

1940s 1950s

1960s

1970s

1980s

1990s

Today

RESEARCH

1948 Gains worldwide recognition for the quality and quantity of its contributions to the taxonomy of the *Enterobacteriaceae*

1953 Reports first case of rabies in a bat Provides first ever EIS assistance for environmental exposure (trichloroethylene) and occupational exposure (anthrax)

1955 Inactivated polio vaccine licensed; "Cutter incident" investigated

1956 Establishes the fluorescent technique as a means to research communicable diseases of bacterial origin

1959 Develops the fluorescent antibody test for rabies, which shows 100% accuracy in a field trial

1962 Provides first EIS assistance for disease (leukemia cluster)

1963 Tests the newly developed Jet Gun and vaccine for smallpox

1964 Responsible for the first Surgeon General's report linking smoking to lung cancer

1971 Conducts the first National Health and Nutrition Examination Survey to capture the health status of Americans

1973 Provides for the first time Epidemic Intelligence Service assistance for injury investigation Reports that lead emissions in a residential area constitute a public health threat—contrary to popular assumption

1980 Reports in the *MMWR* of the association of Reye syndrome with aspirin use Publishes first report on a newly recognized illness associated with tampon use (toxic shock syndrome)

1981 Publishes article in the *MMWR* describing the first diagnosis of the fatal disease later known as AIDS

1982 Advises public of the possible risk of Reye syndrome associated with the use of aspirin by children with chickenpox and flu-like symptoms

1985 Reports that polysaccharide based vaccine is a cost-effective means to protect children at risk for developing *Haemophilus influenzae* infection

1984 Determines that no increase of birth defects occur as a result of Vietnam veterans exposure to Agent Orange during combat

1987 Reports that about 7,000 workers die on the job annually; 42% of female workers who die on the job are murdered Published first report of multi-drug resistant tuberculosis

1989 Reports that 6 of 10 killings involved guns, ranking firearms as the eighth leading cause of death

1992 Reports on the emergence of new and virulent diseases resistant to antibiotics

1990 Reports the first possible transmission of HIV from a dentist to a patient in Florida during an invasive procedure

1998 Reports that for the first time since 1981, AIDS was diagnosed in more African-American and Hispanic men than in gay white men

Succeeds in getting federal mandate to enrich cereal grain with folic acid

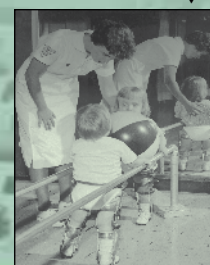
1997 Reports that H5N1 avian influenza outbreak has spread to humans in Hong Kong

2002 Reports that U.S. newborn HIV infections were down 80% since 1981

2004 Provides research that supports the restriction of over-the-counter medications used in methamphetamine production in Georgia

SCIENCE IN ACTION

1950 Conducts first investigation of an epidemic of polio in Paulding County, OH



1954 Sets up a leptospirosis lab in Jacksonville, FL

1957 Reports the onset of "Asian flu" pandemic Sends staff overseas, for the first time, to respond to an epidemic of cholera and smallpox in Southeast Asia Develops the National guidelines for influenza vaccine

1966 Announces a national measles eradication campaign Begins the global smallpox eradication campaign

1968 Investigates an infectious respiratory disease in Pontiac, MI, later known as Legionnaires disease Reports the onset of "Hong Kong flu" pandemic

1972 Assists Sierra Leone in fighting an outbreak of Lassa fever, a lethal viral disease

1974 Develops campaign to reverse downward trend in immunization rates in the Americas

1978 Initiates national health objectives for 1990

1991 Recommends all women of childbearing years consume 400 mg of folic acid/day to reduce the risk of pregnancies affected by spina bifida and anencephaly

1979 Publishes first *Healthy People* report

1993 Investigates a mysterious illness outbreak in the southwestern U.S., later known as Hantavirus infection

1995 Recommends offering HIV testing to all pregnant women

1996 Initiates the Prevention Effectiveness Program and Guide for Community Preventive Services

1997 Participates in the Presidential Apology for the Tuskegee Study

1999 Identifies West Nile virus in NYC

2001 Responds to World Trade Center and bioterrorist anthrax attacks

2003 Provides surveillance, clinical and lab evaluation, and reporting for SARS outbreak

2005 Responds to Hurricanes Katrina & Rita

2006 Identifies source of *E. coli* outbreak in U.S. Recommends the 15th and 16th routine immunizations for children and adolescents (*rotavirus* & *human papillomavirus* vaccines, respectively)



ERADICATION

1949 Declares the U.S. is free of malaria as a significant public health problem; Reports the last case of smallpox in the U.S.



1966 USAID/CDC Smallpox Eradication/Measles Control Program began in 20 countries in West and Central Africa

1975 Reports on the last victim of variola major smallpox

1977 Last naturally occurring smallpox case

1979 Announces the last case of endemic poliomyelitis caused by wild poliovirus in the U.S.

1980 WHO declares Smallpox global eradication



1994 Certifies polio elimination in the Americas

2005 Announces the elimination of rubella in the U.S.

CDC GROWS

1947 Acquires the Public Health Service Plague Laboratory, including an Epidemiology Division

1946 The Communicable Disease Center is organized in Atlanta

1955 Establishes the Polio Surveillance Program

1951 Establishes the Epidemic Intelligence Service (EIS) to protect against biological warfare and man-made epidemics

1964 Holds first meeting of the Advisory Committee on Immunization Practices

1961 Acquires the publication of Morbidity and Mortality Weekly Report (*MMWR*) from National Office of Vital Statistics

1960 Acquires the Tuberculosis Program

1965 Adds new surveillance systems to track measles, shigellosis, tetanus, and trichinosis

1969 Builds a biocontainment lab to protect scientists working with deadly, infectious pathogens

1967 Acquires the Foreign Quarantine Service

1975 Holds first Field Epidemiology Training (*Canada*)



1973 Acquires the National Institute for Occupational Safety and Health

1970 Renamed the Center for Disease Control

1980 Renamed Centers for Disease Control Congress creates the Agency for Toxic Substances and Disease Registry, a "sister agency" to CDC

1978 Opens maximum-containment lab



1987 Acquires the National Center for Health Statistics

1986 Acquires the Office on Smoking and Health

1983 Establishes a Violence Epidemiology Branch to confront child abuse, homicide, and suicide

1994 Establishes the Vaccines for Children Program

1992 Renamed the Centers for Disease Control and Prevention Establishes the National Center for Injury Prevention and Control

1988 Establishes the National Center for Chronic Disease Prevention and Health Promotion

2001 Establishes the National Center on Birth Defects and Developmental Disabilities

1999 Establishes the Laboratory Response Network

2005 Opens 2 state-of-the-art laboratories, the Global Communications Center, and the CDC Headquarters and Emergency Operation Center



With thousands of professionals in the United States and in 46 countries worldwide, working on issues ranging from Avian influenza, to obesity, to violence in schools, the Centers for Disease Control and Prevention is the nation's leading public health agency.

The CDC inspires trust and embodies the scientific knowledge that has been protecting the health of Americans—and people around the world—since 1946. Over the last 60 years, the world class scientists and staff at the CDC have helped people to live safer, healthier, and longer lives. CDC and its partners are proud of their public health accomplishments, including their pioneering work in malaria control, helping to eradicate smallpox from the planet, identifying and reporting the first cases of AIDS, working to reduce tobacco use, obesity, diabetes, and creating the widely respected Epidemic Intelligence Service. CDC has been, and remains, the agency that the nation and the world trust in the face of a public health emergency.

From its Atlanta campus to the most remote location imaginable, today's CDC has a complex mission that reflects ever-changing public health needs in the areas of healthy people, healthy places, preparedness, and global health.

1940s – Today... 60 Years in the War on Malaria

It's fitting that CDC's Malaria Branch has been crucial in planning and supporting the President's Malaria Initiative (PMI), announced in 2005, as this disease was the agency's *raison d'être* at its founding in 1946. From its start as part of the U.S. Public Health Service's war on malaria in the United States, CDC has remained at the forefront of the fight, though the battleground has shifted to developing nations abroad.

PMI brings together the United States Agency for International Development (USAID) and the Department of Health and Human Services to provide support to National Malaria Control Programs in coordination with other donors, including the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and the World Bank Booster Program. This \$1.2 billion, 5-year effort aims to cut malaria-related deaths by half in 15 African countries by supporting an integrated, comprehensive package of malaria prevention and control interventions. By the end of 2006, CDC had field staff in 5 PMI countries, and, by the end of 2007, the agency will have staff in all 15.

In less than a year, PMI has provided more than six million people with life-saving interventions, including indoor residual spraying, bed nets treated with insecticides, and new antimalarial drugs. In fact, in public health facilities on one of Zanzibar's islands, confirmed malaria cases have dropped by nearly 90%—a direct result of the nets and the new drugs.



» *Malaria Control in War Areas*

1950s – Today... A Half-Century in the Fight Against Polio

In public health terms, the 1950s could be remembered as the decade of polio intervention in the United States. After all, it was in 1950 that a group of CDC scientists conducted the first investigation of a polio outbreak in Ohio. The worst recorded U.S. epidemic of polio occurred in 1952, with more than 57,000 cases reported. By 1955, CDC had established its Polio Surveillance Program. That same year, an inactivated polio vaccine (IPV) was introduced, and the incidence of the disease dramatically decreased, falling 85% from 1955 to 1957. The sharp drop in cases continued after the introduction in 1961 of an oral polio vaccine (OPV). (In 1960, there were a total of 2,525 paralytic cases reported in the U.S.—by 1965, that number had dropped to a mere 61.) The last case of polio caused by a wild poliovirus (rather than an importation) in the U.S. was in 1979.

In 1988, based on success in controlling transmission in the U.S. and throughout the Americas, the World Health Assembly voted to launch an initiative to eradicate polio worldwide. CDC—along with the World Health Organization, Rotary International, and UNICEF—is a spearheading partner in this initiative. That year, an estimated 350,000 cases of paralytic polio occurred in 125 countries. By 2005, cases had fallen by more than 99%, with fewer than 2,000 reported globally, and only four countries—Nigeria, India, Pakistan, and Afghanistan—remained endemic for the disease. Since the initiative began, more than five million cases of paralytic polio have been prevented and an estimated 250,000 polio deaths averted.

There is still difficulty today in accessing all children for vaccination in areas of insecurity; and outbreaks have occurred in previously polio-free countries due to imported cases. To combat this, new tools and strategies are being implemented: when an outbreak occurs, an immunization response is conducted within four weeks of case confirmation; three immunization campaigns are held four to six weeks apart; and a house-to-house immunization strategy is used. In addition, monovalent OPV, which is more efficient at boosting immunity against specific strains of poliovirus than the trivalent vaccine, has been reintroduced in numerous countries since 2005. Disease surveillance has been strengthened, and targeted political advocacy has been conducted at the global, national, and district levels.

Key to achievement of a polio-free world is the continued support of the international polio partnership. After 50 years, CDC remains fully committed to the fight.

» *Communicable Disease Center Artistic Rendering 1959*



1960s – Today... 40 Years of Research on Tobacco and Smoking

In 1964, a sea change occurred in American culture when the Surgeon General released the first-ever report linking smoking to lung cancer. To a nation accustomed to seeing smoking on television and permitting it on airplanes, in homes and around children, the report's statement that "cigarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action" marked a shift in attitude that continues to shape national discourse to this day. Some 22 years later, in 1986, another groundbreaking report would examine the health impact of secondhand smoke ("involuntary smoking")—an aspect of the debate largely under-examined previously.

It was fitting then that 20 years later, on June 2006, the Surgeon General again advanced the discussion on smoking and public health with the release of the 29th report devoted to tobacco and health. *The Health Consequences of Involuntary Exposure to Tobacco Smoke* documents, beyond any doubt, that secondhand smoke harms people's health and reaffirms, updates, and expands on the conclusions of the 1986 Report. CDC is responsible for these reports as well as for having supported highly successful state and community programs, dissemination of research findings, and ensuring the continued public visibility of antismoking messages.

The Report is already having far-reaching effects on the nation's public health. Its definitive and powerful conclusions—for example, there is no safe level of exposure and breathing even a little secondhand smoke can be dangerous—will set the stage for increased action to reduce involuntary exposure to tobacco smoke, saving lives and reducing the tobacco-related burden on the public's health in the process.

Here are just a few examples of healthy changes that have occurred:

- » Marriott Corporation goes smoke-free
- » Lockheed Martin Corporation announces tobacco-free campus policy
- » Nation's Restaurant News suggests that restaurants reconsider smoking policies
- » Pennsylvania Restaurant Association declares support for state smoke-free legislation
- » Anchorage and Kansas City Chambers of Commerce support local smoke-free laws
- » Hawaii and Louisiana governors sign state smoke-free laws

CDC is proud to have been one of the first HHS agencies to implement a tobacco-free campus policy, even before this most recent Report was issued.

1980s – Today 25 Years of HIV/AIDS

Since June 1981, when CDC's *Morbidity and Mortality Weekly Report* published a report of *Pneumocystis carinii* pneumonia in five previously healthy young men in Los Angeles, CDC has continued the battle against this disease. Today, there are more than 1 million persons living with HIV/AIDS in the United States, but over the last 25 years, CDC has succeeded in

- » Decreasing mother-to-child (perinatal) HIV transmission from 1,650 during the early- to mid-1990s to 141 estimated cases in 2005; attributable to multiple interventions, including routine voluntary HIV testing of pregnant women, the use of rapid HIV tests at delivery for women of unknown HIV status, and the use of antiretroviral therapy by HIV-infected women during pregnancy and by infants after birth.
- » Ensuring availability and use of diagnostic and screening tests for HIV infection to promote individual knowledge of HIV serostatus and to ensure

1970s – Today... Three Decades of Reducing Lead Levels

Today, it is accepted science that exposure to lead can result in lower test scores and behavioral problems among children and hypertension and kidney disease in adults. But in 1972, the notion that lead could constitute a public health threat was something few had ever considered. Even the National Academy of Sciences report from that year stated, "lead attributable to emission and dispersion into the general ambient environment has no known harmful effects."

That same year, however, CDC research would dramatically alter the discussion. And, in 1973, CDC published its findings on harmful levels of lead exposure and health consequences in the *Morbidity and Mortality Weekly Report*. Not only were populations living near industrial areas or in dense urban areas being impacted by air lead levels, but deteriorated lead paint in older homes and apartment buildings was also a serious problem. This changed forever the way in which Americans viewed "acceptable levels" of lead exposure.

Over the next 34 years, blood lead levels declined dramatically; approximately 80% in the United States with the implementation of federal and state regulations to control lead exposure. CDC played a major role in reducing lead exposure from food cans, drinking water conduits, and other sources, in banning lead-based paints for use in housing and in making older housing lead-safe. The reduction in exposure that followed is one of the most significant public health successes of recent decades.

However, blood lead levels are still high today for certain populations—especially minority groups, children from low-income families, and those living in older homes. According to data collected during 1999–2002, non-Hispanic black children remained at higher risk for elevated blood lead levels than non-Hispanic white or Mexican American children. The most recent figures available indicate that approximately 24 million housing units still contain substantial lead paint hazards, with 1.2 million of these units occupied by low-income families—including perhaps 310,000 young children.

CDC has joined with other federal agencies to ensure a systematic effort to control and eliminate childhood lead poisoning as a public health problem by 2010. The interagency strategy will help to identify lead paint hazards as well as children with elevated blood lead levels, to monitor progress in reducing lead levels, and to further the success of prevention programs. Striving to meet the goal set in motion more than 30 years ago, CDC also is leading the way in international agreements to lessen the use of leaded gasoline and lessen health effects in areas where lead mining is conducted.

the safety of the nation's blood supply. Today, with nucleic acid testing, the risk for HIV transmission is estimated at as low as one per 2 million blood donations.

- » Increasing widespread promotion of HIV testing and uptake have resulted in approximately 50% of persons aged 15 to 44 years in the U.S. reporting that they have had an HIV test, including a higher proportion of those at increased risk (e.g., men who have sex with men and injection-drug users).

Today, CDC continues to confront a leading cause of illness and death in the United States, to reduce the number of the estimated 250,000 HIV-infected persons in the United States who are unaware of their status; and to increasingly focus prevention messages on both HIV-positive and negative persons, and reduce health disparities, especially among African Americans and other high-risk populations. In 2006, CDC published groundbreaking new recommendations to make voluntary HIV screening a routine part of medical care for all patients aged 13 to 64 years and to simplify the testing process in health care settings and increase early diagnosis. The recommendations also include new measures to improve diagnosis among pregnant women and further reduce mother-to-child HIV transmission.