

2009-2012 ACCOMPLISHMENTS

CDC: SAVING LIVES *and* PROTECTING PEOPLE



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention



SAVING LIVES *and* PROTECTING PEOPLE...

The Centers for Disease Control and Prevention (CDC) is America's health protection agency against key health threats.

WE WORK TO:



IMPROVE HEALTH SECURITY *at HOME and around the WORLD*

CDC's expertise in preparedness, rapid detection, and response will save lives and safeguard communities from health threats



BETTER PREVENT *the* LEADING **CAUSES of ILLNESS, INJURY,** **DISABILITY, and DEATH**

CDC is helping build a strong, efficient, and effective public health system that improves health and lowers health care costs



STRENGTHEN PUBLIC HEALTH *and* **HEALTH CARE COLLABORATION**

The Affordable Care Act provides a unique opportunity to increase the value of health investment by aligning, coordinating, and integrating public health and health care

CDC has achieved meaningful successes that have saved lives and protected people. These accomplishments reflect how CDC's unique public health expertise in disease tracking, real-time emergency response, and ground-breaking research ensures America's health security. CDC works 24/7 to keep Americans safe from health threats – whether from the U.S. or abroad, whether from infectious or non-communicable diseases, or from other causes.

SAVE LIVES *and* PROTECT PEOPLE

Americans are better protected from vaccine-preventable diseases.

- Recommended childhood vaccines through age 6 currently save 42,000 lives, prevent 20 million cases of disease, and save \$70 billion each year. For example, prior to the introduction of rotavirus vaccine for U.S. infants in 2006, the disease was responsible for 55,000 to 70,000 hospitalizations. In 2009, rotavirus hospitalizations decreased by more than half.

Americans are better protected during natural disasters, health crises, and other emergencies.

- CDC improved emergency preparedness by maintaining America's Strategic National Stockpile and developing faster, more efficient ways to deliver lifesaving medicines and supplies to all parts of the country during a public health emergency.



Americans are less likely to get a life-threatening infection in hospitals and other healthcare settings.

- CDC programs help reduce infections in healthcare settings, cutting some life-threatening infections by a third or more.

Fewer Americans smoke or are exposed to secondhand smoke.

**A TIP ABOUT
SECONDHAND
SMOKE**

**DON'T BE SHY ABOUT
TELLING PEOPLE NOT TO
SMOKE AROUND YOUR KIDS.**

Aden, Age 7
Jessica, His mother
New York

Half of U.S. kids are exposed to secondhand smoke. For Aden, it triggers his asthma attacks. Keep kids smoke-free. If someone you know wants free help, call **1-800-QUIT-NOW**.

 U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
www.cdc.gov/tobacco

- CDC support helped 26 million Americans reduce exposure to cancer- and heart disease-causing chemicals in tobacco smoke through expansion of smoke-free workplaces, restaurants, bars, and other public places.

- CDC launched the first-ever national paid anti-tobacco media campaign, Tips from Former Smokers, helping more than 100,000 smokers quit. The campaign prevented tens of thousands of deaths.

Americans are able to reduce their risk for developing diabetes.

- CDC has worked to expand the Diabetes Prevention Program that cuts in half the risk of developing Type 2 diabetes among high-risk adults. More than 100 organizations have requested CDC recognition as a location to deliver the Diabetes Prevention Program.

Americans are less likely to be injured or killed on the road.

- Deaths from motor vehicle crashes are near their all-time low. CDC data have helped states implement primary seat belt laws, child safety seat legislation, and safer licensing laws for young



drivers. Thirty-nine states now have laws for mandatory use of ignition interlock systems after a first conviction of driving under the influence.

- Motor vehicle crashes are the number one killer of teenagers. CDC is helping parents play a key role in keeping their teens safe on the road through the Parents Are the Key campaign, which provides tools and proven steps to reduce teen driving injuries and deaths.

Teenagers are less likely than ever to become pregnant, breaking the cycle of poverty and poor health outcomes.



- Identified as a CDC Winnable Battle in 2010, teen pregnancy prevention efforts are working, and the teen birth rate has reached an all-time low. Fewer teens are initiating sex and more

sexually active teens are using effective contraceptive methods. CDC released the first-ever U.S. recommendations on medical eligibility for contraceptive use to help physicians and patients make sound decisions about effective contraceptive options.

Americans are less likely to be exposed to or contract tuberculosis.

- In 2010, rates of tuberculosis in the U.S. were the lowest since 1953, when national figures were first collected.

SUPPORT PUBLIC HEALTH in your COMMUNITY

CDC works continuously with state and local public health partners, providing them the guidance and support they need to handle a variety of health threats.



- New CDC research indicates that all Americans born between 1945 and 1965 should be tested for Hepatitis C. Implementation of these recommendations could prevent more than 100,000 premature deaths.

- CDC supports healthy school environments. Approximately 40% fewer schools sell low-nutrition food and sugar-sweetened beverages on school grounds.
- CDC efforts are resulting in more babies being born in hospitals that recognize and support the importance of breastfeeding for health and to help reduce childhood obesity.

Americans benefit from hundreds of additional, better trained front-line professionals detecting and responding to health threats.

- CDC helped prepare state and local emergency responders to address health impacts of power outages, natural disasters, and events leading to the release of hazardous materials.

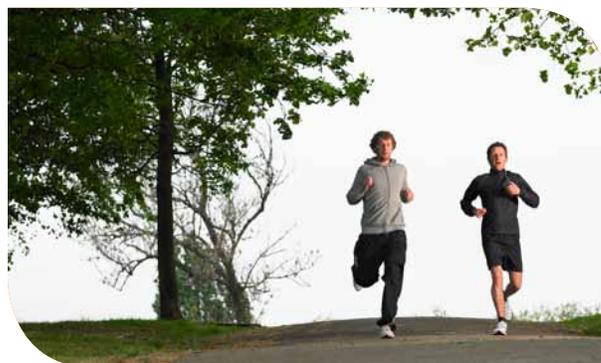


- CDC’s Public Health Associate Program is improving today’s public health infrastructure at state and local levels, while training tomorrow’s public health leaders. Since 2009, 214 trainees have completed the program.
- CDC upgraded its free Epi Info™ to help prevent and control health threats and disease outbreaks. More than 1 million Epi Info users in 180 countries are using this system.

Americans benefit from more efficient and effective state and local public health action.

- CDC better targeted HIV prevention resources to the places, people, and programs that will prevent the most infections.
- More than 50 million people—or one in six Americans—live in a city, town, county, or tribal community that benefits from CDC’s Communities Putting Prevention to Work (CPPW) initiative. CPPW supports effective community programs that prevent heart attacks, cancer, strokes, and diabetes by

improving nutrition, increasing physical activity, and reducing tobacco-use and secondhand smoke exposure. As a result, tens of millions of Americans are eating healthier food, getting more physical activity, and being protected from the cancer that tobacco causes.



- CDC’s National Public Health Improvement Initiative supports state, tribal, local, and territorial public health agencies to improve the efficiency and effectiveness of their public health efforts. New Jersey cut the time to report influenza results from 2-3 weeks down to 2-3 days, enabling earlier detection and response to protect the public’s health. Virginia identified more than \$1.2 million in annual information technology savings.

CDC PROTECTS *the U.S.* from GLOBAL HEALTH THREATS

Countries are better able to find and stop health threats – and Americans are safer because diseases and pandemics are stopped before they reach U.S. borders.

- CDC’s Field Epidemiology Training Program (FETP) has strengthened health systems in more than 60 countries by graduating more than 2,600 highly trained disease detectives, approximately 80% of whom remain in their countries in a leadership role detecting and responding to health threats. Since 2009, CDC-supported FETPs have responded to 709 outbreaks and strengthened 1,293 surveillance

systems, resulting in increased capacity to detect disease and prevent its spread in these countries and around the world.



- CDC helps countries better identify and contain infectious disease threats. Since 2009, CDC has provided emergency technical assistance to more than 70 humanitarian assistance missions in 26 countries. New Global Disease Detection Regional Centers also were opened in India and South Africa, bringing the total to seven centers. These programs have provided rapid response to more than 560 disease outbreaks and other public health emergencies, discovered 28 pathogens new to a region or in the world, and set up early warning systems to monitor the health of 147 million people for infectious diseases.
- To find problems sooner and determine what they are, CDC strengthens laboratories for rapid, effective disease response. CDC has helped support development of more than 1,900 clinical laboratories and more than 16,500 HIV testing sites throughout the world, and helped establish the first African laboratory accreditation program to ensure that high quality laboratory networks are established and sustained.

The world is safer from the threat of polio.

- CDC has contributed significantly to the 99% decline in global polio cases. In just the past year, the number of countries reporting polio cases has declined from 15 with 467 cases and eight outbreaks in 2011 to just five countries reporting 223 cases and no outbreaks in 2012.

The world benefits from better control of the global HIV epidemic.



- As part of the President's Emergency Plan for AIDS Relief (PEPFAR), CDC provides more than 1,500 technical experts in field offices in more than 40 countries with subject matter expertise in prevention, treatment, laboratory science, and informatics. CDC works closely with Ministries of Health and other local and international partners. Through PEPFAR, CDC provides half of the treatments for HIV, resulting in 4.5 million people on treatment for HIV who are contributing to their communities and more than 800,000 babies who are HIV-negative who would otherwise be infected.

The world benefits from better prevention and control of malaria.

- CDC provides strategic direction on, and has been a key implementer of, monitoring, surveillance, and evaluation activities for malaria control. CDC has assisted the President's Malaria Initiative with the distribution of approximately 78 million insecticide-treated mosquito bed nets, 92 million lifesaving antimalarial treatments, 24 million rapid diagnostic tests, and the distribution of approximately 12 million courses of preventive treatment for pregnant women. CDC data from 11 countries show a reduction in all-cause mortality among children age 5 and younger by up to 50%. Malaria control saves lives, promotes development in Africa, and increases safety for U.S. travelers and businesses.



Haiti and its neighbors benefit from better disease control.

- Following Haiti's devastating earthquake in January 2010, CDC helped re-establish and strengthen the country's public health system, and improve immunization against measles and other diseases.
- CDC also helped Haiti's capital city, Port au Prince, conduct the first campaign to eliminate

lymphatic filariasis, a disabling parasitic disease, and started giving vaccines that will prevent tens of thousands of deaths in the coming years.



The world benefits from improved and expanded global vaccination programs.

- CDC works in more than 60 countries to help vaccinate children against contagious and life-threatening vaccine-preventable diseases. CDC is supporting the first mass vaccination campaigns to eliminate epidemic meningococcal meningitis in sub Saharan Africa. During the spring 2011 meningitis season, Burkina Faso documented the lowest annual incidence of meningitis A ever. As of May 2012, nearly 55 million people had been vaccinated without a single vaccine failure. These efforts have significantly improved child survival and contributed to economic stability in developing countries.
- As a co-founder of the Measles Initiative, CDC has contributed to the vaccination of one billion children worldwide. These efforts have resulted in an 80% reduction in global measles deaths, preventing more than 4 million additional childhood deaths in the past decade alone.

CDC'S CUTTING-EDGE DISEASE TRACKING and LABORATORIES ENSURE HEALTH SECURITY

Americans' lives are protected by groundbreaking advances in the nation's public health laboratories.



- CDC's laboratories were the first in the world to identify and report the new 2009 H1N1 virus. CDC also tracked the characteristics and spread of the disease as well as the safety of the vaccine. In the U.S. alone, more than 80 million Americans were vaccinated and the combined interventions of vaccination and antiviral treatment prevented about 1 million cases of flu, more than 15,000 hospitalizations, and more than 800 deaths.
- Health departments are receiving laboratory reports faster and at lower cost through electronic laboratory reporting. As of early 2012, approximately half of all laboratory reports to state health departments were received electronically. CDC's Laboratory Response Network,

which has increased to more than 160 laboratories, enables the public health laboratory system to respond to public health threats and emergencies by providing rapid and reliable diagnosis of health threats. An estimated 90% of the U.S. population (an increase of 5% over the last two years) lives within 100 miles of a member laboratory, ensuring broad access to testing during public health emergencies.

- Together, CDC and state public health laboratories have implemented better and faster methods to recognize known and emerging infectious diseases.

Americans are better protected against life-threatening diseases as a result of new CDC technology.

- CDC has developed new diagnostic tests for dengue, plague, Chagas, and other diseases. CDC scientists also identified a novel, non-toxic, naturally occurring insecticide to repel ticks and mosquitos.



- To improve detection of chemical alterations to cigarettes by tobacco companies, CDC's Tobacco Lab has developed a screening method for

known carcinogens in cigarette smoke and two screening methods for chemical groups that enhance delivery of nicotine to smokers. The



CDC Tobacco Lab has completed measurement of 67 addictive, toxic, and enhancing substances in 50 major U.S. cigarette brands and provided the Food and Drug Administration with current levels of these chemicals as a baseline for the regulation of tobacco products.

- CDC has contributed to major advances in vaccine development and testing for flu, West Nile virus, dengue, Japanese encephalitis, Rift Valley fever, rotavirus, polio, meningitis A, pneumococcus, pertussis, HIV, hepatitis E, tuberculosis, and human papilloma virus.
- CDC developed the most rapid, sensitive, and selective method to diagnose anthrax in its early stages and throughout the course of the disease. CDC can now analyze more than 1,000 anthrax samples per day, which greatly enhances the agency's response capabilities for one of the world's oldest and most deadly diseases. A man with naturally-acquired inhalation anthrax was diagnosed within two days of presentation and admission to a local

hospital, enabling effective care four days faster than previously possible.

- CDC improved the diagnosis of cardiovascular disease by standardizing measurement of cholesterol, HDL-cholesterol, LDL-cholesterol, and triglycerides in U.S. clinical laboratories. CDC also improved a diagnostic test for severe combined immunodeficiency, a deadly disease that is only curable with a bone marrow or cord blood transplant.

Americans benefit from better regulation of medications for children and pregnant women.



- CDC provided data to the Food and Drug Administration that informed the decision to withdraw over-the-counter cold and cough medicines marketed for use in young children. Withdrawal of those products has cut in half the number of children younger than two years who require emergency department care for related adverse events.

- CDC's national data on children's medication safety prompted a public-private partnership to reduce medication overdoses. As a result of working with the Food and Drug Administration and other partners, infant and child acetaminophen are now packaged in bottles with flow restrictors which can reduce unintended poisonings in children, standards for dosing instructions and devices have been issued to reduce administration errors, and a national education campaign has been launched to improve medication storage practices.
- CDC provided data to the Food and Drug Administration to help inform FDA's regulatory review of antibiotics associated with the risk of birth defects when used in early pregnancy.

Americans are better protected from illness and harm from contaminated food.



- Since 2009, CDC has bolstered systems that analyze trends in infections, detect and investigate outbreaks, and better understand

major foods and pathogens responsible for outbreaks. In the 2011 outbreak of Listeria, health officials solved the mystery of where the infections came from and warned the public just seven days after the first cases were detected – four times faster than in the past.

- E. coli infections have been cut almost in half.

Americans are better protected through improved data for health decision making.

- CDC has strengthened its flagship publication, the Morbidity and Mortality Weekly Report (MMWR), by making data more current, more focused on implications for action, and more widely distributed through Vital Signs and other means. The CDC Vital Signs monthly publication provides scientifically-credible advice about current health challenges and is widely sought by both professional and lay audiences, with more than 4 billion online viewings.
- CDC has increased the timeliness, representativeness, and usefulness of the gold-standard U.S. health monitoring system, the National Health and Nutrition Examination Survey (NHANES).
- CDC provides city and county data for more than 170 locations through its Selected Metropolitan/Micropolitan Area Risk Trends (SMART) data based on the Behavioral Risk Factor Surveillance System. SMART data are being used to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs.

- CDC launched the BioSense 2.0 surveillance system, using highly secure Internet cloud technology to cut information storage costs; improve participation by state health departments; and strengthen local, state, and national capacities to monitor and respond to emergent disease trends.
- CDC also released vital information on social and mental health issues, including intimate partner violence, autism, and how mental illness impacts public health. CDC developed and launched the National Intimate Partner and Sexual Violence Survey, an ongoing, nationally-representative telephone survey that collects detailed information on sexual violence, stalking, and intimate partner violence victimization. Also, recent data from CDC revealed that the number of children identified with autism spectrum disorder is now one in 88 children, and most children are identified later than the national goal of 36 months. Widespread media attention to these findings is helping increase Americans awareness of the need for early identification, intervention, and access to services for children with autism.



Americans are better protected from infectious diseases such as West Nile, dengue, and encephalitis.

- CDC is better able to track and diagnose diseases caused by mosquitos and other vectors using nationwide surveillance systems like ArboNet, developed at CDC.



A higher percentage of Americans with HIV know they are infected, enabling them to protect themselves and their partners and to live longer, healthier lives.

- CDC expands the use of new rapid HIV screening tests that determine whether a person is HIV-positive in one hour or less, increasing linkage to care, and reducing spread to partners.

Americans are more likely to receive quality patient care.

- Healthcare facilities are able to monitor and prevent healthcare-associated infections (HAI) through CDC's National Healthcare Safety Network. As of 2012, approximately 10,000

healthcare facilities, including nearly all U.S. hospitals, are improving the quality of their care by using this network.

- CDC increased the usefulness of its National Hospital Discharge Survey by incorporating data from Medicare, Medicaid, emergency departments, and ambulatory surgery centers for a more complete picture of patient care and outcomes.

Americans are better protected from environmental harms.

- CDC's Environmental Public Health Tracking Program, a national information system linking environmental and health data, is enabling a more timely response to health problems related to the environment.



- CDC updated the Fourth National Report on Human Exposure to Environmental Chemicals and published the Second National Report on Biochemical Indicators of Diet and Nutrition in the U.S. Population. CDC measurements in the blood and urine of participants in NHANES track over time the presence and amount of environmental chemicals and nutritional indicators in humans to help identify at-risk population groups and assess the effectiveness of interventions to reduce harmful environmental exposures and improve nutritional status.

CDC PUTS SCIENCE into ACTION with PROVEN HEALTH POLICIES and INFORMATION



Americans have more and better information about health risks and what they can do.

- CDC released the first Prevention Status Report for each state, with information on the leading causes of death and disability. These data help state health officials identify key public health practice and policy improvements needed in their state. Periodic updates of the report will enable state-level tracking of progress.
- CDC supported the development of MyPlate, USDA's current nutrition guidance. Based on the latest Dietary Guidelines for Americans,

MyPlate makes food and beverage recommendations clearer and more intuitive. MyPlate will be displayed on food packaging and used in nutrition education throughout the United States to help consumers make healthier food choices for themselves and their families.

Americans are better informed about the risks of prescription drug overdose and taking steps to reduce this trend.

- CDC has released media briefs, Vital Signs, Grand Rounds, and information briefs to alert public health professionals and the public to the escalating risk of drug overdose and the steps that are needed to reverse course.

Vital Signs™
July 2012

Prescription Painkiller Overdoses

Stopping Risky Use of Methadone as a Painkiller

1 in 3
Methadone contributed to nearly 1 in 3 prescription painkiller deaths in 2009.

5,000
About 5,000 people die every year of overdoses related to methadone.

6x
Six times as many people died of methadone overdoses in 2009 than a decade before.

Prescription painkiller overdoses* were responsible for more than 15,500 deaths in 2009. While all prescription painkillers have contributed to an increase in overdose deaths over the last decade, methadone has played a central role in the epidemic. More than 30% of prescription painkiller deaths involve methadone, even though only 2% of painkiller prescriptions are for this drug. Six times as many people died of methadone overdoses in 2009 than a decade before.

Methadone has been used safely and effectively to treat drug addiction for decades. It has been prescribed increasingly as a painkiller because it is a generic drug that can provide long-lasting pain relief. Insurance companies often prefer it because of its low cost. But as methadone's use for pain has increased, so has nonmedical use of the drug and the number of overdoses. Health care providers should prescribe methadone only when other pain treatments have not been effective.

* Prescription painkiller overdoses* refers to deaths from using harmful amounts of opioid or narcotic pain relievers, including drugs such as Vicodin (hydrocodone), OxyContin (oxycodone), Opana (oxycodone), and methadone.

→ See page 4
Want to learn more? Visit
<http://www.cdc.gov/vitalsigns>

National Center for Injury Prevention and Control
Division of Unintentional Injury Prevention

- CDC has helped states and cities increase the effectiveness of their prescription drug overdose programs and has developed prescribing guidelines for emergency department doctors.

Americans can improve health through CDC's focus on prevention and wellness.

- CDC helped develop the National Prevention Strategy and the National Prevention Council Action plan, America's first comprehensive strategy to reduce the leading causes of illness, death, and disability. The plan details more than 200 actions led by 17 federal agencies, including a commitment to increase smoke-free environments and access to healthy foods in their agencies.
- CDC provided scientific and program information that improved prevention components and public health activities of the Affordable Care Act and the Zadroga Act, which established a federally funded World Trade Center Health Program for adverse health effects associated with the terrorist attacks on September 11, 2001. CDC also has informed the development of the pending Pandemic and All Hazards Preparedness Act and Farm bill.
- CDC completed 50 systematic reviews for the Guide to Community Preventive Services to empower communities to use the most effective programs to improve health and prevent disease.
- CDC has expanded its analyses showing the impact of prevention on the U.S. economy and business. Increased dissemination of

reliable data, fact sheets, presentations, and scientific publications expand the understanding of prevention's return on investment, reduction of excess healthcare costs, and benefits to productivity. These include savings and return on investment for immunizations, diabetes lifestyle interventions, trans-fat elimination, cigarette pack warning labels, as well as excess healthcare costs because of tobacco, diabetes and obesity. Based on these analyses, the National Healthy Worksite Program was designed to assist 100 employers in implementing health protection and promotion strategies that will lead to specific, measurable health outcomes to reduce rates of chronic disease.



Despite significant progress to protect Americans' health, more is needed.

- CDC must continue to improve detection and control of infectious disease outbreaks, and unless CDC's scientists keep pace with rapidly changing technologies, CDC will no longer be able to identify outbreaks early and stop them. CDC also must continue to improve the capacity of state and local health departments to use

electronic health records and new methods for health information exchange to achieve population health benefits. Americans can achieve optimal health through CDC's focus on prevention and wellness.



- CDC must reduce harms from tobacco (cigarette smoking and secondhand smoke cost more than \$200 billion a year), better control the HIV infection among Americans living with HIV (only 28% have their infection controlled), and reverse the obesity epidemic. CDC must also continue to promote downward trends in motor vehicle fatalities (Americans are still twice as likely to be killed on the road as drivers in other countries), teen pregnancy rates that perpetuate a cycle of poverty, and deaths from prescription opiates, which have increased five-fold and now kill more Americans than heroin and cocaine combined.
- There are many emerging and existing health threats that face this country, and CDC will identify those threats and address them quickly and effectively, building on the significant progress made in recent years.

CDC WORKS 24/7 to **KEEP AMERICANS SAFE** *from*
HEALTH THREATS - *whether from the* **U.S.** *or* **ABROAD,**
whether from **INFECTIOUS** *or* **NON-COMMUNICABLE**
DISEASES, *or from* **OTHER CAUSES**

