Policy Act* <http://www.epa.gov/compliance/nepa/index.html>

NEPA was one of the first laws ever written that establishes the broad national framework for protecting our environment. NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other federal activities are proposed.

U.S. Environmental Protection Agency Laws and Regulations - Summary of the National Environmental Policy Act

<http://www.epa.gov/lawsregs/laws/nepa.html>

National Health Security Strategy (NHSS) – The NHSS is the first comprehensive strategy focusing specifically on the Nation’s goals of protecting people’s health in the case of an emergency. The purpose of the NHSS is to guide the Nation’s efforts to minimize the risks associated with a wide range of potential large-scale incidents that put the health and well-being of the Nation’s people at risk, whether at home, in the workplace, or in any other setting. National health security is a state in which the Nation and its people are prepared for, protected from, and resilient in the face of health threats or incidents with potentially negative health consequences.

<http://www.phe.gov/preparedness/planning/authority/nhss/strategy/documents/nhss-final.pdf>

National Prevention Strategy – The National Prevention Strategy, called for in the Affordable Care Act, is a comprehensive plan to increase the number of Americans who are healthy at every stage of life. It aims to guide our nation in the most effective and achievable means for improving health and well-being. The Strategy prioritizes prevention by integrating recommendations and actions across multiple settings to improve health and save lives.

<http://www.healthcare.gov/center/councils/nphpphc/strategy/report.pdf>

Natural Environment – Components of the environment that includes plants, atmosphere, weather, and topography.

The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020 Phase I Report Recommendations for the Framework and Format of Healthy People 2020 (2008)

<http://healthypeople.gov/2020/about/advisory/PhaseI.pdf>

Occupational Safety and Health – All aspects of workers' health, including primary prevention of occupational hazards, protection and promotion of health at work, employment conditions, and a better response from health systems to workers' health.

World Health Organization Worker's Health: Global Plan of Action (Sixtieth World Health Assembly)

http://www.who.int/occupational_health/WHO_health_assembly_en_web.pdf

Physical Environment – Includes the natural environment (i.e., plants, atmosphere, weather, and topography) and the built environment (i.e., buildings, spaces, transportation systems, and products that are created or modified by people). Physical environments can consist of particular individual or institutional settings, such as homes, worksites, schools, health care settings, or recreational settings. Surrounding neighborhoods and related community areas where individuals live, work, travel, play, and conduct their other daily activities are elements of the physical environment.

The Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020 Phase I Report Recommendations for the Framework and Format of Healthy People 2020 (2008)

<http://healthypeople.gov/2020/about/advisory/PhaseI.pdf>

Public Health Assessment -- The evaluation of data and information on the release of hazardous substances into the environment in order to assess any [past], current, or future impact on public health, develop health advisories or other recommendations, and identify studies or actions needed to evaluate and mitigate or prevent human health effects".

42 Code of Federal Regulations, Part 90, published in 55 Federal Register 5136, February 13, 1990.

Racial/Ethnic Minority – 1) The term racial and ethnic minority group means American Indians (including Alaskan Natives, Eskimos, and Aleuts); Asian Americans; Native Hawaiians and other Pacific Islanders; Blacks; and Hispanics. 2) The term Hispanic means individuals whose origin is Mexican, Puerto Rican, Cuban, Central or South American, or any other Spanish-speaking country.

Section 1707(g) of the Public Health Service Act (42 USC § 300u-6)

Social Determinants of Health — The conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are themselves influenced by policy choices.

World Health Organization – Social Determinants of Health
http://www.who.int/social_determinants/en/

Social Environment — Includes interactions with family, friends, coworkers, and others in the community, as well as societal attitudes, norms, and expectations. It encompasses social relationships and policies within settings such as schools, neighborhoods, workplaces, businesses, places of worship, health care settings, recreation facilities, and other public places. It includes the social aspects of health-related behaviors (e.g., tobacco use, substance use, physical activity) in the community. It also encompasses social institutions, such as law enforcement and governmental as well as non-governmental organizations. Economic policy is one important component of the social environment.

The Secretary’s Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2020 Phase I Report Recommendations for the Framework and Format of Healthy People 2020 (2008)
<http://healthypeople.gov/2020/about/advisory/PhaseI.pdf>

Sustainability – The enduring prosperity of all living things.
American Institute of Architects
<http://info.aia.org/toolkit2030/advocacy/aia.html>

Title VI of the Civil Rights Act of 1964 – Federal law that states that no person in the United States shall on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance.
42 U.S.C §§ 2000d, et seq.

Vulnerable Populations – Vulnerable populations include the uninsured, the poor, the elderly, children, those living with mental or physical disabilities, racial and ethnic minorities, and the terminally ill. The vulnerability that these groups experience usually can be attributed to one or some combination of three factors: economic status or geographic location; health, functional, or developmental status; or ability to communicate.
President’s Advisory Commission on Consumer Protection and Quality in the Health Care Industry Quality First: Better Health Care for All Americans Report (2008)
<http://www.hcqualitycommission.gov/>

Appendix C

Acronyms

ACF	Administration for Children and Families
AoA	Administration on Aging
ANA	Administration for Native Americans
ASA	Assistant Secretary for Administration
ASPA	Assistant Secretary for Public Affairs
ASPE	Assistant Secretary for Planning and Evaluation
ASPR	Assistant Secretary for Preparedness and Response
ATSDR	Agency for Toxic Substances and Disease Registry
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare and Medicaid Services
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
FDA	Food and Drug Administration
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration
IC	NIH Institutes and Centers
IHS	Indian Health Service
NEPA	National Environmental Policy Act
NCEH	National Center for Environmental Health
NCHS	National Center for Health Statistics
NIEHS	National Institute of Environmental Health Sciences
NIH	National Institutes of Health
NIMHD	National Institute on Minority Health and Health Disparities
NIOSH	National Institute for Occupational Safety and Health
NLM	National Library of Medicine
OASH	Office of the Assistant Secretary for Health
OCR	Office for Civil Rights
OMH	Office of Minority Health
ONC	Office of the National Coordinator for Health Information Technology
SAMHSA	Substance Abuse and Mental Health Services Administration

Appendix D

U.S. Department of Health and Human Services Organizational Chart

