

Chapter 3

Strategic Goal 2:

Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness

Prevent and control disease, injury, illness, and disability across the lifespan, and protect the public from infectious, occupational, environmental, and terrorist threats.



Throughout the 20th century, advances in public health and medicine resulted in reduced morbidity and mortality from infectious diseases, including influenza, polio, and foodborne and waterborne illnesses. Chronic diseases, such as heart disease, stroke, cancer, and diabetes, replaced infectious diseases as the major cause of illness and death in the United States in the latter part of the 20th century. In the new millennium, the Nation continues to face the challenge of chronic disease because of unhealthy and risky behaviors, environmental exposures, and an aging population.

**STRATEGIC GOAL 2:
PUBLIC HEALTH PROMOTION AND PROTECTION,
DISEASE PREVENTION, AND EMERGENCY
PREPAREDNESS**

Strategic Objective 2.1:

Prevent the spread of infectious diseases.

Strategic Objective 2.2:

Protect the public against injuries and environmental threats.

Strategic Objective 2.3:

Promote and encourage preventive health care, including mental health, lifelong healthy behaviors, and recovery.

Strategic Objective 2.4:

Prepare for and respond to natural and manmade disasters.

Today, chronic diseases continue to be significant health problems that face Americans. As HHS works to address these health issues, infectious diseases have reemerged as a priority for public health in the United States. For example, risky behaviors such as unprotected sex and injecting drug use continue to result in new HIV/AIDS infections. At the end of 2003, an estimated 1,039,000 to 1,185,000 persons in the United States were living with HIV/AIDS.^{xvii} According to the Centers for Disease Control and Prevention (CDC), approximately 40,000 persons are infected with HIV each year. Injecting drug use is also a common current risk factor for hepatitis C virus (HCV) infection. About 30,000 Americans are infected with HCV each year, and about 3 million are chronically infected with this virus, which is a leading indication for liver transplants and hastens the progression of HIV in those who are coinfecting.

Foodborne diseases cause an estimated 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths in the United States each year. Other known pathogens account for an estimated 14 million illnesses, 60,000 hospitalizations, and 1,800 deaths annually.^{xviii} Morbidity and mortality from injuries and environmental hazard exposures also continue to affect the health and well-being of Americans.

Over the past century, public health advances in drinking water, wastewater, and recreational water quality have dramatically improved the health of the American people. However, drinking water from public water systems causes an estimated 4 to 16 million cases of gastrointestinal illness per year. During 2003–2004, 62 waterborne disease outbreaks associated with recreational water were reported by 26 States and Guam. Illness occurred in 2,698 persons, resulting in 58 hospitalizations and 1 death.^{xix}

Although malaria is technically preventable and curable if recognized and treated promptly, it remains one of the world's greatest threats to human health and economic welfare. Each year, malaria kills more than 1 million people—the majority, young children in Africa. In a retrospective analysis, it has been estimated that economic growth per year of countries with intensive malaria was 1.3 percent lower than that of countries without malaria.^{xx}

The 21st century is also marked by the threat of public health emergencies. These threats have become a significant focus for public health at the Federal, State, and local levels. Public health threats and emergencies can ensue from myriad causes—bioterrorism; natural epidemics of infectious disease; terrorist acts that involve conventional explosives, toxic chemicals, or radiological or nuclear devices; industrial or transportation accidents; and climatological catastrophes.

Strategic Goal 2, *Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness*, seeks to address these problems. There are four broad objectives under *Public Health*:

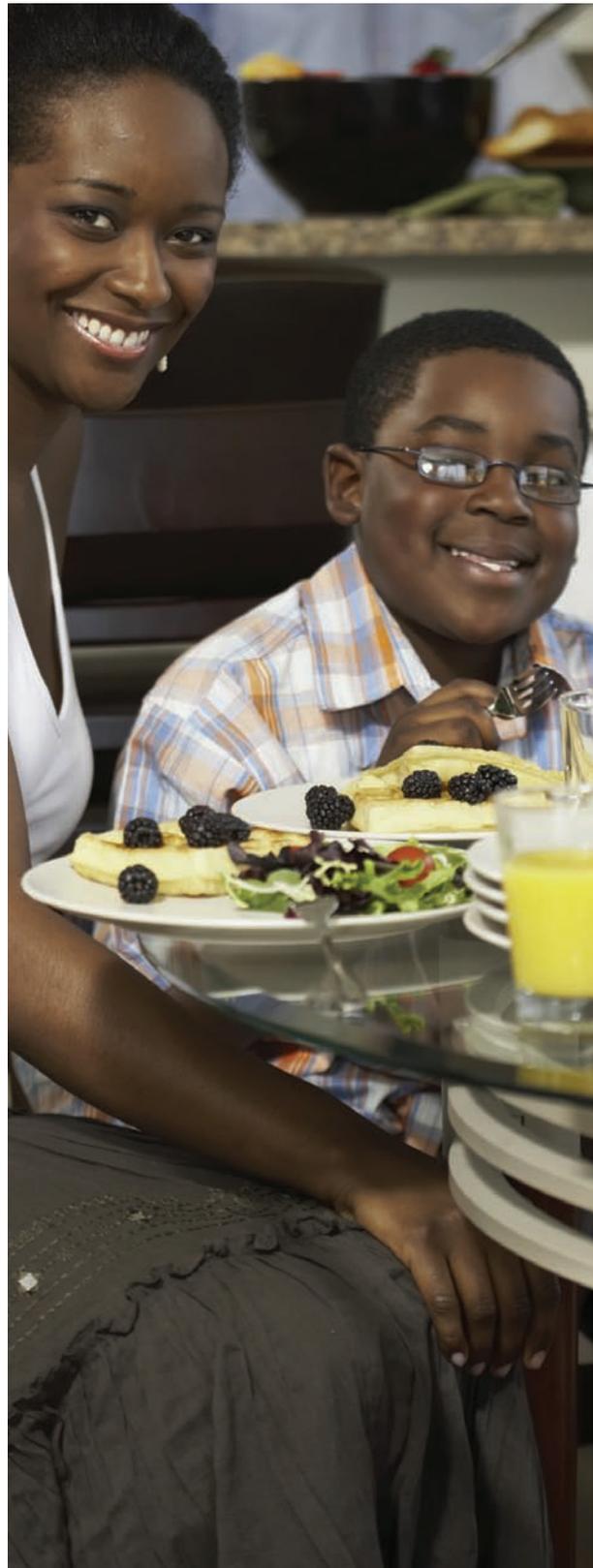
- Prevent the spread of infectious diseases;
- Protect the public against injuries and environmental threats;
- Promote and encourage preventive health care, including mental health, lifelong health behaviors, and recovery; and
- Prepare for and respond to natural and manmade disasters.

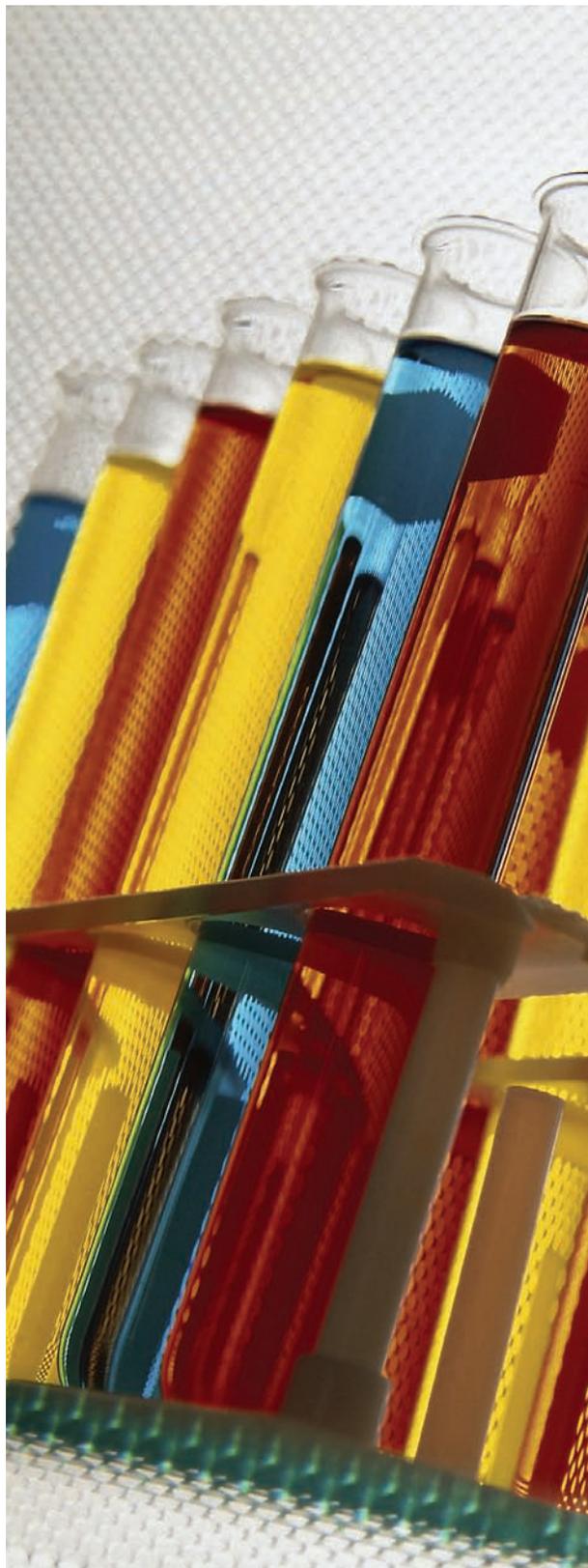
HHS is positioned to address the public health problems of infectious diseases, injuries and environmental hazards, chronic diseases and behavioral health problems, and public health emergencies through a comprehensive set of strategies. HHS provides leadership on these health issues within the Federal Government and collaborates with numerous partners across the Federal Government to achieve these objectives. These partners include the U.S. Departments of Homeland Security and Defense for public health emergency preparedness; the U.S. Environmental Protection Agency (EPA) and U.S. Department of Labor for environmental and occupational health issues; and the U.S. Departments of Agriculture and Commerce, and EPA, for food safety.

Within HHS, multiple operating and staff divisions work together to develop and implement strategies to achieve the goal of preventing and controlling disease, injury, illness, and disability across the lifespan and of protecting the public from infectious, occupational, environmental, and terrorist threats. Key operating and staff divisions that contribute to this goal include the Centers for Disease Control and Prevention

(CDC), Food and Drug Administration (FDA), Health Resources and Services Administration (HRSA), Office of the National Coordinator for Health Information Technology (ONC), Office of the Assistant Secretary for Preparedness and Response (ASPR), and Substance Abuse and Mental Health Services Administration (SAMHSA). In addition, HHS's Administration on Aging (AoA), Centers for Medicare & Medicaid Services (CMS), Office for Civil Rights (OCR), Office on Disability (OD), Office of Global Health Affairs (OGHA), and Office of Public Health and Science (OPHS) play important roles in addressing this goal.

Below is a description of each strategic objective, followed by a description of the key programs, services, and initiatives the Department is undertaking to accomplish those objectives. Key partners and collaborative efforts are included under each relevant objective. The performance indicators selected for this strategic goal are also presented with baselines and targets. These measures are organized by objective. Finally, this chapter discusses the major external factors that will influence HHS's ability to achieve these objectives, and how the Department is working to mitigate those factors.





Strategic Objective 2.1

Prevent the spread of infectious diseases.

Although modern advances have conquered some diseases, infectious diseases continue to threaten the Nation's health. Outbreaks of Severe Acute Respiratory Syndrome (SARS), avian influenza, West Nile Virus, and monkeypox are recent reminders of the extraordinary ability of microbes to adapt and evolve to infect humans. Earlier predictions of the elimination of infectious diseases often did not take into account changes in demographics, migration patterns, and human behaviors, as well as the ability of microbes to adapt, evolve, and develop resistance to drugs. Infectious disease can have significant medical and economic consequences. Addressing foodborne illnesses, vectorborne pathogens, viral hepatitis, HIV/AIDS and other sexually transmitted infections, tuberculosis, antimicrobial resistance, and a possible influenza pandemic is a significant priority for HHS. Although these diseases affect all Americans, many often hit hardest the most vulnerable populations—the low-income population, minorities, children and youth, immigrants, persons who are incarcerated, and other disenfranchised populations. The selected performance indicators at the end of this chapter were chosen to reflect the impact HHS has on these populations.

Immunization

HHS has identified several key strategies for addressing the threat of infectious diseases. One of the primary strategies is the use of vaccines. HHS's vaccine enterprise includes outreach activities and funding support for childhood and adult immunization. HHS, through CDC, will protect Americans from vaccine-preventable diseases by providing health communication messages about vaccination and supporting efforts to increase immunization coverage rates for both children and at-risk adults. OPHS coordinates and ensures collaboration among the many Federal agencies involved in vaccine and immunization activities. The Assistant Secretary for Health (ASH) provides leadership and coordination among Federal agencies, as they work together to carry out the goals of the *National Vaccine Plan*. The *National*

Vaccine Plan provides a framework, including goals, objectives, and strategies, for pursuing the prevention of infectious diseases through immunizations. In 2007–2008, HHS will review and revise the existing *National Vaccine Plan* to ensure that it addresses new scientific and safety issues that have emerged since the first plan was developed. HHS also will continue existing efforts to increase immunization rates for vaccine-preventable illness. Specifically, HHS, through CDC, will develop and disseminate health communication messages about vaccination and support efforts to increase immunization coverage rates for both children and adults.

The *Vaccines for Children Program* (VFC), which provides immunizations for eligible children⁶ at their doctors' offices, will continue to be a cornerstone of the HHS infectious disease prevention strategy. VFC also helps children whose insurance does not cover vaccinations when they receive them at participating Federally Qualified Health Centers and Rural Health Clinics. HHS also will work to increase rates of vaccination against influenza and pneumococcal viruses through its National Influenza and Pneumococcal Vaccination Campaign. This joint initiative involves CDC, CMS, FDA, HRSA, IHS, and NIH along with State and local health departments, Medicaid agencies, tribal representatives, health care providers, and the National Coalition for Adult Immunization. It aims to provide vaccinations for influenza and pneumonia to beneficiary populations.

HIV/AIDS

OPHS coordinates all HIV/AIDS-related scientific and policy matters, such as new developments and program activities within the areas of research, HIV prevention, HIV care and treatment, and budget development. OPHS also ensures the effective and accountable management of the Department's HIV/AIDS programs.

⁶ Children 18 years of age and younger who meet at least one of the following criteria are eligible: (1) a child who is eligible for the Medicaid program; (2) a child who has no health insurance coverage; (3) American Indian or Alaska Native; (4) a child, if served by a Federally Qualified Health Center or Rural Health Clinic, whose health insurance benefit plan does not include vaccinations.

Building on its existing surveillance, research, and screening activities, CDC applies well-integrated, multidisciplinary programs of research, surveillance, risk factor, and disease intervention to prevent and control the spread of HIV infection. For example, CDC is the source of national data on the epidemic and supports prevention programs in every State, guided by community planning. These programs reach those at highest risk for acquiring or transmitting infection with effective interventions to reduce their risk and protect their health. CDC and HRSA will support efforts to increase knowledge of community capacity to respond to HIV and increase HIV testing status, focusing especially on groups and communities at the highest risk of infection. FDA is responsible for ensuring the safety of the Nation's blood supply by minimizing the risks of infectious disease transmission and other hazards while facilitating an adequate supply of blood and blood products.

Routine and targeted HIV testing will be key strategies for preventing new HIV infections and improving outcomes for those who test positive. Individuals infected with HIV who are aware of their infection are less likely to engage in risky behaviors and are more likely to take steps to protect their partners. Additionally, individuals infected with HIV who are aware of their infection can take advantage of the therapies that can keep them healthy and extend their lives.

Additionally, FDA will continue its work with international drug regulatory authorities to promote expedited review of generic antiretroviral drugs under the *President's Emergency Plan for AIDS Relief* (PEPFAR). HHS, through its operating divisions, especially CDC and HRSA, is one of the major implementing partners for PEPFAR, and manages prevention, treatment, and care activities in the 15 focus countries of the Emergency Plan and more than 20 others. HHS also provides part of the Federal Government's financial contribution to the Global Fund to fight AIDS, tuberculosis, and malaria, and is part of the interagency team that guides U.S. policy toward the fund.

Zoonotic⁷/Vectorborne Diseases

To address zoonotic and vectorborne diseases, HHS will develop plans to respond to a disease outbreak that encompasses animal, vector, and human experts working in synergy. CDC will develop disease surveillance systems that incorporate animal, vector, and human data to provide an effective public health response that will mitigate the impact of a multispecies outbreak. CDC will develop, test, and deploy improved methods for the detection and control of insectborne viruses and bacteria and will improve the capacity to detect the intentional release of plague, Rabbit Fever (tularemia), and other agents with bioterror potential. FDA will foster the development of preventive vaccines for malaria, dengue fever, and other vector-borne and zoonotic diseases by working with industry and academia. In addition, surveillance, detection, and response systems will be developed and tested to address domestic and international epidemics of vectorborne pathogens with the potential to harm the U.S. population.

Foodborne/Waterborne Illnesses

To combat foodborne illness, FDA and CDC will work together to protect public health through preventive strategies that improve surveillance, inspection, tracking, detection, investigation, control, and prevention of foodborne outbreaks and disease; strengthen the enforcement of regulations; and broaden education about these problems. HHS will improve the important national collaborative surveillance and response networks of the FoodNet, PulseNet, and OutbreakNet to make them faster, more responsive, and capable of more detailed investigations. FDA and CDC, along with the U.S. Department of Agriculture, and other organizations, will continue to participate in the Council to Improve Foodborne Outbreak Response, a group created to develop tools that facilitate the investigation and control of foodborne disease outbreaks. Over the next several years, the Council will develop multistate

outbreak guidelines, a repository for resources and tools, and performance indicators for the response to enteric disease.

To address waterborne diseases, CDC will continue to partner with EPA to fill critical data gaps by providing improved disease surveillance data, creating evidence-based guidelines and training for investigations, expanding access to water-related information, collecting data to define the magnitude and burden of waterborne illness, evaluating water-related interventions to improve public health, and developing laboratory sampling and detection methodologies. As part of its preparedness effort, CDC will also develop, improve, and deploy rapid sampling and detection methods for potential waterborne threats. Providing comprehensive public health protection to all community users of water will create a more effective Federal response aimed at reducing the burden of waterborne disease in the United States.

Global Health

One key strategy for preventing the spread of infectious disease is preventing it from reaching the United States. HHS will collaborate with the World Health Organization (WHO) and other international partners to provide epidemiologic and laboratory support to assist countries in addressing disease threats through improved disease detection. HHS also will provide programmatic expertise, training, and funding support to assist with surveillance, control, elimination, and eradication activities for diseases such as measles, polio, avian influenza, and HIV/AIDS, as well as the provision of technical assistance with safe and healthy water and improved sanitation.

Immunization has revolutionized child health in countries throughout the world. WHO estimates that almost 40 percent of child deaths for children younger than 5 years of age are potentially preventable by vaccines.^{xxi} HHS has been a major supporter of global initiatives to eradicate polio; control measles; and introduce new vaccines for pneumococcal diseases, rotavirus, and possibly in the near future, malaria and even HIV. HHS remains committed to achieving

⁷ Zoonotic diseases are caused by infectious agents (such as mosquitoes) that can be transmitted between (or are shared by) animals and humans.



global polio eradication and meeting the global target to achieve a 90 percent reduction in measles mortality by 2010 as compared to 2000. Efforts to combat vaccine-preventable diseases overseas not only assist global efforts at lowering child mortality, but also help to protect U.S. children from susceptibility to these debilitating diseases.

One specific set of activities that HHS will continue in support of its global health strategy is in the area of malaria prevention. CDC supports prevention and control of malaria throughout the world in partnership with local, State, and Federal agencies in the United States; medical and public health professionals; national and international organizations; and foreign governments. Specific strategies include conducting malaria surveillance, prevention, and control activities in the United States; providing consultation, technical assistance, and training to malaria-endemic countries to change and implement proven policies to decrease malaria burden; conducting multidisciplinary research in the laboratory and in the field, to develop new tools and improve existing interventions against malaria worldwide; and translating research findings into appropriate global policies and effective practices through the *Roll Back Malaria Partnership* and other international partners.

HHS will continue to work with other Federal partners to control malaria through participation in the *President's Malaria Initiative* (PMI), an intergovernmental initiative led by the United States Agency for International Development (USAID), CDC, NIH, the U.S. Departments of State and Defense, and the National Security Council. The goal of PMI is to reduce malaria deaths by half in each target country after 3 years of full implementation. The initiative helps national governments deliver proven, effective interventions—insecticide-treated bed nets, indoor residual spraying, prompt and effective treatment with artemisinin-based combination therapies, and intermittent preventive treatment to people at greatest risk, pregnant women and children younger than 5 years old. As of June 2007, work is ongoing in the first three PMI countries (Angola, Tanzania, and Uganda) as well as the four added in 2006 (Malawi, Mozambique, Rwanda, and Senegal). Later in 2007, activities will begin in the final eight countries (Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Mali, and Zambia), which will bring the program to its full complement of 15 countries with a high burden of malaria in Africa. Additional information about HHS's efforts in global health can be found later in this chapter in *In the Spotlight: Global Health Initiatives*.



Strategic Objective 2.2

Protect the public against injuries and environmental threats.

Injuries are the leading cause of death among children and adults younger than 44 years of age in the United States. About 160,000 people die each year in the United States from injuries; millions more are injured and survive^{xxii}; and nearly 30 million people sustained injuries serious enough to require treatment in an emergency room. Many injured people are left with long-term disabilities.

HHS has a particular responsibility to provide the science base needed to reduce occupational injuries; the performance indicators at the end of this chapter measure this progress. CDC conducts the majority of injury prevention activities that support this objective. CDC focuses on strategies to address interpersonal violence, residential fires, falls, and workplace injuries and mortality. These include identifying risk factors, conducting surveillance, and supporting implementation activities.

Workplace Injuries

CDC promotes safe and healthy workplaces through interventions, recommendations, and capacity building. To achieve the objective of protection against injuries in the workforce population, CDC actively engages employers to promote commercial motor vehicle safety by providing technical assistance and disseminating Hazard Alerts and Fact Sheets that present practical prevention strategies in both English and Spanish. CDC also works with the Mine Safety and Health Administration on the joint committee examining how the newly developed personal dust monitor (PDM) can be utilized on a daily basis in underground coal mines. The PDM, recently developed by CDC in collaboration with manufacturers, labor, and industry, assesses coal miners' exposure to coal dust in underground mines and represents the first advancement in more than 30 years for monitoring exposures.

Fire-Related Injury Prevention

CDC will continue to support State programs to monitor, identify, and track fire-related injuries and to expand smoke alarm installation and fire safety education programs in communities at high risk.

Environmental Hazards

Interactions between people and their environment also pose a risk to their health. Environmental health hazards include water pollutants, chemical pollutants, air pollutants, mold, and radiation from natural, technologic, or terrorist events. HHS works in collaboration with other Departmental-level agencies, including EPA and the U.S. Department of Labor's Occupational Safety and Health Administration, to address environmental hazards. To support this larger Federal effort, HHS will conduct targeted prevention and surveillance activities aimed at raising awareness of, monitoring, and mitigating threats. CDC and FDA will support this effort by using existing technologies and methods to measure the exposure to environmental chemicals in humans and the food supply. CDC also will investigate new technologies and methods to expand the number of chemicals measured in humans.

Childhood Lead Poisoning Prevention

CDC is addressing the problem of childhood lead poisoning through provision of funding and technical assistance to State and local childhood lead poisoning prevention programs. These programs are working to ensure that screening, lead-hazard reduction, model legislation, and other prevention mechanisms occur throughout the country. CDC will build on these efforts by developing and disseminating guidance for the proper treatment of children after they are identified as having elevated blood levels.

Violence Against Women

HHS has developed a Violence Against Women Steering Committee, which coordinates the HHS response to issues related to violence against women and their children. This committee, led by ASH, comprises representatives from ACF, AoA, CDC, FDA, HRSA, NIH,

OPHS, the Office of the Secretary, and SAMHSA. The committee is also responsible for coordinating HHS violence-related activities with those of other Federal agencies. This steering committee will work to refine and focus HHS's activities on addressing violence against women. More information about HHS's efforts to address family violence can be found in *Strategic Goal 3, Objective 3.1*.

Youth Violence Prevention

CDC funds Academic Centers of Excellence to develop and implement community response plans to prevent youth violence. These Centers also train health professionals and conduct youth violence prevention research projects. CDC will continue funding these Centers. The agency also will identify modifiable risk factors that protect adolescents from becoming victims or perpetrators of violence and will increase public awareness regarding dating violence among adolescents through interactive programs such as *Choose Respect*.



Strategic Objective 2.3

Promote and encourage preventive health care, including mental health, lifelong healthy behaviors, and recovery.

Chronic diseases—such as heart disease, cancer, and diabetes—are among the leading causes of death and disability in the United States. These diseases account for 7 of every 10 deaths and affect the quality of life of 90 million Americans.^{xxiii} Although chronic diseases are among the most common and costly health problems, they are also among the most preventable.

AHRQ, AoA, CDC, CMS, FDA, HRSA, IHS, OD, OPHS, and SAMHSA currently support a variety of programs and initiatives aimed at reducing the prevalence of chronic diseases and helping people with chronic conditions manage their diseases more effectively. State and local health departments, national and international health organizations, philanthropic foundations, and professional, voluntary, and community organizations are key partners in these health promotion and disease prevention activities. In the period of 2007–2012, these agencies will continue to support these activities and will work to expand, enhance, and improve their effectiveness. The Department selected key performance indicators that represent a broad array of activities, including cardiovascular health, cancer screening, and programs to reduce substance abuse and suicide.

Preventive Services

A paradigm shift has occurred in health care, resulting in a renewed emphasis on prevention. To reap the benefits of prevention, both health care providers and health care consumers must first understand what those benefits are. The Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 (Public Law 108-173) expanded Medicare's menu of preventive benefits by covering an initial preventive physical examination. This benefit, also referred to as the "Welcome to Medicare" visit, allows new Medicare beneficiaries to get up-to-date information on important screenings and vaccinations, as well as to talk with their health care provider about

their medical history and how to stay healthy. All beneficiaries enrolled in Medicare Part B with effective dates that begin on or after January 1, 2005, will be covered for this benefit.

The *Welcome to Medicare* visit enables the health care provider to provide a comprehensive review of his or her patient's health, to identify risk factors that may be associated with various diseases, and to detect diseases early when outcomes are best. The health care provider is also able to educate his or her patient about the Medicare-covered services they need in order to prevent, detect, and manage disease; to counsel them on identified risk factors and possible lifestyle changes that could have a positive impact on their health; and to make referrals or followup appointments for necessary care. CMS will continue to support and conduct outreach related to the *Welcome to Medicare* benefit to increase beneficiaries' utilization.

Although Medicare pays for many critical preventive screenings, fewer than 1 in 10 adults aged 65 or older receive all recommended screenings and immunizations. CDC's *Healthy Aging Program* will continue to support a model program, *Sickness Prevention Achieved through Regional Collaboration* (SPARC), which has shown significant success in broadening the use of preventive services. SPARC promotes public access to services, helps medical practices provide preventive services, and strengthens local accountability for service delivery.

AHRQ accomplishes adoption and delivery of evidence-based clinical prevention services to improve the health of Americans through two main avenues: work in support of the United States Preventive Services Task Force (USPSTF) and Prevention Portfolio efforts aimed at dissemination and implementation of the Task Force's recommendations. As the USPSTF makes evidence-based recommendations, it is the job of AHRQ to get the word out to clinicians and the general public as rapidly as possible. Accomplishing this goal more quickly puts actionable information into the hands of clinicians, guiding them to perform indicated services and not to perform services for which the evidence indicates more harm than benefit. Getting the

word out increases the delivery of appropriate clinical preventive services. Clinicians and policymakers across the Nation hold the work of the USPSTF in high regard.

Heart Disease and Stroke

Heart disease and stroke are the most common cardiovascular diseases. For both men and women in the United States, heart disease and stroke are the first and third leading causes of death, respectively, accounting for nearly 40 percent of annual deaths.^{xxiv} Although these largely preventable conditions are more common among people 65 years or older, the number of sudden deaths from heart disease among people aged 15 years to 24 years has increased. The economic impact of cardiovascular disease on the Nation's health care system continues to grow as the population ages.

A key strategy for HHS in addressing heart disease and stroke and its risk factors is educating health practitioners and the public about the importance of prevention, about the signs and symptoms of heart attack and stroke, and about the importance of calling 911 quickly. To make women more aware of the danger of heart disease, the National Heart, Lung, and Blood Institute at NIH has collaborated with other organizations to sponsor a national campaign called *The Heart Truth*. The campaign's goal is to raise women's awareness about their risk of heart disease, and has resulted in striking improvements in women's awareness of heart disease and their acknowledgment of personal risk. CDC's *Heart Disease and Stroke Prevention Program* will continue to help States control high blood pressure and high blood cholesterol, both of which are risk factors for cardiovascular diseases, among residents; increase awareness of the signs and symptoms of heart attack and stroke; improve emergency response; improve quality of care; and eliminate health disparities. Medicare's preventive services cover cardiovascular disease screenings.

HHS will continue to provide national leadership to prevent death and disability from heart disease and stroke and to expand support to State cardiovascular disease prevention efforts. FDA also contributes to prevention of heart disease through its food labeling



regulations. For example, the recent requirement for trans-fat information on food labels provides consumers with additional information on the fat content of packaged foods. Reductions in consumption of trans-fatty acids are expected to reduce the risk of heart disease significantly.

Cancer

Cancer is the second leading cause of death in the United States and costs approximately \$210 billion annually.^{xxv} Cancer does not affect all racial or ethnic groups equally. African-Americans are more likely to die of cancer than any other racial or ethnic group, revealing a large health disparity related to this disease. CDC's *National Comprehensive Cancer Control Program* funds States, territories, and tribes to build coalitions, assess the burden of cancer, determine priorities, and develop and implement comprehensive cancer control programs. These programs help communities across the country to reduce cancer risks, detect cancers earlier, improve cancer treatment, and enhance quality of life for cancer patients. CDC is supporting these programs to ensure that cancer prevention and control reaches those at highest risk of developing cancer and in the greatest need of assistance.

CDC's *National Program of Cancer Registries* collects data on the occurrence of cancers through State and territorial registries. CDC is supporting cancer registries throughout the United States to enable public health professionals to better understand and address cancer and its causes.

Making cancer screening, information, and referral services available and accessible to all Americans is essential for reducing the high rates of cancer and cancer deaths. CDC's *National Breast and Cervical Cancer Early Detection Program* will continue to support screening and diagnostic exams for low-income women with little or no health insurance. The program will also support education and outreach, and case management services. CDC's prostate cancer control initiatives support information dissemination to the public, physicians, and policymakers about the risks and benefits of prostate cancer screening.

FDA advances cancer prevention through the development and licensure of cancer prevention vaccines.

Included in Medicare's menu of preventive services are screenings for colorectal and prostate cancer, as well as annual mammograms for women 40 years and older.

Overweight and Obesity

Over the last 20 years, rates for overweight and obesity have increased dramatically in the United States. Obesity has now reached epidemic proportions. CDC reports that two-thirds of noninstitutionalized U.S. adults age 20 and older are overweight or obese; a third are obese.^{xxvi} The epidemic is not limited to adults, however. The percentage of young people who are overweight has more than doubled in the last 20 years. People who are obese are at increased risk for heart disease, high blood pressure, diabetes, and some cancers. CDC, FDA, and OPHS are the primary HHS operating divisions working to reduce obesity and overweight in the United States, with a focus on improving nutrition and increasing physical activity. CDC will continue to support efforts to address obesity through provision of technical assistance, training, and consultation to funded State programs. CDC and its partners create, evaluate, and monitor programs, policies, and practices to prevent and control obesity. CDC will expand communication efforts to promote physical activity and good nutrition in worksites, schools, and health care settings.

FDA also contributes to obesity control through its food labeling regulations and education programs. For example, *Make Your Calories Count*, FDA's Web-based learning program, helps consumers make informed choices that contribute to lifelong healthy eating habits.

The OD physical fitness program, *I Can Do It, You Can Do It*, targets the obesity and overweight challenges of children and youth through physical exercise based on the awards system of the President's Committee on Physical Fitness and Sports Program. The program includes a mentee-mentor relationship and an evaluation component.



In addition, *Dietary Guidelines for Americans* provides science-based advice to promote health and to reduce risk for major chronic diseases and conditions, through diet and physical activity. Major causes of morbidity and mortality in the United States are related to poor diet and a sedentary lifestyle. Combined with physical activity, following a diet that does not provide excess calories, according to the recommendations in this document, should enhance the health of most individuals.

As a companion to the *Dietary Guidelines for Americans*, HHS will work over the next 2 years to develop comprehensive guidelines, drawn from science, to help Americans fit physical activity into their lives. The *Physical Activity Guidelines for Americans* will be issued in late 2008. The *Physical Activity Guidelines* will summarize the latest knowledge about activity and health, with depth and flexibility targeting specific population subgroups, such as older adults and children. This work is inspired by the President's personal dedication to physical fitness and his desire that every American have access to science-based guidelines.

Diabetes

In the last 15 years, the number of people in the United States with diagnosed diabetes has more than doubled, reaching 14.6 million in 2005.^{xxvii} Diabetes, which is also associated with overweight and obesity, can cause heart disease, stroke, blindness, kidney failure, pregnancy complications, lower extremity amputations, and deaths related to influenza and pneumonia. In addition to the millions of Americans with diabetes, an estimated 41 million adults aged 40 to 74 are prediabetic and are at high risk of developing diabetes.^{xxviii} The increasing burden of diabetes and its complications is alarming. However, much of this burden could be prevented with early detection, improved delivery of care, and better education on diabetes self-management.

CDC monitors the burden of diabetes nationally and will continue to explore better ways to collect diabetes data on groups most at risk. CDC also provides funding for capacity building and program implementation to States and territories for diabetes prevention and

control programs. Over the next 5 years, CDC will expand the number of implementation grants after first developing grantee capacity through phase one capacity grants.

CDC also works with NIH to support diabetes education. These operating divisions will continue to collaborate to enhance the network of more than 200 public and private partners who work to increase knowledge about diabetes and its control among health care providers and people with or at risk for diabetes. IHS also will support diabetes prevention and control through mobilizing and involving American Indian/Alaska Native communities to promote diabetes management strategies. For Medicare beneficiaries diagnosed with prediabetes and those previously tested who have not been diagnosed with prediabetes, or those who have never been tested for the disease, diagnostic screening tests are available. For Medicare beneficiaries with diabetes, Medicare offers *Diabetes Self-Management Training and Medical Nutrition Training*.

Oral Health

Mouth and throat diseases, which range from cavities to cancer, cause pain and disability for millions of Americans each year. This fact is disturbing because almost all oral diseases can be prevented. For children, cavities are a common problem that begins at an early age. Tooth decay is also a problem for U.S. adults, especially for the increasing number of older adults who have retained most of their teeth. Despite this increase in tooth retention, tooth loss remains a problem among older adults.

CDC is the lead Federal agency responsible for promoting oral health through public health interventions. CDC has and will continue to assist States in strengthening their oral health programs, reaching people hardest hit by oral diseases, and expanding the use of measures that are proven effective in preventing oral diseases. CDC currently provides 12 States with funds, technical assistance, and training to build strong oral health programs. Eight of the 12 States receive funding to develop and coordinate

community water fluoridation programs or school-based dental sealant programs. With CDC support, States can better promote oral health, monitor oral health behaviors and problems, and conduct and evaluate prevention programs.

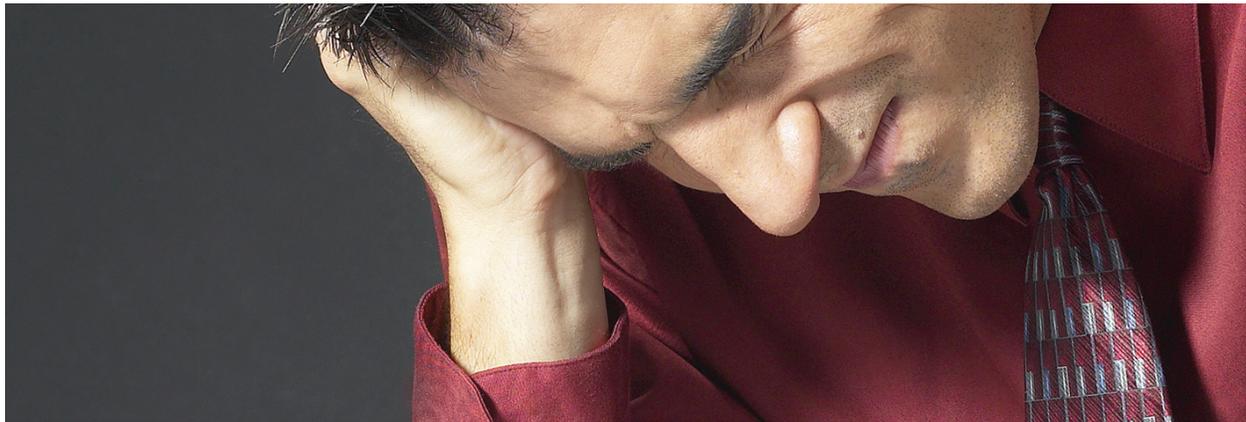
Substance Use/Abuse

The use of alcohol, tobacco, and illicit drugs exacts a significant health and economic toll on individuals and communities in the United States. In 2005, 19.7 million (8.1 percent) Americans aged 12 years and older used an illicit drug, 71.5 million (29.4 percent) used a tobacco product, and 126 million (51.8 percent) used alcohol.^{xxx} Tobacco use is the leading preventable cause of death in the United States, resulting in approximately 440,000 deaths each year.^{xxx}

CDC supports basic implementation programs to prevent and control tobacco use in the States, territories, and tribal areas. CDC also works with a variety of national and international partners to promote action through partnership in tobacco control efforts with WHO and WHO Member States. Building on these existing activities and partnerships, CDC will work to engage business sectors in supporting comprehensive tobacco prevention and control programs, including the benefits of tobacco-free workplaces and the importance of access to cessation services to employees who are trying to quit smoking. For Medicare beneficiaries who use tobacco, cessation counseling is a covered preventive service.

As part of its efforts to reengineer its approach to substance abuse prevention, SAMHSA has created a strategic framework that is built on science-based theory, evidence-based practices, and the knowledge that effective prevention programs must engage individuals, families, and entire communities. SAMHSA's new *Strategic Prevention Framework (SPF)* sets into place a step-by-step process that empowers States and communities to identify their unique substance use problems, build or enhance infrastructure to support solutions, and implement the most effective prevention efforts for their specific needs. It also includes monitoring and evaluation to ensure accountability





and effectiveness of the program effort. SAMHSA will continue to utilize the SPF and expand its use through its State and local grant programs.

Suicide Prevention

For every two victims of homicide in the United States, there are three Americans who take their own lives. Suicide is a potentially preventable public health problem. Studies of youth who have committed suicide have found that 90 percent had a diagnosable mental and/or substance abuse disorder at the time of their death.^{xxxvi} SAMHSA supports activities authorized by the Garrett Lee Smith Memorial Act of 2004 (Public Law 108-355), which support statewide youth suicide intervention and prevention strategies in schools, institutions of higher education, juvenile justice systems, substance abuse and mental health programs, foster care systems, and other youth support organizations. Additionally, OD is working on an initiative to understand and help prevent suicide among persons with disabilities and those who incur disabilities.

Risk Reduction

Chronic conditions currently limit activities for 12 million older people living in community settings in the United States; 25 percent of these individuals are unable to perform basic activities of daily living, such as bathing, shopping, dressing, or eating. Furthermore, falls are the leading cause of injury-related deaths and hospital admission among older people and account for between 20 billion and 30 billion health care dollars in

the United States each year. These numbers will increase dramatically in the coming years with the aging of the Baby Boom Generation. AHRQ, AoA, CDC, CMS, and NIH contribute to research, demonstrations, the setting of national standards and guidelines, and the provision of grants and technical assistance to help older adults manage their chronic diseases and prevent falls and to encourage them to live healthy and active lifestyles.

For example, AoA funds an *Evidence-Based Disability and Disease Prevention* grant program and public/private partnership which deploys proven disability and disease prevention programs at the community level that empower older individuals to make behavioral changes that will reduce their risk of disease, disability, and injury. AHRQ and AoA, in collaboration with CDC, CMS, and NIH, are developing and testing a special Knowledge Transfer program targeted at State and local agency staff to promote and facilitate the utilization of evidence-based disease prevention programs for older people at the community level. CDC funds fall prevention research, research dissemination, and research translation and implementation that help decrease falls and increase stability in mobile older adults. CMS is demonstrating a health promotion and disease prevention program through the *Medicare Senior Risk Reduction Demonstration* to determine whether health risk reduction programs that have been developed, tested, and shown to be effective in the private sector can be tailored to the Medicare program to help beneficiaries improve their health and thus reduce the need for health care services.



Strategic Objective 2.4

Prepare for and respond to natural and manmade disasters.

The Pandemic and All-Hazards Preparedness Act of 2006 (PAHPA; Public Law 109-417) codified the HHS Secretary's role as lead for the Federal public health and medical response to emergencies and incidents covered by the National Response Plan (NRP), and authorizes HHS's operational control of Federal public health and medical response assets during these events.⁸ In addition, the development of the Homeland Security Council's *National Strategy for Pandemic Influenza* has stressed the importance of preparedness for natural and manmade disasters that have public health impact. Many of the strategies undertaken by HHS to achieve preparedness and response capability are done in concert with or in support of other Federal departments and agencies, State and local governments, and private sector entities. This collaborative approach is vital given that public health emergencies have the potential to affect nearly every sector of society. One of HHS's largest investments is to develop and stockpile the countermeasures needed to respond to the most serious disasters. Consequently, a performance indicator listed at the end of this chapter assesses the readiness of States to utilize these supplies. A second indicator focuses on the extent to which State emergency management plans cover the broad array of individuals with special needs, specifically measuring plans for those with disabilities. The Office of the Assistant Secretary for Preparedness and Response (ASPR) is the single office responsible for preparedness and response activities within HHS. As the principal advisor to the Secretary on all matters related to public health and medical preparedness and response emergencies, ASPR leads and promotes a collaborative approach with many partners, including ACF, AoA, CDC, CMS, FDA, HRSA, OPHS, and SAMHSA. For additional information on this topic, see *In the Spotlight: Emergency Preparedness, Prevention, and Response*.

⁸ An exception to this authorization is those assets under the control of the U.S. Department of Defense.



Key strategies that will be used to enhance public health and medical emergency preparedness and response include:

- Developing the National Health Security Strategy, starting in 2009;
- Awarding cooperative agreements to States or other eligible entities to conduct the activities of the National Health Security Strategy; and
- Reintegrating the National Disaster Medical System within HHS.

A major focus of preparedness activities will be the implementation of the *Biomedical Advanced Research and Development Authority* (BARDA), and countermeasures development. The international preparedness activities include the *International Health Regulations*, which will come into force in June 2007. These regulations require members to develop, strengthen, and maintain core surveillance and response capacities to detect, assess, notify, and report public health events to WHO and respond to public health risks and public health emergencies.

WHO, in turn, will evaluate members' public health capacities, promote technical cooperation, offer logistical support, and facilitate the mobilization of financial resources for building capacity in surveillance and response.

Workforce Readiness

HHS will identify, put on a roster, and train deployable teams of medical and public health providers, including HHS personnel (both commissioned officers and civil service employees), other Federal employees, and voluntary staff. HHS meets regularly with its ESF-8⁹ Federal partners to identify missions, form teams with the skills needed to meet the missions, identify training and equipment requirements, and initiate

⁹ *Emergency Support Function (ESF)-8—Health and Medical Services.* ESF-8 provides coordinated Federal assistance to supplement State and local resources in response to public health and medical care needs after a major disaster or emergency, or during a developing potential medical situation. Assistance provided under ESF-8 is directed by HHS through its executive agent, ASPR.

training. HHS has identified the logistical support needs for these teams and has developed specific tasks for meeting these logistical needs. Examples of these needs include medical supplies, equipment, housing, and food requirements.

This activity builds upon the transformation activities of the Commissioned Corps of the USPHS (Commissioned Corps). The Commissioned Corps provides a unique source of well-trained, highly qualified, dedicated public health professionals who are available to respond rapidly to urgent public health challenges and health care emergencies. The Commissioned Corps' response to Hurricane Katrina is a powerful example of what its officers can do. In response to Hurricane Katrina, the Commissioned Corps deployed more than 2,000 officers—the largest deployment in its history—and still has personnel in the field providing care in Louisiana today. The transformation will facilitate force management improvements that are necessary for the Commissioned Corps to function even more efficiently and effectively. The current activity using rosters is aimed at structuring officers into teams, and then training them as a team. This approach defines clarity of roles and expectations, and assures that leadership and management of the officers in the deployed situation are well understood and their roles are executable.

These teams will interface with the Disaster Medical Assistance Teams (DMATs) fielded under the *National Disaster Medical System* (NDMS). The greatest utility of the DMATs is in immediate emergency response, and they are considered the initial responders for emergency medical needs during the first 72 hours after an event. HHS and other Federal agencies will be responsible for the other requirements in the continuum of health needs, including some aspects of health services delivery during evacuation, hospital care, low-intensity facility-based care for populations with special needs (such as chronic diseases and disability), and other health outreach activities.

Threat Agent Identification

CDC and FDA will continue to develop and support laboratory capacity expansion to improve analysis of biological or toxic substances that uses validated, proven methods for different sample matrices. CDC and FDA will also support the development and validation of laboratory methods for priority biological and toxic substances through the *Laboratory Response Network*.

Emergency Preparedness

HHS administers two major grant programs that support State and local capacities, as well as capabilities to prepare for and respond to public health emergencies. Over the next 5 years, these programs will shift dramatically, from a focus on capacity building to improving targeted capabilities.

ASPR administers the *National Bioterrorism Hospital Preparedness Program*, which, through States, enhances the ability of the health care system, including hospitals, to prepare for and respond to bioterrorism and other public health emergencies. Program priority areas over the next 5 years include improving bed and personnel surge capacity, decontamination capabilities, isolation capacity, and pharmaceutical supplies, as well as supporting training, education, drills, and exercises.

CDC administers the *Public Health Emergency Preparedness Cooperative Agreement Program*, which provides funds to States and localities for State and community-level preparedness. Over the next 5 years, HHS will place increased emphasis on achieving benchmarks and standards for preparedness by recipients of both funding streams as required by PAHPA.

Countermeasures

HHS, through all of its operating divisions, seeks to shape and execute a comprehensive medical countermeasures program to protect our citizens against the threats of today and into the future. This mission encompasses the breadth of activities required to accomplish that goal, including threat agent monitoring and disease surveillance and detection, as well as research, development, acquisition,

storage, deployment, and utilization of medical countermeasures. NIH leads the effort for medical countermeasure basic research, early stage product development, and clinical research. FDA is committed to facilitating the development and availability of safe and effective medical countermeasures. CDC has responsibilities including disease monitoring through its infectious disease surveillance program and medical countermeasure storage and deployment through its *Strategic National Stockpile* (SNS) program. The SNS procures and stores large quantities of medicine and medical supplies to protect the American public if there is an emergency (e.g., terrorist attack, influenza pandemic, or earthquake) severe enough to cause local supplies to run out. HHS will continue to invest in research and development of medical countermeasures, procure safe and effective materials for the SNS, and work with States to ensure that they are prepared to request, receive, and utilize SNS materials in the case of a public health emergency.

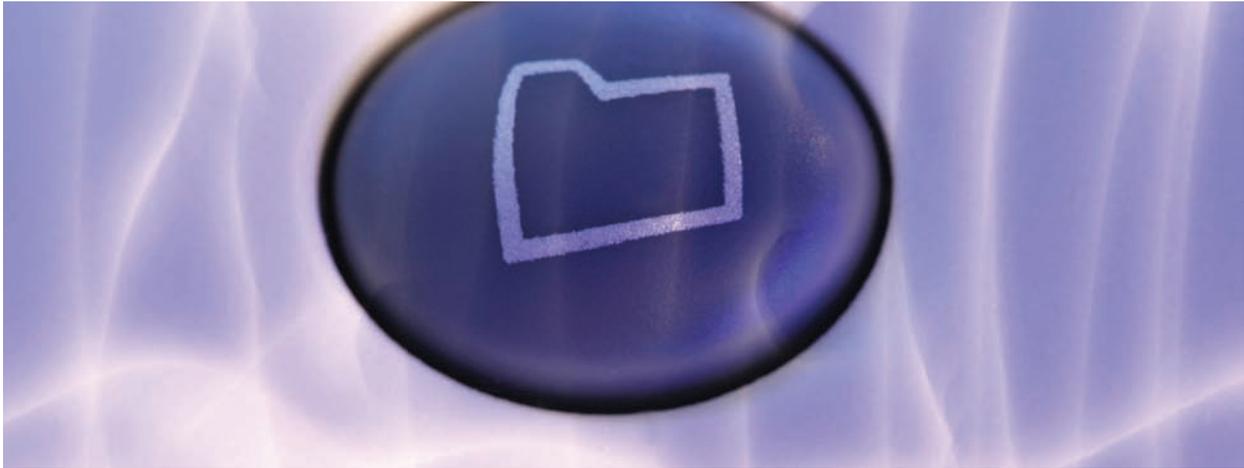
Pandemic Influenza

HHS pandemic influenza implementation activities support the larger *National Strategy for Pandemic Influenza*, and many are conducted in concert with or in support of other Federal departments and agencies. The key strategies for pandemic influenza preparedness focus on international activities; domestic surveillance; public health interventions; medical response; vaccines, antivirals, diagnostics, and personal protective equipment; passive and active surveillance for vaccine safety; communication; and support for State, local, and tribal preparedness. HHS, primarily through ASPR, CDC, FDA, NIH, and OPHS, will continue to support the *National Strategy* by completing actions in these strategy areas. One major area of focus will be building the prepandemic and pandemic influenza vaccine production capacity and vaccine supply. In April 2007, FDA approved the first U.S. vaccine for humans against the H5N1 influenza virus. FDA will continue to facilitate advanced product development of both seasonal and pandemic influenza medical countermeasures, including novel vaccines, antivirals, and rapid diagnostics. This will be accomplished by providing assistance to industry partners on domestic

manufacturing capabilities, accelerating the reviews of seasonal and pandemic influenza related products, and issuing guidance to external stakeholders on various regulatory subjects, including clinical requirements for licensure of seasonal and pandemic influenza vaccines. HHS agencies also will work closely with other Federal agencies and international partners, such as WHO and the ministries of health in target countries. HHS has forward-deployed a quantity of Tamiflu in Asia for the purposes of mounting a containment operation to attempt to halt a potential influenza pandemic. In addition, HHS is engaged in a number of international pandemic preparedness activities, through the *International Partnerships on Avian and Pandemic Influenza*, the *Security and Prosperity Partnership of North America*, and the *Global Health Security Initiative*.

People With Disabilities

Under Executive Order 13347, all Federal emergency preparedness efforts must address the needs of individuals with disabilities and other vulnerable populations. HHS has taken a leadership role in engaging the disability community and providing guidance to partners to address the unique health needs of individuals with disabilities and other vulnerable populations, including children and youth with special health care needs. In 2006, HHS and the U.S. Department of Homeland Security cosponsored a working conference for State emergency preparedness, public health, aging, and disability agencies to facilitate dialog and collaboration among these organizations toward the common goal embodied in the Executive Order. The result has been a living laboratory for State and Federal cooperation and shared learning around the issue of emergency preparedness for vulnerable populations. OD and ASPR will implement and monitor the use of the disability-based preparedness toolkit and public health staff training modules—developed by a broad-based HHS workgroup—to ensure that the needs of children, youth, and adults with disabilities and chronic conditions are fully understood by first responders and other emergency response providers at the Federal, tribal, State, and local levels during all emergency situations.



ASPR, OD, and OCR are working with the American Red Cross to develop an intake and assessment tool that will be used at shelters to evaluate the functional needs of all individuals, including individuals with disabilities. This tool will help ensure that individuals with disabilities have equal access to shelter services and are served in the most integrated setting appropriate. On the local level, OCR's 10 regional offices are working with other offices in HHS and States to provide technical assistance and resources to plan for and respond to needs of individuals with disabilities in the event of an emergency.

Protected Health Information. In its review of State and local emergency plans issued in the summer of 2006, the U.S. Department of Homeland Security identified misunderstanding and confusion surrounding the application of the HIPAA Privacy Rule protections to information sought for emergency response planning purposes. OCR has implemented a new Web-based interactive decision tool designed to assist emergency preparedness and recovery planners in determining how to access and use health information consistent with the HIPAA Privacy Rule. The tool guides emergency preparedness and recovery planners through a series of questions regarding how to apply the HIPAA Privacy Rule. The tool is available on OCR's Web site along with bulletins containing information for emergency providers on the disclosure of protected health information to assist with disaster relief efforts.

Equal Access

OCR has taken steps, consistent with a Federal Governmentwide effort, to help ensure that individuals with Limited English Proficiency (LEP) have equal access to information, shelters, and other evacuation and relief efforts. For example, OCR is working with ASPR and the American Red Cross to develop an intake and assessment tool that will be used at shelters to identify and address communication needs of individuals with LEP. On the local level, OCR's regional offices are working with HHS partners and States to provide technical assistance and resources to plan for and respond to the needs of individuals with LEP in the event of an emergency.

Information Technology Support

HHS will be developing a deployable, interoperable first responder electronic health record system. The electronic health record system for disasters will maintain the security and confidentiality of health information. The intention is to field test possible platforms during the 2007 hurricane season to gain insight into their benefits and limitations. There are few existing systems and standards in the broader health environment to interact with at this time, so the expected benefits are to ensure quality of care and continuity of information sharing during a public health emergency and its aftermath. Wider health sector standards development and endorsement by the Health Information Technology Standards Panel and the Secretary will be completed to capitalize on the desired benefits of this approach toward continuity and quality of care.

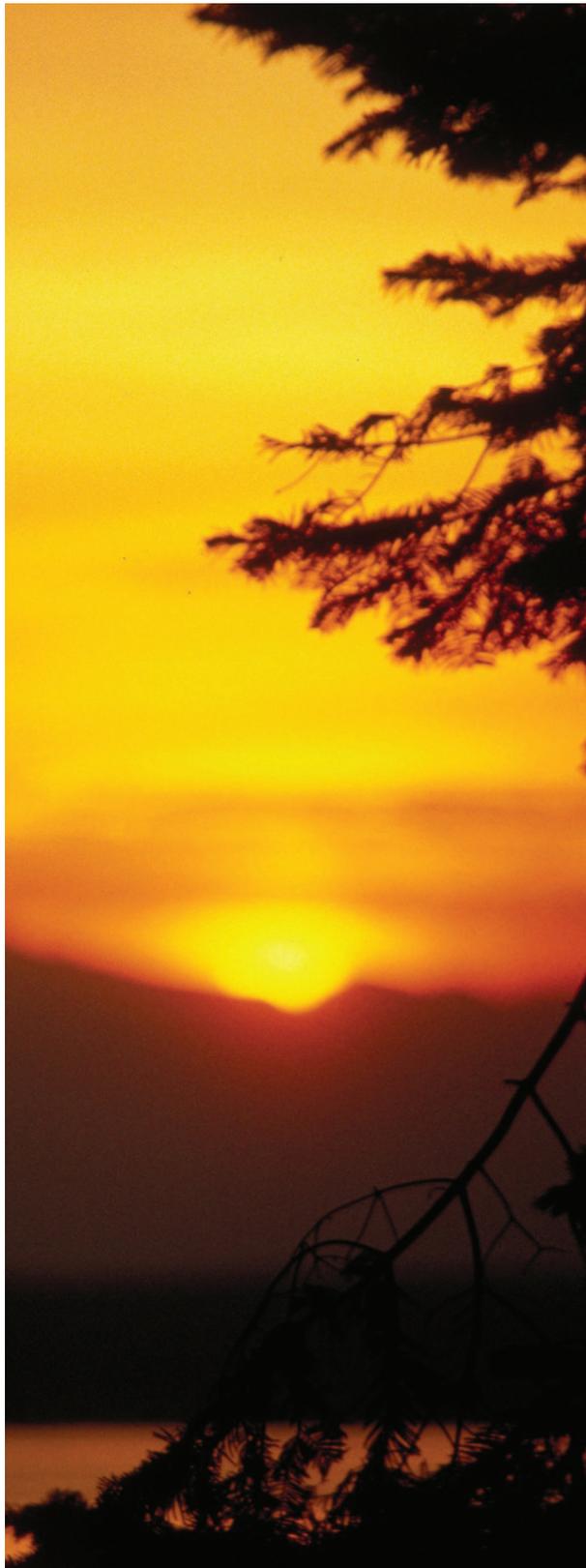
Performance Indicators

		Most Recent Result	FY 2012 Target
Strategic Objective 2.1			
Prevent the spread of infectious diseases.			
2.1.1	<p>Achieve or sustain immunization coverage of at least 90% in children 19 to 35 months of age for:</p> <ul style="list-style-type: none"> a) 4 doses of Diphtheria-Tetanus-Pertussis (DtaP) vaccine; b) 3 doses of polio vaccine; c) 1 dose of Measles-Mumps-Rubella (MMR) vaccine; d) 3 doses of hepatitis B vaccine; e) 3 doses of Haemophilus influenzae type b (Hib) vaccine; f) 1 dose of varicella vaccine; and g) 4 doses of pneumococcal conjugate vaccine (PCV7). 	<ul style="list-style-type: none"> a) DTaP: 86%; b) Polio: 92%; c) MMR: 92%; d) Hepatitis B: 93%; e) Hib: 94%; f) Varicella: 88%; and g) PCV7: 83%. 	At least 90%
2.1.2	Increase the proportion of people with HIV diagnosed before progression to AIDS.	76.5%	81%
2.1.3	<p>Reduce the incidence of infection with key foodborne pathogens:</p> <ul style="list-style-type: none"> a) Campylobacter; b) Escherichia coli O157:H7; c) Listeria monocytogenes; and d) Salmonella species. 	<p>Cases/100,000:</p> <ul style="list-style-type: none"> a) 12.72; b) 1.06; c) 0.30; and d) 14.55. 	<p>Cases/100,000:</p> <ul style="list-style-type: none"> a) 12.30; b) 1.00; c) 0.23; and d) 6.80.
2.1.4	<p>Increase the rate of influenza vaccination:</p> <ul style="list-style-type: none"> a) in persons 65 years of age and older; and b) Among noninstitutionalized adults and high risk, aged 18 to 64. 	<ul style="list-style-type: none"> a) 59.6%; and b) 25.3%. 	<ul style="list-style-type: none"> a) 90%; and b) 60%.

		Most Recent Result	FY 2012 Target
Strategic Objective 2.2			
Protect the public against injuries and environmental threats.			
2.2.1	a) Reduce nonfatal work-related injuries among youth ages 15 to 17; and b) Reduce fatal work-related injuries among youth ages 15 to 17.	a) 4.4/100 FTE ¹⁰ ; and b) 2.7/100,000 FTE.	a) 4.2/100 FTE; and b) 2.8/100,000 FTE
Strategic Objective 2.3			
Promote and encourage preventive health care, including mental health, lifelong healthy behaviors, and recovery.			
2.3.1	Reduce complications of diabetes among American Indians and Alaska Natives by increasing the proportion of patients with diagnosed diabetes that have achieved blood pressure control (<130/80).	37%	50%
2.3.2	Increase the proportion of women aged 40 years and older who received a mammogram within the preceding 2 years.	74.6%	77%
2.3.3	Reduce 30-day use of illicit substances (age 12 and older).	7.9%	5.8%
2.3.4	Reduce the number of suicide deaths.	32,439	30,584
Strategic Objective 2.4			
Prepare for and respond to natural and manmade disasters.			
2.4.1	Increase the percentage of State public health agencies prepared to use materiel contained in the Strategic National Stockpile (SNS).	70%	90%
2.4.2	Increase the number of States and territories that include persons with disabilities in emergency management plans and responses.	6	55

Note: Additional information about performance indicators is included in Appendix B.

¹⁰ FTE = full-time equivalent employee, and one FTE = 2,000 hours worked (average hours worked by a full-time employee in a year).



Meeting External Challenges

Within the *Public Health Promotion and Protection, Disease Prevention, and Emergency Preparedness* goal, changes in population demographics, shifts in burden of disease, uncertainty related to the scope and timing of public health emergencies, and the potential threat of zoonotic diseases will significantly influence the ability of HHS to achieve the objectives related to this goal.

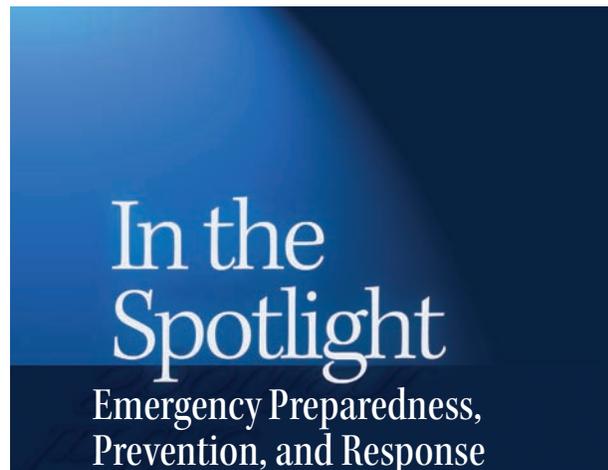
As the Nation's population ages, a greater proportion of Americans will be older and expected to live longer. These shifts will result in an increased chronic disease burden and a greater need for public health interventions to prevent or control these diseases. HHS will work to mitigate these effects by promoting the translation of the evidence base for health promotion and disease prevention for older adults at the community level. HHS also will continue to develop and implement cost-effective models to support increasingly frail older adults in their homes.

A shifting distribution in disease burden also affects the ability of HHS to achieve its public health objectives. For example, HIV-related disease and affected populations will result in an expansion of the number of HIV-infected individuals who need treatment and related care. Infections in new subpopulations could be difficult to identify, reach, and serve. HHS is developing improved disease surveillance and outreach strategies to identify and reach newly affected populations in the United States. HHS also is providing assistance to service providers in planning and capacity-building efforts to meet these changes.

In the public health emergency preparedness arena, external factors represent both threats and opportunities. First, the unexpected scope of emergencies in terms of probability of occurrence, place, time, and type makes resource allocation and targeting a significant challenge. A hurricane can result in significant public health consequences as Hurricane Katrina did in 2005, or may result in little or no health impact. A bioterrorist attack could be widespread, occur simultaneously in multiple locations, or be limited to one room in one building. HHS is addressing

this uncertainty by planning for multiple scenarios in its all-hazards preparedness program. HHS also is providing guidance to help States and localities enhance their capacity to respond to natural or manmade disasters of varying severity and scope. Second, external factors also provide opportunities for shared planning, response, and evaluation. By working with our Federal, State, local, and tribal partners, we can leverage resources and personnel to improve overall level and quality of both preparedness and response.

Emerging pathogens, many of which are zoonotic in origin, also affect emergency preparedness. Because the habitats of animals and people are inextricably linked, there is an increased possibility for exposure to zoonotic diseases. HHS understands this link, and is coordinating strategies to mitigate zoonotic diseases that originate in animals in order to protect both animal and human health. HHS collaborates with other Federal departments and agencies and international organizations that focus on animal health, as well as with State governments and academic institutions, to address zoonotic diseases.



Public Health/Medical Emergencies

The last several years have seen an increased emphasis on preparing for and responding to public health emergencies. The September 11, 2001, terrorist attacks and the anthrax incidents later that year generated significant change at the Federal, State, and local levels in terms of public health law, infrastructure, programming, and coordination to address preparedness and response issues. Infectious disease outbreaks such as SARS and the fear of an influenza pandemic have only amplified interest in public health preparedness.

The range of potential public health emergencies is broad—terrorist attacks using chemical, biological, radiological, and nuclear agents; emerging and reemerging infectious diseases; accidental contamination of food and water supplies; and natural disasters, including hurricanes, earthquakes, and tornadoes. The varying nature and scope of public health emergencies requires an all-hazards approach to planning and response.

Preparedness at All Levels

HHS serves as the primary agency for Emergency Support Function (ESF)-8— preparedness and response to the health consequences of disasters, including terrorist incidents involving weapons of mass destruction—under the *National Response Plan* (NRP). The NRP is designed to engage the response assets of multiple public and private partners and bring them

to bear in a coordinated way at one or a few incident sites. HHS conducts the ESF-8 activities in support of the Federal incident management system, led by the U.S. Department of Homeland Security in its role as the domestic incident manager, pursuant to Homeland Security Presidential Directives and the Homeland Security Act of 2002 (Public Law 107-296).

Carrying out HHS's responsibility as the primary agency for medical and public health preparedness requires the diverse and unique skills of scientists, public health experts, and health care providers at AHRQ, CDC, FDA, HRSA, NIH, OCR, OD, and SAMHSA. Given the complexity of and need for coordination around these preparedness activities, HHS has created a coordination and oversight function for emergency preparedness within the Office of the Secretary. The Office of the Assistant Secretary for Preparedness and Response (ASPR) focuses the activities of these operating and staff divisions, develops and coordinates national policies and plans, provides program oversight, and is the Secretary's public health emergency representative to other Federal, State, and local organizations.

Although significant preparedness activities are undertaken at the Federal level, States and localities are primarily responsible for responding to public health emergencies in their jurisdictions. HHS conducts basic and applied research to improve planning for and service provision in public health emergencies. HHS also offers technical assistance, guidance, and funding support to State and local governments to aid in the development and implementation of public health emergency preparedness plans.

Framework for Preparedness

HHS leads the Federal public health and medical emergency response to acts of terrorism or nature and to other public health and medical emergencies. ASPR is responsible for ensuring that HHS's family of agencies work together to develop public health and medical preparedness and response capabilities and that they lead and coordinate the relevant activities of the HHS operating divisions.

Preparedness strategies focus on ensuring that individuals, families, vulnerable populations, and communities are prepared for public health emergencies and disasters. Response strategies focus on promoting resiliency and responsibility in communities and among the citizenry in response to a public health emergency.

These strategies include:

Developing and using policies and plans. HHS is developing national and Departmental policies and plans for response to public health and medical threats and emergencies. Areas of planning include developing and maintaining the *National Health Security Strategy*, a coordinated strategy, and the implementation plan for public health emergency preparedness and response that includes an evaluation of progress of Federal, State, local, and tribal entities, based on evidence-based benchmarks and objective standards that measure levels of preparedness. This response also includes developing a strategic plan to integrate biodefense and emerging infectious disease requirements with advanced research and development, strategic initiatives for innovation, and the procurement of qualified countermeasures (within the purview of the Biomedical Advanced Research and Development Authority, or BARDA¹¹).

Aligning resources and building partnerships. HHS is aligning Departmental entities to support the ASPR preparedness, prevention, and response mission and is building productive strategic partnerships—at the domestic and international levels, within the private and public sectors—to combat bioterrorism and other public health threats and emergencies.

Coordinating emergency preparedness and response activities. Activities include coordinating the acceleration of advanced research, development, and procurement of qualified countermeasures, including pandemic or epidemic products (within the purview of BARDA). HHS also coordinates public health and medical response systems with relevant Federal, State, local, and tribal officials and with the *Emergency Medical Assistance Compact* to ensure integration of preparedness and response activities for public

¹¹ This agency would lead in the development of new medical countermeasures against bioterrorism and natural disease outbreaks.





health emergencies. HHS also works to ensure that the *National Disaster Medical System* (NDMS),¹² the *Medical Reserve Corps* (MRC),¹³ and the *Emergency System for Advanced Registration of Volunteer Health Professionals* (ESAR-VHP)¹⁴ are properly coordinated to maximize and streamline the response to public health emergencies.

Enhancing response personnel capacity. This process begins with establishing and maintaining a *Medical Reserve Corps* to provide for an adequate supply of volunteers in the case of a Federal, State, local, or tribal public health emergency. HHS is also developing core health and medical response curriculums and training to improve responses to public health emergencies.

Enhancing preparedness through leadership and support. HHS efforts enhance State and local public health and medical preparedness—primarily health departments and hospitals, providing expert medical, scientific, and public health leadership and advice. HHS also leads international programs, initiatives, and policies that deal with public health and medical emergency preparedness and response related to naturally occurring threats such as infectious diseases and deliberate threats from biologic, chemical, nuclear, and radiation sources. In addition, the Department awards contracts, grants, and cooperative agreements, or enters into other transactions, such as prize payments, to promote innovation in technologies that may assist countermeasures and produce advanced

12 The NDMS is a federally coordinated system that augments the Nation's medical response capability. The overall purpose is to establish a single integrated national medical response capability for assisting State and local authorities in dealing with the medical impacts of major peacetime disasters and to provide support to the military and the VA medical systems in caring for casualties evacuated back to the United States from overseas armed conventional conflicts.

13 The MRC establishes teams of local volunteer medical and public health professionals who can contribute their skills and expertise throughout the year and during times of community need.

14 ESAR-VHP works to establish standardized volunteer registration systems within each State and in the territories that will include readily available, verifiable, and up-to-date information of the volunteer's identity, licensing, credentialing, accreditation, and privileging in hospitals or other medical facilities that might need volunteers. Establishment of these nationally accepted guidelines to build their State systems would afford each State the ability to quickly identify, and better utilize, health professional volunteers in emergencies and disasters.



research and development; conducts research on and develops research tools and other devices and technologies; and supports research to promote strategic initiatives (within the purview of BARDA). HHS also awards competitive grants or cooperative agreements to support the improvement of surge capacity and enhancement of community and hospital preparedness for public health emergencies.

Protecting vulnerable populations. HHS ensures that State and local emergency plans include attention to persons with disabilities in all emergency management plans and responses.

Providing support in emergencies. HHS rapidly provides public health and medical support to Federal, State, local, and tribal incidents of national significance or public health and medical emergencies.

Establishing the Public Health Emergency Medical Countermeasures Enterprise. HHS has developed a strategy for the *Public Health Emergency Medical Countermeasures Enterprise*. The ultimate goal is to establish the foundational elements that will support medical countermeasure availability and utilization for the highest priority chemical, biological, radiological, and nuclear threats facing the Nation.

Establishing a nationwide situational awareness. HHS is working to develop and implement a near-real-time electronic nationwide public health situational awareness capability through an interoperable network of systems to enhance early detection of, rapid response to, and management of potentially catastrophic infectious disease outbreaks and other public health emergencies.



HHS's Mandate

The mandate of the U.S. Department of Health and Human Services is to protect the health of the American people. Events in recent years, however, have made it clear that our efforts to protect Americans' health cannot end at our borders.

Pathogens and other threats to human health are as mobile as we are, and have become more and more dangerous through growing drug resistance and natural mutations. As the world's population becomes increasingly mobile, and as diseases change, our own health becomes more and more intertwined with the world's health.

The health of other nations is also closely tied to economic productivity, social stability, and good governance. Such economic, social, and political realities clearly intersect with our national interest, and further compel us to address a variety of global health concerns.

Health-related programming can also hold a special place as a foreign-policy tool for the U.S. Government. Our work to improve global health demonstrates the generosity of the American people. Given the universal value populations place on good health, evidence-based, public-health interventions can help to transcend political boundaries.

Meeting its Mandate

HHS works to improve global health through direct assistance, technical and program support, training and capacity building, and through research.

Within HHS, CDC works to detect, verify, and quickly respond to outbreaks of infectious diseases around the globe and to control other health threats at their origin to prevent international spread. To maintain the safety of the American people, FDA regulates millions of products produced abroad. NIH addresses global health challenges through innovative, collaborative research and training programs, and through international partnerships. SAMHSA works with postconflict and postdisaster countries to enable stakeholders to work together to address the mental health needs of their peoples. It also helps to administer programs to train and support mental health professionals from developing nations. Building on its leadership of the domestic Ryan White HIV/AIDS Program, HRSA provides training and quality improvement interventions in the *President's Emergency Plan for AIDS Relief* (PEPFAR).

HHS has a significant international presence. HHS staff—both civil servants and USPHS officers—serve around the globe. These dedicated professionals work to improve the health of the world—through their work on PEPFAR, the *President's Malaria Initiative* (PMI), the *Global Polio Eradication Initiative* (GPEI), or through work to encourage innovative, cooperative biomedical research with researchers from other countries. HHS also regularly sends its staff to work as health attachés in U.S. Embassies and Missions abroad. These health attachés represent the U.S. Government to host-country ministries of health and to international organizations such as WHO.

Achievements

Through its work in international health, HHS boasts a number of significant accomplishments. In the first 3 years of PEPFAR, in 15 focus countries in Africa, Asia, and the Caribbean, HHS, through the efforts of CDC, FDA, and HRSA, has played a significant role in the U.S. Government's support of antiretroviral treatment for 820,000 people living with HIV/AIDS. In its role in PEPFAR, HHS has also joined the U.S. effort in supporting care for almost 4½ million people, including 2 million orphans and vulnerable children, as well as counseling and testing for 18.6 million people.

In the first year of PMI, which HHS and the United States Agency for International Development (USAID) implement jointly, PMI delivered life-saving interventions to prevent and control malaria in the first three countries (Angola, Tanzania, and Uganda). Nearly 1 million long-lasting insecticide-treated bed nets (ITNs) were distributed; approximately half a million ITNs that were not long lasting were re-treated; more than 2 million people were protected from malaria after the interiors of their homes were sprayed with insecticides; and approximately 1.2 million treatments of artemisinin-based combination therapy were procured and distributed.

Through CDC's participation in the GPEI, HHS has played a significant role in spearheading the global fight to eradicate polio. At the launch of the GPEI in 1988, polio was endemic in more than 125 countries, and paralyzed 350,000 children each year. In 2006, only 1,985 people were paralyzed by polio, and now, only 4 endemic countries remain. CDC continues to provide significant technical expertise and support to governments and international organizations in the fight to eradicate polio.

HHS, through the work of CDC, is a core partner in the global *Measles Initiative*, which also includes the American Red Cross, United Nations Foundation, United Nations Children's Fund, and WHO. The work of this initiative has had a significant effect on measles deaths globally. Such deaths have fallen by 60 percent worldwide, from an estimated 873,000 deaths in 1999, to 345,000 in 2005. In Africa, measles deaths fell by 75 percent, from an estimated 506,000 to 126,000 in that same period. A concerted initiative in the Americas since 2002 has eliminated endemic measles from the Western Hemisphere.

Interagency Efforts

We also know that we cannot achieve our global health goals alone. In our work, HHS partners with many other Departments, including the U.S. Departments of State, Defense, Agriculture, Homeland Security, and Commerce. HHS also collaborates closely with USAID and with EPA. HHS also enjoys excellent bilateral

partnerships with other governments, as well as good working relationships with multilateral organizations, nongovernmental and faith-based organizations, and with the private sector.

HHS is also committed to working to achieve several of the Millennium Development Goals (MDGs) developed by the United Nations. Eight MDGs were developed in September 2000 at the United Nations Millennium Summit to help provide a framework for leaders to improve the health and well-being of men, women, and children around the world. The intent is to make significant improvement in these areas by 2015. Of the MDGs developed, HHS is particularly focused on MDG 4 (reduce child mortality), MDG 5 (improve maternal health), and MDG 6 (combat HIV/AIDS, malaria, and other diseases).

Important as international health may be today, addressing its challenges will be crucial in the future. If the U.S. Government is to continue its leadership in global affairs, it must continue to foster these high-tech, public health instruments for engaging the world, both to mitigate global health risks and to strengthen U.S. public diplomacy abroad.