



Revised Final FY 1999 Performance Plan  
And  
FY 2000 Performance Plan  
January 1999

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 Revised Final FY 1999 Performance Plan  
 And  
 FY 2000 Draft Performance Plan  
 Centers for Disease Control and Prevention  
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## **I. Overview of the Centers for Disease Control and Prevention**

The Centers for Disease Control and Prevention (CDC) is the lead federal agency responsible for promoting health and quality of life by preventing and controlling disease, injury, and disability. CDC accomplishes 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 health policies, implement prevention strategies, promote healthy behaviors, foster safe and healthy environments, and provide public health leadership and training.

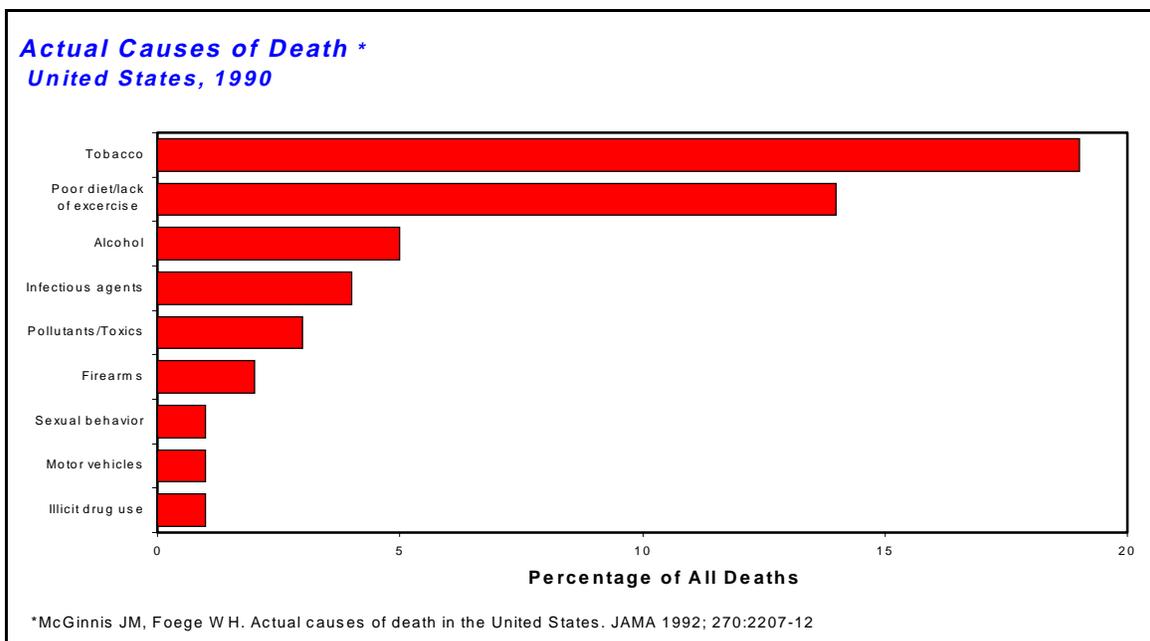
A unique and critical aspect of CDC's leadership role is embodied by its National Center for Health Statistics (NCHS). NCHS provides strong leadership in monitoring the health of the American people and is an unparalleled resource for health information. NCHS performs several key roles including providing a solid information base for designing and tracking prevention programs, identifying health problems and risk factors that affect the population, and monitoring the dramatic changes taking place in our nation's health care system. NCHS represents an investment in broad-based, fundamental public health and health policy statistics that meets the needs of a wide range of users within the public health community, the Department, other Federal Agencies, research institutions, and health care practitioners.

CDC's reliance upon and access to existing data is exemplified by its approach to public health problems. In order to address these problems, CDC uses a reliable, proven, flexible four-step process that adapts to the wide variety of problems that are subjects of CDC programs: infectious diseases, environmental and occupational health, injuries, and chronic diseases. This public health approach consists of detecting and defining a problem through surveillance, determining the causes, developing and testing potential strategies for handling the problem, and implementing nationwide prevention programs. The approach is supported by science, and is reflected in CDC's programs, as well as its evaluation of programs. Prevention effectiveness has been institutionalized as a public health science at CDC. Since 1992, CDC has substantially increased its ability to scientifically assess the prevention effectiveness of its programs and strategies. More than ever, CDC is able to prove that prevention is a sound and solid investment. Yet, even as the U.S. health care budget approaches \$1 trillion, only 1 percent of health expenditures support population-based prevention.

CDC's distinguished history of success in disease prevention has spanned 51 years, beginning with the first national disease-elimination strategy used against malaria in 1947. Some well-known accomplishments of the Nation's prevention agency resulting from the more than 3,000 investigations of disease outbreaks include identifying Legionnaires' disease and toxic shock syndrome, Reye's Syndrome, Ebola, hantavirus, and many foodborne and waterborne diseases. CDC's "Disease Detectives" are renowned worldwide for their ability to work with local authorities responding to urgent health threats by aggressively investigating outbreaks of disease or injury, identifying ways to stop transmission, and preventing further occurrence. Each year CDC is instrumental in accurately tracking influenza strains around the globe, and as a World Health Organization Collaborating Center, using sophisticated techniques to provide scientific data essential for vaccine development. As part of a global partnership, CDC played a major role in the worldwide eradication of smallpox in 1977 and, as a partner in massive immunization campaigns, is on the verge of globally eradicating polio. In addition, CDC is making steady progress toward eliminating measles. In this country, vaccine-preventable childhood diseases such as measles, mumps, rubella, pertussis, and diphtheria occur at the lowest rates

ever seen. CDC's sentinel surveillance permitted early identification of the AIDS epidemic, thus allowing prevention strategies to be formulated and applied to curtail the frightening growth of this epidemic. Today, CDC works with state, community, national, and international campaigns to prevent and control human immunodeficiency virus infection (HIV), sexually transmitted diseases, and tuberculosis (TB).

As the Nation approaches the 21st century, CDC has embarked on a mission of preventing and controlling the Nation's new leading killers, adapting the epidemiologic and laboratory techniques that have proved successful with infectious diseases, while continuing to battle emerging and re-emerging infectious diseases. Chronic diseases, including heart disease, cancer, and diabetes, now cause more than 70 percent of the deaths in the United States (U.S.), a dramatic shift from the beginning of the 20<sup>th</sup> century when infectious diseases caused most premature deaths. Early diagnosis saves money as well as lives, and research documents that healthy behavioral choices in diet and physical activity can significantly reduce the incidence of many chronic diseases. For this reason, many of CDC's programs approach prevention by targeting the underlying causes of disease, disability, and injury. These underlying factors have been termed the "actual causes of death" and their toll on the health of



Americans is significant.

**Figure 1: Actual Causes of Death**

For example, CDC's chronic disease prevention strategy is based upon behavioral interventions designed to reduce the underlying causes of chronic diseases. These programs incorporate behavior modification and education to assist the public in efforts to stop smoking, follow a healthier diet, and increase their level of physical activity. Similarly, injury prevention programs rely upon the adoption of prevention practices--the use of seat belts and bicycle helmets, for example. Health promotion and behavior modification are also central to CDC's HIV and sexually transmitted disease programs. Reductions in HIV and sexually transmitted diseases are being achieved through drug education and promotion of safe sex practices, including abstinence. CDC's programs have been strategically grouped into appropriate Centers, Institute, and Offices (CIOs) to more effectively address these factors.

Environmental and occupational health threats also have increased, and CDC's role includes addressing the public health aspects of toxic exposures and occupational diseases, injuries and disabilities. CDC's vision of "Healthy People In a Healthy World Through Prevention" means working with partners to prevent the leading health threats confronting Americans.

A key partner in these efforts is the Agency for Toxic Substances and Disease Registry (ATSDR). In 1983, the Secretary of the Department of Health and Human Services (DHHS) established, by Administrative Order, ATSDR as an agency within the Public Health Service located at the CDC headquarters in Atlanta, Georgia. ATSDR was created to address the health related sections of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or what is more commonly known as "Superfund" legislation. In June 1985, ATSDR was formally organized as an independent agency. By implementing the programs that support its mission, ATSDR forms a critical link among environmental public health, research, and regulatory organizations.

ATSDR, in concert with CDC, the Environmental Protection Agency (EPA), and the National Institute of Environmental Health Sciences (NIEHS), supports CERCLA, one of the most challenging and innovative environmental laws relating to public health. The coordination and collaboration among these environmental public health organizations strengthen the Nation's capacity to understand and respond to environmental public health concerns.

Because ATSDR carries out a unique mission, separate and distinct from CDC's, a performance plan specific to ATSDR's programs and activities has been created and submitted separately from this plan.

Public health and CDC contribute significantly to Americans' ability to lead longer, healthier lives. An infant born today in the United States has 30 more years of life expectancy than in 1900. Twenty-five of these years are directly related to public health efforts. Many public health efforts result in considerable financial savings; others carry a net cost but represent an important investment--and the saving of lives. Clear evidence, for instance, shows that comprehensive health education in schools is effective in reducing risk behaviors among youth, which account for most of the health problems among young people that will follow them into adulthood if not prevented or solved. Such education is also cost-effective: for every \$1 spent on tobacco, drug, alcohol, and sexuality education, \$14 are saved in avoided health care costs. The signature feature of CDC's public health programs is that they achieve results and cost savings through the promotion of health and quality of life by preventing disease, disability, and injury.

## **II. Strategic Planning: A Foundation for Performance Measurement**

In June 1995, CDC launched an agency-wide strategic planning process to refocus the organization's priorities, directions for the future, and assess constituents' requirements. Even though this process was initiated to satisfy the requirements of the Government Performance and Results Act (GPRA), the director of CDC decided to conduct full-scale strategic and performance planning to ensure that CDC continues to be a leader in public health policy and practice. This annual performance plan builds upon those efforts.

The agency used its document published in 1994, "Strategic Thinking at the Centers for Disease Control and Prevention," as a foundation for continuing strategic planning at CDC and to move the agency forward into the 21st century. To continue the process, CDC reconfirmed that the vision and mission statements contained in the 1994 document were still valid.

## **Vision: “Healthy People in a Healthy World--Through Prevention”**

The CDC vision conveys an idea of what the world would be if CDC’s health promotion and disease prevention goals were fully achieved. The agency is committed to helping create a safe physical and social environment where health is both protected and promoted nationally and internationally. CDC believes that prevention is the foundation for achieving this vision.

## **Mission: To promote health and quality of life by preventing and controlling disease, injury, and disability.**

CDC’s mission statement succinctly states how the agency approaches its responsibilities as the nation’s prevention agency. Accomplishing this mission is predicated on CDC’s ability to build on the following agency strengths:

- Prevention strategies based on sound scientific knowledge.
- Leadership and technologic capabilities of state and local health organizations and the integration of those capabilities with private health organizations.
- Trained public health workers and leaders.
- Ability to serve a diverse population with a diverse work force.

## **Strategic Agency Goals**

During a one-year period that began in mid-1995, the CIOs of CDC engaged in a planning process that involved their stakeholders and employees in identifying strategic issues for CDC. The agency-wide goals were intended to be broad and all-encompassing. Because CDC’s opportunities and responsibilities are often determined by societal changes and environmental events, as opposed to planned internal actions, the goals had to project a broad, overarching approach that relates the agency’s programs to the public health community and to the public in general. Under each goal statement, strategies were articulated to elaborate the goal statement as well as describe ways to achieve goals.

The CDC Strategic Framework was developed in the following way: Actions needed to achieve the agency goals were drafted by the CIOs in the form of strategic (five-year) and annual goals. Annual goals represented the first year of achievement of the five-year goal. Performance measures were also developed by the CIOs for both strategic and annual goals. Specific, measurable objectives were developed to support CIO strategic and annual goals.

*Healthy People 2000* goals and objectives serve as a foundation for a number of CDC’s performance measures. However, it should be noted that although CDC has lead responsibility for many of the objectives contained in *Healthy People 2000*, achievement of the goals represents a national effort in which CDC partners with other federal, state, local, and community public health entities. Therefore, performance measures within CDC’s plan have been crafted to reflect the collaborative nature of CDC’s program activities.

Below are the four strategic goals that capture the direction for CDC over the next five years. Each goal statement is followed by a brief presentation that associates the CDC goals and strategies with CDC’s budget program activities. Resources required to achieve these activities have been submitted as part of CDC’s budget submission.

→ **Goal 1 *Science*: Assure a strong science base for public health action.**

The applied techniques of epidemiology, laboratory, behavioral, and social sciences are the primary tools that CDC uses to understand the causes of poor health, identify populations at risk, and develop interventions for disease control and prevention. As research provides more information about the relationships between the physical, mental, and social dimensions of well-being, a broader approach to public health has become important in the quest for answers to prevent and solve health problems. CDC is committed to expanding its research agenda to help bridge the gap between research and public health practice. Through the integration and communication of scientific information, the most effective public health solutions will be translated into practice in the Nation's communities. Sound public health policy decisions are based on excellence in science and provide the means to achieve the best results.

**Program Activities and Strategies for accomplishing Goal 1**

CDC's strategy for assuring a strong science base for public health action requires an agency commitment to support and conduct high quality epidemiologic, laboratory, behavior, and social science research. Through its programs in Environmental Health, Infectious Diseases, Occupational Safety and Health, Epidemic Services, and the Prevention Centers, CDC advances the science base in public health by conducting and supporting both extramural and intramural research on a wide range of public health issues. For FY 2000, research on several major public health issues will be conducted in order to improve decision making, to examine health outcomes, or to prevent disease. To ensure the scientific foundation of public health practices, CDC is continuing to coordinate the development of the *Guide to Community Preventive Services*. This *Guide* will provide public health practitioners, their community partners, and policy makers with evidence-based recommendations for planning and implementing population-based services and policies at the community and state level.

→ **Goal 2 *Assessment*: Detect and assess threats to public health.**

The wisdom and legitimacy of public health decisions are crucially affected by the quality of the information on which they are based. A unique role of CDC is to provide comprehensive information on health including health status, health risks, the health care system, and health-related outcomes. By maintaining a broad-based monitoring capability, CDC can quickly detect and assess public health threats. CDC's assessment capability, epidemiologic and laboratory surveillance, and response capacity ensure a system that identifies health problems and deploys teams of experts to help resolve the problems promptly. Additionally, the assessment and surveillance capacity ensures data for analysis that can help identify causes of disease early and assist in decisions about appropriate research, policy, and programmatic actions.

**Program Activities and Strategies for accomplishing Goal 2**

To accomplish this goal, emphasis will be on assuring that CDC's surveillance and health information systems address current health issues and problems and that existing and new CDC data systems are carefully coordinated and integrated. CDC's Health Information and Surveillance Systems Board stimulates and sponsors innovation in health information and surveillance systems supportive of the essential public health services. In addition, epidemiologic and laboratory capacity for surveillance and response will be strengthened. Making health information available to a wide audience is a major CDC priority that requires adjustments to existing data and surveillance systems and modifications of the procedures for accessing information. For FY 2000, this goal is accomplished through many of CDC's program activities, with emphasis on Health Statistics, the Preventive Health and Health Services Block Grant, Epidemic Services, and Cancer Registries.

→ **Goal 3 *Policy*: Provide leadership for the nation in prevention policy and practice.**

As the emphasis in responsibility for public health services moves from the federal level of government to local governments, CDC will continue in a crucial public health role. CDC's leadership in prevention policy can and should help focus scientific and professional expertise in setting national public health policy. CDC also encourages actions on the part of other federal, state, and local agencies, tribal nations and private organizations to aid in the reduction of threats to health and the promotion of good health. Public health leadership includes the provision of funds and technical assistance, the development of national health data, the conduct of research, and the development of policies and practices that are shaped by science. Through these mechanisms, CDC assures that the public's interest is best served by the measures and programs that are adopted. CDC's role in policy development includes communicating with all affected parties, considering the long-term effects of policy decisions, and speaking for persons or groups who have difficulty being heard.

**Program Activities and Strategies for accomplishing Goal 3**

The strategy to address this goal requires CDC to commit to systematic planning and evaluation of its programs and products and when feasible to document the costs and benefits of prevention programs. The establishment of a mechanism for continuous review and feedback on the science produced in and through CDC-funded projects is an important means for improving the overall effectiveness of the agency. The processes of planning, evaluating, peer reviewing, and providing feedback assure that the research standards and policy guidelines developed by CDC provide current and reliable information for use in health promotion and disease prevention programs. To augment this process, CDC is developing a framework for evaluation in public health practice, an activity that will encourage combining the science of evaluation with the demands of program management. This framework, to be completed in FY 1999, will enhance the capacity of health officials to use evaluation as an ongoing means to improve the quality and test the effectiveness and efficiency of health promotion and disease prevention work.

→ **Goal 4 *Assurance*: Assure the public's health through the translation of research into effective community-based action.**

This goal is oriented toward developing the capacity of public health departments to carry out essential public health programs and services, and involve community institutions and community groups in health promotion and disease prevention. As CDC strengthens its ongoing relationships with state and local health agencies, it is also committed to building partnerships with non-governmental organizations at the community and national levels. These partnerships are essential for the design, implementation, and evaluation of sound prevention programs. What people understand about their health and potential risks to their health is of major concern in public health. CDC is committed to promoting effective health communication, conveying information to appropriate populations, and facilitating access to health information. The agency seeks to enhance the public's health knowledge through communication that is congruent with the values of diverse communities.

**Program Activities and Strategies for accomplishing Goal 4**

To accomplish this goal, a major emphasis must be placed on expanding CDC's partners to reflect the diversity of the nation. The role and influence of the community are vital when designing, implementing, and evaluating public health intervention strategies. There are many areas where CDC is building the capacity of its partners to carry out important public health programs. Through state and local health departments, prevention and control programs focus on the reduction of sexually transmitted diseases, HIV/AIDS, tuberculosis, vaccine preventable diseases, breast and cervical cancer, diabetes, injuries, and childhood lead poisoning. In FY 2000, CDC will continue its efforts in the training of public health

leaders in the science of public health practice. Training efforts in this area are critical in addressing future public health issues. For example, the CDC-sponsored Public Health Leadership Institute is an ongoing program that develops the leadership skills of public health officials at the Federal, State, and local levels.

### **III. Organization of the Performance Plan**

This document represents CDC's Final Revised FY 1999 Performance Plan and the CDC FY 2000 Performance Plan. As indicated in the Performance Measure charts, the FY 1999 measures represent actual targets for FY 1999 based on appropriated funds. The FY 2000 Performance Measures are estimates of CDC's targets based on FY 2000 requested funds. Any changes in the FY 1999 performance measures from previous submissions are based on appropriated funding levels unless otherwise noted as a footnote within the performance measurement tables.

The following performance plan discusses performance objectives and measures by functional areas. The plan is organized in this way to provide the reader with an understanding of how programs within the agency complement and relate to one another. Diverse centralized support services are provided to all program areas, crossing program activity lines. In developing performance measures for non-centralized services, we attempted to link objectives and measures to the program activity lines and provide outcome measures whenever possible. However, we also looked at programs realistically, taking factors into consideration that may have an effect on performance measures. These factors included:

- Program maturity and the relative need for capacity building in certain areas.
- Availability of annual data to measure performance.
- Latency periods associated with particular disease-specific programs.
- Input from our partners.

### **IV. Infectious Diseases**

Once expected to be eliminated as a public health problem, infectious diseases remain the leading cause of death worldwide. In the U.S. and elsewhere, infectious diseases increasingly threaten public health and contribute significantly to the escalating costs of health care. They are a continuing menace to all segments of society, regardless of age, gender, lifestyle, ethnic background and socioeconomic status. Earlier predictions of the elimination of infectious disease did not take into account changes in demographics and human behaviors and the extraordinary ability of microbes to adapt, evolve, and develop resistance to drugs. As early as the 1950s, penicillin began to lose its power to cure infections caused by *Staphylococcus aureus*, a common bacterium that can cause serious illness. In 1957 and 1968, new strains of influenza emerged in China and spread rapidly around the globe, and in the 1970s there was a resurgence of sexually transmitted diseases. Also during the 1970s, several new diseases were identified including Legionnaires' disease, Lyme disease, toxic shock syndrome, and Ebola hemorrhagic fever. Between 1973 and 1995, thirty newly emerging infectious diseases were identified, including hepatitis C virus (HCV) infection, now shown to be the most common bloodborne infection in the U.S. The re-emergence of diseases such as TB, malaria, rabies, dengue, and growing drug resistance of many pathogens continued to dramatically change the global and domestic landscape of infectious diseases. By the early 1990s, it had been demonstrated that the threat of infectious diseases was increasing in the United States and elsewhere.

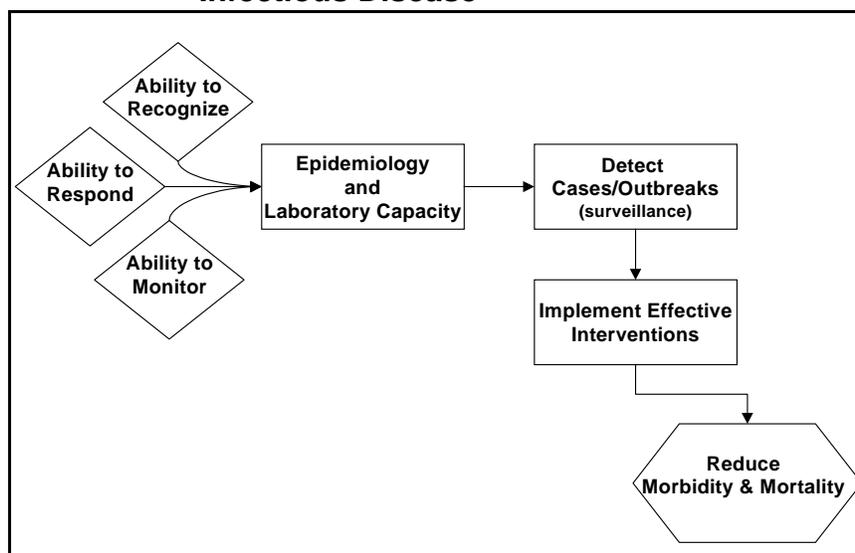
#### **Emerging Infections**

In 1994, CDC began working with other federal agencies, state and local health departments, and other partners to strengthen our Nation's capacity to recognize and respond to infectious disease threats through implementation of the CDC plan, *Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States*. The effort to build U.S. capacity to combat infectious diseases is well underway. However, the fulfillment of CDC's vision of a safer world in the next millennium requires a long-term commitment and sustained effort. The second phase of CDC's effort, *Preventing Emerging Infectious Diseases: A Strategy for the 21<sup>st</sup> Century*, has involved taking into account new challenges and building on experience, success, and knowledge gained from the initial plan.

The National Center for Infectious Diseases' (NCID's) performance plan continues to evolve, not only to reflect updated strategies, but to address the challenges posed by new and resurgent infectious disease threats. For example, the recent recognition of an avian strain of influenza in Hong Kong raised the specter of an influenza pandemic. Such a pandemic will have a high death rate, carry with it a huge economic burden, and create massive disruption of public life. A Hepatitis C Virus (HCV) epidemic affecting almost 4 million Americans of whom about 7% may have acquired their infection through blood transfusion, has also been recognized. The emergence of drug resistance in bacteria, parasites, viruses, and fungi is swiftly reversing advances of the previous 50 years. As we approach the 21<sup>st</sup> century, many important drug choices of the treatment of common infections are becoming increasingly limited and expensive, and in some cases, nonexistent. This year's performance plan has been updated to include major program efforts for HCV infection, antimicrobial resistance, and bioterrorism. The bioterrorism component of infectious diseases builds on the epidemiologic and laboratory enhancements for emerging diseases, focusing on targeted bioterrorism and unknown threat agents, including weapons of mass destruction (WMD). It strengthens surveillance through a national network of State and major metropolitan area laboratories for early identification and characterization of disease outbreaks.

CDC's efforts focus on building epidemiology and laboratory capacity, recognizing that a strong public health infrastructure will lead to improved surveillance, a better understanding of disease determinants, interventions, that will prevent and control disease outbreaks, and ultimately, reduced morbidity and mortality (Figure 2). The updated objectives focus on intramural activities (objective 1) and technology transfer to local health and state and departments internationally (objective 2) that will result in improved infrastructure to combat infectious threats.

**Figure 2: Model for Prevention and Control of Infectious Disease**



Although ultimately the goal for infectious diseases is reduced morbidity and mortality, before this can occur, our nation's public health infrastructure must be rebuilt before we will see reductions in disease. For many infectious disease programs, including CDC's food safety activities, improvements in our ability to recognize and track these diseases and improved "early warning" surveillance systems will result in an increase in the number of **reported** cases and outbreaks before there is a downward trend resulting from effective prevention programs. As the capacity for surveillance and response becomes established, such as it is for Group B streptococcus, measures of success will be reflected by reductions in the number of cases.

**Performance Goals and Measures**

**Performance Goal:** Develop and strengthen epidemiologic and laboratory methods for detecting, controlling, and preventing infectious diseases.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
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<p>Assays are not currently available for public health use (FY 1998).</p> <p>Assays are not currently being applied in public health settings. (FY 1998).</p> <p>0 state/local health departments provided with support for Hepatitis C Virus (HCV) counseling, testing and referral demonstration sites (FY 1998).</p> <p>0 sentinel surveillance systems for acute and chronic Hepatitis C Virus (FY 1998).</p> <p>15 large or unusual outbreaks of diarrheal and/or foodborne illness will be detected and investigated. (FY 1997).</p> <p>40% of reported foodborne outbreaks with identified toxin or causative organism (FY 1998).</p>	<p>Sentinel surveillance system for acute and chronic HCV will be developed and pilot tested.</p> <p>23 large or unusual outbreaks of diarrheal and/or foodborne illness will be detected and investigated.</p> <p>The proportion of reported foodborne outbreak investigations in which the causative organism or toxin is identified will be increased to 45%.</p>	<p>Assays to detect HIV mutations that are resistant to commonly used therapeutic agents will be developed and optimized.</p> <p>Assays for assessment of the duration, severity, and prognosis of HIV infection will be developed, optimized, and evaluated.</p> <p>9 State/local health departments provided with support for HCV counseling, testing, and referral demonstration sites.</p> <p>Sentinel surveillance system for acute and chronic HCV will be established in select sites.</p> <p>24 large or unusual outbreaks of diarrheal and/or foodborne illness will be detected and investigated.</p> <p>The proportion of reported foodborne outbreak investigations in which the causative organism or toxin is identified will be maintained at 50%.</p>
<b>FY Baseline</b>	<b>FY 1999 Appropriation</b>	<b>FY 2000 Estimate</b>

<p>The proportion of reported foodborne outbreak in which the food that caused the outbreak is identified is 45% (FY 1998).</p> <p>3 extramural surveillance networks (1997).</p> <p>Baselines are being collected.</p> <p>17 extramural awards will be provided to conduct enhanced research investigation to assist in development and improvement of diagnostic tests (FY 1997).</p>	<p>The proportion of reported foodborne outbreaks in which the food that caused the outbreak is identified will be increased to 50%.</p> <p>4 extramural domestic and global surveillance networks will monitor conditions including antimicrobial resistance, threats from transfusion of blood and blood products; infectious diseases among travelers and immunosuppressed and under-served populations.</p> <p>22 extramural awards will be provided to conduct enhanced research investigations to assist in development and improvement of diagnostic tests for use in areas such as antimicrobial resistance, sexually transmitted diseases, malaria, Lyme disease, health-care associated infections, and blood safety.</p>	<p>The proportion of reported foodborne outbreaks in which the food that caused the outbreak is identified will be greater than 50%.</p> <p>5 extramural domestic and global surveillance networks will monitor conditions including antimicrobial resistance, threats from transfusion of blood and blood products; infectious diseases among travelers and immunosuppressed and under-served populations.</p> <p>Develop baseline data to better estimate the number of occupationally acquired blood borne infections (i.e., hepatitis B virus, HCV, HIV, varicella, and TB).</p> <p>22 extramural awards will continue to be provided to conduct enhanced research investigations to assist in development and improvement of diagnostic tests for use in areas such as antimicrobial resistance, sexually transmitted diseases, malaria, Lyme disease, health-care associated infections, and blood safety.</p>
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**Performance Goal:** Strengthen domestic and global epidemiologic and laboratory capacity for surveillance and response to infectious disease and bioterrorist threats.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>0 States electronically linked (1998)</p>		<p>6 State health departments will be electronically linked with CDC to provide TB results from overseas screening and U.S. follow-up assessments of both immigrants and refugees.</p>

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>30 States supported (FY 1998).</p> <p>Within 24 hours urgent results reported (FY 1997). Within 2 weeks routine requests reported (FY 1997).</p> <p>10 states provided training in <i>Calicivirus</i>, <i>Bartonella</i>, and <i>Ehrlichia</i> diagnostics (1999)</p> <p>13 Fellows trained (1997)</p> <p>0% Countries with antimalarial drug resistance surveillance system (FY 1999).</p> <p>10% participation by federally supported U.S. hemophilia treatment centers (1999).</p>	<p>33 States will have increased epidemiologic and laboratory capacity for surveillance and response.</p> <p>The time for providing parasitic diseases reference laboratory diagnostic results to state laboratories will be improved in urgent situations, from 24 hours to 2 hours, and in routine cases, from 2 weeks to 2 days, in 90% of the requests.</p> <p>40 Public Health Fellows will be trained and available for employment in local, state, and federal public health laboratories.</p>	<p>43 states will have increased epidemiologic and laboratory capacity for surveillance and response.</p> <p>Reduced time for providing reference laboratory diagnostic results in 90% of requests received will be maintained as 5 additional state/local laboratories are added to DPDx, CDC's Website for the diagnosis of parasitic diseases.</p> <p>Training will be provided to at least 18 states in <i>Calicivirus</i>, <i>Bartonella</i>, and <i>Ehrlichia</i> diagnostics.</p> <p>70 Public health microbiology fellows will be trained and available for employment in local, state and federal public health laboratories.</p> <p>Consistent with the Multilateral Initiative on Malaria, and in collaboration with WHO and participating countries, a surveillance system will be established to collect data on antimalarial drug resistance in 50% of sub-Saharan African countries.</p> <p>Participation by federally supported U.S. hemophilia treatment centers (HCTs) in CDC's newly implemented Universal Data Collection (UDC) system, which is designed to monitor the safety of blood products and to track the health of persons with bleeding disorders, will be 60%.</p>

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>2 countries with surveillance of unusual HIV variants (1999).</p> <p>7 Emerging Infections Programs conducted early warning investigations (FY 1997).</p> <p>0 enhanced surveillance for influenza in 45 state and local health departments.</p> <p>0 states with enhanced foodborne surveillance and control activities for <i>E. coli</i> 0157:H7 (FY 1997).</p> <p>0 state/local health departments and hospitals provided support for surveillance, prevention, and control of antimicrobial resistance (FY 1998).</p> <p>17 Health Care Facilities conducted surveillance of occupation exposures and infections (FY 1998).</p> <p>0 Laboratory-based surveillance for <i>Helicobacter pylori</i>.</p> <p>The baseline incidence of perinatal group B streptococcal</p>	<p>9 regional population-based Emerging Infections Programs will conduct early warning investigations of agents of infectious diseases.</p> <p>Enhanced basic foodborne disease surveillance and control activities, for <i>E. coli</i> 0157:H7, will be available in 29 states and will be expanded to include <i>Salmonella</i> Typhimurium in 7 states.</p> <p>The number of health care facilities that conduct surveillance of occupation exposures and infections using the national Surveillance System for Health Care Workers (NaSH) will be increased to 50.</p> <p>Laboratory -based surveillance for <i>Helicobacter pylori</i> will be established at three Alaska Native regional hospitals.</p> <p>The incidence of perinatal Group B streptococcal infections will be reduced by</p>	<p>Surveillance for unusual HIV variants will be expanded from the current two countries to an additional six countries.</p> <p>10 regional population-based Emerging Infections Programs will conduct early warning investigations of agents of infectious diseases.</p> <p>Enhanced surveillance for influenza will be initiated in 45 state and local departments.</p> <p>Establish and enhance 8 active FoodNet foodborne surveillance sites. Expand state health department capacity to subtype and rapidly exchange information using PulseNet for <i>E. coli</i> (currently 29 Labs) and <i>Salmonella</i> Typhimurium (currently 7 labs) to 40 labs for each.</p> <p>15 state/local health departments and hospitals provided support for surveillance, prevention and control of antimicrobial resistance.</p> <p>The number of health care facilities that conduct surveillance of occupation exposures and infections using the national Surveillance System for Health Care Workers (NaSH) will be increased to 100.</p> <p>Laboratory -based surveillance for <i>Helicobacter pylori</i> will be maintained at three Alaska Native regional hospitals.</p> <p>The incidence of perinatal Group B streptococcal infections will be reduced by</p>

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>150 Daily dose per 1000 patient days (FY 1998).</p> <p>The scope of the active surveillance network for foodborne diseases (FoodNet) is 7 sites (FY 1997).</p> <p>0 national state-based laboratory network for detection of bioterrorist agents (FY 1998).</p> <p>0 Training/technology transfer programs for state-of-art diagnostics for use in bioterrorism (FY 1998).</p>	<p>The scope of the active surveillance network for foodborne diseases (FoodNet) will be expanded to 8.</p>	<p>The rate of inappropriate antimicrobial use will be reduced to &lt; 100 daily doses per 1000 patient days as measured through the National Nosocomial Infections Surveillance (NNIS) System.</p> <p>The scope of the active surveillance network for foodborne diseases (FoodNet) will be maintained at 8.</p> <p>Establish a national state-based laboratory network for detection of bioterrorist agents.</p> <p>10 Training/technology transfer programs for state-of-art diagnostics for use in bioterrorism.</p> <p>Increase the number of state and local health departments that have integrated various electronic surveillance systems and have electronic linkages to the medical community. These electronic systems include: Emerging Infectious Diseases , food safety, and bioterrorism surveillance systems, as well as the National Electronic Telecommunications System for Surveillance, the Sexually Transmitted Diseases Management Information System, and the HIV/AIDS surveillance systems.</p>
<b>Program Activity Funding</b>	<b>\$137,636</b>	<b>\$181,926</b>

Verification/Validation of Performance Measures: Successful accomplishment of these objectives will, in part, be verified using data submitted from funded states. Performance, in these instances, will be verified through on-site technical assistance and periodic visits and progress reviews. Other data are monitored using published and unpublished studies and recommendations.

Links to DHHS Strategic Plan

These performance measures are related to the DHHS Goal 1: To promote health and reduce major threats to health and productive lives for all Americans; DHHS Goal 5: Improve public health and safety systems; and DHHS Goal 6: Strengthen the Nation's science base for health and human services. To

accomplish these objectives, CDC collaborates with a number of agencies and organizations including: Council of State and Territorial Epidemiologists, Association of State and Territorial Public Health Laboratory Directors, National Institutes of Health, Food and Drug Administration, Department of Agriculture, Department of Interior (U.S. Fish and Wildlife), Department of Justice (U.S. Immigrations and Naturalization Service), Department of State, Department of Treasury (U.S. Customs), and the GeoSentinel project.

## **Tuberculosis**

Tuberculosis (TB) is an example of an infectious disease that did undergo a sustained decades-long decline until the mid 1980s only to reemerge strongly in the late 1980s and early 1990s with drug-resistant strains. In 1989, the Secretary of the Department of Health and Human Services stated the goal of eliminating TB: "It is time to commit to a tuberculosis-free society." But a resurgence was associated with a deterioration of the public health infrastructure and complicated by the AIDS epidemic, increased numbers of cases among the foreign born, and transmission of tuberculosis in institutions, particularly in hospitals and prisons. During the 1970s and 1980s, many health departments around the country redirected TB control funds to other activities; key elements of some TB control programs were dismantled. Progress toward the control of TB slowed in the years 1985 to 1992 when the downward TB trend reversed, TB cases increased by 20 percent, and outbreaks of multidrug-resistant tuberculosis (MDR-TB) and deaths among health care workers occurred. In 1992-1993, additional resources helped to rebuild the crumbling public health TB infrastructure permitting health departments to address these problems, and TB declined again from 1993-1998. Achievement of this long term strategic objective requires a continued commitment of resources to prevent additional deterioration of the necessary infrastructure at the local, state, and/or federal levels. Reducing the case rate of tuberculosis will put the Nation back on track toward eliminating TB from the U.S.

### **Performance Goals and Measures**

#### **Performance Goals:**

Reduce the tuberculosis case rate through the following strategies:

- Collect TB morbidity data and important surveillance variables from states.
- Fund state/local health agencies for implementing CDC treatment/control recommendations, community outreach, and TB patient cohort reviews; expanding contact examination; screening and treatment of TB infection for high risk groups; and implementing state-of-the-art TB laboratory services.
- Collect, analyze, and disseminate TB program evaluation data.
- Complete TB outbreak investigations and issue recommendations where applicable within 30 days.
- Provide TB diagnostic, treatment, and process training for civil surgeons and panel physicians responsible for screening refugees and immigrants.
- Develop a national TB training strategic plan and support and report on TB-related applied and operational research.
- Implement the Tuberculosis Information Management System (TIMS) for state and local health departments for surveillance and case management.
- Update the national "Strategic Plan for Elimination of Tuberculosis in the United States."

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>66.8% (1993) <i>(FY 1999 data will be available mid-2001).</i></p> <p>87.4% (1994). <i>(FY 1999 Data available mid-2000).</i></p> <p>68.4 % (1993) <i>(FY 1999 Data available late 2001).</i></p> <p>64.8% (1993). <i>(FY 1999 Data available late 2001).</i></p> <p>Priority Variables have been selected and the 1993 baselines for complete reporting of these variables are: DOB (99.9%); Country of origin (99.3%); Sex (100.0%); Race (99.8%); Month-year arrived in U.S. (71.8%); Status at diagnosis of TB (99.7%); Major site of disease (99.9%); AFB Smear (99.3%); AFB Culture (99.7%); TB skin test (83.4%); Initial drug regimen (99.9%); Initial drug susceptibility results (96.1%); Previous TB (99.2%); Year of diagnosis (93.3%); HIV status-all ages (27.5%); HIV status-ages 25-44 (41.4%); Resident of correctional facility (95.4%) and long term facility (82.8%); Sputum conversion (90.4%); Reason stopped therapy (99.8%); DOT used/not used (97.9%); Date therapy stopped (99.6%). (Note: the percentages reported are the percent with complete reporting results for each variable.) Data are collected electronically as part of the national TB surveillance system. <i>(FY 1999 Data available mid-2000).</i></p>	<p>At least 85% of TB patients will complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months treatment).</p> <p>At least 92% of TB patients with initial positive cultures will also have drug susceptibility results.</p> <p>At least 75% of contacts of infectious cases and</p> <p>70% of other high risk infected persons who are placed on preventive therapy will complete a regimen.</p> <p>States will report information to CDC on identified priority variables.</p>	<p>At least 85% of TB patients will complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months treatment).</p> <p>At least 92% of TB patients with initial positive cultures will also have drug susceptibility results.</p> <p>At least 75% of contacts of infectious cases and</p> <p>70% of other high risk infected persons who are placed on preventive therapy will complete a regimen.</p> <p>States will report information to CDC on identified priority variables.</p>
<p><b>Total FY Funding</b></p>	<p><b>\$119,962</b></p>	<p><b>\$119,962</b></p>

Verification/Validation of Performance Measures: All confirmed cases of TB are regularly listed in the Report of Verified Case of Tuberculosis (RVCT) and follow-up information is submitted electronically to CDC via Tuberculosis Information Management System software. Verification of performance will be conducted through a review of data collected by these two systems. Additionally for the third measure listed above, state and metropolitan area health departments will assist with performance verification.

#### Links to DHHS Strategic Plan

These performance measures relate to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans. In addition to state and major city health departments, the Division of Tuberculosis Elimination also works with the Advisory Committee for the Elimination of TB, the National TB Controllers Association, and the American Lung Association/American Thoracic Society to set guidelines, recommendations, and policies related to TB prevention and control.

## **HIV/AIDS**

The epidemic of HIV and AIDS presents unique social, economic, and public health challenges to governments and individuals in the United States and around the world. Although significant progress has been made in understanding the disease and developing both prevention strategies and treatments since the first case was reported in the U.S. in 1981, HIV remains a deadly infection for which there is no vaccine or cure and for which there are limited treatments. An average of 100 Americans are diagnosed with AIDS every day, and approximately 100 men, women, and children become infected with HIV every 24 hours. Globally, 16,000 people become infected each day, including nearly 1,000 children.

Through June 1998, a total of 655,357 cases of AIDS among persons in the U.S. had been reported to CDC, and more than 401,000 of these persons have died. Since 1987, AIDS has risen from being the 15th leading cause of death among all Americans to the 8th. AIDS is now a leading cause of death among Americans aged 25 to 44. CDC estimates that approximately 40,000 Americans are becoming newly infected with HIV each year and that between 650,00 and 900,000 Americans are currently living with HIV.

Transmission of HIV infection can be prevented through changes in high-risk behaviors. Prevention is an important cost-effective component of the control of HIV infection. Disadvantaged populations, especially African-Americans and socio-economically stressed youth, continue to have high rates of HIV infection despite high levels of knowledge about behavioral prevention methods. Two biomedical interventions have demonstrated possibilities in reducing the spread of this deadly disease. First, antiretroviral combination therapy lowers viral load, which may translate to lower infectivity and, second, there is some evidence that treatment of other STDs can reduce the spread of heterosexually transmitted HIV infection.

CDC will increase the urgent prevention needs in ethnic and racial minority communities using funding increases received in FY 1999. This increase augments existing prevention efforts addressing disparities in health among ethnic and racial minorities. These activities include:

- Additional funding for directly funded Community Based Organizations (CBOs) - Funds will be awarded through a new program announcement, providing funding to an additional 30 - 40 community based organizations. New organizations funded will complement the existing network of 94 directly funded organizations, in terms of geographic distribution and risk group, to assure maximum prevention coverage related to the HIV/AIDS epidemic in communities of color.
- Funds will be used to expand the Community Demonstration Projects currently proposed by

CDC to provide priority HIV prevention services to HIV-infected individuals. The fifteen metropolitan statistical areas (MSAs) in the U.S. with the highest rates of AIDS among racial and ethnic minority communities and 5 MSAs in lower prevalence areas will be funded, through a new program announcement, to plan and design a linked network of services in African American and/or Latino communities highly impacted by HIV, STD, TB, and substance abuse to develop linkage plans among these services. It is envisioned that next year, between 2-5 awards will be made through a new program announcement to implement community development plans.

Successful prevention of HIV transmission requires individual effort as well as the collective participation of federal, state, and local governmental, non-governmental, and international organizations. The federal government's role is critical in providing assistance to state and local health agencies and community-based organizations to implement effective HIV risk reduction and prevention programs, surveillance of the incidence of HIV and AIDS, research, evaluation, training, and technology transfer of effective interventions, prevention programs, and evaluation activities.

The following are external factors that affect accomplishing goals and objectives for the HIV program:

- All states do not have integrated HIV/AIDS surveillance systems.
- It is difficult for CDC and its partners to ask explicit questions about adolescents' sexual behaviors.
- Funding is limited for behavioral research, technology transfer, behavioral surveillance, evaluation of interventions and prevention programs, and training and education programs.
- For prevention education programs, sensitive issues exist such as abstinence vs. condom use.

Additionally, in the case of counseling and testing, it should be noted that in formulating the performance measure for this area, a number of complex factors were considered in estimating the improvement in the overall rate of persons who return for their HIV tests. The objective addressing this issue is based upon an annual evaluation of over 2.6 million HIV tests, reported from nearly 10,000 sites. The proposed 10% increase over the next two year period is viewed as a challenging, though attainable figure. The figure is not conservative, especially in view of the fact that these figures represent a relatively small percentage (perhaps 10%) of the total number of HIV tests performed in the United States each year, and that performance varies considerably by test site category. As an example, hospitals and private physicians report the lowest levels of HIV-positive patients returning (44%) and there are relatively few incentives that CDC and its partners can use to improve their rates. By contrast, CDC-supported facilities, such as free-standing counseling and testing sites and family planning sites report a return rate of over 81%. Other factors, such as improvements in testing technologies may make "results while you wait" a possibility in some settings, and will also compromise the value of retaining this as a performance objective for more than the next few years.

Every school day, 50 million young people attend over 110,000 schools across the nation. Research has demonstrated that HIV education in schools can be effective in reducing risk behaviors among youth. CDC's efforts to help State and local education agencies implement HIV prevention education programs in schools nationwide include teacher training programs, dissemination of model policies and effective prevention programs, evaluation and technical assistance. The performance measures for this aspect of CDC's HIV/AIDS prevention program monitor students' exposure to HIV/AIDS prevention education in schools and youth behaviors that affect their risk of becoming infected with HIV. The selected measures are derived from epidemiologic modeling that describes the connections and inter-relationships of policies and programs; knowledge, attitudes, and skills; health behaviors; and health outcomes.

### **Performance Goals and Measures**

**Performance Goal:** Improve the ability of the Nation's HIV/AIDS surveillance system to identify

incidence and prevalence of HIV infection.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	CDC's current guidelines for security and confidentiality contained in the HIV/AIDS surveillance guidelines are updated to include minimum standards of performance for state and local and HIV/AIDS surveillance programs.	100% of states will begin to adopt recommended confidentiality standards.
Baselines will be established.	Baselines will be established for measuring incidence in selected high-risk populations.	Baselines will be established for measuring incidence in selected high-risk populations.
N/A		CDC will provide technical assistance to all states to help them develop reliable minimal estimates for HIV prevalence.
N/A	Trends in long-term survival and rates of transmission of new infections will be measured.	Trends in long-term survival and rates of transmission of new infections will be measured.

**Performance Goal:** Reduce the rate of heterosexually acquired AIDS cases, as well as AIDS cases related to injecting drug use and male homosexual contact, through the implementation of HIV prevention programs as part of a community planning process. Reduce the rate of perinatally-acquired AIDS cases.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
11,500 cases <sup>1,2</sup> (1997). <i>(Data for HIV FY 1999 measures will be available around May 2000).</i>	The number of heterosexually-acquired AIDS cases will be decreased by 10% from the 1995 base of 9,300 AIDS cases diagnosed.	The number of heterosexually-acquired AIDS cases will be decreased by 10% from the 1997 base of 11,500 AIDS cases diagnosed.

15,700 cases <sup>1,2</sup> (1997). (Data for HIV FY 1999 measures will be available around May 2000).	The number of AIDS cases related to injecting drug use will be decreased by 15% from the 1995 base of 17,800 cases diagnosed.	The number of AIDS cases related to injecting drug use will be decreased by 10% from the 1997 base of 15,700 cases diagnosed.
<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
21,300 cases <sup>1,2</sup> (1997). (Data for HIV FY 1999 measures will be available around May 2000)	The number of AIDS cases related to male homosexual contact will be decreased by 20% from the 1995 base of 28,600 cases diagnosed.	The number of AIDS cases related to male homosexual contact will be decreased by 10% from the 1997 base of 21,300 cases diagnosed.
299 cases <sup>3</sup> (1997). (Data for HIV FY 1999 measures will be available around May 2000).	The number of perinatally-acquired HIV/AIDS cases will be decreased by 50% from the 1993 base of 865 <sup>4</sup> cases diagnosed.	The number of perinatally-acquired HIV/AIDS cases will be decreased by 10% from the 1997 base of 299 <sup>3</sup> reported cases.

<sup>1</sup> Numbers represent diagnosed cases adjusted for reporting delay with risk redistributed.

<sup>2</sup> Change in baseline data from 1995 (in FY 1999) to 1997 (in FY 2000) reflects adjustments in AIDS case definitions, and availability of more accurate data.

<sup>3</sup> These numbers do not represent actual cases of children diagnosed with AIDS. Rather, these numbers are point estimates based on cases diagnosed using the 1987 definition, adjusted for reporting delays.

<sup>4</sup> Represents number adjusted for reporting delay of diagnosed perinatal AIDS cases for 1993.

**Performance Goal:** Among persons counseled and tested for HIV infection in CDC-supported sites, improve the percentage of persons who return for their results and post-test counseling.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
61% (1996).	Increase the percentage of persons who return for their results and posttest counseling from 61% in 1996 to 67% in 1999 (10% relative increase).	Increase the percentage of persons who return for their results and posttest counseling from 61% in 1996 to 67% in 2000 (10% relative increase).

**Performance Goal:** Reduce the percentage of HIV/AIDS-related risk behaviors among school-aged youth through dissemination of HIV prevention education programs.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
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YRBS Baseline : 86% (1995).	Achieve and maintain the percentage of high school students who have been taught about HIV/AIDS prevention in school at 90% or greater.	Achieve and maintain the percentage of high school students who have been taught about HIV/AIDS prevention in school at 90% or greater.
YRBS Baseline: 53% (1995).		Reduce the percentage of high school students who have ever engaged in sexual intercourse by 15% (to 45%).
<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
YRBS Baseline: 46% (1995).		Reduce the percentage of currently sexually active high school students who engage in sexual intercourse without a condom by 15% (to 39%).

Verification/Validation of Performance Measures: The number of AIDS cases reported will be monitored using the National HIV/AIDS Reporting System. The system is routinely evaluated for data quality and has very high rates of reporting completeness and timeliness. Data for this performance measure are collected on a biennial basis (during odd-numbered years) through CDC's Youth Risk Behavior Surveillance System (YRBSS), a system designed to focus attention on priority behaviors among youth that cause the most important health problems. YRBSS was developed in a partnership with numerous federal agencies, state departments of education, scientific experts, and survey research specialists. The YRBSS includes separate national, state and local school-based surveys of high school students. A recent study of the YRBSS provides evidence that this adolescent survey has good reliability in measuring health behavior.

Baseline data will be used from the 1995 YRBSS data collection because: (a) it was the most recent data available when the original measures were created and, consequently, has been used throughout the entire process to determine our targets for FY 1999 & FY 2000, and (b) the 1995 data will better allow us to illustrate trends in sexual behaviors over time.

Links to DHHS Strategic Plan

These objectives relate to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans. CDC continues to work closely with the Health Resources and Services Administration and the National Academy of Sciences to implement the language in the Ryan White legislation and to evaluate the extent to which states' efforts have been effective in reducing perinatal transmission of HIV. CDC is collaborating with the Substance Abuse and Mental Health Services Administration and the National Institute for Drug Abuse on issues related to transmission of HIV/AIDS in the injecting drug using population. A working group has also been established to address health care issues in correctional institutions.

**Performance Goal:** Increase the capacity of community-based organizations providing HIV prevention services to persons of color.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
94 directly funded organizations.	N/A	Fund 30 community-based organizations to provide priority HIV prevention services to HIV-infected persons.
94 directly funded organizations.	N/A	Fund 20 community development grants to expand community demonstration projects.
<b>Total Program Funding</b>	<b>\$657,000</b>	<b>\$666,500</b>

Verification/Validation of Performance Measures: By the end of FY 1999, a RFA will be developed and selected community based organizations will be funded. In FY 2000, grantees will report on the development progress and evaluation plans which will be reviewed by CDC staff.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goals 1: Reduce major threats to the health and productivity of all Americans. Development and implementation of the plan to Eliminate Ethnic Health Disparities is an inter-agency effort within DHHS.

## **Sexually Transmitted Diseases**

Sexually Transmitted Diseases (STDs) are one of the most critical challenges in the nation today because of their severe, costly consequences for women and infants; their tremendous impact on the health of adolescents and young adults (especially among minority populations); and the integral role they play in the transmission of HIV infection. CDC recently reported that over 85% of the most common infectious diseases in the U.S. are sexually transmitted. The immediate and long-term disease burden and costs associated with STDs globally and in the U.S. are immense. Conversely, an investment in STD prevention is leveraged several ways--it improves the health of women, infants, and young people, and slows down the spread of HIV infection in our most vulnerable and disadvantaged populations. In addition to the human costs, STDs other than AIDS add 10 billion dollars to the nation's health care costs each year.

The U.S. has one of the highest STD rates in the industrialized world. U.S. rates of gonorrhea are 50 to 100 times higher than rates in Sweden. Canada and some Western European countries have nearly eliminated infectious syphilis. In the U.S., large-scale regional screening demonstration programs have rapidly, dramatically, and reproducibly reduced chlamydia prevalence in women. Chlamydia, a serious reproductive tract infection with many associated negative health consequences, is currently the most frequently reported infectious disease in the U.S. Estimates are that 4 million new cases occur annually, as many as one-half occurring among women ages 15-19. Chlamydia often causes severe medical conditions that are also costly, especially in women (pelvic inflammatory disease, ectopic pregnancy, and infertility) and in newborns (eye infections and pneumonia). Conservatively, these reproductive consequences in women result in an estimated annual cost of chlamydia infection in the U.S. of \$1.5 billion, \$1.1 billion of which is attributed to treatment of preventable, serious after-effects in women. In recent years, a number of effective biomedical interventions that prevent these consequences and save money have been implemented in some parts of the country. To date, however, most women in need of these interventions are not being served.

Although STD prevention is technically feasible today in the U.S., an effective national system for STD prevention currently does not exist. Among the obstacles to establishing such a system are: (1) profound cultural and social barriers to adoption of healthy sexual behaviors; (2) a fragmented system of informational and educational services that leads to inadequate awareness of STDs and misperceptions of risk among high risk individuals; (3) a fragmented system of STD-related clinical services manifested by inadequate training of health care providers, the under-recognition of the importance of private sector providers in STD prevention, and the absence of innovative services targeted to youth and disenfranchised populations that lead to inadequate diagnosis and treatment of STDs or missed clinical opportunities; (4) inadequate integration and coordination of STD, HIV, unintended pregnancy, and cancer prevention programs at the local level despite the strong interrelationships among these conditions; and (5) inadequate human and financial resources in both the public and private sectors to meet recognized needs for behavioral and biomedical solutions.

**Performance Goals and Measures**

**Performance Goal:** Reduce STD rates by providing chlamydia and gonorrhea screening, treatment, and partner treatment to 50% of women in publicly funded family planning and STD clinics nationally.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
11.6% (1995) (FY 1999 Data available May/June 2000).	The prevalence of <i>Chlamydia trachomatis</i> among high risk women under 25 will be reduced from 11.6% (1995) to less than 8%.	The prevalence of <i>Chlamydia trachomatis</i> among high risk women under 25 will be reduced from 11.6% (1995) to less than 8%.
9% (1996) (FY 1999 Data available May/June 2000).	The prevalence of <i>Chlamydia trachomatis</i> among women under the age of 25 in publicly funded family planning clinics will be reduced from 9% (1996) to less than 6%.	The prevalence of <i>Chlamydia trachomatis</i> among women under the age of 25 in publicly funded family planning clinics will be reduced from 9% (1996) to less than 6%.
300 per 100,000 (1995). (FY 1999 Data available May/June 2000).	The incidence for gonorrhea in women aged 15-44 will be reduced from 300 per 100,000 (1995) to less than 250 per 100,000. <sup>1</sup>	The incidence for gonorrhea in women aged 15-44 will be reduced from 300 per 100,000 (1995) to less than 235 per 100,000. <sup>1</sup>
162 per 100,000 (1995). (FY 1999 Data available 2002).	The incidence of PID, as measured by a reduction in hospitalizations for PID, will be reduced from 162 per 100,000 (1995) to less than 125 per 100,000 women aged 15-44, and	The incidence of PID, as measured by a reduction in hospitalizations for PID, will be reduced from 162 per 100,000 (1995) to less than 125 per 100,000 women aged 15-44, and
245,000 (1995). (FY 1999 Data available 2002).	the number of initial visits to physicians for PID will be reduced from 245,000 (1995) to less than 225,000.	the number of initial visits to physicians for PID will be reduced from 245,000 (1995) to less than 225,000.

<sup>1</sup> The measure was changed from 200 per 100,000 to 250 per 100,000 (FY 1999) based on a slowing in the rate of decrease in

gonorrhea since the base year (1995). The focus of the STD program over the next several years will be syphilis elimination rather than gonorrhea, with the primary gonorrhea prevention effort devoted to identification and treatment of females through screening to prevent the complications of gonorrhea.

**Performance Goal:**

Reduce the incidence of congenital syphilis through the following strategies:

- More than 95% of women attending publicly funded prenatal clinics will be screened for syphilis *(subject to development of state and local surveillance)*.
- More than 80% of women attending publicly funded prenatal clinics who have untreated or inadequately treated syphilis will be treated within 2 weeks of their initial prenatal visit *(subject to development of state and local surveillance)*.
- More than 95% of pregnant women in counties with a syphilis rate greater than 4 per 100,000 will be screened for syphilis in hospitals at the time of delivery *(subject to development of state and local surveillance)*.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
47.4 per 100,000 (1995). <sup>1</sup> <i>(FY 1999 Data available May/June 2000).</i>	The incidence of congenital syphilis in the general population will be reduced from 39 per 100,000 live births (1995) to less than 20 per 100,000 live births. <sup>2</sup>	The incidence of congenital syphilis in the general population will be reduced from 39 per 100,000 live births (1995) to less than 20 per 100,000 live births.

<sup>1</sup> Changes in baseline data from 39 per 100,000 to 47.4 per 100,000 was due to a correction in data received from STD data collection system.

<sup>2</sup> Because of the drastic decrease in adult infectious syphilis, the previous 1999 goal of 30 per 100,000 live births was exceeded in 1998 (24.6 per 100,000 live births).

**Performance Goal:** Reduce the incidence of primary and secondary syphilis through the development of syphilis elimination action plans for each state that had a primary and secondary syphilis rate in 1995 of greater than or equal to 4 per 100,000 population and an HIV prevalence in childbearing women of greater than 1 per 1,000.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
81% (1995).	At least 85% of U.S. counties will have an incidence of primary and secondary syphilis in the general population of less than or equal to 4 per 100,000. This is an increase from 81% in 1995.	At least 85% of U.S. counties will have an incidence of primary and secondary syphilis in the general population of less than or equal to 4 per 100,000. This is an increase from 81% in 1995.
<b>Total Program Funding</b>	<b>\$123,753</b>	<b>\$130,649</b>

Verification/Validation of Performance Measures: Data will be collected through the National STD Surveillance System. Data will be verified through the National Comprehensive STD Prevention System and the National Infertility Prevention Program.

Links to DHHS Strategic Plan

These performance measures relate to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans.

## V. Immunization

Appropriate administration of safe and effective vaccines remains the most cost-effective method of preventing disease, disability, and death and reducing economic costs resulting from vaccine-preventable diseases. For every dollar spent on measles-mumps-rubella (MMR) vaccination, \$13 is saved.

Beginning in 1962 when it proposed the first national effort to improve the immunization status of children, CDC has counted immunization among its most vital programs, recognizing it as a core public health activity and perhaps the best example of effective primary prevention. CDC's National Immunization Program (NIP) focuses on several major programmatic areas to achieve its goals, including childhood immunization, adult immunization, and global polio eradication. Although NIP has assistance from many partners, state and local health agencies play a primary role in helping NIP carry out its mission in the United States. State and local health agencies use CDC grant funds for a wide range of activities including hiring staff, conducting surveillance, assessing immunization levels, developing immunization registries, conducting education and outreach, and establishing partnerships with community groups and private sector organizations.

Disease eradication and elimination programs are a shared effort. NIP collaborates with the World Health Organization, Rotary International, the United States Agency for International Development, the Task Force for Child Survival and Development, UNICEF, other centers within CDC, and international agencies, to enhance polio eradication efforts by providing scientific assistance and financial support for vaccine purchase and other key activities. This collaboration is unique among public health initiatives for the unprecedented level of partnerships. Extraordinary progress towards eradicating polio worldwide by the year 2000 continues to occur, suggesting that the current global strategies are effective and that achievement of the global objective is feasible. Examples of activities include:

- Expanding the network of CDC staff, epidemiologists, technical and scientific officers, and virologists assigned to WHO country and regional offices.
- Managing cooperative agreements with UNICEF through which approximately 326 million doses of oral polio vaccine for mass immunization campaigns were provided to 70 polio-endemic countries.
- Expanding the global virology laboratory network in cooperation with CDC's National Center for Infectious Diseases.
- Implementing a special program to prepare a cadre of trained public health professionals from throughout CDC to complete short-term assignments with WHO.

There are two primary sources to measure attainment of performance goals. The National Notifiable Diseases Surveillance System (NNDSS) is the data source for tracking cases of vaccine-preventable disease. Provisional data from this system are routinely published in the *Morbidity and Mortality Weekly Report (MMWR)*. Final data are published in the Annual Summary of Notifiable Diseases.

CDC collects vaccination coverage data at the national, state, and local levels through the National Immunization Survey (NIS). With these data, the impact of national, state, and local policies and programs can be evaluated and monitored, and the results will provide the primary means of monitoring progress toward the goals of the performance plan. These surveys measure antigen-specific and series complete coverage by selected age categories, with detailed analyses for race/ethnicity and by poverty groups also being presented. Such surveys are necessary to monitor the improvement of immunization coverage levels in the target populations of 78 state and local areas.

Although coverage for preschool immunization is high in almost all states, pockets of need, or areas within each state and major city where substantial numbers of under-immunized children reside, continue to exist. These areas are of great concern because, particularly in large urban areas with traditionally under-served populations, there is a potential for outbreaks of vaccine-preventable

diseases.

Infrastructure funds are essential to sustain the systems that have resulted in the highest immunization levels ever recorded at or near record low levels of disease incidence. These funds are used to implement proven strategies to raise immunization coverage, to conduct vaccine-preventable disease surveillance, to implement disease outbreak control measures, to assure adequate access to and appropriate administration of vaccines, to perform outreach activities, to develop immunization registry systems, to educate providers and parents about the need for timely immunization, and to assess immunization coverage levels and pockets of under-immunized children, among many other activities. Infrastructure investments must be maintained to ensure that proven systems and high immunization levels are not jeopardized.

**Performance Goals and Measures**

**Performance Goal:** Reduce the number of cases of vaccine-preventable diseases.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>		
<i>Vaccine Preventable Diseases (Indigenous Cases Only)</i>	The number of cases of paralytic polio, rubella, measles, <i>Haemophilus influenzae</i> invasive disease in children under 5 years, diphtheria, congenital rubella syndrome, and tetanus will remain at or be reduced to 0.	The number of cases of paralytic polio, rubella, measles, <i>Haemophilus influenzae</i> invasive disease in children under 5 years, diphtheria, congenital rubella syndrome, and tetanus will remain at or be reduced to 0.		
Paralytic polio 0 (1997).				
Rubella 161 (1997).				
Measles 138 (1997).				
<i>Haemophilus influenzae</i> 165 (1997).				
Diphtheria 5 (1997).				
Congenital rubella syndrome 4 (1997).				
Tetanus 43 (1997) .				
Mumps 612 (1997).			The number of cases of mumps will be reduced from 612 (1997) to 500.	The number of cases of mumps will be reduced from 612 (1997) to 500.
Pertussis 5,519 (1997)			The number of cases of pertussis will be reduced from 5,519 (1997) to 2,000.	The number of cases of pertussis will be reduced from 5,519 (1997) to 2,000.

**Performance Goal:** Ensure that 2-year-olds are appropriately vaccinated.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
90% vaccination coverage for each vaccine (1997). <ul style="list-style-type: none"> <li>• 4 doses of Diphtheria-Tetanus-Pertussis containing vaccine (81%);</li> <li>• 3 doses of Haemophilus influenzae type b vaccine (93%);</li> <li>• 1 dose of Measles-Mumps-Rubella vaccine (91%);</li> <li>• 3 doses of Hepatitis B vaccine (84%);</li> <li>• 3 doses of Polio vaccine (91%).</li> </ul>	Achieve or sustain immunization coverage of at least 90% among children 2 years of age for each vaccine: <ul style="list-style-type: none"> <li>• 4 doses of Diphtheria-Tetanus-Pertussis containing vaccine</li> <li>• 3 doses of Haemophilus influenzae type b vaccine</li> <li>• 1 dose of Measles-Mumps-Rubella vaccine</li> <li>• 3 doses of Hepatitis B vaccine</li> <li>• 3 doses of Polio vaccine</li> </ul>	At minimum, achieve or sustain the following immunization coverage of at least 90% among children 2 years of age for each vaccine: <ul style="list-style-type: none"> <li>• 4 doses of Diphtheria-Tetanus-Pertussis containing vaccine</li> <li>• 3 doses of Haemophilus influenzae type b vaccine</li> <li>• 1 dose of Measles-Mumps-Rubella vaccine</li> <li>• 3 doses of Hepatitis B vaccine</li> <li>• 3 doses of Polio vaccine</li> </ul>

**Performance Goal:** Increase pneumococcal pneumonia and influenza vaccination among persons  $\geq 65$  years.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
Influenza: 58% (1995).  Pneumonia: 32% (1995).	The rate of vaccination among non-institutionalized high-risk populations will be increased to 60% for influenza and to 54% for pneumococcal pneumonia.	The rate of vaccination among persons $\geq 65$ years will be increased to 60% for influenza and to 60% for pneumococcal pneumonia.

Verification/Validation of Performance Measures: These data will be validated as stated above in the program description with the addition of the National Health Interview Survey for pneumonia and influenza.

Links to DHHS Strategic Plan

These performance measures relate to DHHS Goal 5: Improve public health systems. CDC collaborates with Health Resources and Services Administration, the Health Care Financing Administration, the Food and Drug Administration, the National Institutes of Health, and others in achieving these objectives.

**Performance Goal:** Collaborate with domestic and international partners to help achieve WHO's goal of global polio eradication by December 31, 2000.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
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382 million (1998)	Increase the number of doses of oral polio vaccine purchased to assist in conducting mass immunization campaigns in Asia, Africa, and Europe to 445 million.	Increase the number of doses of oral polio vaccine purchased to assist in conducting mass immunization campaigns in Asia, Africa, and Europe to 526 million.
60 (1998)	Expand the network of CDC and CDC-funded staff, epidemiologists, virologists, technical and scientific officers on long-term assignments in WHO country and regional offices to 67 persons.	Expand the network of CDC and CDC-funded staff, epidemiologists, virologists, technical and scientific officers on long-term assignments in WHO country and regional offices to 82 persons.
0 (1998)	Expand a special program to prepare a cadre of 50 trained public health professionals throughout CDC to complete short-term assignments with WHO.	Expand a special program to prepare a cadre of 60 trained public health professionals throughout CDC to complete short-term assignments with WHO.
<b>Total Program Funding</b>	<b>\$449,477</b>	<b>\$526,167</b>

## VI. Health Statistics

CDC's National Center for Health Statistics provides strong leadership in monitoring the health of the American people and is a vital, unique resource for health information. As the Nation's principal health statistics agency, NCHS provides statistical information to guide actions and policies to improve health of Americans. In the current climate of dramatic change in the health system, such data become critically important and play a crucial role in public health and health policy. Unprecedented changes make investments in determining health status and monitoring health system structure, operation, quality, and effectiveness a clear priority. There is significant demand, as well as new opportunities, for using new approaches to monitoring, assessing, and evaluating key public health, health policy, and welfare policy changes. CDC is taking significant steps to improve the speed with which data are made available to researchers, policy makers, and the public. The National Vital Statistics System has greatly improved the timeliness of data which are highly relevant to health and welfare reform monitoring, through the introduction of a "preliminary" data set in 1996. Preliminary data, though less detailed, were released a full year ahead of the final data, affording policy makers an early view of major trends in births and deaths. Similarly, data from the most recent National Health and Nutrition Examination Survey (NHANES) were released on a timetable that was nearly two years earlier than previous survey cycles. Continuing efforts to automate the collection of data, apply new data processing and analytic tools, and disseminate data more widely via the Internet will result in further improvements in timeliness and access.

NCHS represents an investment in broad-based, fundamental public health and health policy statistics that meets the needs of a wide range of users. This investment has important payoffs in:

- Tracking change in health and health care, particularly as major changes are occurring in private markets and federal and state policy. NCHS provides mechanisms for obtaining consistent, uniform statistics that allow for comparison across population groups, types of health care providers, and states.
- Planning, targeting, and assessing the effectiveness of public programs.

- Identifying health problems, risk factors, and disease patterns.

Because these data are widely used to track current issues and make decisions, it is crucial that these data are as current and accessible as possible. The more current the data, the more likely it is that policy makers will base their decisions on information that accurately reflects the most recent developments in health and health care.

NCHS continually strives to meet priority data needs by improving ongoing surveys, developing new tools for monitoring health, and finding new ways to make data accessible to users. Important steps underway include the beginning of full field operation of the National Health and Nutrition Examination Survey, which fills an important gap in our knowledge of health by taking direct measurements in mobile examination centers that move around the U.S. Other steps include the capability to conduct state-level monitoring surveys using the State and Local Area Integrated telephone Survey (SLAITS). Efforts to improve the usability of NCHS data include improving timeliness, increasing access through the Internet, and facilitating research based on detailed, micro-data without jeopardizing confidentiality of our respondents.

**Performance Goals and Measures**

**Performance Goal:** Better anticipate the future directions of the health care system and health behaviors in order to design effective public health policy by:

- Monitoring trends in the nation’s health through high quality data systems addressing issues relevant to decision makers.
- Reducing time lags for release of core data systems by 5% per year. With the additional initiative funding the overall objective is to reduce time lag of data release by 10% per year, which will be achieved over time--the interim reductions may not be achieved.
- Making data more readily accessible to decision makers and researchers.

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
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<p>1. Baseline data used is the conduct of three major data systems in 1997. In 1999 a fourth (NHANES) major data system was returned to field operation.</p> <p>2. Baseline data in 1998, no new targeted data collection efforts are being made.</p> <p>3. N/A</p> <p>4. The baseline for this measure is 6 months in 1996.</p> <p>5. N/A.</p> <p>6. Baseline data is during 1998, NCHS data center was established with no researchers with access. With the increase in resources, in FY 2000 approximately 40 researchers will access the NCHS secure data center.</p>	<p>2. The development of SLAITS, which includes conduct of a pretest in 3 test sites including one Indian Reservation, will be finalized. <sup>1</sup></p> <p>3. The development of NHANES IV, including conduct of a pretest, will be finalized. <sup>1</sup></p> <p>4. Monthly vital statistics reports will be available to be viewed, searched, and downloaded via the Internet within 4 months of data release. <sup>1</sup></p>	<p>1. Conduct ongoing surveys and data systems that produce detailed trend data needed for monitoring health.</p> <p>2. Developing new monitoring tools needed to address emerging topics. With initiative funding in FY 2000, five targeted data collection efforts will be established to address emerging data needs.</p> <p>3. NHANES IV will have completed the first full year of data collection using newly automated survey, examination, and laboratory methods that will improve timeliness of data release.</p> <p>4. Monthly vital statistics reports will be available to be viewed, searched, and downloaded via the Internet within 4 months of data release.</p> <p>5. Release statistics in new formats to speed the release of data on high-priority topics (e.g., Teenage Births in the United States: National and State Trends 1990-96). Release 1 report in such format.</p> <p>6. Establish an NCHS Data Center, which will allow non-NCHS researchers to access detailed data files in a secure environment, without jeopardizing the confidentiality of respondents.</p>
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<sup>1</sup> FY 1999 measures were changed to reflect the increased funding for Health Statistics and to better represent the program activities.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>7. Baseline data used is release of 1993 final mortality data in 26 months which occurred in 1996 as published in Volume 44 no, 7: Supplement to the Monthly vital Statistics Report, dated February 29, 1996 "Advance Report of Final Mortality Statistics, 1993." Included in baseline data is the release of 1994 final natality data in 18 months which occurred in 1996 as published in Volume 44 no. 11: Supplement to the Monthly Vital Statistics Report, dated February 29, 1996 "Advance Report of Final Natality Statistics, 1994."</p> <p>8. Baseline data: In 1997 Health United States 1997 was published demonstrating various trends.</p>	<p>7. Time lag in release of final Vital Statistics will be reduced by 1 month. <sup>1</sup></p>	<p>7. With the increased funding, time lag in release of final Vital Statistics will be reduced by 2 months. Currently, data are released within 21 months following the end of the data collection year.</p> <p>8. Produce reports and publications that document trends, issues, and problems in health.</p>
<b>Total Program Funding</b>	<b>\$94,573</b>	<b>\$109,573</b>

Verification/Validation of Performance Measures: The National Center for Health Statistics will maintain administrative documentation that verify performance of these objectives through contractor reports, pretest reports, proceedings from meetings of scientific partners, copies of publications, and records of times data was available on the Internet.

Links to DHHS Strategic Plan

These performance measures are related to DHHS Goal 5: Improve public health systems. NCHS collaborates in the development of types of information collected with the HHS Data Council (charged by the Secretary to provide overall policy, guidance for HHS data activities), the National Committee on Vital and Health Statistics (the Secretary's outside advisory council on health statistics), representatives from the states and users of NCHS data in the public and private sectors. Close cooperation with state vital statistics offices assure timely reporting of data.

## VII. Chronic Disease Prevention

The United States cannot effectively address escalating health care costs without addressing the prevention of chronic diseases for the following reasons:

- More than 90 million Americans live with chronic illnesses.
- Chronic diseases account for 70 percent of all U.S. deaths.
- 61 percent of the \$655 billion total cost of health and medical care in 1990 was attributable to chronic diseases.
- Chronic diseases account for one-third of the years of potential life lost before age 65.

The increase in the proportion of older Americans, largely due to the aging of the baby boom generation, means that an effective public health response to chronic and disabling conditions must be developed now. Cancer will strike more than 1.3 million Americans this year. More than 40% of all deaths in the United States each year are directly attributable to heart disease and stroke. The impact of conditions such as arthritis, osteoporosis, Alzheimer's disease, and urinary incontinence on our society is considerable and will grow as our population ages. These and other conditions result in disability and decreased quality of life for millions of Americans.

Prevention of the occurrence and progression of chronic disease is based on reducing or eliminating behavioral risk factors, increasing the prevalence of health promotion practices, and detecting disease early to avoid complications. Prevention programs have been shown to be effective. For example, for every dollar spent on school health programs addressing tobacco, drug and alcohol and sexuality education, fourteen dollars are saved in avoided health care costs. Almost all deaths from cervical cancer and an estimated 30 percent of deaths from breast cancer in women over age 50 are preventable through widespread use of screening mammography and Papanicolaou (Pap) testing.

When developing performance measures for chronic disease prevention programs, several factors tempered our consideration. These factors included:

- The long latency of chronic diseases.
  - Chronic diseases include the three leading causes of death in the United States--heart disease, cancer, and cerebrovascular--which account for nearly two thirds of all deaths. Multiple behavioral risk factors such as smoking, poor diet, and lack of exercise often become habitual during youth or early adulthood and contribute to the development of these chronic diseases over long periods of time.
  - Health outcome measures are particularly problematic for chronic disease prevention programs because of the long latency period of many chronic diseases. For instance, reductions in smoking rates will not produce reductions in lung cancer deaths for decades. Further, behavior change itself is adopted slowly. Many of the most effective interventions are aimed at preventing youth from adopting risky behaviors, while the positive outcomes associated with these interventions are not reaped until adulthood. Over time, Americans can be influenced to adopt healthier behaviors, but such progress rarely results in significant or startling changes on an annual basis.
- The relatively recent development of chronic disease programs and hence the need for objectives focusing on state capacity to address chronic diseases.
  - Chronic disease programs are relatively new in the public health world. For example, only recently have all states received funding for diabetes control programs. CDC's State tobacco control programs are only four years old. 1998 marked the first year of CDC's state-based cardiovascular disease prevention program, but funds are only available to fund 8 states. While all States now participate in the Behavioral Risk Factor Surveillance System (BRFSS), which represents our only method of monitoring adult chronic disease prevalence, some still lack any federal support for cancer registries. Because of the newness of chronic disease programs, many states are still putting into place the basic infrastructure of people, networks, and systems needed to conduct effective prevention programs. Further, with the exception of the National Breast and Cervical Cancer Early Detection Program, none of CDC's chronic disease programs are focused on service delivery. Instead, they are focused on developing the policies, environments, and systems which are supportive of healthy behavior and appropriate health care.

- The availability of annual data to measure performance.
  - CDC's data collection systems for monitoring chronic diseases are collected annually for adults (BRFSS), but only biennially for adolescents (YRBSS). While these data collect valuable information about the chronic disease behavioral risk factors, they are not designed to collect specific outcome data on chronic diseases.
- The opinions and recommendations of our key stakeholders.
  - CDC's efforts to achieve improvements in health behaviors, appropriate health care, and chronic disease burden are dependent on collaborative relationships. Reductions in our nation's future chronic disease burden will depend on the commitment and success of programs coordinated by CDC and a broad range of efforts by health care providers, medical and public health researchers, state and local public health and education agencies, insurers and payers of private medical insurance, other Federal agencies, and the private and non-profit sectors. CDC's key chronic disease partners have voiced concern regarding their ability to demonstrate specific outcome measures related to chronic disease issues and are committed to a balance between outcome and process objectives.
- Recognition that efforts to reduce the burden of chronic diseases must involve multiple public, private, and non-profit entities across the country.
  - Chronic diseases are a community-wide burden. CDC partners with the leaders of state and local health and education agencies, academic institutions, national organizations, non-profit agencies, business and philanthropies to reduce the burden of chronic diseases

## Heart Disease and Health Promotion

Heart disease is the Nation's number one killer among men and women of all racial and ethnic groups. More than 40% of all deaths in the United States, 900,000 each year, are directly attributable to heart disease and stroke. Associated annual costs exceed \$286 billion. CDC is taking a crosscutting approach to address the burden of heart disease and other health risks in the U. S. through the prevention of risk factors (e.g. tobacco use, physical inactivity, and poor nutrition), surveillance, epidemiologic research, and health promotion activities. Cardiovascular disease is the leading cause of death in all states; CDC is implementing this approach to heart disease and stroke prevention by building state-specific capacity for cardiovascular health promotion, first in those states with the greatest heart disease and stroke burden. In subsequent years, efforts will expand to create capacity in all states and territories in order to build a nationwide cardiovascular health program.

Tobacco use is the leading preventable cause of disability and death, killing more than 400,000 Americans each year at an annual cost of \$50 billion in direct medical costs. CDC serves as the focal point for DHHS' smoking and health prevention activities. Comprehensive state programs, including school based programs and local outreach efforts, have been shown to be effective in reducing the prevalence of tobacco use. CDC first funded tobacco prevention programs in 32 states and the District of Columbia in 1994. With funding requested in the President's FY 1999 budget, CDC will provide financial assistance to 50 state health departments, the District of Columbia, and 12 national organizations. The FY 2000 request would allow CDC to expand funding through states to more extensively reach local communities and schools. It also would allow for implementation of national media/educational campaigns. CDC currently conducts surveillance and analysis of tobacco use and its impact; implements national health communication and education campaigns; and distributes technical, health communication, and advertising materials to states and other constituents.

CDC is committed to reducing tobacco use in the population with an ultimate goal of reducing the burden of tobacco-attributable disease. Although CDC's FY 1999 GPRA measures represented processes necessary for states to establish tobacco control programs, CDC's FY 2000 measures will include an outcome indicator related to use of tobacco products. Specifically, CDC's FY 2000 measure for tobacco seeks to reduce smoking among teenagers.

It is important to note that reduction of tobacco use is a shared effort. Multiple agencies in DHHS address tobacco use, including CDC, the Food and Drug Administration (FDA), the National Institutes of Health (NIH), and the Substance Abuse and Mental Health Services Administration (SAMHSA). In addition, state and local governments (e.g., health departments, Attorneys General), private organizations (e.g., American Cancer Society, the Robert Wood Johnson Foundation), and health care providers all play an important role in efforts to reduce tobacco use. Therefore, our accomplishments in the area of tobacco control will be collective, resulting from partnerships between government and non-government entities. In addition, it is important to note that environmental factors can counteract efforts to reduce tobacco use. Such factors includes tobacco advertising, industry pricing patterns, and glamorization of tobacco use in the popular media.

**Performance Goals and Measures**

**Performance Goal:** Reduce morbidity and mortality attributable to behavioral risk factors by building nationwide programs in chronic disease prevention and health promotion and intervening in selected diseases and risk factors.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>36.4% for 9 - 12 graders (1997)</p> <p>0 (1999) States with 5/7 core cardiovascular disease prevention capacities.</p>	<p>Reduce the percentage of teenagers (in grades 9-12) who smoke from 36.4% to 21% by 2010 by conducting education campaign, providing funding and technical assistance to state programs, and working with non-governmental entities. This would require an annual reduction of 1.2 percentage points (starting in FY 1997 and ending in FY 2010).<sup>1</sup></p>	<p>Reduce the percentage of teenagers (in grades 9-12) who smoke from 36.4% to 21% by 2010 by conducting education campaign, providing funding and technical assistance to state programs, and working with non-governmental entities. This would require an annual reduction of 1.2 percentage points (starting in FY 1997 and ending in FY 2010).</p> <p>The number of states with 5/7 core cardiovascular disease prevention capacities as delineated in Preventing Death and Disability from Cardiovascular Diseases: A State Based Plan for Action, " and in CDC Program Announcement: CDC Cardiovascular Health Programs," will be increased to 8 in FY 2000.<sup>2</sup></p>

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY Estimate</b>
63% (1996) States participating in the BRFSS communicating findings.	In 1999, 85% of states participating in the Behavioral Risk Factor Surveillance System (BRFSS) will communicate the finding form their behavioral risk factor data collected through an annual summary of results. <sup>3</sup>	
<b>Total Program Funding</b>	<b>\$128,552</b>	<b>\$155,310</b>

<sup>1</sup> FY 1999 performance measure was changed (from " The number of states with 5 of the 7 core tobacco prevention capacities will be increased from 17 in 1996 to 30 in 1999" to " Reduce the percentage of teenagers (in grades 9-12) who smoke from 36.4% to 21% by 2010 by conducting education campaigns, providing funding, and technical assistance to state programs, and working with non-governmental entities." This would require an annual reduction of 1.2 percentage points (starting in 1997 and ending in FY 2010). As a result, FY 1999 and FY 2000 goals are the same. Please note that the original measure for FY 1999 was based on an old program model which included 7 core tobacco program components (that have been significantly modified under CDC's new 50 State program) The new measure is based on the new program model which is more outcome oriented, and the data that is currently being collected from the states will allow CDC to track performance for the FY 2000 goal and produce the upcoming annual performance plan.

<sup>2</sup> State Core Cardiovascular Capacities: (1) Develop and coordinate partnerships; (2) Develop scientific capacity to define the Cardiovascular Disease problem; (3) Develop an inventory of policy and environmental strategies; (4) Develop or update state plan; ( 5) Provide training and technical assistance; (6) Develop population-based strategies; (7) Develop culturally-competent strategies for priority populations, and (optional) (8) Enhanced school health programs.

<sup>3</sup> This objective was deleted for FY 2000 and replaced by the core cardiovascular disease prevention program, which received new funding for FY 2000.

Verification/Validation of Performance Measures: The data source for the tobacco-related measures include the Youth Risk Behavior Survey (YRBS), National Household Survey on Drug Abuse (NHSDA), and the Monitoring the Future Survey (MTF). The YRBS is conducted biennially by the CDC. The NHSDA is conducted annually by the Substance Abuse and Mental Health Services Administration. The Monitoring the Future Survey is conducted annually by the University of Michigan's Institute for Social Research. All three surveys were created for purposes other than GPRA and have been conducted for many years. The 1997 YRBS found that 36.4% of high school student were current smokers (smoked during the previous month). Due to upcoming changes in the ways that tobacco data will be collected in the NHSDA, there are no baseline data available. Baseline data covering 1999 will be available during the Spring of 2000. According to the 1998 MTF study, 35.1% of 12th graders smoked during the past 30 days.

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual state-based telephone survey (active in 50 states, District of Columbia and three territories) that routinely collects behavioral risk factor information and demographic information (age, race, sex, etc). States design the instrument that is used to collect data. CDC, besides providing funding, technical support, and consultation, edits and processes the data from each state's monthly interviews and then returns prevalence information and selected reports to states for their use. Behavioral risk factors are chosen based on their strong relationship with many of the leading causes of premature death and disability. The information obtained is used to track progress in reducing behavioral risk factors over time. The data is collected on an ongoing basis and there are no foreseen data lags. A 1996 baseline is used because it is based on data available at the time of the creation of the measure.

State information on core cardiovascular disease prevention capacities will be collected annually and evaluated by CDC through grantee applications.

[Links to DHHS Strategic Plan](#)

These performance objectives are related to DHHS goal 1, particularly 1.1: Reduce major threats to health and productivity of all Americans by reducing tobacco use, especially among youth. CDC plans to reduce teen smoking among youth through intervention programs, community-based programs, health communication campaigns, and collaborative partnerships with schools and state programs. State capacities will be developed to reduce the burden of Cardiovascular Disease, a major threat to the health and productivity of Americans, through core capacities as well as the further development of data systems.

## **Breast and Cervical Cancer Prevention**

Breast and cervical cancer will kill more than one-half million women in this decade. Breast cancer accounts for nearly one-third of all cancers in women, and approximately 14,500 new cases of cervical cancer are diagnosed each year. Almost all deaths from cervical cancer and an estimated 30 percent of deaths from breast cancer in women over age 50 are preventable through widespread use of Papanicolaou (Pap) testing and screening mammography. A combination of annual clinical breast examinations and mammography can reduce breast cancer mortality by more than 30 percent for women age 50-74. Early detection also increases the 5-year survival rate to 91 percent. Early diagnosis of breast and cervical cancer saves money as well as lives. The cost of medical care for a woman whose breast cancer is diagnosed early may be two-thirds lower than the medical care cost for a woman whose cancer is diagnosed at a later stage.

CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides cancer screening for under-served women, particularly low-income women, older women, and members of racial/ethnic minorities. This program creates the foundation for an aggressive response to this health problem and ensures the delivery of successful screening services. CDC supports activities at the state and national level in the areas of screening referral and follow-up services, quality assurance, public and provider education, surveillance, collaboration and partnership development.

The ability to implement a nationwide program depends on the involvement of partners in national, state and local governments; health care professions and organizations; social service and advocacy organizations; and academia. Partnerships assist private and public nonprofit organizations to develop, implement, and evaluate national, community-based interventions for cancer prevention and early detection. They also test new methods and replicate already-proven strategies to educate their constituents about the prevention, early detection and control of cancers; increase access to screening among underserved populations; and create new collaborations with state health departments and others to enhance efforts for cancer control in priority populations. CDC funds a strong and effective network of partners that are well positioned in communities at risk and that bring critical knowledge, skills, credibility, and resources to CDC's cancer control efforts among priority populations. Such populations include the uninsured and such minority groups as American Indians, Alaskan Natives, African-Americans, Hispanics, Asian/Pacific Islanders, Lesbians, women with disabilities, and those who live in hard-to-reach communities in urban and rural areas.

Both performance measures submitted for the NBCCEDP are outcome measures. The measures are ambitious in view of the fact that with current resources, the NBCCEDP is able to reach about 12 percent of the eligible population. Additionally, the goal of any chronic disease screening program for chronic disease is to monitor health/disease status over time and detect disease early in its progression. Substantial positive increases in percentage cannot be expected annually among the relatively small portion of the nation's population served. By its nature, such a screening program will not show a large impact annually. Data collection for these measures has been systematized by the NBCCEDP, and state health agencies were involved in the development of these measures.

### **Performance Goals and Measures**

**Performance Goal:** Increase early detection of breast and cervical cancer by building nationwide programs in breast and cervical cancer prevention.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>64% (1995).</p> <p>26 per 100,000 Pap Tests (9-30-95).</p>	<p>Excluding breast cancers diagnosed on an initial screen in the NBCCEDP, at least 67% of women aged 40 and older will be diagnosed at localized stage.</p> <p>Excluding invasive cervical cancers diagnosed on an initial screen in the NBCCEDP, the age adjusted rate of invasive cervical cancer in women aged 20 and older is not more than 24 per 100,000 Pap tests provided.</p>	<p>Excluding breast cancers diagnosed on an initial screen in the NBCCEDP, at least 67% of women aged 40 and older will be diagnosed at localized stage.</p> <p>Excluding invasive cervical cancers diagnosed on an initial screen in the NBCCEDP, the age adjusted rate of invasive cervical cancer in women aged 20 and older is not more than 24 per 100,000 Pap tests provided.</p>
<p><b>Total Program Funding</b></p>	<p><b>\$159,071</b></p>	<p><b>\$159,071</b></p>

Verification/Validation of Performance Measures: CDC requires certain data elements related to breast and cervical cancer to be regularly reported by the states. These Minimum Data Elements (MDEs) are a set of standardized data elements developed to monitor and ensure that women receive the appropriate and timely screening, diagnostic, and treatment services needed. Funded states, territories, and tribes collect data on each woman served, and the MDEs are voluntarily submitted to CDC via contractor twice a year. Final data for the previous fiscal year are available in early April each year.

Links to DHHS Strategic Plan

In the DHHS Strategic Plan, Strategic Objective 4.1 states “Promote the appropriate use of effective health services,” and it includes as a measure of success “Rates of increase in age-appropriate mammography screening.” Additionally, Strategic Objective 4.2 states “Reduce disparities in the receipt of quality health care services,” and a measure of success for this objective is “Disparities in breast and cervical cancer screening and management.” Thus, increasing rates of breast and cervical cancer screening, particularly among population groups with poorer screening rates, is a priority stated in the DHHS Strategic Plan and implemented by CDC’s National Breast and Cervical Cancer Early Detection Program.

**Cancer Registries**

Cancer surveillance is the key to a unified scientific and public health approach to fighting cancer. Cancer surveillance includes ongoing, timely, and systematic collection and analysis of information on cancer deaths, new cancer cases, extent of disease, screening tests, treatment, and survival. Data collected through statewide cancer registries can be used to identify trends over time, to discover cancer patterns among various populations, and to show whether screening and other prevention measures are making a difference. This information is essential to states in directing effective cancer prevention and control efforts.

Despite the critical role registries can play in helping direct cancer prevention efforts, 10 States had no registry in 1990. Although the remaining 40 States had registries operating at some level, many lacked the financial support and the personnel to gather complete, timely, and accurate data on their population or to ensure that the data collected had minimum standards of quality. A number of states also lacked legal support for their registry's operation, which further hindered their ability to collect important information.

Through the National Program of Cancer Registries (NPCR), CDC funds states and territories to enhance existing cancer registries; plan and implement statewide registries where they do not exist; develop model legislation and regulations for states to enhance viability of registry operations; set standards for completeness, timeliness, and quality; and provide training. The NPCR serves as the foundation of a national, comprehensive prevention strategy; it is a basic tool in surveillance efforts that will provide the needed factual basis for appropriate policy decisions and allocations of scarce resources. Comprehensive, timely, and accurate data about cancer incidence and stage at diagnosis are needed to provide useful feedback for evaluating progress toward cancer control. In FY 1999, CDC will support 45 States, 3 territories, and the District of Columbia for cancer registries.

In strengthening the national network of cancer registries, CDC's National Program of Cancer Registries (NPCR) works closely with other federal agencies and with national organizations such as the American Cancer Society, the American College of Surgeons, the National Cancer Registrars Association, the National Cancer Institute (NCI), the North American Association of Central Cancer Registries (NAACCR), the College of American Pathologists, and other professional organizations. These organizations have formed a working consortium, the National Coordinating Council for Cancer Surveillance, to coordinate issues affecting cancer registration.

CDC and its partners also collaborate to develop successful strategies to capture cancer information on patients who are diagnosed and treated outside the hospital setting and to audit case completeness and quality in outpatient settings.

In addition, ongoing liaisons with the Department of Veterans Affairs, the Department of Defense, and American Indian/Alaska Native organizations encourage and facilitate voluntary reporting of cancer cases from federally supported facilities to state registries. CDC also collaborates with federal, state, and private organizations in designing, conducting, and analyzing surveillance research related to cancer. CDC assists states and national organizations in using cancer surveillance data to describe state or national disease burden, evaluate cancer control activities, and identify populations at high risk for certain cancers. Through collaboration with NAACCR, quality assurance activities are provided for the NPCR.

Because NPCR is a new program, many states do not yet collect information on all the cancer cases occurring in the state each year. However, collection of complete information is critical to the program. The outcomes expected for NPCR--the ability to monitor trends in cancer by site of the cancer, age and ethnicity of the patient, geographic region, and treatment outcomes--will not be possible until the central registries contain complete information. Thus, the performance measure proposed is the best available because it is the most critical to the eventual success and usefulness of the program.

### **Performance Goals and Measures**

**Performance Goal:** Improve the assessment capacity of cancer prevention by enhancing existing cancer registries.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
16% of states in the NPCR (1994).	For at least 30% of states funded by CDC's NPCR, at least 95% of unduplicated, expected malignant cases of reportable cancer occurring in state residents in a diagnosis year will be reported to the state cancer registry.	For at least 30% of states funded by CDC's NPCR, at least 95% of unduplicated, expected malignant cases of reportable cancer occurring in state residents in a diagnosis year will be reported to the state cancer registry.
<b>Total Program Funding</b>	<b>\$24,113</b>	<b>\$24,113</b>

Verification/Validation of Performance Measures: States participating in the NPCR are expected to collect information on at least 95% of cancer cases diagnosed or treated in their state each year. Cancer cases should be reported to the central registry within 6 months of diagnosis, and funded states are required to incorporate the standards for data quality and format as described by NAACCR. CDC receives an annual administrative summary from each NPCR program, as well as quarterly reports that indicate progress towards reaching goals of completeness, timeliness, and quality of registry data. In addition, NPCR staff complete annual internal evaluations of program progress. Data from these evaluations are available in April each year. State cancer registries do not report raw data to the CDC, and CDC does not aggregate NPCR data at this time.

In 1994, 28 enhancement states and 9 planning states were funded through NPCR. Currently, NPCR provides support to 49 programs: 36 for enhancement of established central registries and 13 for planning and implementation of registries. Variations in states' capacities (planning or enhancement status) and initial year of funding result in differences across reference years used for calculating registry data completeness.

NAACCR has also established a process by which state registries can apply for certification that ensures that member registries are collecting useful and high-quality data. Member registries are evaluated yearly and provided confidential feedback.

Links to DHHS Strategic Plan

the DHHS Strategic Plan, Objective 5.1 states "Improve public health systems' capacity to monitor the health status and identify threats to the health of the nation's population." Data collected through statewide cancer registries can be used to identify trends over time, to discover cancer patterns among various populations, and to show whether screening and other prevention measures are making a difference. This information is essential to states in directing effective cancer prevention and control efforts.

## **Diabetes and Other Chronic Conditions**

Almost 16 million people in the United States have diabetes, with approximately 800,000 new cases each year or 2,200 new cases each day. The number of individuals with known diabetes has increased steadily, especially within selected racial and ethnic communities. Diabetes remains the 7th leading cause of death in the U.S. People with diabetes also suffer significant complications such as kidney disease (approximately 30,000/year), high blood pressure (60 to 65% of people with diabetes have high blood pressure), amputations (approximately 57,000/year or 150/day); blindness among working aged adults (approximately 20,000/year or 60/day); and end-stage kidney disease (approximately 30,000/year or 70/day).

The goal of CDC's diabetes control program is to eliminate preventable diabetes-related morbidity and disability while improving the overall quality and length of life for all persons with diabetes. This effort requires a multi-faceted approach that works to translate research findings into clinical and public health practice. The CDC diabetes prevention and control program emphasizes (1) support for state-based diabetes control programs in all 50 states to develop or expand diabetes control efforts in the state with additional funding for selected states to conduct comprehensive control efforts statewide; and (2) activities to improve the quality of care received by persons with diabetes.

**Performance Goals and Measures**

**Performance Goal:** Reduce the prevalence of chronic and disabling conditions and improve quality of life for those already affected by these conditions by building nationwide programs in chronic disease prevention and health promotion, and intervening in selected diseases and risk factors.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>FY 2000: 60% (1998).</p> <p>FY 2000: Eye 62% (1996). Foot 52% (1996).</p> <p>4 Applied Research Studies (1997).</p>	<p>At least 5 applied prevention research studies will be conducted to better understand how to apply diabetes scientific findings in clinical and public health practice and the results published in peer-reviewed journals.</p>	<p>100% of CDC-funded state diabetes control programs will adopt, promote and implement patient care guidelines for improving the quality of care received by persons with diabetes.</p> <p>For all states that receive CDC-funding for comprehensive diabetes control programs, increase by 10% the percentage of diabetics who receive an annual eye exam and annual foot exam.</p>

21 states/jurisdictions or 36% (1994).	At least 75% of the 58 State Diabetes Programs will have core capacities: surveillance of diabetes and diabetes-related conditions and risk factors; formal relationships with medical and private, non-profit organizations; communication networks with collaborating organizations; assessment of quality of care of diabetes patients; and public awareness campaigns.	
<b>Total Program Funding</b>	<b>\$80,134</b>	<b>\$80,134</b>

Verification/Validation of Performance Measures: Performance will be verified through quarterly state reports to CDC and periodic site visits, demonstration of CDC development of studies, and, for efforts in Native American/Alaskan Native populations, program reports submitted to CDC and demonstration of the number of programs supported by CDC.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goal 4: Improve the quality of health care and human services, and specifically Goal 4.1: Promote the appropriate use of effective health services. This goal area reflects the intent of having state programs adopt and promote patient care guidelines for persons with diabetes, which in turn enables both health care providers and patients to know what is needed for quality diabetes care. This effort, along with other educational and programmatic activities, should lead to an increase in foot and eye exams for diabetics.

In addition to state health departments, CDC collaborates with the American Diabetes Association, Juvenile Diabetes Foundation, American Association of Diabetes Educators, and managed care organizations in the control of diabetes and its complications.

## VIII. Prevention Research

Prevention research, also known as public health research, is an area of great importance for CDC. This activity, conducted in partnership with academic health centers, public health departments and other partners, is applied research that can be used to develop effective strategies to promote health and prevent disease, injury and disability.

Through applied research, CDC has always identified emerging problems, tested solutions, and determined how to translate into practice the knowledge that has emerged from biomedical research. Working with public and private sector research partners, CDC strengthens its ability to rapidly respond to complex public health problems facing communities. CDC's prevention research program can be characterized as problem-solving, population-based research which focuses on preventable risk factors using multidisciplinary, community-based approaches. This type of public health research engages teams of scientists (e.g., epidemiologists, laboratorians, economists, and behavioral scientists) working in cooperation with members of the affected community to apply scientific methods to develop and evaluate public health strategies and interventions. Increasingly, CDC is working with extramural researchers as a part of the team to address the complexity of many public health problems.

In FY 1998, CDC began the process to strengthen public health research with a strong emphasis on strengthening extramural research activities and programs. Working together, extramural and intramural researchers can:

- ▶ Engage academic health center faculty and others in exposing students to expanded opportunities for public health research.
- ▶ Involve state and local health officials and community-based organizations in the continuing search for innovative solutions to public health problems.
- ▶ Investigate ways that new health care systems, such as managed care, can be encouraged to implement community-based prevention more broadly than has been achieved in the past.

In FY 1999, funds from the 21<sup>st</sup> Century Research Fund will be used to strengthen CDC's Prevention Research activities through the expansion of extramural research programs and increased use of external peer review. This set of performance objectives and measures will apply to any activities which are supported with monies from the 21<sup>st</sup> Century Research Fund (FY 1999) and by the proposed budget for the CDC Prevention Research Program (FY 2000).

**Performance Goals and Measures:**

**Performance Goal:** Increase collaboration among academic health centers, public health departments, managed care organizations and other public health organizations to develop, implement, and evaluate the effectiveness of community-based public health interventions.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	CDC will provide periodic briefings to members of CDC Advisory and Scientific Committees on opportunities to increase partnerships between academic health centers, managed care organizations, and the public health networks in the Nation's communities.	CDC will provide periodic briefings to members of CDC Advisory and Scientific Committees on opportunities to increase partnerships between academic health centers, managed care organizations, and the public health networks in the Nation's communities.

Verification/Validation of Performance Measures: Data and information will be obtained through a quarterly report to the Director on collaboration for public health and prevention research.

**Performance Goal:** Increase external input on the research priorities, policies, and procedures related to the extramural research supported by CDC.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	CDC will increase the use of external peer review in processes for competitive research awards of funds (cooperative agreements, and grants) for projects supported with prevention research funding.	CDC will increase the use of external peer review in processes for competitive research awards of funds (cooperative agreements, and grants) for projects supported with prevention research funding.
N/A	CDC will promote the use of research advisory groups within the agency.	CDC will promote the use of research advisory groups within the agency.
N/A	CDC will set up a subcommittee for extramural research chartered through the CDC Advisory Committee.	CDC continues to support a subcommittee for extramural research chartered through the CDC Advisory Committee.

Verification/Validation of Performance Measures: Data for these measures will be available from information obtained from CIO program announcements, strategic plans, and Federal Register announcements. Data will be verified using data obtained through site visits with the grants management office and reports to CDC's Committee Management program.

**Performance Goal:** Disseminate research findings and other relevant information from prevention research programs to public health practitioners, managed care organizations, and consumer groups.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	N/A	Prevention research and demonstration centers will disseminate information on candidate interventions for health problems and results of fields tests of interventions.
N/A	N/A	Investigators conducting community-based research receiving supplemental or initial financial assistance through the Prevention Research Initiative will be required to disseminate information on candidate interventions broadly to communities as well as through publications.

Verification/Validation of Performance Measures: Data for these measures will be available from grantee applications for new/continuation funds, grantee progress reports and bibliometric studies. Data be verified through site visits and published reports.

**Performance Goal:** Strengthen the scope and nature of extramural public health research programs.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	CDC will expand the scope of public health research to multidisciplinary research efforts which in turn area able to bridge gaps between public health practice, public health research, bioethics, and health policy research.	CDC will increase the number of young investigator and public health research training opportunities;  CDC will expand the scope of public health research to multidisciplinary research efforts which in turn are able to bridge the gaps between public health practice, public health research, bioethics, and health policy research.

Verification/Validation of Performance Measures: Data for these measures will be available from program announcements, Federal Register announcements, grantee progress reports, requests for proposals, internal research reports and will be verified through site visits.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goal 6: Strengthen the nation's health sciences research enterprise and enhance its productivity.

**Performance Goal:** Increase collaboration efforts among research universities and community-based organizations to more effectively implement chronic disease and teen pregnancy prevention research and demonstration projects that focus on new intervention methods and provide results to states and local organizations.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
0 Prevention Research Centers have established research priorities or developed research interventions in collaboration with a constituent community.	The University-based Prevention Research Centers will have at least one Prevention Research Center in each DHHS region establishing research priorities and developing research interventions in collaboration with a constituent community. <sup>1</sup>	The University-based Prevention Research Centers will have at least one Prevention Research Center in each DHHS region establishing research priorities and developing research interventions in collaboration with a constituent community.

In one of the 13 community demonstration programs, the hub organization together with other coalition partner organizations (e.g., school districts, health care provider organizations, local government agencies, businesses, and youth-serving, civic, and/or religious organizations) collaboratively began testing and implementing two intervention programs to prevent teen pregnancies in response to specific needs identified through a community assessment in at least two neighborhoods. These partner organizations secured and redirected funding and in-kind support to initiate these intervention programs. (1998)	In at least 7 of the 13 community demonstration programs, the hub organization and at least three coalition partner organizations (e.g., school districts, health care provider organizations, local government agencies, businesses, and youth-serving, civic, and/or religious organizations) will collaboratively have begun implementing two or more intervention programs to prevent teen pregnancies in response to specific needs identified through a community assessment in at least two neighborhoods. These partner organizations will have secured or redirected funding and in-kind support to initiate these intervention programs. <sup>2</sup>	In all 13 community demonstration programs, the hub organization and at least five coalition partner organizations (e.g., school districts, health care provider organizations, local government agencies, businesses, and youth serving, civic, and/or religious organizations) will collaboratively have begun implementing three or more intervention programs to prevent teen pregnancies in response to specific needs identified through a community assessment in at least two neighborhoods. These partner organizations will have established the stable funding streams and in-kind support needed to sustain these intervention programs.
<b>Total Program Funding</b>	<b>\$28,500</b>	<b>\$28,500</b>

<sup>1</sup> The FY 1999 measure has been reworded to reflect present and future priorities of the program, but the intent remains fundamentally the same.

<sup>2</sup> The FY 1999 measure has been reworded to better illustrate the process of reaching this goal but remains fundamentally the same.

Verification/Validation of Performance Measures: Data for these measures will be available from grantee progress reports, and will be verified through site visits and publications.

Links to DHHS Strategic Plan

This performance objective is related to DHHS Goal 6: Strengthen the nation’s health sciences research enterprise and enhance its productivity through the Prevention Research Centers and community-based Teen Pregnancy Prevention demonstration projects.

## IX. Preventive Health and Health Services Block Grant

This grant provides states with funds for preventive health services, not covered by other grants, to reduce preventable morbidity and mortality and improve quality of life. The Preventive Health and Health Services (PHHS) Block Grant is not a program, and unlike other DHHS block grants which have a programmatic focus, the PHHS Block Grant permits states to choose which programs will receive funding. Because the allowable uses of the funds cover all of the objectives of Healthy People 2000, rape prevention, fluoridation, and emergency medical services, over 60 distinct programs can receive PHHS Block Grant funds. No two states allocate their block grant resources in the same way. No two states provide similar amounts of funding when they fund the same program area.

The issue of measuring the performance of block grants has been addressed by the General Accounting Office (GAO) and others. GAO has examined the subject on numerous occasions, and has contacted CDC to investigate how CDC measures the PHHS Block Grant’s performance under GPRA. GAO’s inquiry was

based on their examination of the feasibility and appropriateness of applying GPRA requirements to block grants across the government.

CDC and its partners have worked for years to develop a means for accountability under the Block Grant. CDC has considered the use of many types of general indicators including life expectancy, years of potential life lost, premature mortality, and disability adjusted life years. CDC has also looked at specific program indicators for those programs which are most commonly funded by the states. Because the states vary widely in the programs they support and the funding given to each program, no single indicator or group of indicators can appropriately capture what the states are doing.

The states are responsible for reporting on a complete range of program data, the uniform data set, for every program supported with Block Grant funds. The uniform data sets (which correspond directly to programs) contain outcome, risk factor, and service delivery data items. Beginning in FY 1999, the uniform data sets will also contain GPRA performance measures for those programs which have such measures. The current measure, to increase the proportion of the data reported to CDC annually, reflects the agency's efforts to better capture the accomplishments of each state attributable to block grant funds, while at the same time addressing the most pressing issue with the grant--accountability.

**Performance Goals and Measures**

**Performance Goal:** Reduce preventable morbidity and mortality and improve quality of life of people within the framework of Healthy People 2000 by improving the assessment capacity of prevention programs.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriations</b>	<b>FY 2000 Estimate</b>
77% (1995) Total required data.	At least 80% of total required data from all programs funded by the Preventive Health and Health Services block grant will be reported to CDC annually.	At least 80% of total required data from all programs funded by the Preventive Health and Health Services Block grant will be reported to CDC annually.
<b>Total Program Funding</b>	<b>\$195,000</b>	<b>\$165,000</b>

Verification/Validation of Performance Measure: Annual reports will be collected from each program funded in order to verify performance. The Uniform Data Sets are due from each grantee on February 1<sup>st</sup> of each fiscal year for the prior fiscal year's performance.

Links to DHHS Strategic Plan

This program activity relates to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans. CDC collaborates with the National Highway and Traffic Safety Administration for accident related data, Health Resources and Services Administration for maternal and child health related data, and the Department of Justice for rape prevention data.

## **X. Injury Prevention and Control**

Injury, the leading cause of death for Americans ages 1 to 44 years, is largely preventable. CDC leads federal efforts to prevent and control injuries with a program that addresses the main causes of death and disability from injury: fires and burns; poisoning; drowning; violence, including homicide and suicide; motor vehicle crashes; and lack of use of bicycle helmet, seat belts, and child restraint seats. Injury has a disproportionate impact on children, youth, and young adults. Every day 60 children die from injury, almost

3 children every hour. Each year over 150,000 Americans die from injuries, and 1 in 3 persons suffers a nonfatal injury. Injuries, one of our most expensive health problems, cost \$224 billion per year as a total lifetime cost of injuries sustained. While the CDC and our public and private partners have made tremendous progress in injury prevention and control during the past several years, examples of the magnitude of the injury problem are highlighted below:

- Home fires and falls among older persons cause thousands of deaths and injuries each year and result in high medical costs and property losses;
- Violence continues to result in staggering numbers of lives lost, and frequently this is violence among intimate partners -- each year over 30% of women murdered in the U.S. are killed by a spouse or ex-spouse;
- The rates of homicide and suicide for young Americans, particularly men, are alarmingly higher than for any other Western industrialized nation;
- An estimated 2 million Americans suffer a traumatic brain injury (TBI) each year, of which about 50,000 die and another 50,000 to 70,000 are disabled;
- Approximately 4 million poisonings occur each year costing the health care system approximately \$3 billion/year; and
- Each year about 153,000 children receive treatment in hospital emergency departments for bicycle-related head injuries.

Through the National Center for Injury Prevention and Control, CDC provides national leadership for designing programs to prevent premature death and disability and reduce human suffering and medical costs caused by injuries. CDC accomplishes its mission through: extramural and intramural research; developing, evaluating, and implementing prevention programs; assisting state and local health jurisdictions in their efforts to reduce injuries; and conducting prevention activities in partnership with other federal and private-sector agencies. Evaluation of intervention programs is a key component of CDC's overall strategy to discover what works and determine how to deliver programs to the American people.

As the lead federal Center for injury prevention and control NCIPC continues to discover and deliver proven interventions. For example:

- Funded five states to conduct three-year programs aimed at increasing the number of working smoke alarms in homes. During the project period, over 15,000 long life, lithium-powered smoke alarms were distributed and/or installed.
- Funded six states for programs aimed at increasing bicycle helmet use among riders of all ages. Measurable increases in helmet use has resulted from the implementation of this intervention.
- NCIPC and the National Institute of Justice co-sponsored a study that identified gaps in our knowledge of violence against women and developed a research agenda to better understand and control the problem. Violence against women research centers are being established.
- Community and school-based efforts to prevent youth violence have been launched, including evaluation of promising violence prevention strategies such as peer mediation and conflict resolution training, mentoring and role playing, and efforts to improve parenting skills.
- Work to prevent suicide among our Nation's elderly and youth continues, including taking steps to establish the first research center focused on suicide prevention.

- In an effort to develop a uniform reporting system for TBI, funding was provided to fifteen state health departments to conduct TBI surveillance. Data from these surveillance systems will enable NCIPC to estimate the magnitude and severity of TBI nationally and to assist states in TBI prevention program.
- To ensure that data is available to study and improve trauma care, NCIPC is leading a national effort to develop uniform data elements for emergency department records.
- Registries that link persons with TBI to medical services are being established.
- Improving institutional and community living environments for elderly citizens as a means of reducing the risks and consequences of falls;

### **Focus of the FY 2000 Performance Plan**

The performance measures for injury prevention and control best represent NCIPC's mission to provide leadership in preventing and controlling injuries through research, surveillance, implementation of programs, and communication. Priority areas for the FY 2000 Performance Plan include:

- 1). Youth violence prevention
- 2). Intimate partner violence prevention
- 3). Bicycle helmet usage and head injury prevention
- 4). Fire-related injury prevention

### **Links to the DHHS Strategic Plan:**

Each of the NCIPC performance objectives and measures are related to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans.

### **Validation/Verification - Data Source Descriptions**

The following data collection sources will be utilized to verify baselines and to track performance measures.

**The National Electronic Injury Surveillance System (NEISS):** The system is comprised of a sample of hospitals that are statistically representative of hospital emergency rooms nationwide. From the data collected, estimates can be made of the numbers of injuries associated with consumer products and treated in hospital emergency departments. Data is collected on a broad range of injury-related issues, covering hundreds of product categories, and provides national estimates of the number and severity of product-related injuries. (Consumer Product Safety Commission).

**National Vital Statistics System:** The National Vital Statistics System is responsible for the Nation's official vital statistics. These vital statistics are provided through state-operated registration systems. The registration of vital events--births, deaths, marriages, divorces, fetal deaths, and induced terminations of pregnancy -- is a state function. However, standard forms for the collection of the data and model procedures for the uniform registration of the events are developed and recommended for state use through cooperative activities of the states and the National Center for Health Statistics (NCHS). (National Center for Health Statistics, CDC).

**National Health Interview Survey:** The National Health Interview Survey (NHIS) is the principal source of information on the health of the civilian noninstitutionalized population of the United States and is one of the major data collection programs of the National Center for Health Statistics (NCHS). NHIS data are used widely throughout the Department of Health and Human Services (DHHS) to monitor trends in illness and

disability and to track progress toward achieving national health objectives. The data are also used by the public health research community for epidemiologic and policy analysis of such timely issues as characterizing those with various health problems, determining barriers to accessing and using appropriate health care, and evaluating federal health programs. (National Center for Health Statistics, CDC)

**Youth Risk Factor Surveillance System (YRBSS):** The purpose of the YRBSS is to provide a framework that will: 1) focus the nation on risk behaviors among youth causing the most important health problems; 2) assess how risk behaviors change over time; and 3) provide comparable national, state, and local data. (National Center for Chronic Disease Prevention and Health Promotion, CDC)

**Behavioral Frequency Scales:** This instrument is used to measure aggressive and delinquent behavior in among program participants in CDC-funded youth violence prevention programs. The inventory includes scales that assess the 30-day frequency of specific delinquent behavior (10 items), violent behaviors (5 items), gateway drug use (6 items), other drug use (4 items). An additional 16 items assess frequency of use for other drugs, concerns about safety, the use of conflict-resolution skills, and the use of the peer mediators. Reliability ranges from .64 to .87. (The Center for the Study and Prevention of Violence, Boulder, Colorado - Peter Tolan & Nancy Guerra).

## **Youth Violence Prevention**

Violence is a public health problem because of its tremendous impact on the health and well-being of our youth. In 1994, 8,116 young people 15-24 years old were victims of homicide. This amounts to an average of 22 youth homicide victims per day in the US. As the lead agency in injury control, CDC plays a key role in coordinating activities and programs in the Public Health Service to prevent youth violence through its focus on intervention and evaluation research. Over the last 15 years, CDC has used science to understand the problem of violence in America and to determine what works to prevent it. The public health approach to violence has four major components: 1) description of the problem, 2) identification of risk and protective factors, 3) evaluation of interventions and programs designed to reduce violence, and 4) implementation of promising programs at the community level.

Poverty, discrimination, and lack of opportunities for education and employment are important risk factors for violence and must be addressed as part of any comprehensive solution to youth violence. Strategies for reducing violence should also begin early in life, before young people adopt violent beliefs and behavioral patterns. To determine how to alter these risks and prevent young people from becoming victims or perpetrators of violent behavior, in 1992 CDC began funding projects to evaluate effective interventions for preventing and reducing aggressive behavior among youth. The primary goal of these projects is to determine which interventions are effective in preventing and reducing aggressive and violent behavior. The majority of the projects emphasize primary prevention and are cooperative efforts among schools, health departments and community partners.

Several projects have been funded across the country which have looked at a broad range of promising interventions including peer mediation, conflict resolution training, mentoring, role playing, and efforts to improve parenting skills. These interventions will serve as the framework for developing performance measures aimed at reducing the incidence of youth violence.

### **Performance Goals and Measures**

**Performance Goal:** Reduce the incidence youth violence.



**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>Baselines will be established by the communities participating in the Intimate Partner Violence Program..</p> <p>7 (1994) community-based programs.</p>	<p>The number of state and community-based intimate partner violence and sexual assault projects will be increased from 7 to 31 in FY 1999.</p>	<p>Establish at least one system for collecting Intimate Partner Violence surveillance data representative of an entire state, by the year 2000.</p> <p>Increase (a) by 5% the number of coalition members' working partnerships, or (b) by 15% the community's knowledge of resources, or (c) by 10% the number of calls to agencies from communities with coordinated community responses on Intimate partner violence prevention and intervention in at least two communities by the year 2000.</p>

**Verification/Validation of Performance Measure:** These programs are supported by the Violent Crime Reduction Trust Fund. Programmatic oversight will be used to verify and validate this performance measure.

## Bicycle Helmet Usage and Head Injury Prevention

Bicycle riding is a popular American past time. An estimated 66.9 million Americans ride bicycles and about 29 percent of U.S. households have one or more bicyclists. Bicycle riding also has accompanying risks. Each year over 600,000 people are treated in emergency departments (EDs) for bicycle-related injuries and 824 die from this type of injury. Head injury is the most common cause of death and serious disability in bicycle-related crashes; head injuries are involved in about 60 percent of the deaths, and 30 percent of the bicycle-related ED visits. Many of these nonfatal head injuries produce lifelong disability from irreversible brain damage. Societal costs associated with bicycle-related head injury or death resulting from head injury were more than \$3 billion annually.

American children, in particular, are avid bicyclists--an estimated 33 million children ride bicycles nearly 10 billion hours each year. Unfortunately, an average of 384 children die annually from bicycle crashes, and 450,000 more are treated in EDs for bicycle-riding related injuries. Each year about 153,000 children get treatment in hospital emergency departments for bicycle-related head injuries.

Bicycle helmets are a proven intervention that reduce the risk of bicycle-related head injury by about 80 percent, yet bicycle helmets are not worn by most riders. Only 19 percent of adults and 15 percent of children use helmets all or most of the time while cycling. Universal use of bicycle helmets by children aged 4 through 15 years old would prevent between 135 and 155 deaths, between 39,000 and 45,000 head injuries, and between 18,000 and 55,000 scalp and face injuries annually.

At the Centers for Disease Control and Prevention's National Center for Injury Prevention and Control, the Division of Unintentional Injury Prevention (DUIP) works to prevent these injuries and deaths by developing and disseminating injury control recommendations on bicycle helmets; collaborating with the National Highway Traffic Safety Administration, other federal agencies, private and voluntary agencies to promote helmet use and bicycle safety; and providing grants to state health departments to implement and evaluate programs that promote helmet use. In 1994, CDC began funding programs to promote helmet use within funded communities.

Measurable increases in helmet use has resulted from the implementation of these interventions. For example:

- ◆ In California, where the program targeted low-income school children in one city, helmet use increased from 22% in 1994 to 64% in 1996.
- ◆ In Rhode Island, where a law was passed requiring children 8 years old and younger to wear bicycle helmets, helmet use in this age group increased from 11% to 27% in the three intervention communities.
- ◆ Washington State targeted 3- to 5-year-old children in the Head Start program. The project distributed more than 11,000 helmets, and observed helmet use increased from 41% to 91%.

These outcomes serve as the basis for developing performance measures aimed at reducing the incidence and severity of injuries related to bicycle accidents by increasing the use of bicycle helmets by children.

**Performance Goals and Measures**

**Performance Goal:** Reduce the number and severity of injuries related to bicycle-related head injuries by increasing the use of bicycle helmets by children in CDC-funded projects.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
123,475 bicycle-related emergency department visits (1995).	The number of bicycle-related emergency department visits will be reduced by 5% per year from 123,475 in 1995. <sup>1</sup>	

Florida 69% (1997). Colorado 30% (1994). Oklahoma 3% (1998). Rhode Island 14% (mean) (1997). California 20% (1997).  123,475 bicycle-related head injuries (1995).	The use of bicycle helmets by child bicyclists will be increased from 25% in 1994 to 30%.	Increase by 25 % in FY 2000, the use of bicycle helmets by child bicyclists in CDC-funded project areas.  Reduce by 5% (to 117,301) the number of bicycle-related head injury emergency departments visits by the year 2000.
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<sup>1</sup> This measure will not be carried forward in FY 2000. CDC has limited ability to achieve this activity without significant increase in funding.

**Performance Goal:** Provide quality data for public health programs to determine the medical and social impact associated with traumatic brain injury (TBI).

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
1 (1997) TBI Registry.  0 Guidelines (1998).	The number of population-based TBI registries will be increased from 1 in FY 1997 to 2 by FY 1999.  Guidelines for the use of population-based registries for collecting follow-up data on disabilities among persons with TBI will be developed by 2002.	Monitor project progress on population-based traumatic brain injury registries, provide technical assistance and document results.  Guidelines for the use of population-based registries for collecting follow-up data on disabilities among persons with TBI will be developed by 2002.

**Verification/Validation of Performance Measures:** The Youth Risk Behavior Surveillance System, National Hospital Discharge Survey, National Electronic Injury Surveillance System, and National Health Interview Survey will be used to verify and validate these performance measures.

## Fire-Related Injury Prevention

In 1995, there were an estimated 414,000 home fires in the U.S., which killed 3,640 individuals (1.4/100,000) and injured an additional 18,650 people. Direct property damage caused by these fires exceeded \$4.2 billion. In 1994, the monetary equivalent of all fire deaths and injuries, including deaths and injuries to fire fighters, was estimated at \$14.8 billion.

Residential fire deaths occur disproportionately in the southeastern states. They also occur disproportionately during the winter months of December-February, a period during which more than one-third of home fires occur, compared to one-sixth in the summer months of June-August. Many subgroups within the population remain highly vulnerable to fire morbidity and mortality. The rate of death due to fire is higher among the poor, minorities, children under age 5, adults over age 65, low-income communities in remote rural areas or in poor urban communities, and among individuals living in manufactured homes built before 1976, when the U.S. Department of Housing and Urban Development construction safety standards became effective. Other risk factors for fire-related deaths include: inoperative smoke detectors, careless smoking, abuse of alcohol or other drugs, incorrect use of alternative heating sources including usage of devices inappropriate or insufficient for the space to be heated, inadequate supervision of children, and insufficient fire safety education.

The majority of fire-related fatalities occur in fires that start at night while occupants are asleep, a time when effective detection and alerting systems are of special importance. Operable smoke alarms on every level provide the residents of a burning home with sufficient advance warning for escape from nearly all types of fires. If a fire occurs, homes with functional smoke alarms are half as likely to have a death occur as homes without smoke alarms. As a result, operable residential smoke alarms can be highly effective in preventing fire-related deaths. It is important to understand that any smoke alarm - whether ionization or photoelectric, AC or battery powered - will offer adequate warning for escape, provided that the alarm is listed by an independent testing laboratory and is properly installed and maintained.

CDC's Division of Unintentional Injury Prevention (DUIP) works to prevent these needless deaths by conducting, coordinating, and funding fire and burn prevention research and interventions at the state, local, and community levels, and collaborating with the Consumer Product Safety Commission, U.S. Fire Administration, other federal agencies, private and voluntary agencies on developing recommendations for conducting and evaluating smoke detector programs.

In 1994, CDC began funding programs to prevent fire-related injuries through the distribution and installation of smoke alarms in homes in high-risk communities that do not have adequate smoke alarm coverage. Measurable success has resulted from the implementation of these interventions. For example:

- Since 1994, over 15,000 long life, lithium-powered smoke alarms were distributed and/or installed through this program.

These successes are the basis for developing performance measures aimed at reducing incidence of fire-related injuries.

**Performance Goal & Measures**

**Performance Goal:** Reduce the incidence of fire-related injuries by increasing the percent of residential dwellings that have at least one functional smoke alarm on each habitable floor in CDC-Funded projects.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
1.4 per 100,000 incidence of residential fire-related deaths (1994).  52% homes with smoke detector (1993). 52% homes with smoke detector (1993) . <sup>1</sup>	The incidence of residential fire-related deaths will be reduced from 1.40 per 100,000 in 1994 to 1.3 per 100,000 in 1999.  The proportion of homes with at least one smoke detector will be increased from 80% in 1993 to 88% in 1999.	The incidence of residential fire-related deaths will be reduced from 1.4 per 100,000 in 1994 to 1.1 per 100,000 in 2000.  The proportion of homes with at least one smoke detector on each habitable floor will be increased from 52% in 1993 to 60% in 2000 in CDC-funded projects.
<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
N/A	By 1999, recommendations for conducting and evaluating smoke alarm promotion programs will be developed for constituent review.	By 2000, recommendations for conducting and evaluating smoke detector promotion programs will be published.

<b>Total Program Funding</b>	<b>\$63,581</b>	<b>\$76,498</b>
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The baseline for this measure was changed from what was proposed in FY 1999 in order to begin using a more reliable data source. For FY 1999, a CPSC Smoke Detector Survey was used as the data source; however, that survey was conducted one time only. The new data source is the National Health Interview Survey for which data points are collected annually.

**Verification/Validation of Performance Measures:** The National Vital Statistics System, National Health Interview Survey, and the Consumer Product Safety Commission will be used to verify and validate these performance measures.

## **XI. Epidemic Services**

The scope of CDC's epidemic services extends to acute and chronic infectious and noninfectious diseases, injuries, nutrition, reproductive health, environmental health, and occupational problems. When state, local, or foreign health authorities request help in controlling an epidemic or solving other health problems, CDC dispatches skilled epidemiologists from the Epidemic Intelligence Service to investigate and resolve the problem. As part of CDC's efforts to implement the Healthy People 2000 National Prevention Objectives, CDC conducts a program of scientific inquiry and applied research to solve public health problems and supports selected programs to assist states, health organizations, and others in the health field to achieve prevention goals. Resolving public health problems rapidly ensures cost effective health care and enhances health promotion and disease prevention. Activities involving rapid solutions range from local identification of food poisoning to national or even international investigations of deadly diseases, environmental hazards, or natural disasters. CDC efforts will continue to provide the U.S. with a trained professional staff able to investigate health problems affecting the U.S. population. Changing needs in public health require that the public health workforce in states, counties, cities, and other countries be trained to keep abreast of effective techniques for containing health threats.

Epidemic services cover a vast spectrum of activities: preventing and controlling epidemics and protecting the U.S. population from public health crises including biological and chemical emergencies; developing, operating, and maintaining surveillance systems, analyzing data, and responding to public health problems; training public health epidemiologists; developing leadership and management skills of public health officials at the federal, state, and local levels; carrying out the quarantine program as required by regulations; and publishing the *Morbidity and Mortality Weekly Report*, CDC's main channel for communicating public health news about disease outbreaks and trends in health and health behavior.

### **Performance Goals and Measures**

**Performance Goal:** Maximize the distribution and use of scientific information and prevention messages through modern communication technology.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A		Complete the pilot study of the Multimedia <i>Morbidity and Mortality Weekly Report</i> (MMWR) project in which information from the MMWR series of publications is distributed to the media, public, policy makers, and health professionals through multiple media channels --print, television, radio, interactive World Wide Web-- using advanced telecommunications technology.
N/A		Evaluate market penetration by analyzing data collected through Nielsen's Sigma encoding; reports of market rank (Nielsen), market area, air date and time, estimated viewing audience, and estimated advertising value; Internet hits; audio/video downloads; media contacts; and CIO-specific communications evaluation.
N/A	Critical findings will be implemented and performance measures for future years will be identified. Currently, the needs assessment is being conducted and critical findings have not yet been assessed.	

**Performance Goal:** Encourage state health departments to develop efficient and comprehensive public health information and surveillance systems by promoting the use of Internet for surveillance and electronic data interchange, and by focusing on development of standards for data elements.

**Performance Measures <sup>1,2</sup>:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
14 states with a plan (1997).	The number of States with a plan for a comprehensive information network will be increased from 14 in 1997 to 18.	The number of states with a plan for a comprehensive information network will be increased from 18 in 1999 to 22.

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
Baseline 0 (1998).	The number of states who have implemented a comprehensive information network will be increased from 0 to 2 in FY 1999.	The number of states who have implemented a comprehensive information network will be increased from 2 to 4 in FY 2000.

<sup>1</sup> Two measures included in the August OMB budget submission regarding use of data elements, electronic data exchange, and standards for basic data elements have been deleted for FY 1999 based on changes in the Program's priorities.

<sup>2</sup> The Performance measure concerning the number of state health departments with a Website was achieved in FY 1998; therefore, it is being deleted in FY 1999.

**Performance Goal:** Efficiently respond to the needs of our public health partners through the provision of epidemiologic assistance.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	Epidemic Intelligence Service (EIS) officers will respond to at least 95% of the requests for epidemic assistance from domestic and international partners that meet the minimum criteria for CDC participation.	Epidemic Intelligence Service (EIS) officers will respond to at least 95% of the requests for epidemic assistance from domestic and international partners that meet minimum criteria for CDC participation.

**Performance Goal:** Build expertise within CIOs to conduct prevention effectiveness studies of public health interventions.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
24 Staff Fellows (1998).	Increase the number of professional prevention effectiveness staff fellows from 24 in 1998 to 32 in 1999. <sup>1</sup>	Increase the number of professional prevention effectiveness staff and fellows from 32 in 1999 to 40 in 2000.
Number of CDC personnel who participated in the annual Prevention Effectiveness Course.	Increase the number of staff in CIOs who can use prevention effectiveness methods by 80 persons in 1999. <sup>2</sup>	Increase the number of staff in CIOs who can use prevention effectiveness methods by 80 persons in 2000.
Number of studies conducted in 1998.	Increase the number of prevention effectiveness studies conducted by CIOs by 60 in 1999.	Increase the number of prevention effectiveness studies conducted by CIOs by 60 in 2000.

<sup>1</sup> The revised numbers more accurately reflect the number of prevention effectiveness staff fellows enrolled at present. The target number is eight (8) prevention effectiveness staff fellows for each class.

<sup>2</sup> The revised number more accurately reflects the number of staff who have successfully completed the prevention effectiveness training and have submitted proposals to use prevention effectiveness methods in planning studies in 1999.

**Performance Goal:** As a long term objective, CDC will implement accessible training programs to provide an effective work force for staffing state and local health departments, laboratories, and ministries of health in developing countries. In FY 2000, CDC will:

- Analyze early implementation of the Public Health Prevention Service.
- Evaluate the impact of laboratory training on laboratory practice.
- Increase the number of health service providers participating in distance learning activities.
- Increase the number of state and regional leadership development programs.
- Increase the number of public health professionals trained in management who conduct training in developing countries.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>N/A</p> <p>Baseline: Evaluation of training programs from Fiscal Years 1992-1995.</p> <p>100,000 Health Service Providers participating in distance learning (1997).</p> <p>9 State and Regional Leadership programs (1997).</p>	<p>The second phase of EIS evaluation will be completed and the first phase findings will be implemented.</p> <p>The impact of laboratory training on the adoption of improved clinical laboratory methods will be evaluated.</p> <p>The number of health service providers participating in distance learning activities annually will be increased from 100,000 in 1997 to 105,000.</p> <p>The number of states and regional leadership development programs will be increased from 9 in 1997 to 13.</p>	<p>90% of the first class of the Public Health Prevention Service (PHPS) will remain in public health and 50% will be working in state and local health departments.</p> <p>By FY 2000, develop a plan to address needed changes in training methodologies identified in the 1999 evaluation study. Continue to evaluate the impact of selected training programs on practices of laboratorians.</p> <p>The impact of laboratory training on the adoption of improved public health laboratory methods will be evaluated.</p> <p>The number of health service providers participating in distance learning activities annually will be increased from 105,000 in 1999 to 110,000.</p> <p>The number of states and regional leadership development programs will be increased from 13 in 1999 to 14 in 2000.</p>

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
86 Public Health Professionals trained (1997).	The number of public health professionals trained in management who conduct training in developing countries will be increased from 86 in 1997 to 142.	The number of public health professionals trained in management who conduct training in developing countries will be increased from 142 in 1999 to 160.
<b>Total Program Funding</b>	<b>\$85,916</b>	<b>\$85,048</b>

Verification/Validation of Performance Measures: Performance for objective one will be monitored through routine evaluation of data collected. Data for objective two will be validated by informal feedback from state partners, an Internet tracking system, and reports released by the CDC Health Information and Surveillance Systems Board (HISSB). All other data are monitored using unpublished and published studies and recommendations.

Links to DHHS Strategic Plan

These performance measures are related to DHHS Goal 5: Improve public health systems.

## **XII. Environmental and Occupational Health**

The relationship between exposure to toxic substances in the environment and environmental diseases is a major public health concern. CDC examines health outcomes that result from interactions between people's unique biologic, social, and lifestyle factors and their physical, chemical, and developmental environment. Significant premature death and avoidable illness and disability are caused by personal behaviors, genetic predisposition, and exposure to toxic substances and natural and technological disasters. CDC's environmental health sciences laboratory develops tests of human exposure to toxicants (biomonitoring); and, when combined with epidemiologic studies, these tests provide vital information about how exposures contribute to serious human disease. In addition to gathering and analyzing human data on environmental exposures and disease, CDC leads efforts to translate scientific data into practical and cost-effective public health actions. This work by the National Center for Environmental Health complements that of the National Institute for Occupational Safety and Health (NIOSH) at CDC, which conducts research and provides national and world leadership in preventing work-related illness, death, and disability, described below under Occupational Health.

Human exposure to toxic substances causes numerous diseases, including cancer, birth defects, respiratory disease, renal disease, and neurologic disease. Many scientists estimate that about two-thirds of all cancers result from environmental exposure, but much better data are needed to improve this estimate and determine which exposures cause cancer and other diseases. Children and the economically disadvantaged are typically at higher risk for disease and death from exposure to toxicants. The single most serious impediment to assessing human risk and preventing death and disease caused by exposure to toxic substances is lack of valid human exposure data. CDC must continually conduct prevention research to identify, test, and evaluate disease prevention strategies. Some examples of critical environmental disease prevention topics are: pesticides exposure, drinking water and health; air pollution and asthma; US-Mexico Border issues; emergency response to technological and natural disasters, and veterans' health issues.

### **Environmental Health Laboratory Sciences--Biomonitoring**

To protect public health from death and disease that result from exposure to toxic substances, CDC and other health officials critically need accurate and reliable **human** exposure information. Potential exposure to over 10 million different compounds is possible, but scant information exists about a number of these

substances or the sequelae associated with exposure to them. Health officials cannot determine the seriousness of environmental incidents without accurate and valid **human** exposure information. With poor exposure information, health officials can declare dangerous situations as safe--threatening the health of the public, or declare safe situations as dangerous--causing undue alarm and wasting large sums of money on needless remediation efforts.

**Performance Objectives and Measures**

**Objective:** Increase by 25% the number of toxic substances that can be measured by CDC's environmental health laboratory by the year 2002 from a baseline of 200 in 1997, so state-of-the-art laboratory methods can be employed to prevent avoidable environmental disease.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
Capability to assay 200 toxic substances (1997).	In 1999, human exposure to 6 additional toxic substances will be measured.	In 2000, human exposure to 12-14 additional toxic substances will be measured (inclusive of the 6 in FY 1999).

While these performance measures are not outcome measures in terms of being a final health outcome, they are important outcomes in terms of addressing a major public health gap. The current inability to effectively measure toxic substances in humans limits our ability to deal effectively with environmental emergencies and compromises the results of studies that are looking for causes of environmental diseases. The availability of these methods for assessing human exposure would enable CDC to better respond to emergency situations when people are sick or dying from unknown causes, effectively implement and evaluate environmental disease prevention programs and measure trends in exposure of the U. S. population to toxic substances. Without these methods, we will be unable to effectively prevent environmental disease. Furthermore, CDC is unique in its ability to develop and effectively apply these methods to the study of environmental disease. This level of performance represents a substantial technical and scientific effort, but is achievable if funds are made available. The development of new methods requires certification under the Clinical Laboratory Improvements Act (CLIA) and data systems are already in place to monitor CDC's performance under CLIA. As a result, the cost for the data collection related to these measures is minimal.

Verification/Validation of Performance Measures: The accomplishment of this performance measure will be verified through the Environmental Health Laboratory's strategic planning process.

Links to DHHS Strategic Plan

This performance measure is related to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans and DHHS Goal 5: Improve public health systems.

**Birth Defects Prevention**

Birth defects occur in three out of every hundred births in the United States. CDC is actively engaged in efforts to monitor trends in birth defects over time, determine what causes birth defects, develop prevention strategies and evaluate their effectiveness. Unfortunately, because most of the causes of birth defects remain unknown, prevention is not yet possible. This is the main reason that reductions in the incidence of specific birth defects cannot be used to measure performance. Other factors that hamper to measure progress toward reducing the number of birth defects include the fact that some birth defects and would require a large number of births to be monitored in order to draw conclusions about changes in the rates. In addition, environmental and behavioral factors may vary geographically, therefore, state-based information is very important. CDC has chosen to emphasize the on-going efforts to increase the number

of states (and thereby the number of births) that are monitored through high quality birth defect surveillance systems. The Network being developed is designed to share data resulting in more information available about rare defects and geographic variations.

This type of collaborative data sharing has resulted in breakthroughs regarding possible prevention strategies, and has led to major prevention efforts such as those directed at increasing women's consumption of folic acid to prevent the serious and common birth defects spina bifida and anencephaly. This exciting prevention opportunity is highlighted in CDC's second birth defects prevention objective, and as more birth defects prevention breakthroughs are made, new objectives will be added.

**Performance Goals and Measures**

**Performance Goal:** By 2002, the National Birth Defects Prevention Network will include 38 states.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
21 (1997).	By 1999, 30 states will participate in the National Birth Defects Prevention Network.	By 2000, 35 states will participate in the National Birth Defects Prevention Network.

Developing a network of state-based birth defect surveillance programs that are sharing data regarding cases of birth defects that occur in states will improve CDC's ability to monitor trends and geographic variations in birth defect rates across the country. This will result in an enhanced ability to measure performance of birth defect prevention programs, including the national folic acid awareness and education program. The Network is developing standards regarding minimum data sets and criteria for membership, and this will enable us to track our progress at minimal cost. However, to reach our objective of 38 states, CDC funds will be used to support efforts to develop birth defect surveillance systems in states. Between 10 and 16 cooperative agreements awards (\$50,000-150,000) will be implemented in FY 1998 to support this objective.

**Performance Goal:** Increase the number of women who consume 0.4 micrograms of folic acid from a baseline of 25% in 1996 to 50% by 2002.

**Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
25% (1996).	By 1999, 35% of women of reproductive age will be consuming 0.4 micrograms of folic acid.	By 2000, 40% of women of reproductive age will be consuming 0.4 micrograms of folic acid.

The final outcome of interest for this objective is the reduction of folic acid-preventable spina bifida and anencephaly as a result of women's increased consumption of folic acid. However, we do not have the ability to measure decreases in the rate of spina bifida and anencephaly on a national basis. However, we can measure changes in the number of women consuming sufficient folic acid through nationally representative biennial surveys. These surveys were implemented to assess the performance of our efforts, prior to the development of our GPRA measures. Originally, the surveys were being conducted every other year. CDC recently made the decision to make the surveys annual to better assess our progress, as well as establish baselines prior to full implementation of a national program. The FY 1998 survey is currently underway. The current cost of the annual surveys is about \$150,000 per year. The development of the National Birth Defects Prevention Network (another CDC GPRA objective) will enable us, in the future, to monitor trends in the incidence of spina bifida and anencephaly.

Verification/Validation of Performance Measure: The accomplishment of these performance measures are verified by counting the number of states who agree to the conditions of membership of the National Birth Defect Prevention Network and begin to share data and a national survey of reproductive age women, which is currently conducted every other year. Both of these objectives require the collaboration and participation of a number of partners, including state health departments, advocacy organizations and others. A National Task Force on Folic Acid, representing these and other groups, has been formed to guide these efforts and promote the use of folic acid.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans and DHHS Goal 5: Improve public health systems.

## Asthma

Deaths from asthma increased by 80% the past 10 years, and children are the most vulnerable group. Recent medical advances alone have not been able to counter this threat. With existing resources, CDC is working to develop cost effective environmental interventions that, in conjunction with improved medical management, will reduce the number of asthma exacerbations and improve the quality of life of people with asthma. Surveillance will be an integral part of any state programs so that efforts to reverse the current upward trends in asthma can be monitored and process assessed.

### Performance Goals and Measures

**Performance Goal:** Reduce the incidence of childhood asthma attacks through implementation of comprehensive asthma prevention programs in states.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
0 (1997)	By 1999, 6 states will have implemented asthma-related demonstration programs.	By 2000, 12 states will have implemented core asthma programs. <sup>1</sup>

<sup>1</sup> CDC will continue to work with state and local health departments to build their capacity to address asthma and secure funds from other sources to implement asthma prevention programs..

In spite of the fact that improved medical management in combination with environmental interventions have been shown to be effective in preventing asthma attacks, it is clear that we will not meet our Healthy People 2000 objectives related to reductions in hospitalizations related to asthma. The minimal national data (which is neither complete, nor timely) that are available indicate that rates of asthma among both children and adults are increasing. Outcome goals are not currently feasible, because there is no suitable system for measurement since asthma programs do not currently exist. However, a core activity of state-based asthma prevention programs would be to establish surveillance systems that would allow us to track our progress as we attempt to reverse these worrisome trends. No funds were available for this activity in FY 1998. However, asthma points-of-contact were established in all 50 states during FY 1998. The cost of tracking our progress will be minimal, since grants management tracking systems are already in place.

Verification/Validation of Performance Measure: Efforts to build capacity in the state health departments to address the problem of asthma have been intensified. Asthma points of contact in each state have been identified, and information regarding research and prevention is being shared with all points of contact.

Links to DHHS Strategic Plan

This performance objective is related to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans.

## Disability Prevention

CDC's Office on Disability and Health focuses on the prevention of secondary conditions and health promotion among persons with disabilities. Emphasis is on scientific support for surveillance of disabilities, cost-effectiveness of prevention strategies focused on secondary conditions and health promotion activities, and identifying risk and protective factors for secondary conditions. This is implemented through providing funds to states for public health activities addressing the needs of persons with disabilities. The program emphasizes secondary conditions which cross diagnostic categories, and focus on broader disability areas. This is a relatively new approach to prevention programs for CDC, which historically focused on the primary prevention of disabling conditions. The program is focusing on activities that will enhance the ability to measure performance in this new area. This performance measure reflects a first step toward building a data collection system that will enable CDC to monitor trends related to health and quality of life among people with disabilities.

### Performance Goals and Measures

**Performance Goal:** By 2002, a national network will exist that will provide all states with better access to data on disabilities for their use in analyzing the needs of people with disabling conditions.

#### **Performance Measure:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
0 (1997).	By 1999, the number of states who have begun using the Behavioral Risk Factor Surveillance Survey (BRFSS) disability module will be increased to 15.	By 2000, the number of states who have begun using the Behavioral Risk Factor Surveillance Survey (BRFSS) disability module will be increased to 25.

Currently, there is not a data collection system in place that could be used to measure outcomes that focus on actual improvements in the quality of life of people with disabling conditions. As a result, the performance measure that has been selected for this program involves the nationwide implementation of a data collection system by the year 2002. We believe that, although challenging, nationwide implementation of the BRFSS' disability module by 2002 is feasible. However, this represents a change in direction for CDC's disabilities program, which previously focused on preventing primary disabilities. As part of on-going strategic planning efforts, the program has refocused its efforts on promoting health and improving quality of life among people with disabilities. 1997 is the first year that CDC has funded states to address these issues. As a result, the program is focusing on activities that will enhance the ability to measure performance in this new area. Tracking of the implementation of this data collection system will be accomplished through a requirement that all CDC state grantees report on whether they are utilizing the module. The cost of this data collection effort will be minimal.

**Verification/Validation of Performance Measures:** This performance measure will be verified by reviews of the reports required by cooperative agreement recipients.

#### Links to DHHS Strategic Plan

This objective is closely linked to DHHS Goal 5: Improve public health systems.

## Lead Poisoning

Childhood lead poisoning, a major preventable environmental health problem in the U.S., is estimated to cost society billions of dollars. Exposure to lead is a well-recognized cause of serious cognitive, learning, and behavioral problems in children. Progress continues to be made in reducing childhood lead poisoning,

but many children nationwide, especially those who live in large central cities in older housing, continue to be heavily exposed to lead from lead-based paint, dust, and soil. The burden of lead poisoning is not equally distributed among children in the U.S. The prevalence of elevated blood lead levels (BLL) in African American children living in large inner cities is around 36 percent, and the prevalence among white, suburban children who are not poor is around 4 percent. Screening and other lead poisoning prevention approaches are being intensified among children in high-risk populations. In order to more effectively focus screening and follow up efforts on high-risk children, CDC has updated its screening guidelines, based on new scientific and practical information. This will result in better targeting of prevention efforts and enable prevention programs to use their limited resources more cost-effectively. CDC staff are expanding technical assistance, consultation, and training to support state and local health officials and their prevention programs.

The goal of the CDC program in childhood lead poisoning prevention is to eliminate childhood lead poisoning as a major public health problem within the next two decades. The challenge is to select a mix of appropriate and complementary strategies for eliminating childhood lead poisoning in populations with different lead poisoning problems, while strengthening childhood lead poisoning prevention efforts in populations that are at highest risk.

**Performance Goals and Measures**

**Performance Goal:** By 2011, there will be virtually no children with blood lead levels that exceed 10 micrograms per deciliter, which is the level at which children’s health may be damaged (baseline data from 1991-1994 NHANES III for the period 1991-1994 indicates that there were 890,000 children with blood lead levels greater than 10 micrograms per deciliter).

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
890,000 children with blood lead levels greater than 10 micrograms per deciliter (1991-1994).	By 1999, the number of children with elevated blood lead levels will have been reduced by 25% over the 1991-1994 baseline.	By 2000, the number of children with elevated blood lead levels will have been reduced by 30% over the 1991-1994 baseline.
<b>Total Program Funding</b>	<b>\$104,795</b>	<b>\$104,591</b>

This long-term objective is supported by outcome-based performance measures that capture the essence of the childhood lead poisoning prevention program, which seeks to eliminate childhood lead poisoning by the year 2011. We believe that an annual 5% decline in childhood blood lead levels is achievable. However, as we get closer to meeting our goal of eliminating this public health problem, we may encounter greater challenges that will result in slower declines. We are currently engaged in efforts to anticipate and address these challenges through a greater emphasis on primary prevention and targeted screening approaches. However, the National Health and Nutrition Examination Survey (NHANES) which provides the data to measure our progress, is a periodic survey that is dependent on continued congressional appropriations. The next NHANES is planned such that results will be available to assess progress on this objective by 2002 or 2003; however, sufficient appropriations to accomplish this survey are not assured. There are no data sources that allow for annual tracking of this measure, although CDC’s National Center for Environmental Health (NCEH) is working with its state grantees to increase the availability of state-specific data on blood lead levels.

Verification/Validation of Performance Measures: Data for these measures will be available from grantee progress reports, and children’s blood lead levels will be monitored using NHANES data.

Links to DHHS Strategic Plan

This performance objective is related to DHHS Goal 1: Reduce major threats to the health and productivity

of all Americans.

## Occupational Safety and Health

The National Institute for Occupational Safety and Health (NIOSH), in CDC, is charged with conducting a national program of biomedical research in occupational safety and health. The purpose of this program is to establish and disseminate scientific and public health information necessary to ensure safe and healthful working conditions for 127 million American working men and women. NIOSH's corps of multi-disciplinary teams comprising engineers, epidemiologists, industrial hygienists, physicians, and toxicologists perform five basic public health functions to improve the safety and health of workers: (1) determines the nature and extent of the occurrence and causes of work injuries and diseases to target research and prevention activities; (2) detects and investigates workplace health and safety problems, identifying their causes and effects; (3) conducts studies and demonstrations to identify effective engineering solutions, personal protective equipment, work organization and practices, and health communications strategies to prevent work injuries and diseases; (4) develops and disseminates recommendations for assuring the safety and health of workers; and (5) provides leadership and training in occupational safety and health, establishing national research agendas to leverage the impact of government and private sector resources, and training professionals and scientists.

In 1996, NIOSH and the occupational safety and health community developed the National Occupational Research Agenda (NORA). More than 500 organizations and individuals outside NIOSH provided input into the development of the Agenda. This attempt to guide and coordinate research nationally is responsive to a broadly perceived need to systematically address those topics that are most pressing and most likely to yield gains to the worker and the nation. The following four performance objectives provides a strong foundation from which to implement NORA and assure progress in improving worker safety and preventing occupational disease, injury and disability.

The performance objectives systematically provide leadership and the creation of systems, guidelines, and interventions that will lead to the ultimate goal of reducing worker disease, injury, and disability. These are innovative and challenging objectives that when accomplished will result in heightened support for occupational safety research, increased awareness of worker safety, and ultimately in a decrease in occupational disease and injury. These objectives motivate and stimulate research and interventions in occupational safety and health through investments in research, the development of a national surveillance system for occupational disease and injury, assessments and application of recommended interventions, and broad-based communication efforts. NIOSH began in FY 1998 to foster and support NORA. Many of the immediate performance measures will provide a frame of reference, capacity assessment, and baseline information before appropriate disease- and injury-specific measures can be developed.

### **Performance Goals and Measures:**

**Performance Goal:** Conduct a targeted program of research to reduce morbidity, injuries, and mortality among workers in high priority areas and high-risk sectors.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
To be determined.	Current levels of NIOSH and other federal agencies' intramural and extramural research funding in NORA areas will be determined as a baseline and annual increases will be calculated.	In FY 2000, annual increases in funding of other federal agencies will be demonstrated.
To be determined.	A protocol on the use of bibliometrics and other research proxy measures to evaluate the level of research in the occupational safety and health community of NORA and other targeted research will be developed.	In FY 2000, baseline bibliometric amounts for all NORA areas will be completed.

Validation/Verification of Performance Measures: This information will be reported through the Project Planning System of the CDC Integrated Resources Information System (IRIS). A team of NIOSH's senior scientists will review all data reported for accuracy.

**Performance Goal:** Ensure safe and healthful working conditions by developing a system for surveillance for major occupational illnesses, injuries, exposures, and health hazards.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	Undertake a comprehensive surveillance planning process with NIOSH partners at the State and Federal levels to establish surveillance priorities and define roles for various agencies.	In FY 2000, a comprehensive surveillance planning process will be completed and efforts will begin in implementing recommendations for NIOSH.
N/A	Collect, analyze, and disseminate information on the distribution of occupational illnesses, injuries, exposures, and health hazards to target and evaluate intervention and prevention effectiveness.	In FY 2000, NIOSH will collect, analyze, and disseminate information on selected occupational illnesses and health hazards. <sup>1</sup>

<sup>1</sup> This project is in progress and results will be produced in stages. The first results available are outlined in FY 2000.

Validation/Verification of Performance Measures: This information will be reported through the Project Planning System of the CDC Integrated Resources Information System (IRIS). A team of NIOSH's senior scientists will review all data reported for accuracy.

**Performance Goal:** Promote safe and healthful working conditions by increasing occupational disease and injury prevention activities through workplace evaluations, interventions, and NIOSH recommendations.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
N/A <i>(Survey results will be available in late FY 2000 and final reports, including analysis will be available in FT 2001).</i>	By working with the occupational safety and health community, develop a system for assessing, determining a baseline amount, and increasing the extent to which NIOSH recommendations are utilized by employers, workers, and government agencies at both the work site and industry-wide standard setting levels.	NIOSH will begin conducting an evaluation of the extent to which recommendations are being implemented.
N/A <i>(Assuming expected progress, data will be available in September, FY 2000).</i>	Implement targeted evaluation of the effectiveness of a prevention program (i.e. latex allergy, agriculture-related injuries to children) by tracking prevalence and level of exposure and behavior before and after intervention/ prevention program.	NIOSH will complete evaluation of effectiveness targeted prevention programs and develop lessons for other similar efforts.

Validation/Verification of Performance Measures: Data will be obtained from surveys conducted using a representative sample of the occupational safety and health community and an evaluation study reports for targeted intervention programs.

**Performance Goal:** Foster safe and healthful working conditions by providing workers, employers, the public, and the occupational safety and health community with information, training, and capacity to prevent occupational diseases and injuries.

**Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999 Appropriated</b>	<b>FY 2000 Estimate</b>
N/A	A review of the most widely distributed existing and new training materials will be conducted to ensure that they are written in plain language and are designed for the intended user.	Complete a review of a sample of new and existing documents, training materials and communication efforts and begin implementation of findings.
N/A	Two model information dissemination and training programs for key target hazards or populations (i.e., silicosis) will be designed and implemented.	Complete model information dissemination and training programs and develop lessons for other similar efforts.
<b>Total Program Funding</b>	<b>\$200,000</b>	<b>\$211,849</b>

Validation/Verification of Performance Measures: Data will be obtained from internal reviews.

#### Links to DHHS Strategic Plan

These performance measures are related to DHHS Goal 1: Reduce major threats to the health and productivity of all Americans, Goal 5: Improve public health systems, and Goal 6: Strengthen the Nation's health sciences research enterprise and enhance its productivity.

#### Additional Linkage

CDC and ATSDR coordinate activities in the area of environmental health. CDC's National Center for Environmental Health (NCEH) is responsible for providing leadership in the prevention and control of disease, birth defects, disability and death resulting from interactions between people and their environments. The mission of CDC's National Institute for Occupational Safety and Health (NIOSH) is to ensure that Americans are safe and healthy at work. By contrast, the focus of the Agency for Toxic Substances and Disease Registry is on the prevention of exposure and adverse human health effects associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of pollution present in the environment.

### **XIII. Buildings and Facilities**

Under the Secretary's important Public Health Infrastructure Initiative, CDC's management has the responsibility to ensure that: CDC has adequate facilities and equipment to carry out its public health mission; all facilities, particularly laboratories, must be safe for both workers and the community; the taxpayers' investment in these facilities is protected through effective maintenance and operations; facilities meet applicable fire and life safety codes; and all CDC facilities are operated in a responsible manner to reduce energy consumption.

Through the Agency's Master Plan, and annual Repair and Improvements ( R&I) Plan, CDC management determines the need for and schedules major and minor renovation, construction, and other facilities projects. Since 1993, CDC, in collaboration with the General Services Administration (GSA), has conducted and updated a CDC-wide master planning effort intended to identify and systematically address severely inadequate facilities conditions at our Clifton Road and Chamblee Campuses in Atlanta, Georgia. The Master Plan strategy, consisting of four 5-year increments, will allow CDC to modernize existing laboratory and support facilities where economically and programmatically feasible, and construct new facilities when required, as well as to properly operate and maintain existing facilities.

The goal of the Master Plan is to enable CDC to provide safe, modern, efficient, and physically secure laboratories and support facilities in the most economical manner possible. The objectives are: (1) To significantly increase CDC's laboratory capacity to handle new, highly pathogenic microorganisms associated with new and re-emerging infectious diseases, and bioterrorism through the modernization of existing facilities, and construction of new facilities; (2) To consolidate CDC's Atlanta research, support, and administrative functions onto existing CDC-owned campuses at Clifton Road, Atlanta, Georgia and Chamblee, Georgia; and (3) To continue to lease space through GSA to meet warehouse requirements, short-term office and emergency "surge space" for which CDC has not had sufficient time to plan and budget for under the Master Plan.

**Performance Goal:** Implement the scheduled improvements, construction, security, and maintenance as specified under the FY 2000 schedule of the five-year Master Plan.

#### **Performance Measures:**

<b>FY Baseline</b>	<b>FY 1999</b>	<b>FY 2000</b>
Master Plan	N/A	Construct Phase II of Building 17, Infectious Disease Research Lab, Clifton Road Facility.

FY Baseline	FY 1999	FY 2000
<b>Total Program Funding</b>	<b>\$17,800</b>	<b>\$39,800</b>

Verification/Validation of Performance Measures: Data will be collected through contractor reports and on-site verification.

Links to DHHS Strategic Plan:

These performance measures relate to DHHS Goal 5: Improve public health systems and Goal 6: Strengthen the Nation's health sciences research enterprise and enhance its productivity.

## **XIV. Public Health Response to Terrorism**

The growing threats from biological and chemical terrorism within the United States necessitates strengthening of public health capacity at the local, state, and federal level in order to prepare and respond to these perils. Proposed operations focus on buttressing the essential role that public health plays in the emergency response to terrorism through efforts that: a) reinforce systems of public health surveillance to detect unusual or covert events; b) build epidemiologic capacity to investigate and control health threats from such events; c) enhance public health laboratory capability to diagnose the illnesses and identify the compounds used in these circumstances; and d) develop and coordinate communications systems with other government agencies and the general public to disseminate critical information and allay unnecessary fear.

**Performance Goals and Measures**

**Performance Goal:** Increase the ability of CDC, state and local health departments to respond to terrorist threats.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
0 (1998) sentinel networks	Establish 3 sentinel networks which will be capable if identifying early victims of bioterrorism.	Expand and enhance 3 sentinel networks which will be capable of identifying early victims of bioterrorism.
0 (1998) Health Departments with epidemiology and laboratory capacity.	Increase the number of state and major city health departments which expand epidemiology, clinical and laboratory capacity to investigate and mitigate health threats posed by bioterrorism to 40.	Increase the number of state and major city health departments which expand epidemiology, clinical and laboratory capacity to investigate and mitigate health threats posed by bioterrorism to 63.
0 (1998) Reference laboratories with support capabilities.	Create a network of two state or major city laboratories to provide rapid and accurate diagnostic and/or reference support for 10-15 select biologic agents and/or...	Create a network of twelve state or major city laboratories to provide rapid and accurate diagnostic and /or reference support for 10-15 select biologic agents and/or...

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
0 (1998) Demonstration Programs	...Bioterrorism preparedness and response planning programs will be established in 5 states or localities.	...Bioterrorism preparedness and response planning programs will be established in 10 states or localities.
<p>0 (1998) Assays specific to chemicals used in terrorist attacks.</p> <p>0 (1998) Major Metropolitan areas with electronic surveillance and communications systems.</p> <p>0 (FY 1998) plan for national pharmaceutical "stockpile" to respond to terrorist use of potential biological or chemical agents.</p>	<p>Measure rapidly by chemical methods 50 toxicants in blood and urine likely to be used in chemical terrorism.</p> <p>The number of major metropolitan areas with health sector dedicated communications systems to facilitate or expedite detection and response to terrorist events will be increased to between 15 and 25 through the Health Alert Network (HAN).</p> <p>Create a national pharmaceutical "stockpile" available for deployment to respond to terrorist use of potential biological or chemical agents, including the ability to protect 1-4 million civilians from anthrax attack.</p>	<p>Measure rapidly by chemical methods 100 toxicants in blood and urine likely to be used in chemical terrorism.</p> <p>The number of major metropolitan areas with health sector dedicated communications systems to facilitate or expedite detection and response to terrorist events will be increased to between 25 and 35 through the Health Alert Network (HAN).</p> <p>Create a national pharmaceutical "stockpile" available for deployment to respond to terrorist use of potential biological or chemical agents, including the ability to protect 1-4 million civilians from anthrax attack.</p>
<b>Total Program Funding</b>	<b>\$121,750</b>	<b>\$118,000</b>

Verification/Validation of Performance Measures: Data for these measures will be available from grantee progress reports, Environmental Health Laboratory's strategic planning progress reports, development of lists of purchased pharmaceuticals, and will be verified through site visits and/or publications.

Links to DHHS Strategic Plan

These performance measures relate to DHHS Goal 1: Reduce major threats to the health of all Americans and Goal 5: Improve public health systems.

## XV. Eliminating Racial and Ethnic Disparities

The President has committed the Nation to the goal of eliminating by the year 2010, disparities in six areas of health status experienced by racial and ethnic populations while continuing the progress we have made in improving the overall health of the American people. The health status areas targeted in this initiative are infant mortality, cancer screening and management, cardiovascular disease, diabetes, HIV infection/AIDS, and child and adult immunizations.

Compelling evidence that race and ethnicity correlate with persistent, and often increasing, health disparities among U.S. populations demand national attention. Indeed, despite significant progress in the overall health of the Nation, as documented in *Health, United States*-the annual report card on the health status of the American people-there are continuing disparities in burden of illness and death experienced by African-Americans, Hispanics, American Indians and Alaska Natives, and Asian-Americans and Pacific Islanders, compared to the U.S. population as a whole. The demographic changes that are anticipated over the next

decade magnify the importance of addressing disparities in health status. Racial and ethnic groups will increase in upcoming decades as a proportion of the total U.S. population; therefore, the future health of America as a whole will be influenced substantially by our success in improving the health of these populations. A national focus on disparities in health status is particularly important as major changes unfold in the way in which health care is delivered and financed.

Eliminating racial and ethnic disparities in health will require new knowledge about causes of health disparities, enhanced efforts at preventing disease, innovative methods of promoting health and delivering culturally competent and linguistically specific preventive and clinical services.

Accomplishing this goal will require obtaining new information, particularly the data to identify populations at high risk, and to monitor the effectiveness of health interventions targeting these groups. Research dedicated to a better understanding of the relationships between health status and different racial and ethnic minority backgrounds will help us acquire new insights into eliminating the disparities and developing new ways to apply our existing knowledge toward this goal. Improving access to quality health care and the delivery of preventive and treatment services will require working more closely with providers to deliver preventive and clinical services, and with communities to obtain community "consent" for community participation, identify needs, plan and conduct research.

As part of President's Initiative on Eliminating Ethnic Health Disparities, CDC leads interagency working groups charged with significantly reducing health disparities in health access and outcomes in the following areas: Cancer Screening and Management; Cardiovascular Disease; Diabetes; HIV Infection/AIDS; Infant Mortality; and Child and Adult Immunizations. The FY 1999 budget also includes \$10 million for CDC to support 30 communities to conduct community planning activities. The planning activities include establishing infrastructure for community-level data collection, establishing collaborative partnerships, establishing linkages with other state and local agencies, and working with federal agencies and other partners to identify "best practices" and program activities which will underpin intervention activities. award community planning cooperative agreements to community-based demonstration projects testing science-based approaches to achieve the six health disparity reduction goals. Results from these demonstrations will be important in shaping strategies to eliminate disparities, and for improving the focus and effectiveness of the Department's current programs.

## **Eliminating Health Disparities in Chronic Disease**

The continuing disparities in the burden of death and illness associated with chronic diseases, such as cancer, cardiovascular disease, and diabetes, experienced by African-Americans, Hispanics, American Indians and Alaska Natives, and Asian-Americans and Pacific Islanders, compared to the U.S. population as a whole demands national attention. The health disparities associated with chronic diseases offers a compelling reason for addressing this issue. Examples of ethnic health disparities in chronic disease include:

- Diabetes - The prevalence of diabetes in African-Americans is approximately 70 percent higher than whites and the prevalence in Hispanics is nearly double that of whites.
- Cardiovascular disease - Racial and ethnic populations have higher rates of hypertension, tend to develop hypertension at an earlier age, and are less likely to undergo treatment to control their high blood pressure.
- Cancer - For men and women combined, African-Americans have a cancer death rate about 35 percent higher than that for whites (171.6 vs. 127.0 per 100,000). The death rate for cancer for African-American men is about 50 percent higher than it is for white men (226.8 vs. 151.8 per 100,000).

The demographic changes that will unfold over the next decades magnify the importance of addressing disparities in health status especially with regards to chronic diseases. CDC intends to address these three chronic disease issues as part of the President's Initiative on Race. Recognizing that the future health of the American people as a whole will be influenced substantially by our success in improving the health of racial and ethnic groups, CDC is committed to addressing the disparities associated with diabetes,

cardiovascular disease, cancer and infant mortality through new and existing disease prevention and health promotion strategies.

**Performance Goals and Measures**

**Performance Goal:** To achieve meaningful improvement in the lives of racial and ethnic populations who now suffer disproportionately from the burden of disease and disability. To develop the necessary tools and strategies that will enable the Nation to meet the far more challenging goal of eliminating these health disparities by the year 2010.

**Performance Measure:**

FY Baseline	FY 1999	FY 2000
N/A	CDC, in collaboration with interagency workgroups, will develop a community planning RFA to fund communities to conduct planning activities for community-based demonstrations of prevention and service delivery interventions whose mission is to eliminate racial and ethnic health disparities for the following focus areas: cancer, cardiovascular disease, diabetes and infant mortality. CDC will fund selected community demonstration projects in FY 99.	CDC will fund selected communities to implement interventions based on community planning activities. Grantees will collaborate with interagency content workgroups and community leaders to develop implementation and evaluation programs for selected community demonstration programs whose mission is to eliminate racial and ethnic health disparities for the following focus areas: cancer, cardiovascular disease, diabetes, and infant mortality. The interagency workgroups will provide scientifically and socially substantive assistance in the formulation of the implementation and evaluation plans. These plans will be culturally relevant and unique to each of the communities for which they are designed.

Verification/Validation of Performance Measures: By the end of FY 1999, a RFA will be developed and selected community demonstration projects will be funded. In FY 2000, CDC will fund communities to implement interventions. Grantees will report on the development of implementation and evaluation plans which will be reviewed by CDC staff. FY 2000 measures will also be evaluated by site visits.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goals 1: Reduce major threats to the health and productivity of all Americans. Development and implementation of the plan to Eliminate Ethnic Health Disparities is an inter-agency effort within DHHS. CDC will collaborate with other federal agencies, who will be determined later, in developing and implementing this initiative. Specific objectives for implementation of the initiative must be determined through a collaborative inter-agency process.

**Eliminating Health Disparities in Adult Immunizations**

The reduction in the incidence of vaccine-preventable disease is one of the most significant public health achievements of the past 100 years. The major factor in this success is the development and widespread

use of vaccines, which are among the safest and most effective preventive measures. Billions of dollars are saved each year through the use of vaccines.

Older adults are at increased risk for many vaccine-preventable diseases. Approximately 90 percent of all influenza-associated deaths in the United States occur in people aged 65 and older, the fastest growing age group of the population. Reduction of deaths in this age group has been hindered in part by relatively low vaccine utilization. Immunization is one of the most cost-effective strategies to prevent needless morbidity and mortality. Each year, however, an estimated 45,000 adults die of infections related to influenza, pneumococcal infections, and hepatitis B despite the availability of safe and effective vaccines to prevent these conditions and their complications. In addition, the overall cost to society for vaccine-preventable diseases exceeds \$10 billion each year.

There is a disproportionate burden of these diseases in ethnic populations. Although vaccination levels for pneumococcal infections and influenza among people 65 years and over have increased slightly for African-American and Hispanics, the coverage in these groups remains substantially below the general population and the year 2000 targets.

**Performance Goals and Measures**

**Performance Goal:** To achieve meaningful improvement in the lives of racial and ethnic populations who now suffer disproportionately from the burden of disease and disability. To develop the necessary tools and strategies that will enable the Nation to meet the far more challenging goal of eliminating these health disparities by the year 2010.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
N/A	CDC, in collaboration with interagency workgroups, will develop a community planning RFA to fund communities to conduct planning activities for community-based demonstrations of prevention and service delivery interventions whose mission is to eliminate racial and ethnic health disparities for Adult immunization. CDC will fund up to five community planning projects to improve adult immunization and eliminate racial and ethnic disparities.	CDC will fund selected communities to implement interventions based on community planning activities. Grantees will collaborate with interagency content workgroups and community leaders to develop implementation and evaluation programs for selected community demonstration programs whose mission is to eliminate racial and ethnic health disparities for the following focus areas: cancer, cardiovascular disease, diabetes, and infant mortality. The interagency workgroups will provide scientifically and socially substantive assistance in the formulation of the implementation and evaluation plans. These plans will be culturally relevant and unique to each of the communities for which they are designed.
<b>Total Program Funding</b>	<b>\$10,000</b>	<b>\$35,000</b>

**Verification/Validation of Performance Measures:** By the end of FY 1999, a RFA will be developed and community planning projects will be funded. In FY 2000, CDC will fund selected communities to implement interventions. Grantees will report on the development of implementation and evaluation plans which will be reviewed by CDC staff. FY 2000 measures will also be evaluated by site visits.

Links to DHHS Strategic Plan

These performance objectives are related to DHHS Goals 1: Reduce major threats to the health and productivity of all Americans. Development and implementation of the plan to Eliminate Ethnic Health Disparities is an inter-agency effort within DHHS. CDC will collaborate with other federal agencies in

developing and implementing this initiative. Specific objectives for implementation of the initiative must be determined through a collaborative inter-agency process.

## **XVI. Office of the Director**

The Office of the Director (OD) manages and directs programs of the Centers for Disease Control and Prevention (CDC) by providing leadership, advice on policy matters, development of goals and measures in the implementation of CDC's responsibilities related to disease prevention and control, and evaluates CDC's progress toward program goals and performance measures. OD provides direction and coordination to the epidemiologic activities of CDC and coordinates CDC's response to public health emergencies. OD provides overall direction to and coordination of the scientific/medical programs of CDC; plans, promotes, and coordinates an ongoing program to assure equal employment opportunities in CDC. It provides leadership, coordination, and assessment of administrative management activities and oversees security for the CDC laboratory and office facilities. OD establishes, administers, and coordinates CDC's health communication and media relations policies in a manner to ensure that health communication efforts reflect the scientific integrity of all CDC research, programs, and activities, and that such information is factual, accurate, and targeted toward improving public health.

In addition, OD coordinates and manages programs on global health activities, minority health, and women's health relating to disease prevention and control.

The OD has developed goals and performance measures in the areas of health communication, information and security, financial management, and recruitment and retention. Accomplishment of these goals will enhance the ability of the CDC Centers, Institutes, and Offices to accomplish their programmatic goals.

Health and Communication: Communicating public health information to practicing health care providers, public health professionals, health researchers, policy makers, legislators, and the general public is one of CDC's core processes that is common to all of CDC's public health areas. The overall federal policy to make information readily available to the public, the importance of providing information to individuals and health care providers to make better informed health and prevention decisions, and the rapid expansion of electronic access to information through the Internet and other means are driving factors for leveraging electronic communication avenues for health communications.

Information Security and Integrity: CDC is an information-intensive organization. Much of CDC's mission revolves around the collection, analysis, and dissemination of data on health events, vital statistics and other health determinants. Protection of the confidentiality, privacy, and integrity of sensitive data and information is of utmost importance to CDC, our data provider partners, and the individuals and organizations who entrust public health agencies with these data.

Financial Management Processes, Internal Controls, and Information Systems: The Chief Financial Officers' Act requires federal agencies to have audits of their financial statements. This audit consists of a review of the agency's financial statements and of the underlying assessment and accounting principles used. In order to receive an "unqualified" auditor's opinion, the agency's financial statements must be determined to be presented fairly in accordance with the hierarchy of accounting principles and standards approved by the Federal Accounting Standards Advisory Board.

Recruitment and Retention of Qualified and Diverse Workforce: The CDC workforce is a critical strength of the agency. The recruitment and retention of highly qualified staff who represents the public that we serve is a top priority of the agency.

### **Performance Goals and Measures**

**Performance Goal:** Provide a variety of standardized and integrated means for health practitioner and public access to CDC information resources.

**Performance Measures:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
In 1998, the average monthly (based on the first 7 months) visitors to CDC's web site was 662,000 with an average of 5.6 accesses of information content.	N/A	Continually enhance CDC's Internet infrastructure and valued information content so that access to CDC information resources grows 25% per year.
In 1997, average monthly calls to the CDC Voice/FAX information service (VIS) was 45,000 with 25,000 requests for information documents to be faxed to the callers.	N/A	Continue enhancing the CDC VIS such that usage grows 10% per year.

Verification/Validation of Performance Measures: Web site usage: The data is captured as a normal byproduct of running the agency's web servers. Visits and hits (information accesses) are automatically logged by the web servers and these files are summarized and analyzed monthly.

CDC Voice Information System Usage: The data is also captured as a normal byproduct of the vendor's provision of voice and fax-back services. Calls and pages faxed are automatically logged by the servers and these files are summarized and analyzed monthly.

These data are used to monitor the activity level of the public and health professionals in seeking CDC information and data resources over time. Coupled with user feedback, it is also used to evaluate the effectiveness of agency information products.

**Performance Goal:** Enhance CDC's information security program.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
There have been no losses, alterations, or releases of data or information. However, with the higher degree of organization's vulnerability with Internet connectivity, additional security measures are required to increase prevention effectiveness.	N/A	No serious losses, alteration, or releases of data or information occur that are critical, highly sensitive, or are covered by privacy or confidentiality requirements.

Verification/Validation of Performance Measures: Dual fire walls provide access control, logging and restriction to CDC networks from the Internet. Additional security measures will increase the protection of data or information through Internet access. Intrusion software captures data necessary for monitoring and assessing intrusion activity, and auditing software audits the web servers and network devices to insure compliance with established security policies and procedures. Public key encryption will protect sensitive

data on network servers.

**Performance Goal:** Ensure that CDC's financial statements are properly prepared and presented.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>In FY 1998, CDC received a qualified opinion on the FY 1997 Financial Statements. This was the first ever financial statement audit of CDC. Two items prevented CDC from receiving an unqualified opinion: validation of the beginning balances, which is a concern for all first time audits and will not affect future audits, and the grant accrual process, which is a department-wide issue.</p>	<p>N/A</p>	<p>100% audited financial statements with no qualifications.</p>

Verification/Validation of Performance Measures: Audited financial statement are published annually in the Chief Financial Officers Report for CDC and ATSDR. The measure and goal will be validated and verified by the published report of the independent audit firm, Ernst & Young.

**Performance Goal:** Decrease the time it take to refer candidates for vacancies and the time entailed in classifying positions.

**Performance Measure:**

FY Baseline	FY 1999 Appropriated	FY 2000 Estimate
<p>Time to classify jobs: 15 Days.  Time to refer candidates: 80 Days .  (FY 1998)</p>		<p>Reduce the time it takes to classify positions and the time involved in referring candidates to fill positions by 25%.</p>
<p><b>Total Program Funding</b></p>	<p><b>\$31,146</b></p>	<p><b>\$30,322</b></p>

Verification/Validation of Performance Measures: Data will be collected through the Staffing Tracking and Reporting System (STARS) in the Human Resources Management Office, CDC. This system is monitored monthly for system errors and data irregularities.

## XVII. CDC Partners and Public Health Information and Surveillance Systems

CDC works with many partners throughout the United States and the world. State and local health departments provide the infrastructure on which the public's health is built. Other traditional partners include individuals and institutions that educate and promote the health of Americans of all ages, such as school systems, local community groups, businesses, and voluntary and professional associations and other federal organizations. In view of the increasingly diverse and complex role of public health, CDC has reached out to newer and less traditional public health partners, including churches, local organizations, health insurance organizations, health alliances, health boards, consumer groups, and private medical providers.

CDC and its partners are concerned with a wide spectrum of health issues including infectious diseases, chronic conditions, reproductive outcomes, environmental health, occupationally related health events, and injuries. This array of issues requires a variety of intervention strategies for populations, in addition to the need to provide clinical preventive services for individuals. To implement effective interventions, CDC engages in extensive dialogue with its partners, communities, and the public to identify and implement intervention strategies specific to the needs of diverse populations. Some examples include the provision of prophylactic measures (e.g., vaccination, post-exposure rabies prophylaxis), educational services (e.g., public health messages to diverse populations, counseling, and prophylaxis for contacts of persons with certain infectious diseases), inspection of food establishments, and control of outbreaks. For these activities, the rational development of public health policy depends on public health information.

In order to effectively respond to this variety of health problems and intervention methods, different types of information for action and a broad array of data collection methods are necessary. For example, information on the age of children with vaccine-preventable diseases has been used to establish policy on appropriate ages for having vaccinations. Information on the prevalence of elevated lead in blood has been used as the justification for eliminating lead from gasoline and for documenting the effects of this intervention, and information on the rate at which breast cancer is detected has led to new policies regarding the recommended ages at which to have mammograms.

## **Challenges**

As outlined in this section, CDC has a wide range of health data systems that provide the science base for identifying health problems, designing interventions, and monitoring program performance. These data systems face considerable challenges in addressing each of these three areas. For the most part, data systems that were designed to support scientific objectives are now becoming important for the monitoring of performance. Several specific challenges in providing data to monitor performance under GPRA are outlined below:

- ◆ As GPRA measures are refined over time, data systems will need to produce data on a more timely basis, and with a frequency relevant to the periods over which performance is being measured.
- ◆ As the health system itself changes, it can no longer be assured that historical data series will continue to produce needed data. For example, the move toward managed care may make medical information increasingly proprietary, making access for research and statistical purposes more difficult. Similarly, changes in relationships between different health care providers, as well as laboratories, may make public health surveillance based on case reports more difficult. At the same time, these changes present opportunities for new partnerships to obtain needed information.
- ◆ Data systems will need to produce information in sufficient quality and precision to detect what may be relatively small changes in key performance indicators. This may require investments in larger sample sizes for surveys, new technology for improving data quality, etc. Continuing research will be required to establish the data systems, as well as the underlying evaluation approaches, for assessing cause (program intervention) and effect (outcomes) for performance monitoring.
- ◆ Many of our current major national data systems are the source of GPRA measures for CDC and for other health programs. It is important to assure that these data systems are assessed and upgraded to remain current with the needs of our public health infrastructure. Resources to assure that these data systems are maintained and strengthened are included in the FY 2000 CDC budget request and need

to be continued.

- ◆ Many CDC and HHS programs are implemented at the state and local level, and it will be increasingly important to obtain reliable, systematic data at these levels to monitor program implementation, performance, and outcomes.

### **Information Categories**

Ascertaining what information is needed and how to collect it is a complex issue. Information for action must be useful to public health programs at local, state, and national levels. At least seven categories of information are used by CDC and its partners to understand and address disease, injury, and disability using the public health model. These categories of information include: a) reports of health events affecting individuals; b) vital statistics on the entire population; c) information on the health status, risk behaviors, and experiences of populations; d) information on potential exposure to environmental agents; e) information on existing public health programs; f) information useful to public health but obtained by organizations not directly involved in public health practice; and g) information on the health care system and the impact of the health care system on health.

Reports of Health Events. Reports of cases of specific diseases of public health importance serve as the basis of many of CDC programs. The National Notifiable Disease Surveillance System (NNDSS) seeks reports on all cases of more than 40 conditions in the United States. To minimize the burden placed on those who report the information, CDC limits the amount of information collected for each case. NNDSS data are used to monitor trends in disease, to evaluate public health programs, and to identify unusual occurrences of conditions that may require further epidemiologic investigation at the local level. For some public health purposes, effective action requires additional detail on each case.

For this reason, supplemental data collection systems have been developed for some of the diseases involved in the NNDSS. Such supplemental systems may be less comprehensive in terms of the population represented but provide more detailed information on characteristics of the occurrence of disease. For example, cases of hepatitis are reported weekly to NNDSS for publication in the *Morbidity and Mortality Weekly Report (MMWR)*. In addition, the Viral Hepatitis Surveillance Project collects data on specific risk factors for different types of viral hepatitis in selected geographic areas. These data have been used to document the importance of behavior associated with sexual activity and drug use as a risk factor for transmitting Hepatitis B and to target education and vaccination programs.

State public health laboratories currently analyze 41 million specimens annually. Some of the data from the analyses immediately enter the electronic Public Health Laboratory Information System (PHLIS) and are used in monitoring both short and long range trends in the incidence of disease.

Intervention and control of some conditions require more detailed information than can be obtained feasibly from a large group of clinicians or institutions. As a result, networks of selected health care providers have been organized to meet these targeted information needs. For example, CDC's Sentinel Event Notification System for Occupational Risks (SENSOR) targets select groups of health care providers as a component of a comprehensive approach that uses multiple data sources to provide information used on directing efforts to prevent workplace-related morbidity. The National Nosocomial Infections Surveillance System (NNIS) receives reports from a selected group of hospitals on the incidence and characteristics of hospital-acquired infections; data from this system have been instrumental in alerting health authorities to the emergence of antibiotic-resistant strains of bacteria, which in turn has led to the development of specific recommendations regarding the use of antibiotics.

Vital Statistics. Vital records (e.g., births, deaths) are the primary source of some of the most fundamental public health information. Data on teen births, access to prenatal care, maternal risk factors, infant mortality, causes of death, and life expectancy are examples of the staples of public health provided by vital statistics. Vital statistics are often the most complete and continuous information available to public health officials at the national, state, and local levels; the timely availability of these data is critically important.

In the United States, the legal authority for vital registration rests with the States and territories. Therefore, CDC's National Center for Health Statistics (NCHS) produces national vital statistics by collecting data from the vital records of the states. NCHS works with the states to ensure a uniform national data base through the promotion of standard data collection forms, data preparation and processing procedures, and also provides partial financial support for the state systems.

Information on Health Status, Risk Factors, and Experiences of Populations. Since the determinants of many important health problems are behavioral, environmental, genetic or from other causes, health agencies need information that is not readily available from medical records on the prevalence of various types of behavior and on access to care. Thus, regularly conducted surveys of the general population are needed for public health. These surveys may range from large-scale assessments of the general population to assessments targeted at high-risk (i.e., particularly vulnerable populations). This need is particularly acute at the state and local level. Surveys provide information on

- ◆ Baseline health status (e.g., the National Health and Nutrition Examination Survey, NHANES, and the National Health Interview Survey, NHIS)
- ◆ Morbidity (e.g., the National Ambulatory Medical Care Survey, NAMCS)
- ◆ Prevalence of specific behavioral risk factors (e.g., the Behavioral Risk Factor Surveillance System, BRFSS, and the Youth Risk Behavioral and Surveillance System, YRBSS) and medical risk factors (e.g., NHANES and Pregnancy Risk Assessment and Monitoring System, PRAMS)
- ◆ Use of health care services and identification of under served populations (e.g., NHIS)
- ◆ Potential for exposure to toxic agents (e.g., the National Occupational Exposure Survey, NOES).

This information is used in developing prevention and control programs and in ensuring adequate delivery of health services.

Information on Potential Exposure to Environmental Agents. Information on exposures to environmental agents can be used in evaluation the risk to health represented by non-infectious diseases, injuries, and certain infectious diseases. For example, measurement of airborne particulates is useful in assessing risks related to certain pulmonary disorders (e.g., asthma and lung cancer). Information on vectors that may carry agents of infectious disease (e.g., ticks as vectors for Lyme disease, and Rocky Mountain spotted fever, mosquitoes as vectors for viral encephalitides, and raccoon as vectors for rabies) is important in evaluating the risk for having such infections.

Information on Programs. Data necessary to operate public health programs include such items as number of clients served and cost of services rendered. These data are useful to public health officials in assessing the effectiveness of public health programs, comparing different programs, documenting the need for continuing a particular program, and maintaining accountability for tax dollars spent.

Information from Other Organizations. Data useful for public health are currently or potentially available from organization whose function may not be related to those of CDC and of state and local health departments. Data from the Bureau of the Census, for example, are necessary both for the reliable computation or rates and for the proper adjustment of rates for comparison over time or in different geographic areas. The Environmental Protection Agency (EPA) compiles environmental air-monitoring data to assess compliance with standards for air pollutants established by the Clean Air Act. Data collected through this system are also used by public health officials for hazard alerts when pollutants exceed Federal standards and in studies of the effects of air pollutants on morbidity associated with respiratory diseases. The Occupational Safety and Health Administration (OSHA) and the Bureau of Labor Statistics compile data on the occurrence of work-related injuries and illnesses and exposure to hazards in the workplace, which can be used for surveillance and research purposes. The Department of Transportation operate the Fatal Accident Reporting System, used in public health to assess risk factors for motor-vehicle-related injuries and deaths. The Federal Bureau of Investigation (FBI) crime statistics assist in evaluating the public health impact of intentional injuries, and the Consumer Product Safety Commission collects data on injuries related to consumer products.

Information on the Health Care System. Information is also needed on the health care system and the impact that changes in the system have on health. CDC provides a great deal of information to monitor the capacity of the personal health care system utilization of that system and access to health insurance and services by the American people. These data include: inventories of health care providers; surveys to determine patterns of utilization of health services such as hospitalization rate and uptake of new technologies tracking health insurance coverage on the part of the population and health insurance benefits provided by employers; and access to health care and barriers (both financial and non-financial) to access.

## Appendix A

### Key Improvements in the CDC FY 2000 Performance Plan

The CDC FY 2000 Performance Plan has integrated significant improvements over the FY 1999 Performance Plan. These improvements can be categorized as two general types: contextual and process. Contextual improvements in the FY 2000 plan relate to the written plan (content, format, and performance measurement quality.) Process improvements are business practices that have changed to facilitate implementation of the CDC performance management system.

#### Contextual Improvements

1. For the FY 2000 Performance Plan, CDC programs have made significant progress in developing more outcome-oriented performance measures. Whereas many of the established programs such as Immunizations and Sexually Transmitted Diseases had excellent outcome measures for the FY 1999 Performance Plan, two of CDC's newer program areas (Chronic Diseases and Injury Prevention and Control) have replaced process measures with outcome measures. CDC continues to rely on process and capacity measures for many of its programs. For those programs, CDC clearly links the achievement of capacity and process to the longer-term, desired outcomes. For example, the Emerging Infections Program provides a logic model to illustrate the need to build capacity within state and local health departments. Achievement of this capacity will enable state health departments to address the unique nature of emerging diseases.
2. The FY 1999 Performance Plan contained approximately 40 performance goals. The FY 2000 Performance Plan contains more than 50 performance goals. In some instances, additional goals were added by programs to better represent the broad, diverse, and numerous programs supported, such as the case with the Infectious Disease Program. CDC has also included proposed program goals for each new budget initiative (Eliminating Health Disparities, Public Health Infrastructure, and Public Health Response to Terrorism.) The FY 2000 Performance plan also includes specific performance measures in the Office of the Director that are key to support CDC programs. CDC managers continue to stress limiting the number of goals and measures to the critical few, but maximizing the ability to communicate program direction, assess success and identify areas needing improvement.
3. In aligning the FY 2000 Performance Plan goals and measures with those in the FY 1999 plan, CDC program staff recognized the need to select goals and measures that could be assessed by reliable and consistent data sources. In situations where the data sources were not as reliable as was deemed appropriate, CDC programs modified their goals and measures for FY 2000 to reflect the stronger data sources. The Injury Prevention and Control Program is one such example where FT 1999 data was based on data sources from another federal agency (Department of Transportation (DOT)). DOT data were obtained from random surveys of 19 state sites. The random nature of the survey limits the usefulness and consistency of the data. This data limitation caused the program to redefine the goal and associated performance measures, and to base them on more reliable data sources.
4. To sustain the performance of many of CDC programs, a core public health infrastructure must be maintained at a consistent level of performance. The FY 2000 Performance Plan includes explanations and support for the maintenance of performance levels that are constant across performance years. The Immunization Program and the Sexually Transmitted Disease Program are two examples where the performance levels remain constant across FYs 1999 and 2000. Even though levels of performance do not change, it is important to assess these measures each year to monitor and assure effective program

performance.

5. In the FY 2000 Performance Plan, CDC provided improved explanations for key programs regarding baselines, targets, and reasons for modifications are documented in footnotes.
6. The format for the FY 2000 Performance Plan contains tables listing the performance measures and baselines for FY 1999 and FY 2000 throughout the document. The format changes improves the ability to visualize and compare the annual targets and performance for each program area.

#### Process Improvements

1. The significant transformation in the process of planning and developing the FY 2000 Performance Plan is notable. The extent of internal and external collaboration and coordination was greater for the development of the FY 2000 Plan. In planning for the FY 2000 plan submission, internal collaboration among the planning, financial management, information resources and CIO staffs was well coordinated. This improved coordination reduced duplication of effort and led to more informed decision making. External collaboration in the development of performance goals and measures also increased, resulting in more consistent measures across agencies as well as with national objectives such as Healthy People 2000/2010.
2. The FY 2000 performance planning process integrated both GPRA and Chief Financial Officer Act (CFO) requirements, reducing the redundancy of implementing the common elements of each Act. A steering committee has been formed at CDC to guide the development of a management information system to incorporate cost accounting and program management functions for CDC staff to efficiently and effectively implement GPRA and CFO.
3. By providing a clear plan for new initiatives, including performance goals and measures, CDC developed a more focused approach to addressing new initiatives — as well as more focused new initiative proposals. Overall, the agency has improved coordination and collaboration in all areas of planning.