

# STATE OF CDC 2008 PARTNERING FOR A HEALTHY WORLD



# Partnering for a Healthy World

## West African Wisdom: Adinkra Symbols & Meanings

African symbols known as adinkra are ubiquitous in Ghana, a beautiful West African country on the Atlantic Ocean, situated between Cote d'Ivoire and Togo. On cloth and walls, in pottery and logos, these Asante tribe symbols can be found everywhere.

These icons are used to represent the four different sections and additional facts in this report:



### BEST IN SCIENCE

**HWE MU DUA** "MEASURING STICK"

*symbol of examination and quality control*

This symbol stresses the need to strive for the best quality, whether in production of goods or in human endeavors.



### READINESS AND RESPONSE

**PEMPAMSIE** "SEW IN READINESS"

*symbol of readiness, steadfastness, hardiness*

According to The Adinkra Dictionary, the design of this symbol resembles the links of a chain, and implies strength through unity as well as the importance of being prepared.



### PARTNERSHIPS

**BOA ME NA ME MMOA WO** "HELP ME AND LET ME HELP YOU"

*symbol of cooperation and interdependence*

This symbol emphasizes the idea that aid is reciprocal. In order to be good teachers we must be great students who appreciate the art of cooperation and support.



### ABOUT CDC

**ADINKRAHENE** "CHIEF OF THE ADINKRA SYMBOLS"

*symbol of greatness, charisma, and leadership*

This symbol signifies the importance of playing a leadership role.



### DID YOU KNOW?

**NYANSAPO** "WISDOM KNOT"

*symbol of wisdom, ingenuity, intelligence, and patience*

This symbol conveys the idea that a wise person has the capacity to choose the best means to attain a goal.

# STATE OF CDC

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# Welcome to CDC

Welcome to The State of CDC, Fiscal Year 2008, our annual health protection impact report.



Each day at CDC, we try to imagine a safer, healthier world: a world where infants are born healthy and cared for, so as children, they can arrive at school safe, well-nourished, and ready to learn; a world in which teenagers have the information, motivation, and hope they need to make healthy choices about their lifestyles and behaviors; and a world in which adults enjoy active and productive lives in safe communities where they can remain independent and engaged with family and friends throughout their senior years.

**“Partnering for a Healthy World” is the theme of this year’s State of CDC report.**

Imagining this safer, healthier world brings us closer to reaching our vision of “Healthy People in a Healthy World—Through Prevention.”

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

**CDC is our nation’s leading health protection agency.**

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

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

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

To learn more about CDC, visit us on the web at [www.cdc.gov](http://www.cdc.gov).

# Health Protection Goals

CDC is committed to achieving true improvements in people's lives by accelerating the impact of positive health practices and reducing health disparities. A set of four overarching Health Protection Goals has been created and are supported by a number of CDC strategic goals and objectives. For more information, visit [www.cdc.gov/osi/goals/goals.html](http://www.cdc.gov/osi/goals/goals.html).

## Healthy People in Every Stage of Life

All people, and especially those at greater risk of health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life.



## People Prepared for Emerging Health Threats

People in all communities will be protected from infectious, occupational, environmental, and terrorist threats.



## Healthy People in Healthy Places

The places where people live, work, learn, and play will protect and promote their health and safety, especially those people at greater risk of health disparities.



## Healthy People in a Healthy World

People around the world will live safer, healthier, and longer lives through health promotion, health protection, and health diplomacy.



## Strategic Imperatives

- 1. Health Impact Focus.** Align CDC's staff, strategies, goals, investments, and performance to maximize impact on the population's health and safety.
- 2. Customer-centricity.** Market what people want and need to choose health.
- 3. Public Health Research.** Create and disseminate the knowledge and innovations people need to protect their health now and in the future.
- 4. Leadership.** Leverage CDC's unique expertise, partnerships, and networks to improve the health system.
- 5. Globalization.** Extend CDC's knowledge and tools to promote health protection around the world.
- 6. Accountability.** Sustain people's trust and confidence by making the most efficient and effective use of their investment in CDC.



Epidemiologist Thai-An Nguyen, M.P.H., is plating (growing) a mixed bacteria culture for further microbiologic characterization.

Today we face a broad range of urgent threats, from emerging infections and climate change to increased health care costs and an aging population. Meeting each of these challenges requires a strong grounding in scientific evidence. CDC is guided by this principle to create tools, systems, and networks that advance public health practices and improve the nation's health status. Our scientific findings and recommendations are much more than data and statistics—our staff and partners use this information to guide public health actions that improve and protect lives around the world.

CDC's commitment to protecting health is reinforced and guided by a set of four overarching Health Protection Goals that focus on better health for all people by accelerating health impact and achieving health equity. In these stories you will read how the strategic imperatives have been applied to meet the health protection goals.

In this section, you will read about how CDC and its partners are working to control the obesity epidemic, increase vaccine access to children worldwide, and keep water safe for the Navajo Nation.

These stories represent only a fraction of the work being done by CDC and its partners. We hope they inspire you to learn more about CDC, its people and partners, and the science behind our public health activities.

## Stories in this Section

- **Controlling the Obesity Epidemic**
- **Diabetes Tracking and Prevention Shows Progress**
- **New HIV Test Revises Epidemic Trends**
- **More Immigrants Being Screened for Tuberculosis**
- **Pandemic Influenza: New Test, New Vaccines**
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## Controlling the Obesity Epidemic



CDC partnerships, innovative interventions, and new research findings in 2008 all contributed to the early signs of success in the prevention and control of obesity on both the state and national levels. From classrooms to living rooms, recent evidence indicates that obesity rates have hit a plateau—a critical first step in reversing the alarming trends that have been increasing since 1980.

For example, CDC surveys found no increase in obesity prevalence among women or men between 2003–2004 and 2005–2006. Evidence from the Youth Risk Behavior Surveillance System indicates that the prevalence of high body mass index (BMI) among children and adolescents has leveled off. CDC's efforts have also helped to increase recognition of obesity as a national public health problem. From 2000–2006, the number of articles on obesity published in the national press increased from 2,000 to 6,000. Other important indicators include the substantial shifts in available school foods as documented by the *2006 School Policies and Programs Survey*, and the large number of US communities mobilizing to address obesity prevention and control.

### CDC is making inroads in the fight against obesity on numerous fronts:

**Creating Innovative Partnerships.** *The Healthy Eating Active Living Convergence Partnership* seeks to change policies and environments to better achieve the vision of Healthy People Living in Healthy Places. Its innovation lies in its focus on engaging people in fields not traditionally involved in public health. This partnership is currently focusing on two areas—transportation and food systems—as powerful leverage points to develop active living environments and improve access to healthy foods. In 2009, CDC will co-convene a *Transportation and Public Health* meeting and will co-sponsor a *Food Systems and Public Health* meeting. Partners include the California Endowment, Kaiser Permanente, Nemours, Robert Wood Johnson Foundation, W.K. Kellogg Foundation, PolicyLink, and Prevention Institute.

**Convening National Leadership Activities.** CDC is leading the development of the *National Roadmap for Obesity Prevention and Control* plan, expected in 2010. Two conferences that convened in 2008 were stepping stones for developing the Roadmap: *The National Summit on Legal Preparedness for Obesity Prevention and Control*, which focused on law-based strategies for obesity prevention and control; and *The Community Approaches to Address Obesity Conference*, which focused on understanding, reporting and disseminating successful community-level obesity interventions. These conferences laid the groundwork for the upcoming *Weight of the Nation Conference*, scheduled for summer 2009, which will highlight progress in obesity prevention and control and identify action needed to reverse the epidemic.

**Advancing National Collaboration on Childhood Obesity Research (NCCOR).** Initiated in 2008, NCCOR is helping to stem the epidemic by advancing coordination across research funding organizations. NCCOR benefits research, evaluation, translation, and dissemination efforts by accelerating the pace of research; reducing redundancy; ensuring focused initiatives in the areas of greatest need; and building capacity for multilevel, integrated research. NCCOR is developing a shared research agenda focused on priority areas for collaboration. To build momentum and achieve early impact, NCCOR is identifying initial projects while the long-term joint research agenda is being developed. Partners include the National Institutes of Health and the Robert Wood Johnson Foundation.

**Developing the Measures Project.** There is an absence of agreed-upon measures to assess the policy and environmental change strategies that communities are initiating in response to the obesity epidemic. The *Measures Project* is designated by CDC as state-of-the-art in community practice because it adds to the existing evidence base while simultaneously providing a tool for communities to focus their obesity efforts. Twenty-six promising policy and environmental change strategies, each with a single measure, have been identified. A web-based tool that local governments can use to assess performance on the 26 measures is being pilot tested by 20 communities. These communities will provide feedback on the feasibility and usefulness of the measures for local governments and policy makers at an end-users meeting in January 2009, after which it is expected that the measures will be disseminated and implemented nationwide.

**Implementing Early Assessment of Programs and Policies to Prevent Childhood Obesity.** This two-year collaboration identifies a set of local-level programs and policies to improve children's eating habits and physical activity levels and determines which have been implemented with apparent success and which merit rigorous evaluation. This assessment prevents premature investment in evaluating programs and policies that have not been implemented adequately, allowing resources to be targeted to those evaluations most likely to fill important gaps in the evidence base for obesity prevention. Priority is placed on programs and policies implemented in community settings targeting children aged 3–17 years and addressing populations that disproportionately experience childhood obesity (e.g., low income; ethnic groups). Fourteen programs and policies have been deemed ready for immediate, full-scale evaluation, of which one (*New York City Daycare Regulations*) will undergo rigorous evaluation in late 2009.

### Translating Research into Practice.

CDC translates research findings for use by practitioners, communities, and the public:

- **Lean for Life Web site.** A synthesis of the science and practice-based evidence on worksite obesity interventions, this Web site guides companies in planning, building, promoting, and evaluating customized obesity prevention and control programs. Developed in direct response to organizations requesting help in addressing obesity, the Web site includes an obesity cost calculator that projects the cost of obesity for a company and their expected financial return from implementing a program.
- **Swift Worksite Assessment and Translation.** This evaluation method allows for rapid assessment of worksite health promotion programs that help employees attain or maintain a healthy body weight. The method generates data sufficient to identify promising and innovative worksite strategies for reducing adult obesity. New translation documents for this method include an implementation guide and site visit protocol documents; they are available on CDC's *Healthy Worksite Initiative* Web site.
- **The Weight Management Research to Practice Series.** This series of documents summarizes the science on various weight management topics and highlights the implications of research findings for public health and medical care professionals. Some installments in the series have a companion brochure geared toward the general public. Five documents are completed covering the topics of fruits and vegetables, portion sizes, sugar-sweetened beverages, breastfeeding, and low-energy dense foods.
- **Healthy Weight Web site.** Launched in 2008, the *Healthy Weight* Web site was created using CDC's trusted weight management science as the foundation. The Web site emphasizes that healthy weight loss is not just about a "diet" or "program" and provides consumers with credible information, relevant steps, and tools to help them achieve and maintain a healthy weight for a lifetime.

These activities promote CDC's Health Protection Goals of Healthy People at Every Stage of Life and Healthy People in a Healthy World. For more information about these translation efforts, go to CDC's obesity Web site at [www.cdc.gov/nccdphp/dnpa/obesity/index.htm](http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm) and click on "selected resources."

#### DID YOU KNOW?

#### Obesity Rates



Obesity rates for adults have doubled between 1980 and 2004, while obesity rates for children have nearly tripled. Sixteen percent of US children and more than a third of US adults—more than 72 million people—are obese. Increases in obesity have occurred among the entire population. However, the largest increases have occurred among children and minorities.



## Diabetes Tracking and Prevention Shows Progress



CDC's diabetes prevention and research activities made new strides in 2008. For the first time, estimates of diabetes rates became available at the county level for all of the United States. In response to these new estimates, state-based prevention programs are identifying and referring more prediabetic Americans into group-based lifestyle programs.

CDC is the only federal agency that develops national surveillance systems for diabetes incidence data. Previously, data were only available at the state level. In July 2008, estimates of diabetes rates became available in each county. These data are an important step toward addressing the burden of diabetes. Nationally, the data indicate increased diabetes rates in areas of the Southeast and Appalachia that have traditionally been recognized as being at higher risk for many chronic diseases, including cancer, heart disease, and stroke.

Recent clinical trials have established that moderate weight loss through exercise and healthy eating can reduce the risk for diabetes by nearly 60% for the estimated 57 million Americans with prediabetes. Interventions may be cost effective if the annual per-person cost can be reduced to \$100–\$200 and if the programs can maintain the quality standards established in the clinical trials. A CDC-funded primary prevention pilot in Minnesota recently documented an annual cost of \$160 per participant for lifestyle interventions delivered in group settings. The estimated 5%–7% weight loss in these participants was consistent with results achieved in clinical trials and supports and sustains CDC's Health Protection Goal of Healthy People in a Healthy World.

State-based diabetes prevention and control programs, under the auspices of CDC's *Diabetes Primary Prevention Initiative* (DPPI), are demonstrating success in identifying individuals with prediabetes and referring them to lifestyle programs in group settings such as those at the YMCA. DPPI is achieving these results in populations that largely comprise the medically underserved. These efforts provide the foundation for translating primary prevention science into widespread and broad-based community practice.

### Diabetes Snapshot

#### DID YOU KNOW?



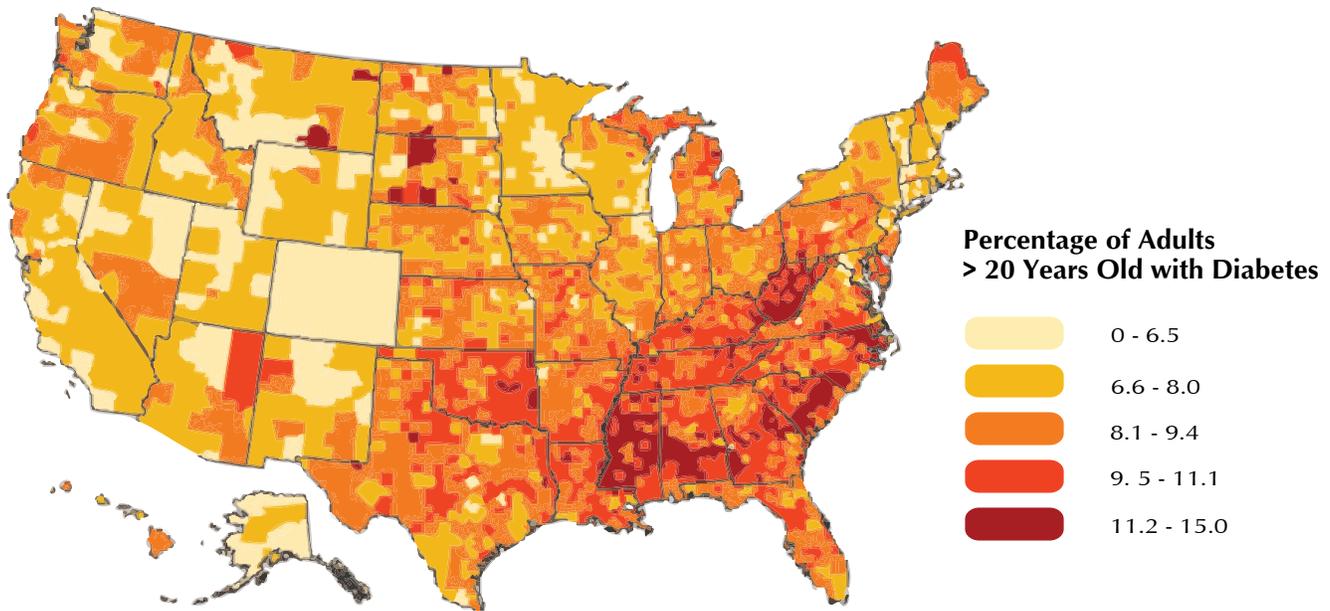
Diabetes is the seventh leading cause of death and the leading cause of adult blindness, kidney failure, and non-traumatic lower extremity amputation. Heart disease deaths are 2–4 times higher for adults with diabetes.

In the last 15 years, the number of people in the United States with diabetes has more than doubled, reaching nearly 24 million Americans.

In addition to diabetes, 57 million US adults have prediabetes—elevated blood glucose levels not yet high enough to be classified as diabetes. Prediabetes increases the chances of developing diabetes 10- to 15-fold.

The total cost of diabetes in the United States in 2007 was \$174 billion, or 20% of total US health care costs.

## 2005 County Level Estimates of Diagnosed Diabetes in the United States



The prevalence of diagnosed diabetes by county was estimated using data from CDC's Behavioral Risk Factor Surveillance System (BRFSS) and data from the US Census Bureau's Population Estimates Program. Three years of data are used to improve the precision of the year-specific county-level estimates of diagnosed diabetes estimates. For example, 2004, 2005, and 2006 were used for the 2005 estimate. CDC is currently working on the county-level estimates for 2006.

Map provided by the Centers for Disease Control and Prevention: National Diabetes Surveillance System. This map and additional information can be found online at [www.cdc.gov/diabetes/statistics/index.htm](http://www.cdc.gov/diabetes/statistics/index.htm). Retrieved 12/15/2008.



## New HIV Test Revises Epidemic Trends



Microbiologist Xin Liu, Ph.D., is training laboratory personnel to perform the new test (BED Incidence Assay) during a workshop in Africa.

Accurately tracking the HIV epidemic is essential to the nation's HIV prevention efforts. Monitoring trends in new HIV infections has posed a major challenge, since the beginning of the epidemic, in part because many HIV infections are not diagnosed until years after they occur.

CDC has developed a new technology called serologic testing algorithm for recent HIV seroconversion (STARHS). CDC has applied this technology to develop the first national surveillance system of its kind that is based on direct measurement of new HIV infections. This system provides more precise estimates of HIV incidence (the annual number of new infections) than ever before, because it can more accurately distinguish recent from long-standing HIV infections.

Since CDC applied this advanced technology, the first estimates issued in August 2008 indicated that approximately 56,300 new HIV infections occurred in the United States in 2006. This figure is roughly 40% higher than CDC's former estimate of 40,000 infections per year, which was based on limited data and less precise methods. A CDC historical trend analysis, also published in 2008, suggests that the number of new infections was likely never as low as the previous estimate of 40,000 and has been roughly stable overall since the late 1990s. The new estimate does not represent an actual increase in the number of new infections, but rather reflects the ability to more precisely measure new HIV infections. Accurate measurement of new HIV infections assists CDC's efforts in educating people about emerging health threats.

The results also confirm that the impact of HIV remains greatest among gay and bisexual men of all races, as well as among African American men and women. In 2006, infection rates among African Americans were seven times as high as Caucasians and almost three times as high as Hispanics, a group that was also disproportionately affected.

This innovative laboratory test will help CDC track the estimated number of new HIV infections in the United States annually. Information gathered from both the surveillance system and the test will allow CDC to better monitor the current course of the epidemic, target prevention efforts where they are needed, and assess the impact of current prevention efforts.



## More Immigrants Being Screened for Tuberculosis



Ever wonder if CDC has the authority to prevent infectious diseases from entering the United States? It does. In fact, CDC has recently rewritten the rules on how countries should screen and treat people with tuberculosis before they arrive in this country. This will result in states saving an estimated \$2 million in 2009 alone.

Medical screening for tuberculosis is legally required before applicants for US immigration (both immigrants and refugees) can receive a visa and enter the United States. Because of CDC's authority, CDC is working on programs to decrease illness and death among immigrants and refugees and to prevent diseases from entering the United States. These efforts include building a *Domestic Refugee Health Program*, implementing the Electronic Disease Notification (EDN) system, publishing revised tuberculosis technical instructions, and developing a *Refugee Health Initiative*.

The *Domestic Refugee Health Program* assists refugees with the health aspects of resettlement and provides recommendations to physicians for post-arrival health assessments and preventive health interventions. This program also works with health departments to better understand the health problems that refugees face after arrival. The long-term goal of the *Domestic Refugee Health Program* is the standardization of medical services for refugees.

A long-term initiative now reaching maturity is EDN, an electronic, secure web-based system for notifying health departments of the arrival of immigrants and refugees. This system ensures that refugees receive a prompt post-arrival medical evaluation. As of October 1, 2008, the more cost-efficient EDN replaced the nationwide, slower, hard-copy notification system that depended on the mail service. All 50 states are receiving notifications through EDN.

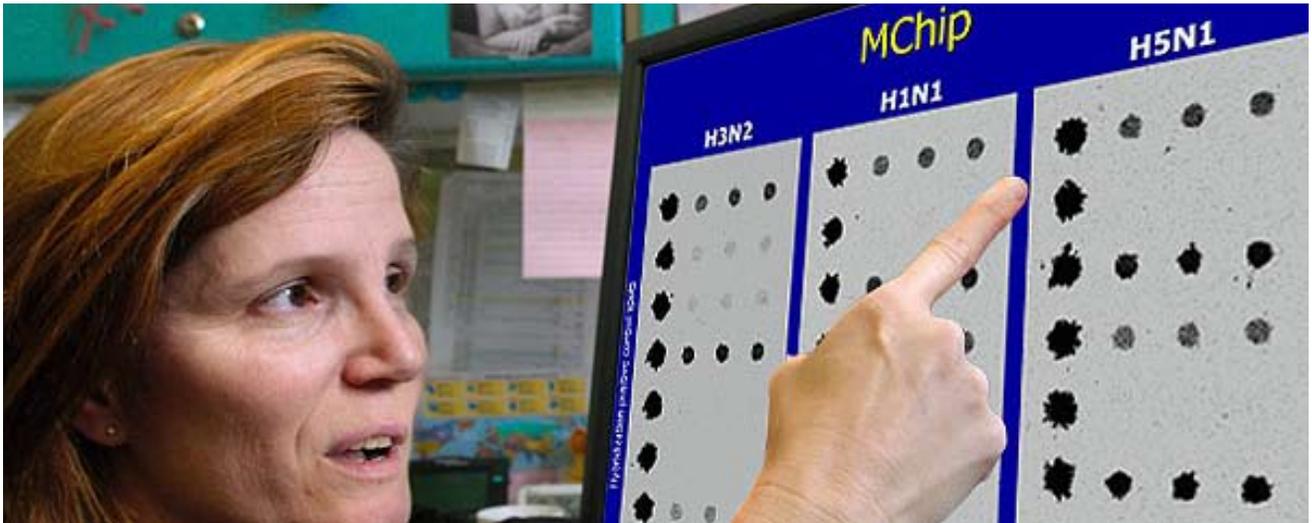
In addition, CDC modernized the tuberculosis technical instructions used to screen overseas applicants for US immigration in 2007. The revised instructions identify additional tuberculosis cases by incorporating modern diagnostic testing and addressing appropriate treatment prior to arrival in the United States. By the end of Fiscal Year 2008, 28% of US-bound immigrants were screened for tuberculosis.

Implementing the revised instructions is anticipated to result in three times as many cases of tuberculosis being detected overseas and treated prior to arrival in the United States, allowing for diagnosis and treatment to occur prior to foreign-born persons entering the country. The decreased burden of diagnosis and treatment in the United States will lead to an estimated annual cost savings that will reach into the tens of millions, providing leadership in the global effort to control tuberculosis. This work supports CDC's Health Protection Goal of People Prepared for Emerging Health Threats.

Additional information about the 2007 tuberculosis technical instructions and a listing of populations being screened can be found online at [www.cdc.gov/ncidod/dq/panel\\_2007.htm](http://www.cdc.gov/ncidod/dq/panel_2007.htm).



## Pandemic Influenza: New Test, New Vaccines



Microbiologist Catherine Smith, M.M.S.C., illustrates how the new diagnostic device called the "M-Chip" detects highly pathogenic avian H5N1 influenza virus and many other commonly circulating seasonal influenza viruses. The M-Chip was developed in collaboration with Scientists at the University of Colorado, Boulder.

On September 30, 2008, the US Food and Drug Administration cleared an important new test that can rapidly detect and identify human influenza viruses, including those that may pose a pandemic risk. The human influenza virus real-time polymerase chain reaction detection and characterization panel (RT-PCR) was developed by CDC in collaboration with Applied Biosystems of Foster City, California and the Association of Public Health Laboratories. Using a molecular biology technique, the RT-PCR can test multiple samples at once and renders results within just four hours.

CDC developed six H5N1 pandemic influenza vaccine candidates derived from viruses from Indonesia and China for use in manufacturing pre-pandemic vaccines including H5N1 vaccine candidate Clade 2.1 and H5N1 vaccine candidate Clade 2.2. H5N1 viruses are the avian influenza viruses currently causing human cases in Asia and Africa (more than 300 cases so far). They are a concern because of the potential to become a new pandemic strain. They have caused outbreaks in birds (usually chickens) in Asia, Africa, the Middle East, and Europe.

CDC also developed a five-target polymerase chain reaction panel for influenza (A, B, H1, H3, and H5); approval is pending from the US Food and Drug Administration. This new area of diagnostics for CDC will greatly enhance disease detection, prepare people for emerging health threats, and provide a path for future development.

### First Pandemic Influenza Ethics Workshop Held in Africa

#### DID YOU KNOW?



CDC collaborated with the *African Field Epidemiology Network* to convene a symposium on public health codes of ethics for pandemic influenza detection and control in Africa. Representatives from 15 African countries discussed how to make ethical decisions using current scientific knowledge while evaluating the effectiveness of interventions.

Conference participants identified and discussed African-specific ethical challenges likely to arise during a pandemic:

- Enforcement of culling sick poultry when poultry is the primary protein in African diets.
- Compensation for owners who are required to cull their smaller flocks.
- Politicians who try to reserve available vaccines for their own use.
- Opposition to preparing for a pandemic when most people die from AIDS, malaria, and tuberculosis.

## Innovations in Medicine Safety

Medicines are used to heal, but they can sometimes cause harm when not used correctly. A recent CDC study has shown that adverse drug events cause more than 700,000 emergency department visits each year.

CDC partners with other federal agencies to measure, understand, and prevent harm from medicines, especially for the most vulnerable Americans—children and older adults. CDC, with the US Food and Drug Administration (FDA), joined together with the US Consumer Product Safety Commission to enhance the existing National Electronic Injury Surveillance System: Cooperative Adverse Drug Events Surveillance system (NEISS-CADES). This system tracks adverse drug events such as allergic reactions, side effects, and unintentional overdoses, supporting CDC's efforts to protect people in every stage of life.

CDC's innovation in national health monitoring using the NEISS-CADES system and collaborations with other federal agencies recently identified high rates of emergency visits for overdoses from cough and cold medicines among young children. FDA and the manufacturers of these products now recommend that these medicines should not be taken by children less than four years old. CDC and FDA are working together to ensure that parents and physicians are aware of these new recommendations which may prevent thousands of emergency department visits each year.



In 2008, CDC also used the NEISS-CADES system to find that just three drugs (insulin, warfarin, and digoxin) caused one in three emergency department visits related to medications among older adults. FDA, the Health Resources and Services Administration, and nongovernmental organizations are now using this information to focus and prioritize medication safety efforts to keep people healthy. CDC data also found that antibiotics were seven of the top 15 medicines implicated in emergency visits for adverse drug events. CDC has been working to reduce inappropriate use of antibiotics to address the emerging threat of antimicrobial resistance.

### Hearing Initiative Triples Screening for Infants

Strong partnerships and collaborations with other federal agencies, states and territories, as well as several professional organizations are responsible for the remarkable success of CDC's *Early Hearing Detection and Intervention* program. At the program's inception, fewer than 30% of infants in the United States were being screened for hearing loss, compared to more than 92% today.

This program is a national initiative that supports the early identification of infant hearing loss through screening, audiological diagnosis, medical evaluation, and enrollment in early intervention services. More than 12,000 babies are born in the United States with hearing loss every year. Prior to this program, the average age of diagnosis of hearing loss in infants and young children ranged from 14 months to around three years of age. Now, many infants are diagnosed before three months of age. With screening and early intervention, estimates show a reduction of \$44,220 per child in lifetime educational costs for children with permanent bilateral hearing loss—a potential savings of approximately \$200 million annually.



## Preventing Disability from Disfiguring Lymphedema

Lymphatic filariasis is one of the world's leading causes of permanent and long-term disability. About 120 million people are affected worldwide, and 40 million people are incapacitated and disfigured by this parasitic disease that is transmitted by mosquitoes. Although transmission of this neglected tropical disease can be prevented, lymphatic filariasis is currently endemic in 81 countries and territories, and over 1.3 billion people are at risk. To address this threat, CDC has partnered with several organizations to interrupt transmission and prevent disability in those who already have the disease.

Lymphedema is a disfiguring condition that causes swelling of the limb and changes in the skin, and it is often a physically deforming consequence of lymphatic filariasis. There is no treatment available for lymphedema, but patients can improve with some basic daily management such as washing of the legs and feet to prevent infection of wounds. Lymphedema patients are more vulnerable to infections, similar to patients with advanced diabetes in their feet and legs, which can lead to life-threatening sepsis. Early treatment of bacterial and fungal infections, elevation, and exercise will also help people to manage lymphedema.

In 2008, CDC partnered with Interchurch Medical Assistance, a US-based nongovernmental organization, and provided key technical assistance in implementing large-scale lymphedema management programs.

### India

An estimated 590 million of the 1.3 billion people at risk for lymphatic filariasis live in 250 districts in India and constitute about 40% of the world's burden of this disease. Since its inception in July 2007, the *Lymphedema Management Project* in Orissa State has enrolled more than 5,500 patients in the program and constructed more than 5,000 sandals for patients who do not have shoes (Phase I of the project). Although wearing these sandals does not prevent lymphedema, they can prevent infections that lead to worsening lymphedema and elephantiasis of the leg.

Phase II of the project began in the summer of 2008. Three new areas of Khurda district are now part of the project, and an additional 9,000 lymphedema patients are expected to be enrolled in the program by mid-2009. Volunteers from the communities, health supervisors and personnel, patients, and family members have received both classroom and hands-on practical training in lymphedema management. To date, more than 1,200 people have been trained in 30 workshops, and 300 local volunteers have provided care to more than 5,500 lymphedema patients in the first year of the study.

Future plans include continued scale-up of the program to the entire district, enrolling close to 22,000 lymphedema patients by June 2010. This will be the largest nongovernmental organization-run lymphedema management program in India. A toolkit is being created to assist other nongovernmental organizations, in India and elsewhere, in starting their own programs.

### Togo

Togo is a small, West African country of 5.5 million in which 35% of the population live in extreme poverty. With CDC's assistance, Togo has become the first country in Africa with a national lymphedema treatment program. Health workers in more than 500 dispensaries and some 10,000 village community workers have been trained to diagnose lymphedema, discuss treatment and prevention, and provide motivation and support; about 1,000 patients with lymphedema are enrolled in the treatment program.

By using town criers, the radio, and posters, villages are building awareness of the program and encouraging villagers with lymphedema to go to dispensaries and enroll in the program. As a result, success stories abound in which patients who couldn't walk are now walking again. Almost all patients see an improvement in their quality of life, most likely leading to the program becoming a model for lymphedema programs in other West African countries.



A community volunteer shows how to properly wash and dry the legs of a person with lymphedema. This is a critical hygiene component that helps prevent further local infection.

## Increasing Vaccine Access to Children Worldwide



In low-income countries around the world, CDC has made significant contributions in introducing and administering *Haemophilus influenzae* type b (Hib) vaccine. The vaccine protects susceptible populations from Hib disease, one of the leading causes of severe childhood pneumonia and meningitis.

Hib disease is the estimated cause of three million cases of meningitis and severe pneumonia and is responsible for approximately 400,000 deaths worldwide per year in children five years of age and younger. Safe and effective Hib vaccines have been widely used in industrialized countries for nearly 20 years, but they have been relatively unavailable in the world's poorest countries.

In 2000, the Global Alliance for Vaccines and Immunization (GAVI) initiated a project that provided financial support for purchasing and providing the Hib vaccine in 72 of the world's poorest countries. From 2004–2008, the proportion of these countries using or approved to use Hib vaccine increased from 17% to 56% thanks to a focused, collaborative effort by the GAVI, the World Health Organization, and CDC. This number is projected to increase to 81% in 2009, supporting and sustaining CDC's efforts to promote Healthy People in Every Stage of Life.

In 2004, 6.8 million children born in one of the 72 GAVI-eligible countries had access to the Hib vaccine. In 2007, 14 million of the 79 million children had vaccine access, and by the end of 2008, 43 million children are expected to have access. Several factors fostered increased interest and use of the Hib vaccine in the GAVI-eligible countries:

- Greater awareness of the amount and severity of disease caused by Hib.
- Greater encouragement by the World Health Organization that the Hib vaccine be included in routine immunization programs in all countries.
- Greater effort by GAVI to make the vaccine more affordable and accessible to the world's most susceptible populations.

## Accessing Family History for Disease Risk and Prevention



Most disease results from a combination of genetic and environmental factors. Family members share genes, behaviors, lifestyles, and environments, which may make them more susceptible to certain chronic diseases. People who have close family members with a chronic disease—such as cancer, coronary heart disease, or diabetes—may have a higher risk of developing that disease.

As part of its family history initiative, CDC's National Office of Public Health Genomics sponsored the creation of Family Healthware™. This tool is designed for individuals to collect and display their family history information. Individuals are asked to input information on six diseases (coronary heart disease, stroke, diabetes, and three cancers: colorectal, breast, ovarian) and specific behaviors, such as physical activity, diet, smoking, alcohol use, aspirin use, and the use of screening tests. In return, individuals receive a familial risk assessment (weak, moderate, strong) for each disease along with prevention messages tailored according to their risk. These messages encourage the adoption or maintenance of healthy lifestyles and early detection behaviors, such as scheduling regular screening tests.

A CDC-sponsored evaluation study of the clinical utility of Family Healthware™ was completed in 2007. About 3,600 participants and about 190 clinicians from 13 states participated in the study. Approximately 82% of the participants showed a moderate to high familial risk for at least one of the six diseases included in the tool.

### Awareness and Behavior Change

- Most participants were aware of their familial risk and were also accurate in evaluating their risk level. However, participants in the high-risk category tended to underestimate their familial risk.
- Participants who were aware of their elevated familial risk for specific diseases were not more likely to undertake screening tests for the diseases involved.
- Participants who were informed of their familial risk and advised to take measures according to their risk were more likely to talk to their primary care physician about this risk at their next appointment. They were also more likely to collect additional family history information from their relatives.

This study showed that among people with access to primary health care and preventive services, it is possible to induce some positive changes using family history information. Family history could be an essential component of public health prevention strategies for diabetes, coronary heart disease, and cancer; family history can also help identify groups at risk for these diseases. It could also help health providers make decisions about screening and early testing for some diseases, which can lead to early disease detection among those at risk.



## Keeping Water Safe for the Navajo Nation



Navajo Nation Water Resources' Murphy Jake and CDC epidemiologist CDR Lauren Lewis, M.D., take water samples at a community well; CDR Lewis takes a water sample; CDC epidemiologist Raquel Sabogal, M.S.P.H., labels containers for water samples that will be analyzed later.

Access to public water is so limited on the Navajo Nation that nearly one in three households relies on untreated water sources. To rectify this problem, CDC is helping federal agencies and the Navajo Nation identify and publicize unsafe water sources and report findings to the Committee on Oversight and Government Reform, a US government oversight committee composed of congressional members.

Providing access to safe drinking water on Navajo land is particularly costly and problematic because water sources are limited, deep, and highly mineralized. Approximately 30% of Navajo households are not connected to a public water system. In addition, many connected households are reluctant to use public water utilities because of cost or the taste of treated water and choose to haul water instead.

Since 2006, CDC has been working with the Navajo Nation to determine the quality of unregulated water used by Navajo households. In 2008, CDC and the Navajo Environmental Protection Agency (Navajo EPA) completed a survey of 199 unregulated, untreated livestock wells and springs used for drinking water. They found widespread bacterial contamination. Arsenic was identified as the most frequent chemical contaminant of concern (12% of sources exceeded the safe drinking water standard for arsenic) followed by uranium (5% exceeded the safe drinking water standard for uranium).

After identifying specific high-risk communities where the water contained a high concentration of arsenic and uranium, CDC partnered with the Navajo Division of Health, Navajo EPA, and the US EPA to create a health awareness campaign that educates and warns those communities about the health risks of water sources that are particularly unsafe. Additionally, CDC shared findings on uranium water contamination with members of the US House Committee on Oversight and Government Reform and is assisting government officials in their five-year action plan to address the impact of uranium contamination with Navajo communities.

### Multistate Autism Study

CDC's *Study to Explore Early Development*, the largest epidemiology study of its kind, has been launched in the field. This multisite autism research study is an important complement to the other work occurring at federal and academic organizations. Approximately 2,700 children ages two to five years old and their parents are participating in the study in California, Colorado, Georgia, Maryland, North Carolina, and Pennsylvania.

The program is collecting data to study a number of factors to increase our understanding of autism. The factors include comparing physical and behavioral characteristics of children with autism, children with other developmental disabilities, and children without a noted developmental delay or disability. Researchers will also look at health conditions among children with and without autism. Finally, they will study factors associated with a child's risk for developing autism such as genes, health conditions, and other factors that affected the mother's pregnancy; health and developmental factors during the child's first few years of life; and the relationship between combined genetic and non-genetic factors. The information is being obtained through interviews, medical exams, medical records; and the collection of cheek swabs, blood samples, and hair samples.





# Readiness & Response



CDC staff respond to a public health emergency in the Director's Emergency Operations Center.

We have seen the harsh reality of natural disasters and infectious diseases with pandemic potential time and time again. Emergencies and disasters do not discriminate: they can strike anyone, anywhere, anytime.

CDC and its partners are taking the lead in preparing for the risk of pandemic flu and responding to natural disasters and terrorism in the United States and around the world. In particular, readiness teams and systems have been built and improved upon to ensure that our highly skilled staff are ready to respond to any public health emergency. CDC staff are available at a moment's notice to address a myriad of national and international health threats.

Some stories in this section show how CDC and its partners are working on increasing pandemic influenza preparedness, addressing earthquake recovery efforts in China, and responding to public health emergencies in the face of multiple hurricanes and disease outbreaks.

The stories in this section represent only a fraction of the work being done by CDC and its partners. We hope they inspire you to learn more about CDC, its people and partners, and the science behind our emergency readiness and response activities.

## Stories in this Section

- **CDC Responds in 2008**
- **Containing Worldwide Threats**
- **CDC and FBI Share Investigative Techniques**
- **Pandemic Influenza Preparedness**
- **CDC East turns to CDC West after Earthquake**

## CDC Responds in 2008



CDC staff in the DEOC continue to strategically focus on building infrastructure and improving the speed at which CDC and its partners respond to public health emergencies.

A week prior to Hurricane Ike making landfall, CDC's Director's Emergency Operations Center (DEOC) was busy preparing to send life supporting medications, communication devices, personal protective equipment, and staff to Galveston, Texas, to aid the state in responding to this natural disaster.

CDC was proud to open the doors of the DEOC in 2003; it's staffed 24 hours, every day of the year. The facility organizes scientific and operational experts in one location during emergency response; efficiently maintains situational awareness and exchanges of public health information with international, national, state, and local partners; and helps to ensure that CDC is integrated into the National Incident Management System. This system is the federal government's systematic plan that guides departments and agencies at all levels of government, nongovernmental agencies, and the private sector to work seamlessly in order to reduce the loss of life, loss of property, and harm to the environment during a catastrophic event. In Fiscal Year 2008, the DEOC was activated for 359 days in response to 55 domestic and 16 international events, including the multistate *Salmonella* Saintpaul and *E.coli* 0157 outbreaks, the Midwest floods, and the outbreaks of cholera and hemorrhagic fever in Africa.

A significant part of preparing the CDC workforce for a public health emergency response is planning, training, conducting exercises, and evaluating CDC's ability to respond. In Fiscal Year 2008, CDC coordinated plans, training, and evaluation for five real world events: hurricanes Gustav, Hanna, and Ike, and the *Salmonella* Alamosa and *Salmonella* Saintpaul outbreaks. Seven CDC training exercises were conducted—including exercises for anthrax, hurricanes, and pandemic influenza—to help us improve our overall response performance. In addition, 13 agency wide exercise and response-related training events were conducted and two scenario-specific response plans were completed that evaluated and clarified the roles and responsibilities of CDC centers and offices during an incident.

CDC continually updates rosters of CDC staff in the field, checks on staff members' safety during and after an event, and conducts communication checks for deployed staff. CDC's DEOC Logistics' Team alone supported 871 staff with 1,500 equipment items and provided travel services for 109 staff in the field in Fiscal Year 2008. In addition, the DEOC has around-the-clock capability to coordinate the transport of life-supporting medications, samples, specimens, and personnel anywhere in the world via contracted aircraft when commercial carriers are unable to meet response needs.



## Containing Worldwide Threats



Brazilian FETP trainee, Jean Barrado, R.N., is surrounded by curious children while conducting drinking water tests.

CDC has established a global network of Global Disease Detection regional centers that builds on its expertise in identifying and responding to public health threats at home. The regional centers collaborate with CDC international staff in 50 countries to detect and contain common and unique global threats that could spread to the rest of the world. In 2008, these centers discovered more than 20 new pathogens and trained 84 public health professionals to detect, diagnose, and respond to outbreaks of infectious diseases within their countries and regions. Each of the host sites have staff in three major programs: *International Emerging Infections Programs*, *Field Epidemiology and Training Programs*, and *Influenza*.

In 2008, CDC added the Global Disease Detection regional center in Kazakhstan to the established network of centers in Kenya, Guatemala, Egypt, Thailand, and China—achieving the goal of having a regional center in each of the six World Health Organization regions. This network unites well-established CDC resources with complementary resources from other domestic and international agencies, nongovernmental organizations, and countries.

CDC collaborated with ministries of health and other partners in 2008 to increase the number of trained epidemiologists and public health professionals throughout the world. In addition, the Global Disease Detection network expanded activities in health communication and information technology, laboratory systems and biosafety, and the relationship between animal and human illnesses. These activities help to sustain and support CDC's Health Protection Goals of People Prepared for Emerging Health Threats and Healthy People in a Healthy World.

Notable accomplishments of CDC's global disease detection efforts, since its inception in 2004, include providing support for rapid responses to more than 300 disease outbreaks and public health events of concern:

- Avian influenza.
- Respiratory diseases of unknown origin.
- Poisonings.
- The viral hemorrhagic fevers Ebola and Marburg.
- Outbreaks of cholera in Africa.
- Rift Valley fever.



CDC and Ministry of Health staff test poultry for evidence of avian influenza A (H5N1) in Kano, Nigeria.

## CDC and FBI Share Investigative Techniques



Participants in one of the pilot courses practice interviewing patients and contacts at the Joint Criminal-Epidemiological Investigations Course in Indianapolis, Indiana.

CDC and the Federal Bureau of Investigation (FBI) are not often thought of as traditional collaborators, yet both federal agencies depend on some of the same skills when solving medical and criminal investigations. In this age of bioterrorism, joint investigations have become more common.

After the anthrax attacks of 2001, CDC and the FBI recognized the importance of developing a protocol for conducting joint investigations. While both agencies had different needs, in some cases they required similar information, and each agency had interview styles that could be beneficial in different situations. Out of this experience, CDC teamed with the FBI's Weapons of Mass Destruction Directorate to create a book detailing appropriate joint investigation techniques and an annual national-level course for responders from the FBI and CDC.

The pilot courses were held in Florida, California, and Indiana. The courses brought together public health representatives from local, regional, and state levels. On the law enforcement side, representatives were brought in from local and state police agencies and other emergency response organizations. In the pilot courses alone, 212 students were given insight into the joint investigative process.

Students were taught the basics of determining how and when to share investigative information, how to use the skills of each specialty to fully investigate a suspicious outbreak, and how to plan for and conduct joint interviews of patients and contacts. The pilot sites have since reported that they have made significant progress in developing joint investigative protocols, and students continue to learn how to acquire the best information possible to protect lives and the safety of the public.

These courses will be taught at six additional sites in Fiscal Year 2009. In the future, a "train the trainer" version will be developed so that every locality can train and continue to improve their operation, promoting and sustaining CDC's work in preparing people for emerging health threats.



## Pandemic Influenza Preparedness

In response to infectious diseases spreading faster than any other time in history, CDC is helping countries measure their preparedness for public health threats—in particular, their ability to respond to a potential influenza pandemic. The *National Inventory of Core Capabilities for Pandemic Influenza Preparedness and Response* (the National Inventory) is an innovative measurement tool developed by CDC to help at-risk countries measure their ability to respond to the threat of an avian influenza pandemic.

The National Inventory has been translated into six languages and complements the World Health Organization recommendations for countries to assess their preparedness and identify immediate steps to fill gaps in public health threat preparedness.

In 2008, 42 countries assessed their ability to protect their populations using specific milestones. Those milestones included the development of a country plan, research and use of findings, communications, epidemiologic capability, laboratory capability, routine influenza surveillance, national respiratory disease surveillance and reporting, outbreak response, resources for containment, community-based interventions to prevent the spread of influenza, infection control, and health sector capacity.



Officials hold a meeting in Mongolia to measure their country's preparedness for a potential pandemic influenza.

### Assessment Findings

- Forty-two countries have documented capabilities at a single point in time.
- Two countries have determined progress toward enhanced preparedness over time.
- Mongolia has promoted exchange of information between national and subnational levels.
- Many countries have demonstrated accountability for use of resources to donors or stakeholders.
- Many countries have reviewed logistic and operational needs and addressed deficiencies, built an inventory of country strengths, and promoted cross-border collaboration to enhance preparedness.
- Many countries have supported harmonization of national and international preparedness and response plans.

#### DID YOU KNOW?



#### Response to Global Outbreaks in 2008

In 2008, CDC staff, with support from Global Disease Detection Regional Centers, responded to more than 90 international disease outbreaks and public health events and discovered 22 new pathogens.

## CDC East turns to CDC West after Earthquake



The interior of a school classroom is destroyed by an earthquake that struck Dujiangyan, Sichuan, China, in 2008.

CDC responds when disaster strikes, no matter how extreme or far away the challenge may be. However, a disaster might be so immense in scope that an unprecedented response is required.

That certainly was the case when a massive earthquake devastated Sichuan province on May 12, 2008. Public health facilities in Sichuan province were demolished by the earthquake. China CDC (named after CDC) had little or no capacity to assess the region's health needs or monitor for potential disease outbreaks.

Responding to this urgent need, CDC experts worked with the CDC Foundation, private technology companies, and counterparts at China CDC to rapidly establish an emergency public health response system using state-of-the-art mobile technology. Because the use of mobile technology for surveillance is still an emerging tool in public health, neither CDC nor China CDC had an adequate number of handheld devices.

With coordination by the CDC Foundation, Hewlett Packard donated 500 HP Ipaq Travel Companions with Global Positioning System (GPS) technology to China CDC. Microsoft also donated handheld mobile devices directly to China CDC. USGlobalSat, Inc., a subsidiary of GPS manufacturer GlobalSat Technology of Taiwan, provided wireless Bluetooth GPS receivers to ensure that the devices donated by Microsoft had the GPS capabilities required by emergency response teams.

In early June 2008, a CDC team flew to Beijing to provide hands-on technical advice and training to China CDC on the use of the Field Adapted Survey Toolkit (FAST) exchange software and mobile technology. Disaster response forms from the CDC were translated into Chinese and incorporated into the FAST application. China CDC staff were trained on the basics of data collection and how to install and operate both the system and the equipment.

The relief assistance CDC provided during the earthquake relief effort is a model for public-private partnerships and showcases how international technical assistance can be accomplished through the practice of global health diplomacy. With the donated equipment and the new system that CDC helped design, China CDC is now able to quickly collect public health data in areas where communications capacity has been destroyed and send it to China CDC headquarters for analysis.

As efforts in China have shifted from emergency response to recovery, the health and well-being of an estimated five million displaced persons provides additional opportunities for CDC and China CDC to learn new lessons as they collaborate to rebuild the public health infrastructure in Sichuan province.





In many ways CDC partners are the backbone of engagement and collaboration at the grass-roots level. CDC's partners exponentially help the agency carry out public health actions and develop public health findings and recommendations. By working with its partners and establishing a global network of staff, laboratories, and response centers, we can have the greatest impact on the future of public health.

Some stories in this section are about how CDC and its partners worked together on drastically reducing healthcare-associated infections, curbing teen dating violence, and preventing HIV transmission to newborns.

These stories represent only a fraction of the work being done by CDC and its partners. We hope they inspire you to learn more about CDC, its people and partners, and how we can all accomplish much more by relying on and working with each other to solve public health challenges.

## Stories in this Section

- **Partnering to Curb Teen Dating Violence**
- **"Amazing" HIV Support Group**
- **Reductions in Healthcare-associated Infections**
- **Work Continues in Kenya Despite Post-election Violence**
- **One Millionth Call to 1-800-QUIT-NOW**
- **Staying Healthy at the Olympics**
- **2008 Physical Activity Guidelines**

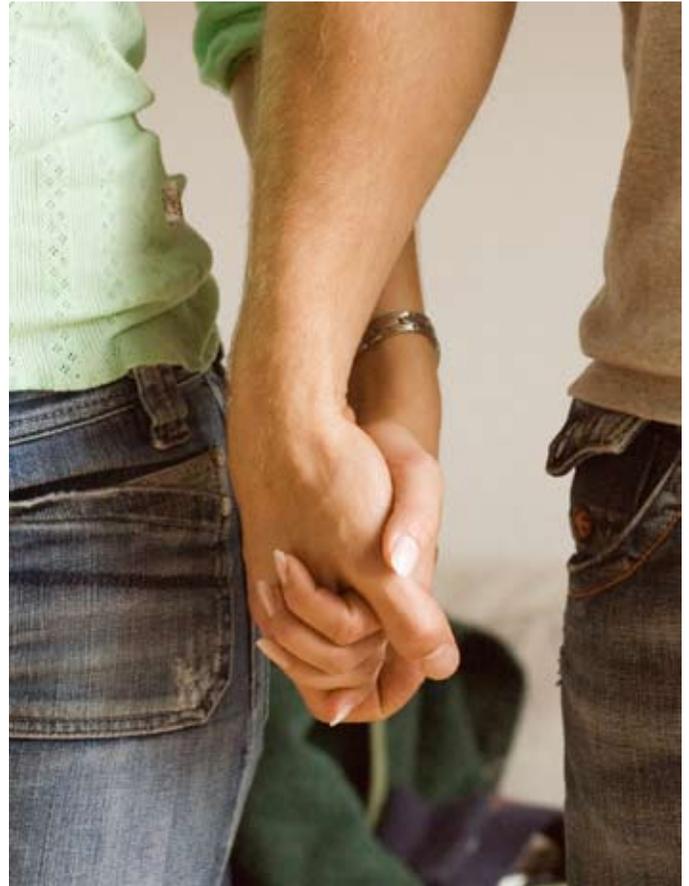
CDC works with its partners to ensure we have the greatest impact on public health.

## Partnering to Curb Teen Dating Violence

Teen dating violence is not only a harmful crime; it is also a huge challenge to those who are responsible for teen well-being. When more than 1,300 high school students from New York City were asked if they had ever experienced dating violence, nearly one in six (16%) said yes. Victims of dating violence also reported significantly more frequent pain and illness (31%) than teens who have not experienced dating violence, and nearly 60% of teens sampled told no one about the violence they experienced and sought no services.

Armed with the alarming statistics from this landmark study, CDC partnered with local schools, youth centers, and public health officials to take action. In the past year, comprehensive prevention initiatives for teens in New York City's public schools were released along with a public transit map that contained directions to dating and sexual violence service facilities. Columbia University's Center for Youth Violence Prevention, the New York City Department of Health and Mental Hygiene, the New York City Department of Education, and the New York City Alliance Against Sexual Assault are partners in this service and prevention effort.

Parents, students, teachers, and school health staff will be incorporated into this landmark initiative for New York City. By spotlighting the issue of dating violence, the collaboration between CDC and its New York partners highlights the need for effective, comprehensive, primary prevention efforts that keep our nation's teens safe and promote CDC's Health Protection Goal of Healthy People at Every Stage of Life.



### DID YOU KNOW?

### Female Teens and Sexually Transmitted Infections



A 2008 CDC study found that one in four (26%) female teens in the United States has at least one of the more common sexually transmitted infections. Overall, approximately half of the teens in the study reported ever having sex, and among these girls, the prevalence of sexually transmitted infections was 40%. Even among girls reporting only one lifetime partner, one in five had at least one sexually transmitted infection.

The findings, though not surprising to the public health community, were a wakeup call to Americans concerned with adolescent and teen health.



## “Amazing” HIV Support Group



Lucy Auma was filled with dread when she learned that she was HIV positive. Not only would her infection cut her life short, but it would likely be passed on to her unborn child. As news about her diagnosis spread through her Kenyan village, she became an outcast, with no one to share her fears with.

One day, as she waited for a checkup at a CDC-funded clinical research center in the New Nyanza Province, she overheard several women openly discussing their experiences with stigma and discrimination. She was so moved by what she heard that she joined in the discussion. Hungry for each others' support, the women soon formed the “Amazing Support Group.” Twice a month, they assemble at the clinical research center to talk about their problems, listen to health talks, and receive counseling from other people who have been through similar experiences.

“We share so much, and we have become like sisters,” says Lucy. “It is good to know that it’s not only me who is suffering.”

Lucy’s good fortune didn’t end there. She and other women in her group were part of the *Kisumu Breastfeeding Study* that started in 2003. The study investigated the effectiveness of giving antiretroviral drugs to women during pregnancy and during the first months of breastfeeding to reduce HIV infection in infants. The study was carried out by CDC, the Kenya Ministry of Health, and the Kenya Medical Research Institute.

In 2008, analysis of the breastfeeding study showed remarkable results: treating HIV-infected mothers with antiretroviral drugs from 34 weeks of pregnancy to six months after delivery reduced mother-to-child transmission to only 6% after one year. The historical transmission rate in women not treated with antiretroviral drugs has been 30%–40%.

Now, four years later, Lucy is the proud mother of a healthy boy who is HIV negative. To date, more than 400 women have benefited from the “Amazing Support Group.” “We called ourselves amazing,” Lucy says, “because it is amazing that a HIV-positive mother can give birth to a HIV-negative child.”



## Reductions in Healthcare-associated Infections



CDC and its public health partners have significantly influenced hospital infection control practices nationwide. Bloodstream infections associated with a central line (a type of venous catheter) are among the most common type of healthcare-associated infections (HAIs), with an estimated 250,000 cases reported in US hospitals each year. However, in several states around the country, these HAIs have been reduced by as much as 66%–70%. Seeing a national reduction of two-thirds of bloodstream infections could translate into as many as 180,000 fewer HAIs and \$4–\$6 billion in health care cost savings.

In recent years, CDC and its partners have worked to ensure that more health care facilities have been following CDC's guidelines and recommendations in support of CDC's Health Protection Goal of Healthy People in Healthy Places:

- Among hospitals participating in the CDC's National Healthcare Safety Network, the rate of central line-associated bloodstream infections decreased by 40%–50% among patients in intensive care units (ICUs) during the last decade. Rates also decreased by 50% in most major ICUs for the subset of central line-associated bloodstream infections associated with methicillin-resistant *Staphylococcus aureus*.
- CDC collaborated with the *Pittsburgh Regional Health Initiative* to target a common type of HAI—catheter-associated bloodstream infections—that occur in ICUs. The *Catheter-Associated Bloodstream Infections Prevention Strategy* included educational models and standardized tools for hospital staff and comparison data for participating hospitals. The intervention was implemented in 32 hospitals and 66 ICUs in southwestern Pennsylvania. After four years, the 32 participating hospitals were able to collectively reduce their blood stream infection rates among patients in their ICUs by 68%. This intervention has been replicated elsewhere with similar reductions in HAIs.
- In Michigan, the Agency for Healthcare Research and Quality funded the *Keystone Initiative* that resulted in a 70% decline of central-line associated bloodstream infections when CDC guidelines were fully implemented. The dramatic reductions in serious ICU infections prompted replication of these efforts in hospitals across the country.
- Several states using the National Healthcare Safety Network for mandated reporting of healthcare-associated infections have identified prevention of bloodstream infections as a priority. For example, by adopting safety and prevention practices, infection rates in New York have declined more than 70% in ICUs participating in the *Greater New York Hospital Association Prevention Collaborative*.

CDC plans to build on these successes in reducing bloodstream infections by developing and implementing similar strategies for reducing other healthcare-associated infections.



## Work Continues in Kenya Despite Post-election Violence



More than 1,000 people were killed and another 300,000 displaced as a result of violent protests when members of rival political parties contested the Kenyan presidential election in December 2007. During the two months following the protests, CDC offices in Nairobi and Kisumu, including clinics in the Kibera settlement and rural Kenya, were closed periodically because of concerns for staff safety. The public health work being done at CDC Kenya and its partner institution, the Kenya Medical Research Institute (KEMRI), continued throughout this chaotic period. As others fled the region, many KEMRI/CDC staff reported to work at the Lwak Mission Hospital and the Tabitha clinic in Kibera to provide critical care and treatment.

Initially, the KEMRI/CDC staff focused on maintaining hospital operations while many colleagues returned to their home districts to vote. The remaining team cared for the regular flow of people sick with malaria, pneumonia, HIV—in addition to the surge of patients injured during the post-election violence. The KEMRI/CDC clinical team and community workers also continued to visit households in the surveillance areas to collect health status data.

The KEMRI/CDC staff had strong local support from the community who staged mock demonstrations to keep troublemakers away so that the hospital could remain open. “It’s true we were frightened,” said Mary Agola, a nurse. “But we felt a responsibility to our work as well as to the people who were affected by the violence. Other hospitals had closed and people were coming long distances for help.” Staff replacements began arriving the week of January 7<sup>th</sup>, but KEMRI/CDC staff continued working until January 20<sup>th</sup> to be sure that people who needed care received it. As a result, the Lwak Hospital never closed its doors.

The KEMRI/CDC collaboration joined Red Cross International and other partners in Nyanza Province to provide medical care. The Kisumu Field Station in rural Kenya held a blood drive and collected 32 pints of blood for use in community hospitals. Through temporary medical camps they provided drugs, medical care, psychosocial support and nutrition support, voluntary counseling, testing for HIV, food, and legal support. Likewise, in Nairobi, KEMRI and CDC medical officers, clinical officers, and nurses provided primary health care in camps for displaced persons. On February 2<sup>nd</sup>, more than 1,000 people attended one such camp. KEMRI/CDC staff distributed malaria treatment and bed nets and several staff attended “alternatives to violence” workshops to discuss ways to bring peace to their own lives and their communities.

### CDC Lab in Kenya Achieves International Accreditation

After a thorough review by the World Health Organization, CDC-Kenya’s HIV research laboratory became the first medical research laboratory in Kenya and the first international CDC laboratory to achieve international accreditation. By adopting quality management and implementation systems, the HIV research laboratory received accreditation from the South Africa National Accreditation System in March 2008.

Only labs that can demonstrate competence, capability, and strict international standards earn the coveted status. The lab was the first in Kenya and East Africa to perform early infant HIV-1 diagnosis by DNA polymerase chain reaction (PCR), a molecular biology technique that can be used to diagnose HIV-1 early in infants so they can access treatment soon after they are born. Standard HIV tests, which screen for HIV antibodies, cannot reliably identify children as being HIV-infected until after 18 months of age due to the presence of maternal antibodies.

The laboratory staff trained and helped establish these types of laboratories in other parts of Kenya and in Tanzania, Cameroon, and Nigeria. With this capability, Kenya is working to achieve 100% testing coverage.

## One Millionth Call to 1-800-QUIT-NOW

Tobacco use is the leading cause of preventable death and disease in the United States. So when one million calls were placed to 1-800-QUIT-NOW there was reason to celebrate. The national, toll-free number for free help to quit tobacco use was developed by the National Network of Tobacco Cessation Quitlines, a dynamic collaboration among states, CDC, the National Cancer Institute, and the North American Quitline Consortium.

An estimated 43 million American adults currently smoke cigarettes, and cigarette smoking and exposure to secondhand smoke causes approximately 443,000 deaths annually. For every person who dies from tobacco use, another 20 suffer with at least one serious tobacco-related illness. This addiction costs the nation more than \$96 billion per year in direct medical expenses as well as more than \$97 billion in lost productivity annually.



CDC's *Best Practices for Comprehensive Tobacco Control Programs, 2007* describes an integrated programmatic structure for implementing interventions that are proven to be effective. The report also provides guidance to states regarding the recommended levels of investment in tobacco control to reduce the burden of tobacco use on the nation. Comprehensive tobacco control programs have been shown to reduce smoking rates, tobacco-related deaths, and disease when they are sustained and accountable. By collaborating with our many partners, CDC is expanding its vision of promoting Healthy People in a Healthy World.

For more information on comprehensive tobacco control programs visit [www.cdc.gov/tobacco/tobacco\\_control\\_programs/stateandcommunity/best\\_practices/00\\_pdfs/2007/BestPractices\\_Complete.PDF](http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/00_pdfs/2007/BestPractices_Complete.PDF).

### Birth Defects Prevention Study

#### DID YOU KNOW?



In 2008, CDC's *National Birth Defects Prevention Study* provided further evidence that showed smoking and diabetes in women are harmful to unborn babies by contributing to major, structural birth defects.

Women who have diabetes before they become pregnant are three to four times more likely to have a child with one or even multiple birth defects than a mother who is not diabetic. Also, women who smoke early in their pregnancy are more likely to give birth to infants with congenital heart defects and orofacial clefts. These findings have significant public health implications because nearly three percent of all infants born in the United States have a major birth defect, and nearly one percent have a congenital heart defect.

CDC's *National Birth Defects Prevention Study* is the largest population-based study on the causes of birth defects ever undertaken in the United States.



## Staying Healthy at the Olympics

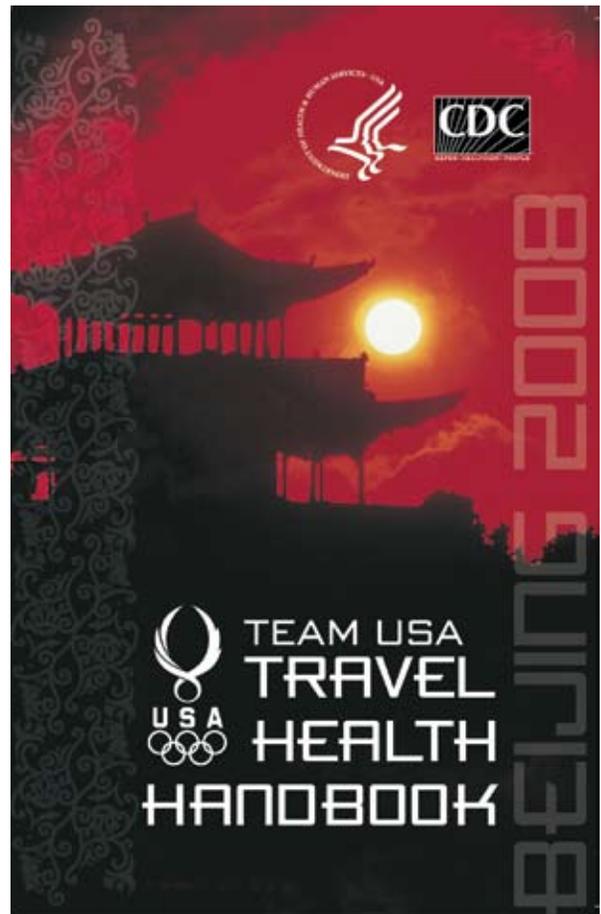
No one will soon forget the record-breaking performances and inspiring stories from the 2008 Beijing Olympic and Paralympic Games. For CDC, the games presented a golden opportunity to educate US athletes on avoiding travel-related illnesses, while also developing a lasting partnership with the United States Olympic Committee (USOC).

Travel health experts used research published by CDC before the Olympics to learn the most commonly reported health issues in travelers to China: respiratory infections, skin problems, diarrhea, and injuries (including dog bites). Armed with these data and a growing relationship with the USOC, CDC began to develop creative strategies for educating Beijing-bound travelers on staying healthy.

A team of health communicators developed health education materials with input from USOC contacts for US athletes, coaches, and Olympic team staff, reinforcing CDC's work to protect and promote Healthy People in a Healthy World. In addition, the team created materials for the general public and health care providers:

- The *Team USA Travel Health Handbook* was created and distributed to 1,400 members of the US delegation, and it provided information tailored to the specific needs and concerns of athletes, such as medications and doping regulations.
- Posters were placed in housing and recreation areas in Beijing to remind US athletes how to avoid foodborne illnesses, insect bites, sunburn, and heat-related illnesses.
- A Web page was housed on the CDC Travelers' Health Web site called *Gold Medal Travel Health Tips for the 2008 Olympic Games*. This site linked to health information for the general public, children, health care providers, and participating Olympic and Paralympic athletes.
- Three electronic greeting cards were created that focused on travel health, and one was created especially for athletes to send to each other.
- A podcast was created that used special characters to educate children on how to stay healthy while at the Olympics.

CDC and the USOC continue their partnership in evaluating communication efforts and conducting focus groups with US delegation members. In addition, CDC's Travelers' Health Communication and Education Team will create additional travel health posters to be placed permanently at the USOC training headquarters in Colorado Springs, Colorado. Our CDC team will continue to work towards keeping US athletes and spectators healthy as they travel to "bring home the gold!"



## 2008 Physical Activity Guidelines

CDC played a key role in developing the *2008 Physical Activity Guidelines*, the first comprehensive guidelines on physical activity issued by the federal government. The guidelines set achievable goals that can be customized according to a person's interests, lifestyle, and goals.

In April 2007, HHS Secretary Michael Leavitt appointed a 13-member advisory committee to produce a comprehensive report based on a thorough review of scientific research on physical activity and health. Released in October 2008, the guidelines are a primary source of information for multiple audiences, including policy makers and health providers. The guidelines provide the amount, type, and intensity of physical activity people need to achieve for lifelong health benefits and are designed to help people easily incorporate enjoyable physical activities into their daily plan. For the first time, specific subgroups are addressed, such as youth, older Americans, those with disabilities, and pregnant women.



In conjunction with the release of the guidelines, CDC also redesigned and updated the *Physical Activity for Everyone* Web site. The Web site provides examples and tools to help people better understand how much activity they need to do on a consistent basis, how to begin a sensible routine, and how to find enjoyable activities that fit into their lifestyle.

### Major Research Findings

- Both aerobic and muscle-strengthening activities are beneficial.
- Health benefits apply to people of all types, sizes, and ages.
- Health benefits occur for people with disabilities.
- Physical activity can be done safely. Benefits far outweigh possible risks.
- Adults who participate in any amount of physical activity gain health benefits.
- Two hours and 30 minutes a week of moderate aerobic activity substantially reduces the risk of many chronic diseases and other adverse health outcomes.
- An increase from 2.5 to five hours of moderate aerobic activity provides additional health benefits.
- For fitness benefits, aerobic activities should last at least 10 minutes.

For more information on the *2008 Physical Activity Guidelines* and the benefits of physical activity, visit

- [www.cdc.gov/physicalactivity/everyone/](http://www.cdc.gov/physicalactivity/everyone/)
- [www.cdc.gov/Features/BeActive/](http://www.cdc.gov/Features/BeActive/)
- [www.health.gov/Paguidelines/](http://www.health.gov/Paguidelines/)

This work supports CDC's Health Protection Goals of Healthy People in Every Stage of Life, and Healthy People in a Healthy World.





Microbiologist Amanda Balish, B.S., looks at an embryonated chicken egg to determine which eggs could be used to isolate avian influenza viruses.

On July 1, 1946 the Communicable Disease Center (CDC) opened its doors and occupied one floor of a small building in Atlanta. Its primary mission was simple yet highly challenging: prevent malaria from spreading across the nation. Armed with a budget of only \$10 million and fewer than 400 employees, the agency's early challenges included obtaining enough trucks, sprayers, and shovels necessary to wage war on mosquitoes.

As the organization took root deep in the South, once known as the heart of the malaria zone, CDC founder Dr. Joseph Mountin continued to advocate for public health issues and to push for CDC to extend its responsibilities to other communicable diseases. In 1947, CDC made a token payment of \$10 to Emory University for 15 acres of land on Clifton Road in Atlanta that now serves as CDC headquarters.

Today, CDC is one of the 13 major operating components of the Department of Health and Human Services and is recognized as the nation's premiere health promotion, prevention, and preparedness agency. During the past 62 years, CDC has grown dramatically in staff (nearly 15,000 personnel stationed in the United States and more than 54 foreign countries) and budget (more than \$9.2 billion). And its mission has expanded as well. The world's authority on communicable disease, CDC has broadened its focus to include chronic diseases, injury control, disabilities, and terrorism preparedness. The agency is now working on achieving four overarching Health Protection Goals to become a more performance-based agency focusing on healthy people, healthy places, preparedness, and global health.

As it enters its 63<sup>rd</sup> year, CDC and its partners are contributing to the Alliance to Make US Healthiest. This exciting collaboration is an extension of the agency's vision to provide health protection and equal access to healthcare for all Americans. Although much has changed since 1946, the heart of CDC is still its people and partners—dedicated, diligent, and making a difference around the world by helping people live healthier, safer, and longer lives.

### Stories in this Section

- **Workforce**
- **Work Sites**
- **Operating Components**
- **Fiscal Year 2008 Snapshot**
- **Go Green, Get Healthy**
- **Community Connections**
- **CDC Foundation**

## Workforce



Research chemist Michael Rybak, Ph.D., and medical technologist Bet Pendergrast, B.S., extract fat-soluble vitamins such as Vitamin A and Vitamin E from serum samples. Researchers analyze these samples in order to determine vitamin levels in the US population.

As the scope and breadth of CDC activities have grown, so has the workforce. With employees now working in 173 occupational series, CDC's reputation as the most reputable source of public health information is attributed to the outstanding dedication of its talented workforce. Staff have been on the front lines of health prevention, often serving as the first responders to health threats around the world, since CDC's inception.

### The CDC Workforce at a Glance

- Women make up 61% of the workforce.
- Disabled members constitute 7% the workforce.
- Employees of a minority race and/or national origin make up 37% of the workforce.
- More than 80% hold a bachelors degree or higher; nearly 50% have advanced degrees.
- There were 70 countries represented among fiscal year 2008 scientific fellowships applicants.
- Staff earned more than 40,994 continuing education and continuing medical education credits.

The majority of CDC employees work out of the Atlanta, Georgia, headquarters, however the agency has a major presence in nine other US cities and in numerous countries around the globe:

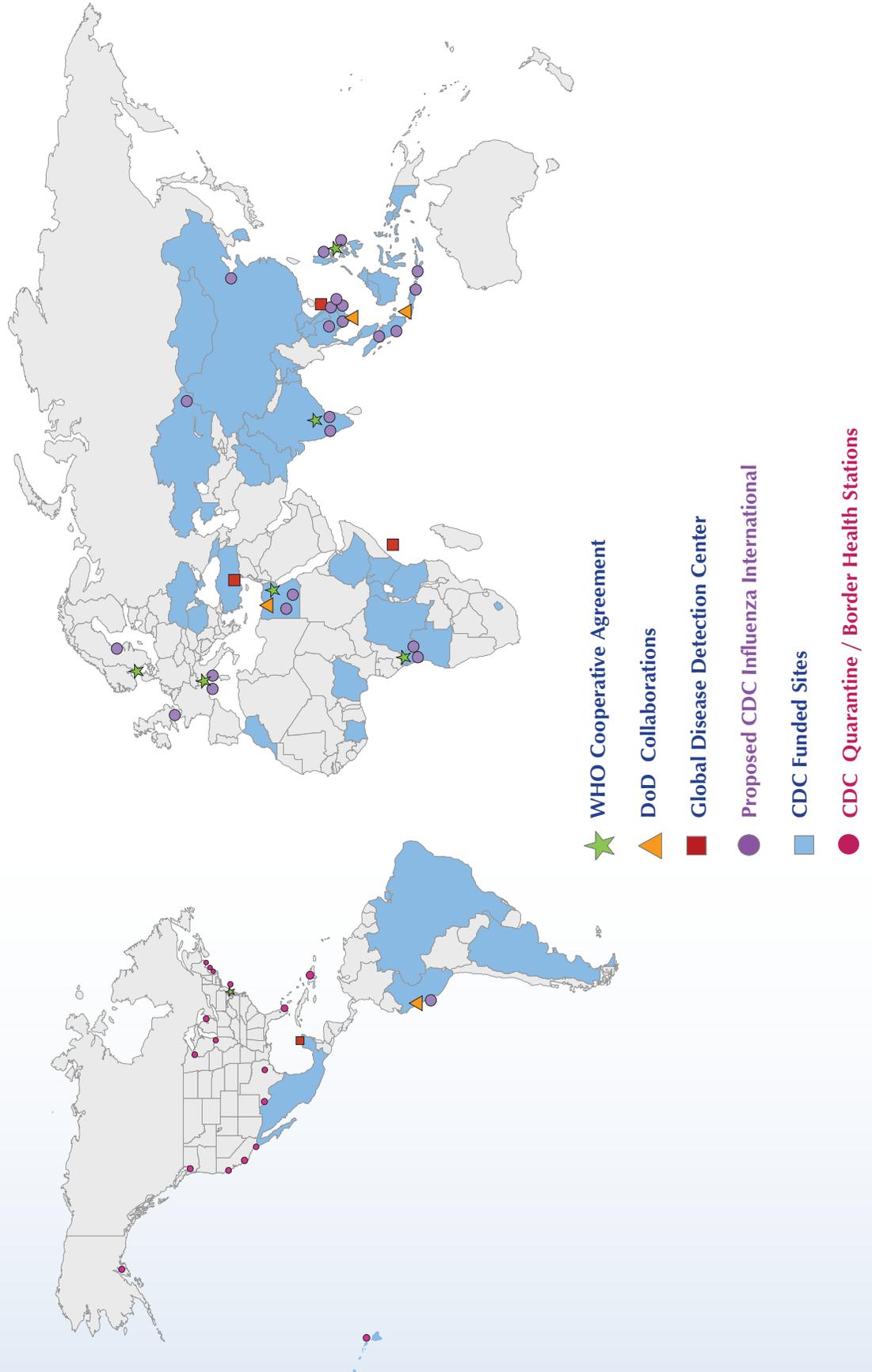


- Cincinnati, Ohio
- Morgantown, West Virginia
- Hyattsville, Maryland
- Pittsburgh, Pennsylvania
- Puerto Rico
- Washington, DC
- Spokane, Washington
- Durham, North Carolina
- Fort Collins, Colorado



# Work Sites

CDC employees are also located in state and local health agencies, in quarantine and border health offices at ports of entry, and in 54 countries around the world.



## Operating Components

The top organizational components of CDC are the Office of the Director, the four coordinating centers, the two coordinating offices, and the National Institute for Occupational Safety and Health.

The Office of the Director manages and directs CDC, and provides overall direction to, and coordination of the scientific and medical programs. The Office of the Director also provides administrative leadership, coordination, and assessment. Additional offices are located in the Office of the Director, and are further discussed on CDC's Web site: [www.cdc.gov/about/organization.htm](http://www.cdc.gov/about/organization.htm).

The coordinating centers and offices allow CDC to be more responsive and effective when dealing with public health concerns. Each coordinating center and office implements CDC's response in their areas of expertise while also providing internal agency support and resource-sharing for cross-cutting issues and health threats. To learn more about the coordinating centers, offices, and the institute, visit their Web sites:

### Coordinating Center for Environmental Health and Injury Prevention (CCEHIP)

[www.cdc.gov/about/organization/ccehip.htm](http://www.cdc.gov/about/organization/ccehip.htm)

- **National Center for Environmental Health (NCEH)**  
[www.cdc.gov/nceh](http://www.cdc.gov/nceh)
- **The Agency for Toxic Substances and Disease Registry (ATSDR)\***  
[www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)
- **National Center for Injury Prevention and Control (NCIPC)**  
[www.cdc.gov/ncipc](http://www.cdc.gov/ncipc)

### Coordinating Center for Health Information and Service (CCHIS)

[www.cdc.gov/about/organization/cchis.htm](http://www.cdc.gov/about/organization/cchis.htm)

- **National Center for Health Marketing (NCHM)**  
[www.cdc.gov/healthmarketing](http://www.cdc.gov/healthmarketing)
- **National Center for Health Statistics (NCHS)**  
[www.cdc.gov/nchs](http://www.cdc.gov/nchs)
- **National Center for Public Health Informatics (NCPHI)**  
[www.cdc.gov/ncphi](http://www.cdc.gov/ncphi)

### Coordinating Center for Health Promotion (CCHP)

[www.cdc.gov/about/organization/cchp.htm](http://www.cdc.gov/about/organization/cchp.htm)

- **Office of Genomics and Disease Prevention (OGDP)**  
[www.cdc.gov/genomics](http://www.cdc.gov/genomics)
- **National Center on Birth Defects and Developmental Disabilities (NCBDDD)**  
[www.cdc.gov/ncbddd](http://www.cdc.gov/ncbddd)
- **National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)**  
[www.cdc.gov/nccdphp](http://www.cdc.gov/nccdphp)

### Coordinating Center for Infectious Diseases (CCID)

[www.cdc.gov/about/organization/ccid.htm](http://www.cdc.gov/about/organization/ccid.htm)

- **National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)**  
[www.cdc.gov/nchhstp](http://www.cdc.gov/nchhstp)
- **National Center for Immunization and Respiratory Diseases (NCIRD)**  
[www.cdc.gov/ncird](http://www.cdc.gov/ncird)
- **National Center for Zoonotic, Vector-Borne, and Enteric Diseases (NCZVED)**  
[www.cdc.gov/nczved](http://www.cdc.gov/nczved)
- **National Center for Preparedness, Detection, and Control of Infectious Diseases (NCPDCID)**  
[www.cdc.gov/ncpdcid](http://www.cdc.gov/ncpdcid)

### Coordinating Office for Global Health (COGH)

[www.cdc.gov/about/organization/cogh.htm](http://www.cdc.gov/about/organization/cogh.htm)

### Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER)

[www.cdc.gov/about/organization/cotper.htm](http://www.cdc.gov/about/organization/cotper.htm)

### The National Institute for Occupational Safety and Health (NIOSH)

[www.cdc.gov/niosh](http://www.cdc.gov/niosh)

\*ATSDR is an operating division within the Department of Health and Human Services, but it is managed by a common Office of the Director along with the National Center for Environmental Health.

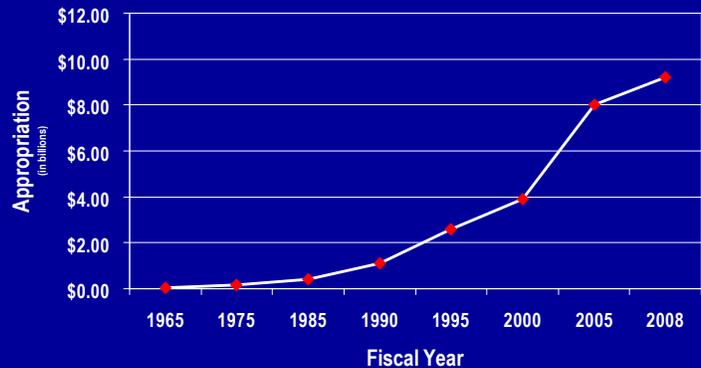


## Fiscal Year 2008 Snapshot

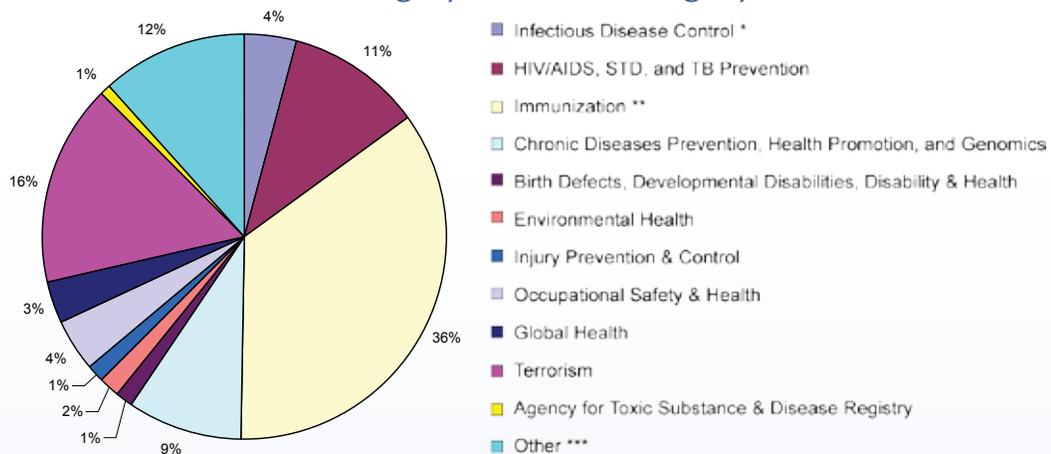
In an era of limited fiscal resources and many competing priorities, CDC is committed to leveraging resources to achieve maximum health results and reduce health disparities. As new health threats emerged, CDC's mission expanded and its funding continued to increase. Prioritizing the agency's activities within the four overarching Health Protection Goals ensures the focus remains on optimizing health impact in every laboratory on our campus, in every program funded, in all health protection research, and in every outbreak CDC and its partners contain.

The FY 2008 CDC/ATSDR budget of \$9.2 billion reflects an increase of approximately \$100 million above the FY 2007 Appropriation level. The FY 2008 budget for CDC addressed a balanced portfolio of health protection activities, emphasizing preparation for the urgent threats of today and those anticipated in the future. This dual emphasis reflects CDC's complex mission in the twenty-first century—to protect the public's health against major calamities such as pandemic influenza, natural disasters, and terrorism—while remaining focused on the threats to health and well-being that Americans face each day, including chronic diseases, injuries, and disabilities.

## CDC Funding History



## 2008 Funding by Disease Category



\* This total includes programs funded by Influenza funding, NCZVED, and NCPDCID.

\*\* This total included VFC, Section 317, and Immunization program operations.

\*\*\* Includes Public Health Research, Public Health Improvements & Leadership, Preventive Health & Health Services Block Grant, Building & Facilities, Business Services Support, Health Information & Services, and User Fees.

CDC's contemporary scope of public health activities includes addressing issues ranging from terrorism to chronic disease. The agency faces the challenge of balancing immediate, highly publicized, and often sensational urgent realities with underlying, long-term health realities facing the United States and the world. While striving to develop capacity for new programs, such as the expansion in preparedness programs occurring in FY 2002, CDC also strives to maintain excellence in existing programs like chronic disease. For more information, visit [www.cdc.gov/fmo](http://www.cdc.gov/fmo).

## Go Green, Get Healthy

The *Go Green, Get Healthy Initiative* has been a CDC goal for years that grew from a grass-roots effort by CDC employee volunteers around the nation. The initiative is both an individual and agency journey toward sustainable behaviors that promote health and well-being, quality of work life, and environmental stewardship. In 2008, a Chief Sustainability Officer was appointed to coordinate these efforts to make our work environment and our nation greener and healthier.



CDC volunteers have joined 10 workgroups that help staff connect, cooperate, and share information. Working with the Chief Sustainability Officer, the workgroups seek opportunities to collaborate with other institutions and agencies to reduce, reuse, and recycle resources to promote health and positive work environments.

### Go Green, Get Healthy Highlights

- **Recycling campaigns** were implemented on several CDC campuses in an effort to simplify and encourage recycling at CDC. Recycling programs in 2007 diverted close to 10% of waste while these new 2008 programs have diverted waste in excess of 60%.
- **Special events** promote CDC workforce activities, and regular agencywide email announcements inform the CDC community of the agency's ongoing sustainability efforts.
- A checklist for meetings was created to promote more **environmentally friendly and healthful meetings** at CDC. An upcoming conference estimates a savings of more than 2 million sheets of paper and approximately \$40,000 in printing costs. The use of CDs to share information rather than printed booklets will save about 240 trees.
- Building 20 Challenge was launched to encourage **energy conservation** through simple tasks like turning off computers and lights at the end of each day. In its initial three weeks, \$240 was saved. Water conservation for all campuses has also been a priority with a 2.4% decrease in consumption from 2007–2008.

The *Go Green, Get Healthy Initiative* rolled three established CDC programs into a new, coordinated campaign for widespread cultural change: *Healthier Worksite Initiative*, *Quality of Work-Life Programs*, and the *Environmental Management System Plan*:

#### **Healthier Worksite Initiative**

This initiative was developed in October 2002 with the vision of making CDC a worksite where "healthy choices are easy choices," and the lessons learned are shared with other federal agencies. Programs include the *StairWELL Project* that makes stairwells more attractive as a way of increasing employee physical activity; the *Garden Market Project* that increases the availability of fruits and vegetables on CDC campuses as a way of increasing fruit and vegetable intake; and the *Healthy Vending Project* that provides healthy choices in vending machines as a way of decreasing consumption of less healthy snacks.

#### **Quality Work-Life Programs**

Employees are provided an array of work-life programs and benefits to ensure that they have the tools they need to balance their home and work life. CDC offers work-life options such as alternative work schedules, child care centers and subsidies, the telework program, and transportation subsidies.

#### **Environmental Management System Plan**

CDC is committed to strengthening federal, environmental, energy, and transportation management through the use of the plan. This plan is an organized approach to protect the environment on CDC's campuses and in the neighboring communities during routine and emergency operations.

Other initiatives have been launched through the creation of the *Go Green, Get Healthy Initiative*, including a commitment to sustainable buildings and landscapes on CDC properties, employee carpooling, and telecommuting options that reduce gas consumption and improve outdoor air quality.



## Community Connections

*"We make a living by what we get; we make a life by what we give."*

—Winston Churchill

CDC and its employees develop community sensitivity, participate in building a healthy society, and have a heightened sense of responsibility to their environment that benefits the common good. CDC staff engagement embraces the notions of global citizenship and interdependence and creates opportunities to act as empowered agents of positive social change.

### **Tom Harkin Global Communications Center**

Located in Atlanta, the Tom Harkin Global Communications Center provides state-of-the-art meeting spaces for scientific training programs, distance learning, and CDC's worldwide outreach and collaborative efforts. This conference center is CDC's hub for bringing together public health professionals, government, private and public communities, as well as the general public in an exchange of ideas and information to advance public health.

### **Global Health Odyssey Museum**

Located at the Atlanta location, this unique exhibit area features award-winning permanent and changing exhibitions that focus on a variety of public health topics, as well as the history of CDC. The exhibits in the Global Health Odyssey Museum require no advance reservations, although international visitors must present a valid passport for entry. See [www.cdc.gov/gcc/exhibit/tours/](http://www.cdc.gov/gcc/exhibit/tours/) for more information.



Students at work in the 2008 CDC Disease Detective Camp.

## Sustainable Volunteer Events

Guiding the direction of CDC's volunteer efforts are the agency's four overarching Health Protection Goals and the *Executive Order - Responsibilities Of Federal Agencies With Respect To Volunteer Community Service, April 27, 2006*.

### **American Red Cross**

CDC has been the biggest blood donor among state and federal governments for two years with 741 pints in 2007 and 683 pints in 2008.

### **Atlanta Commissioned Association**

CDC Commissioned Corps Officers participate in the Georgia Adopt-a-Highway quarterly roadside cleanup that is recognized by the Georgia Department of Transportation.

### **Atlanta Community Food Bank**

CDC collected 5,908 pounds of food in 2008—the largest donation among participating federal agencies.

### **CDC Disease Detective Camp**

CDC scientists volunteer as camp instructors to help 54 high school juniors and seniors learn about public health. Enrollment in the camp is free.

### **CDC Speakers Bureau**

CDC employees of all ranks, grades, and areas of expertise volunteer their time through the Speakers Bureau to speak to hundreds of groups about public health issues.

### **Combined Federal Campaign**

During the 2007 campaign, 1,564 CDC employees pledged just over \$644,000. As of fall 2008, collected pledges exceeded \$475,000.

### **Go Green, Get Healthy Initiative**

Employees volunteer to promote health and well-being, quality of work-life, and environmental stewardship through sustainable behaviors.

## Examples of Special Volunteer Events

### Health Walks

CDC staff participated in or sponsored health walks:

- **Georgia Walk for Autism.** On April 12, 2008, 20 walkers from the National Center for Birth Defects and Developmental Disabilities participated in a walk to promote awareness and education on autism.
- **AIDS Walk Atlanta.** On October 19, 2008, the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention coordinated the CDC team of more than 60 employees, family, and friends to raise more than \$3,000 to participate in the AIDS walk and support education and prevention efforts in the Atlanta area.
- **American Heart Association.** On November 1, 2008, the Division of Heart Disease and Stroke Prevention was one of the top five sponsors of this national event in Atlanta and raised over \$3,000 to support heart disease and stroke research and education.

### Oakland Cemetery Foundation

On September 13, 2008, 12 volunteers from the Coordinating Office for Global Health assisted the Atlanta, Georgia, community by planting trees, spreading mulch, and propagating new plants destroyed by tornado damage.

### New Shoes Campaign

In April 2008, more than 120 employees from the National Center for Health Statistics in Hyattsville, Maryland, collected shoes that were in good condition for children in Honduras.

### Volunteering in Thailand

During 2008, CDC staff in Thailand engaged in a range of volunteer activities:

- Providing physical therapy to disabled children.
- Reading to the blind.
- Vaccinating dogs and cats at a rescue organization.
- Refurbishing CDC's facilities.
- Taking children with cancer on social outings.
- Teaching high school students about sexually transmitted diseases, including HIV.
- Volunteering at US Embassy events.

### CDC Speakers Bureau

The CDC Speakers Bureau has been in existence since August 1998. It evolved as a means to meet the public's request for first-hand, real time information on hot topics and emerging public health issues. Since its inception, the Speakers Bureau has received numerous requests from all types of stakeholders such as schools, universities, community organizations, business corporations, and nonprofit organizations. CDC employees from all disciplines and areas of expertise volunteer their time to speak to communities throughout the United States about CDC's mission of collaborating to create the expertise, information, and tools that people and communities need to protect their health—through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

The Speakers Bureau has received many requests from around the world on topics such as pandemic influenza, emergency preparedness, women's health, obesity, vaccines and immunizations, and CDC in the twenty-first century, as well as a host of other topics. The Speakers Bureau serves as an integral part of CDC's commitment to achieve true improvements in health and well-being of peoples' lives through education.



# CDC Foundation

## What Does the CDC Foundation Do?

The CDC Foundation helps the Centers for Disease Control and Prevention (CDC) do more, faster to make the world healthier and safer.

CDC is the lead federal agency responsible for protecting Americans from diseases, injuries, environmental hazards, and other threats to health and safety. CDC experts work both behind the scenes and on the frontlines to improve people's daily lives and respond to health emergencies.

But CDC could never battle all the world's health threats alone. That is why Congress established the CDC Foundation to connect outside partners and resources with CDC to build programs that enhance CDC's impact. CDC scientists rely on the many vital alliances forged through the CDC Foundation to help address many critical health concerns at home and around the world.

## How Does the Foundation Make an Impact?

As an independent, nonprofit organization, the CDC Foundation unites a wide range of private sector partners—individuals, corporations and foundations—with CDC scientists to achieve common goals. The results of those partnerships are far reaching and enduring. Current CDC Foundation partnerships are making safe drinking water accessible in developing countries, improving child abuse prevention programs, providing hands-on training for disease detectives in developing countries, and fighting the national obesity epidemic.

In each case, the CDC Foundation either accelerated CDC's involvement in a vital health issue or created support in areas where none existed before. Here are a few more examples:

### Preparing Leaders to Collaborate During Crisis

A national foundation and local corporate and nonprofit sponsors are helping prepare business, government, and nonprofit leaders to work together effectively during public health emergencies.

### Addressing Obesity Among Youth

Funding from a corporation provided mini-grants to 47 US elementary schools to help improve physical education and nutrition policies and programs with help from CDC experts.

### Fighting Global Tobacco Use

Funding from a foundation is helping establish a survey to collect data on tobacco use in countries with the highest smoking rates and to track countries' progress in implementing tobacco-free programs.

### Providing Bed Nets for Children

Gifts from individuals are helping CDC teams working in Africa purchase and distribute insecticide-treated bed nets to help fight malaria, a leading killer of children.

## How can you help?

Together we share a collective responsibility to address the pressing health issues of today and tomorrow. You can make a critical impact on what CDC is able to accomplish in the future by becoming an advocate for public health and by investing in the work of CDC through the CDC Foundation. For more information on the CDC Foundation, visit [www.cdcfoundation.org](http://www.cdcfoundation.org).

## CDC Foundation

As an independent, nonprofit organization established by Congress in 1995, the CDC Foundation offers groups an opportunity to participate in CDC's mission by partnering with CDC scientists. Sometimes these partnerships begin with CDC scientists who have innovative ideas but lack the resources to test and implement them.

Partnerships also form when individuals or organizations that share a passion for CDC's mission recognize that they can better accomplish their public health goals by working through the CDC Foundation to engage and empower CDC scientists. Currently, the CDC Foundation manages four strategic initiatives and more than 100 programs in the United States and in 33 countries around the world. The programs are as diverse as the expansive role of CDC in the global public health arena and each program involves a talented team of experts at CDC and at least one partner in the private sector.

### Going Green, Getting Healthy

What can you do to be more environmentally friendly and healthier in 2009? CDC will continue to research the impact of a healthy community, as well as the impacts of the environment on health. Meanwhile, you can take steps to “go green” and get healthy—and get your workplace involved, too!

### Prevention, Prevention, Prevention

Obesity will continue to be a big issue in 2009—for children and adults. And with obesity comes a greater risk of chronic disease. As baby boomers get older, prevention and treatment of chronic illness that tend to affect older Americans will become a hot topic. Chronic diseases have a huge, measurable impact at the local level, so prevention should be a community affair.

### The Ongoing Challenges of HIV/AIDS

In the United States, the impact of HIV and AIDS continues to be most severe for men who have sex with men, as they account for approximately half of new infections and of those living with HIV. African-Americans and Latinos are also significantly burdened. Continued reporting on the disproportionate burden for these groups is needed.

### Smart Protection from Serious Disease

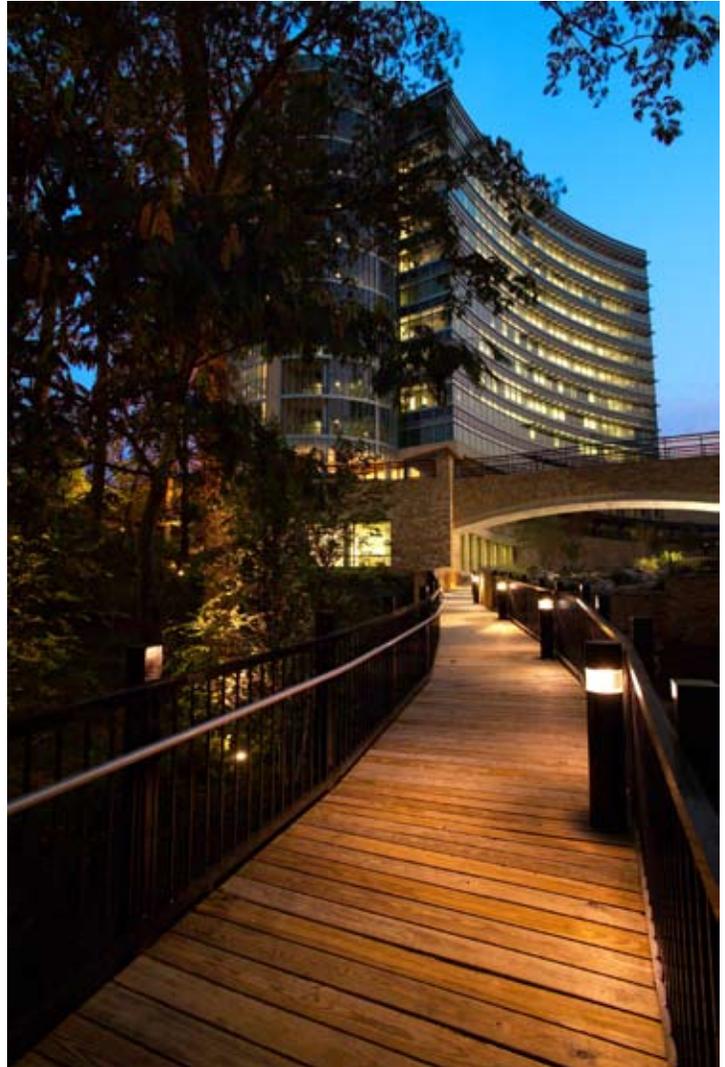
Questions still remain on immunizations and vaccine-preventable diseases. The conversation over autism and vaccination is sure to continue, and parents will need balanced stories to help them make informed choices for their children. CDC experts are available to discuss these and many other questions.

### Working All Over the World

CDC will continue its work detecting disease and helping people throughout the world in 2009. We will keep working with foreign Ministries of Health to strengthen local public health systems. CDC will continue to support countries like Kenya to help them set up dynamic public health organizations and train local public health workers to respond to regional issues. Want to learn more about our global health efforts? CDC experts with international experience and interesting stories to tell are available for interviews.

### Health for All, and All for Health

As a new year begins and America begins a new focus on health care reform, we must not forget the health disparities that exist today. The promotion of healthy behaviors, health equity (equal access), and awareness of cultural differences will be topics for discussion and public health action.



## CDC Mission

CDC's mission involves collaborating to create the expertise, information, and tools that people and communities need to protect their health—through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

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

- monitor health,
- detect and investigate health problems,
- conduct research to enhance prevention,
- develop and advocate sound public health policies,
- implement prevention strategies,
- promote healthy behaviors,
- foster safe and healthful environments, and
- provide leadership and training.

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

## Contact Information

### **Centers for Disease Control and Prevention**

1600 Clifton Road  
Atlanta, Georgia 30333

Phone: (800) CDC-INFO (800-232-4636)  
TTY for the Hearing Impaired: (888) 232-6348  
24 Hours/Every Day  
[cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)

### **The CDC Foundation**

55 Park Place, Suite 400  
Atlanta, Georgia 30303

Phone: (404) 653-0790  
Toll free: (888) 880-4CDC  
International: 00 11 1 404 653 0790  
Fax: (404) 653-0330



"When networks and community organizations come together,  
they have an extraordinary amplifying affect and  
the ability to create and harness change."

—Julie Louise Gerberding, M.D., M.P.H.  
Director of CDC from 2002-2008  
2008 CDC Leaders to Leaders Conference

[www.cdc.gov](http://www.cdc.gov)

