Final FY 2004 GPRA Annual Performance Plan Revised Final FY 2003 GPRA Annual Performance Plan FY 2002 GPRA Annual Performance Report

**U.S. Department of Health and Human Services** 

Congressional Justification Submission February 2003

# **CDC Performance Plan**

# Final FY 2004 GPRA Annual Performance Plan Revised Final FY 2003 GPRA Annual Performance Plan FY 2002 GPRA Annual Performance Report

February 2003

### Revised Final FY 2003 Annual Performance Plan FY 2002 Performance Report

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### **Agency Mission**

Promote health and quality of life by preventing and controlling disease, injury, and disability.

### **Executive Summary**

CDC's mission is to promote health and quality of life by preventing and controlling disease, injury, and disability.

CDC is recognized as the lead federal agency for protecting the health and safety of Americans, at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships. Working with partners across the country and the world, CDC has been a leader in monitoring health, detecting and investigating heath problems, conducting research to enhance prevention, developing and advocating sound public health policies, improving the capacity of the public health system, promoting healthy behaviors, fostering safe and healthy environments, and providing leadership and training.

In the past year, CDC and our partners responded to terrorism at home—with rapid response, ongoing recovery, and enormously enhanced preparedness activities. During this historic mobilization of public health systems, CDC and our partners continued to attack the major killers in this country—chronic and infectious diseases, unintentional injuries and violence—and the hazards in our environment, our workplaces, and our behaviors that put Americans at risk.

During the past half century, CDC has constantly evolved and innovated to face new health challenges. It is this constant renewal that enables the agency to continue providing quality service and reliable information to the American public.

In fiscal year 2004, CDC plans to address key priorities in prevention and preparedness, while capitalizing on 21st century science and technology to achieve public health goals. In our prevention activities, we will continue our keen focus on closing the gap in health status among racial and ethnic minorities.

### **Overview of Plan and Performance Report**

CDC's 2004 Performance Plan is organized by CDC's major budget lines. The plan includes goals and performance measures in critical public health areas (e.g., HIV/AIDS, chronic diseases, etc.) and addresses the program description and context, as well as the program performance analysis.

The FY 2004 Performance Plan now contains 100 measures, 39% of which are outcome measures. Between the June 2002 submission to the Department of Health and Human Services (DHHS) and this one, CDC has reduced the number of measures in the Plan by 53 percent. The FY 2002 performance plan indicates that we achieved 98 of our 122 reported performance measures.

Several high-priority, critical initiatives are included in CDC's performance plan. These initiatives support the Secretary's Budget Priorities and the President's Management Agenda. CDC's performance plan also includes linkages to the HHS Strategic Plan goals.

### CDC's work in support of the Secretary's Budget Priorities includes:

Preventing disease, illness, and injury with a focus on Healthy Communities

CDC's highest prevention priority is to respond forcefully to the twin epidemics of obesity and diabetes. 2001 saw the release of two landmark, gold standard studies on the prevention of type 2 diabetes in high-risk adults. Both studies show—for the first time—that type 2 diabetes can be prevented in very high-risk adults—those defined as "pre-diabetic." This group of 16 million Americans has either impaired glucose tolerance, impaired fasting glucose or both. Obesity is one of the most important risk factors for prediabetics. Many of them are racial and ethnic minorities, and suffer disproportionately from diabetes and other chronic diseases.

Ensuring our homeland is prepared to respond to acts of bioterrorism and other health emergencies CDC will improve its own ability to respond, while also working through its cooperative agreement program to bolster the ability of state and local public health agencies to respond to all terrorism hazards. Research will build our knowledge base. Intramural and extramural activities to build preparedness and readiness assessment, surveillance and epidemiology capacity, laboratory capacity, communications and information technology, health information dissemination, and education and training will focus on three priorities: 1) expanding terrorism preparedness from a focus on biological hazards to all hazards (chemical, radiological, or mass trauma/conventional weapons), 2) expanding bioterrorism preparedness for all biological threat agents (categories A, B, and C), and 3) assessing effects of these investments on public health preparedness and capacities.

Realizing the possibilities of 21st century health care

CDC is committed to advancing public health through science and technology. In FY 2004, CDC priorities in this area include building the Public Health Information Network and supporting improved health statistics and geographic information systems. The Public Health Information Network will be an electronic nervous system that supports monitoring and maintaining the public's health. Like the human nervous system, it will detect problems, analyze accumulated data, create useful information, communicate alerts as needed, and direct appropriate response. CDC also urgently needs to maintain and rebuild the core capacities of the National Center for Health Statistics, the nation's principal health statistics agency and the centerpiece of HHS' capacity to collect policy-relevant information on the nation's health.

CDC also supports the Secretary's Budget Theme to *Improve Management* and efforts to address this theme are consistent with the President's Management Agenda and CDC's Restructuring and Delayering Plan. Additional information on these priorities is provided in the section of the performance plan entitled "Program Support."

### Snapshot of past, present, future performance

CDC has a long history of dedicated support to state and local partners to achieve the nation's public health goals. The following describes recent accomplishments highlighting our performance and future directions to enhance our performance:

- CDC's National Diabetes Program conducts health promotion and disease prevention activities to *improve the health of people with diabetes*. Diabetes control programs (DCPs) are now funded in all 50 states, the District of Columbia, and eight territories They seek to identify high-risk populations, improve the quality of care, involve communities in controlling diabetes, and increase access to care with measurable success. For example, over a 2-year period the New York DCP reduced hospitalization rates by 35% and decreased lower extremity amputations rates by 39%. In Michigan a long-standing DCP has produced a 45% lower rate of hospitalizations, a 31% lower rate of lower-extremity amputations, and a 27% lower death rate for participants.
- CDC's diabetes activities proposed for FY 2004 will include a focus on *preventing diabetes in very high-risk adults* those defined as "pre-diabetic." This group of 16 million Americans has impaired glucose tolerance, almost always coupled with obesity. Over five years, we expect that states with pre-diabetes programs will show a 25% decline in the number of people with pre-diabetes who progress to diabetes.

- Approximately 5 million children have asthma. CDC supports state-based programs to: 1) improve the state's ability to track asthma, *implement science-based asthma interventions*, and build partnerships related to asthma control; and 2) improve the ability of schools to prevent asthma attacks and absences. CDC has been on track for meetings its GPRA measure to support implementation of core asthma programs, and is expanding its focus in GPRA to *reduce hospitalizations due to asthma*.
- CDC supports comprehensive interventions to *reduce tobacco use*, the leading preventable cause of disability and death, which directly contributes to the deaths of more than 440,000 Americans each year. Data released from CDC's Youth Risk Behavior Survey in May 2002 indicate that the percentage of youth (grades 9-12) who smoke then dropped from 34.8% in 1999 to 28.5% in 2001.
- Through September 2001, CDC has provided more than *3.6 million breast and cervical cancer screening tests* to over 1.4 million women. The program has diagnosed 12,000 breast cancers, 48,170 precancerous cervical lesions, and over 800 cases of invasive cervical cancer. Based on a review of program data, revised GPRA measures are being introduced including assuring *timely access to diagnostic and treatment services*. 83.6% of women with abnormal breast cancer screening results and 61.9% of women with abnormal cervical cancer screening results received a final diagnosis within 60 days. CDC's performance plan calls for an increase in the proportion of women with abnormal screening results who receive a final diagnosis within 60 days.
- CDC continues to make great strides in preventing and controlling HIV/AIDS, STDs and tuberculosis. While infectious diseases such as TB and HIV continue to threaten the health of Americans and are major sources of illness and death worldwide, CDC has achieved significant reductions in these diseases in the U.S. For example, in 2001, *rates of primary and secondary (P&S) syphilis among women, as well as rates of congenital syphilis, continued to decline*. Since 1997, there has been a 52% reduction in congenital syphilis cases, and a 48% drop in the Black:White ratio. CDC also has *exceeded its goal of decreasing the number of perinatally acquired AIDS cases* starting in FY 99. The number of perinatally acquired AIDS cases, indeed, reduction in perinatal transmission of HIV is one of public health's great success stories.
- CDC continues to make progress towards its ambitious GPRA goals of *reducing vaccine-preventable diseases*. In one of the greatest successes in vaccine-preventable disease reduction, *only 2 cases of rubella* were provisionally reported to CDC in 2001, compared to 1,401 cases a decade ago. The disease can cause miscarriage, stillbirth, and fetal abnormalities.

- In the aftermath of September 11<sup>th</sup>, we have learned that the US *public health system is a critical element in the new war against terrorism*, whether the attacks cause mass trauma, disease, or other threats to the Nation's health. Within minutes of the attacks on the World Trade Center, the entire infrastructure of CDC shifted to respond to the immediate needs of the Nation. CDC rapidly set up a 24/7 Emergency Operations Center and began to deploy supplies and over 600 staff, issue guidance and health alerts, and provide technical assistance. Following the reports of anthrax cases in October, CDC redirected more than 2,000 staff to focus their attention on this crisis.
- CDC has moved swiftly to assure that *smallpox vaccine is available for every American*. With funds appropriated at the beginning of 2002, new and improved vaccine will be available by the end of the year. We also have access to existing stores of vaccine for use in emergencies to vaccinate large populations. CDC also has expanded the *National Pharmaceutical Stockpile* by increasing the number of push packages from 8 to 12, strategically located around the country to provide rapid response to emergencies with lifesaving drugs and treatment.
- CDC *improved public access to information via the web*, increasing average visitation to the CDC website by 29%, to 3.6 million individuals per month in FY 2001. Web visits surged to over 9 million in October during the anthrax events. CDC continues rigorous IT capital planning in concert with OMB guidance, established open standards for intergovernmental data exchange and systems associated with public health and bioterrorism monitoring, and continued progress on GPEA goals. Continued advancement of the CDC information security program resulted in a high degree of *critical infrastructure system reliability and availability* of 99.94% for FY 2001, which exceeded CDC's GPRA target.
- CDC continues to put the highest priority on *rebuilding our physical infrastructure*. Using innovative procurement and design methods, we have been able to greatly reduce the timeline for construction. We continue to make progress on our master plan, and sustained investment will provide the nation with state-of-the art public health facilities—continually serving, and ready to respond to emergencies.

Management Objectives have guided improvements in CDC management and operations. Although CDC has been addressing PMA related issues for several years, such as *reducing the proportion of administrative positions* by 5 percent between 1997 and 2001 and *beginning its Fiscal Management Excellence Initiative* in 2000, the agency has further increased its PMA efforts. For example, CDC is now organized to address PMA issues by having *established a PMA Executive Steering Committee* and has appointed a full-time, senior coordinator for PMA actions. While many specific PMA achievements are outlined in other sections of the Performance Plan, these CDC actions resulted in positive, "Progress" Scorecard results from HHS for the period ending September 2002. The agency received three "Green" lights for the Competitive Sourcing, Improved Financial Management, and Expanded E-Government Initiatives. CDC also received two "Yellow" lights for the Strategic Management of Human Capital and Enhanced Budget and Performance Integration Initiatives.

CDC remains committed to strategically using resources to achieve high-priority public health outcomes. Healthy People 2010 goals guide many of efforts in disease prevention and risk reduction with a strong focus on eliminating disparities in health outcomes. Although many of these goals are extremely ambitious, CDC is working diligently to align its programmatic resources with these intended outcomes. For CDC's less well-established programs, it is likely that we will need to continue to rely on process measures in our performance plan. However, as programs mature, we anticipate an increasing focus on health outcomes in our performance plan.

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# Part I. Overview of Performance Measurement

### Part I. Overview of Performance Measurement

CDC's program performance goals are presented by major budget lines; listed below is CDC's Road Map for the FY 2004 Performance Plan. More robust discussion of program activities is provided in "Part II. Goal-by-Goal Performance Measurement."

### **CDC Performance Road Map**

### A. Birth Defects, Developmental Disabilities Prevention, and Disabilities and Health

Birth Defects and Developmental Disabilities Prevention

Prevent birth defects and developmental disabilities.

Disability and Health

Improve the health and quality of life of Americans with disabilities.

### **B.** Chronic Disease Prevention and Health Promotion

Early Detection of Breast and Cervical Cancer

- 1. Increase early detection of breast and cervical cancer by building nationwide programs in breast and cervical cancer prevention, especially among high-risk, underserved women.
- 2. Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically under-served women. For women diagnosed with cancer or precancer, assure access to treatment services.

Tobacco Use Prevention

Community-based Prevention Research Centers

Heart Disease and Stroke

Reduce death and disability due to heart disease and stroke and eliminate disparities.

Diabetes

Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.

Arthritis

National Program of Cancer Registries

### **Chronic Diseases** (continued)

HIV Prevention among School-Aged Youth

Monitoring Risk Behaviors (Behavioral Risk Factor Surveillance System)

Nutrition, Physical Activity and Obesity

Decrease levels of obesity or reduce the rate of growth of obesity in communities reached through nutrition and physical activity interventions.

### C. Environmental Health

**Biomonitoring** 

- 1. Develop laboratory capacity to monitor human exposure to chemicals in the environment.
- 2. Periodically determine the number of Americans exposed to environmental chemicals and degree of their exposure.

Newborn Screening Quality Assurance

Asthma

Reduce the burden of asthma.

Childhood Lead Poisoning

Genomics and Disease Prevention

Increase the availability of useful information on specific DNA-based tests to public health professionals and the public at large.

Environmental Health Tracking and Infrastructure

Increase the capacity of state and local health departments to deliver environmental health services in their communities.

### D. Epidemic Services and Response

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.

### E. Health Statistics

Monitor trends in the nation's health through high-quality data systems and deliver timely data to the nation's health decision makers.

### F - H. HIV, STD, and TB Prevention

### F. HIV/AIDS Prevention

### **Overarching**

Reduce the number of new HIV infections.

### **Domestic**

- 1. Decrease the number of persons at high risk for acquiring or transmitting HIV infection.
- 2. Increase the proportion of HIV-infected people who know they are infected.
- 3. Increase the proportion of HIV-infected people who are linked to appropriate prevention, care and treatment services.
- 4. Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.

### International

Working with other countries, USAID, and international and U.S. government agencies, reduce the number of new HIV infections among 15- to 24-year-olds in sub-Saharan Africa from an estimated 2 million by 2005.

### **G.** Sexually Transmitted Disease Prevention

- 1. Reduce ŠTD rates by providing chlamydia and gonorrhea screening, treatment, and partner treatment to 50% of women in publicly funded family planning and STD clinics nationally.
- 2. Reduce the incidence of primary and secondary syphilis.
- 3. Reduce the incidence of congenital syphilis.

### H. Tuberculosis Elimination

Eliminate Tuberculosis in the United States.

### I. Immunization

- 1. Reduce the number of indigenous cases of vaccine-preventable diseases.
- 2. Ensure that 2-year-olds are appropriately vaccinated.
- 3. Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.
- Assist domestic and international partners to help achieve WHO's goal of global polio eradication.
- Work with global partners to reduce the cumulative global measles related mortality rate.
- 6. Improve vaccine safety surveillance.

### J. Infectious Diseases Control

Epidemiology and Laboratory Capacity

Protect Americans from infectious diseases.

Antimicrobial Resistance

Reduce the spread of antimicrobial resistance.

Medical Errors and Healthcare-associated Infections

Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare.

### **K.** Injury Prevention and Control

- 1. Increase the capacity of injury prevention and control programs to address the prevention of injuries and violence.
- 2. Monitor and detect fatal and non-fatal injuries.
- 3. Conduct a targeted program of research to reduce injury-related death and disability.

### L. Occupational Safety and Health

Research

Conduct a high quality research program in occupational safety and health that advances scientific knowledge and provides technically and economically utilizable results to workers, employers, other agencies, and the scientific community on occupational diseases, workplace hazards, risk factors, and effective methods of prevention.

Tracking, Work Injuries, Illnesses, and Hazards

Increase the capacity for the collection and use of information on the occurrence and frequency of work injuries, illnesses, and hazards in order to access the actual burden of occupational injuries and illnesses.

Information, Training, and Capacity Building

Ensure safer and healthier work environments for all Americans through information dissemination, knowledge transfer, and training.

Prevention Activities through Evaluation, Safety and Health Interventions and Recommendations

Increase safety and health in the workplace by demonstrating, communicating, and promoting technically and utilizable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities.

### M. Preventive Health and Health Services Block Grant

### N. Public Health Improvement

Public Health Practice

Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.

### Eliminating Racial and Ethnic Disparities

Improve the lives of racial and ethnic populations who suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.

National Electronic Disease Surveillance System (NEDSS)

### O. Buildings and Facilities

Implement scheduled improvements, construction, security, and maintenance consistent with available resources and priorities identified in CDC's master facilities planning process.

### P. Office of the Director

Office of Science Policy and Technology Transfer

Identify, evaluate, and protect novel technologies.

Office of Minority Health

Support Historically Black Colleges and Institutions, Hispanic Serving Institutions, and Tribal Colleges and Institutions.

Office of Equal Employment Opportunity

Office of Program Planning and Evaluation

Office of Health Communication

### Q. Terrorism

Deterrence/Prevention

Continue efforts to protect public health by ensuring the safety and security of laboratorians regarding the handling and processing of dangerous biological agents and toxins.

Preparedness and Response Capacity

Enhance the capacity of CDC and state and local health departments to prepare for and respond to biological, chemical, radiological, and mass trauma hazards related to terrorism.

### **Terrorism** (continued)

Surveillance and Epidemiology Capacity

- 1. Enhance the capacity of CDC and state/local health departments to rapidly detect and investigate potential biological events.
- 2. Assure that CDC has the capacity to lead a nation-wide public health response to a radiological or chemical terrorist attack, addressing the unique and complex public health threats that these types of events would present.

Laboratory Capacity

Enhance the laboratory capacity of CDC and state and local health departments to rapidly and accurately identify biological and chemical agents that can pose a terrorist threat.

Strategic National Stockpile

Information and Communication Systems

Worker Safety

Continue efforts to protect the health and safety of first responders during chemical, biological, radiological, and nuclear (CBRN) terrorism events.

### R. Program Support and Management

Program Management

Fully achieve the President's Management Agenda in all five areas of Strategic Management of Human Capital; Competitive Sourcing; Improved Financial Performance; Expanded Electronic Government; and Budget and Performance Integration.

Information Access, Security, and Reliability

Enhance CDC's information security program and ensure that critical information systems and infrastructure operate reliably and infrastructure operate reliably.

Competitive Sourcing, Financial Assistance, and Performance-Based Contracting

Financial Management Processes and Internal Controls

Recruitment Timeliness

Workforce Planning: Restructuring and Delayering Initiatives
Enhance workforce planning efforts at CDC.

SES Performance Contracts

Recruitment and Retention Strategies

# **CDC Performance Report Summary Table**

	Measures in Plan	Results Reported	<b>Results Met</b>	<u>Unreported</u>
2001	217	208	173	9
2002	178	122	98	56
2003	147			
2004	100			

### **CDC and the Program Assessment Rating Tool (PART) Process**

To enhance the practical use of performance information, OMB developed the Program Assessment Rating Tool (PART) in the spring of 2002 to assess program performance and management among Federal agencies. The purpose of the PART is to: (1) Measure and diagnose program performance; (2) Evaluate programs in a systematic, consistent, and transparent manner; (3) Inform agency and OMB decisions for management, budget, and legislative or regulatory improvements; and (4) Focus program improvements and measure program progress over time. The PART assessments are based on evaluation of four major components: the program purpose and design, strategic planning, program management, and program results.

Prior to OMB's identification of the programs, CDC formed a cross-agency working group to discuss ways in which to effectively capture program performance data. This working group served as a springboard for the programs that were ultimately selected to participate in the assessment activities, and OMB's assessment tool contained many of the components that the working group had previously discussed.

In its first year of implementation, OMB implemented use of the PART to review 20% of Federal programs. OMB identified five CDC programs to complete the PART process: Immunization 317 Program, National Breast and Cervical Cancer Early Detection Program, National Diabetes Control Program, Domestic HIV/AIDS Prevention Program, and Health Alert Network. Thorough reviews of the five programs were carried out at CDC. Smaller, program-specific working groups were formed to develop responses to the PARTs. Consistency across the work groups was provided by CDC's Office of Program Planning and Evaluation (OPPE). In addition, the Financial Management Office (FMO) and Procurement and Grants Office (PGO) provided critical input into questions that involved financial and procurement policies and procedures.

In June 2002, the five assessment tools and supporting documentation were sent to HHS on time and with complete responses. In the months that followed, HHS and CDC conducted conference calls with OMB to discuss the assessment tools, and CDC provided an array of information requested of us by OMB to help inform their assessments of our five programs. By September 2002, CDC received draft scores for all of the five programs and submitted materials for appeals of specific items to HHS. Each of the five programs has successfully completed the assessment process and received its final rating in December 2002. Although we are concerned that our scores are low, they are consistent with scores received by other HHS operating divisions. We are currently working on improvements identified as a result of the PART process, and have submitted Corrective Action Plans for select programs outlining ways to improve program performance and management to HHS.

CDC's OPPE continues to provide guidance to these programs on ways to demonstrate improved program performance and effectiveness. In addition, OPPE is continuing to work with the FMO and others to help prepare other components of the agency to undergo the PART process next year.

### **CDC Performance Measures and the PART Process**

In 2002, CDC began steadily decreasing the number of process and output measures in the draft FY 2004 Annual Performance Plan, while continuing to increase the proportion of outcome measures. At HHS's request, we reduced to 100 the overall number of measures in our draft FY 2004 Annual Performance Plan. CDC's participation in the Program Assessment Rating Tool (PART) process allows us to build upon these efforts by applying standardized criteria to performance reviews. CDC is working to improve program performance accountability by developing ambitious, long-term health outcome goals that are supported by appropriate, annual goals and measures. We are analyzing measures to address gaps and ensure program priorities and resources are adequately represented.

CDC, in collaboration with OMB and HHS, has made strides in developing improved goals, measures, or targets for select programs that were assessed. Please find below tables illustrating this enhanced performance information which are reflected throughout the FY 2004 GPRA plan.

### **Domestic HIV/AIDS Program**

Performance Goal	Performance Measure	Targets	Actual Performance
Reduce the number of new HIV infections.	Reduce the number of HIV infection cases diagnosed each year among people <25 years of age.	FY 04: 1,800 reported cases.	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 2,344 reported cases.
Decrease the number of persons at high risk for acquiring or transmitting HIV infection.	Among HIV-infected persons ≥ 18, increase the proportion who were abstinent during the past 12 months or used a condom the last time they had sex.	<b>FY 04:</b> 70%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 60%
Decrease the number of persons at high risk for acquiring or transmitting HIV infection.	Decrease the percent of HIV-infected IDUs who shared needles in past 12 months.	FY 04: 30%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 35%

# **National Breast and Cervical Cancer Early Detection Program**

Performance Goal	Performance Measure	Targets	Actual Performance
Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or pre-cancer, assure access to treatment services	Increase the number of women screened.  Breast: mammogram or CBE  Cervical: Pap Smear	FY 04: 381,682 breast/ 275,000 cervical	FY 04: Mid- 2005  FY 03: 10/2004 FY 02: 10/2003 FY 01: 356,395 breast/ 265,306 cervical FY 00: Baseline: 229,000 breast/ 247,192 cervical
Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or pre-cancer, assure access to treatment services	Increase the percentage of women with abnormal results* who receive a final diagnosis within 60 days of screening.  *Breast - abnormal mammogram (suspicious of abnormality, highly suggestive of malignancy, or assessment incomplete) and/or abnormal CBE  *Cervical - abnormal Pap includes high grade SIL, squamous cancer, or abnormal glandular cells	FY 04: 86.5% breast/ 64% cervical	FY 04: 10/2005  FY 03: 10/2004 FY 02: 10/2003 FY 01: 83.6% breast/ 61.9% cervical FY 00: Baseline: 82.2 % breast/ 61.2% cervical
Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or pre-cancer, assure access to treatment services	Increase the percentage of women with cancer who start treatment within 60 days of diagnosis.	FY 04: 95% breast/ 92% cervical	FY 04: 10/2005  FY 03: 10/2004 FY 02: 10/2003 FY 01: 93.1% breast/ 88.5% cervical FY 00: Baseline: 94% breast/ 88% cervical

# **National Breast and Cervical Cancer Early Detection Program** (Continued)

Performance Goal	Performance Measure	Targets	Actual Performance
Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or pre-cancer, assure access to treatment services	Cervical: Increase the percentage of women with precancerous lesions* who start treatment within 90 days of diagnosis  *includes CIN II, CIN III, and CIS	FY 04: 94%	FY 04: 10/2005 FY 03: 10/2004 FY 02: 10/2003 FY 01: 91.7% FY 00: Baseline: 92.4%

### **National Immunization 317 Program**

Performance measures for the National Immunization 317 Program were discussed during the PART process, however, these discussions did not result in changed measures. The following table is a place holder for any future changes.

Performance Goal	Performance Measure	Targets	Actual Performance

# **National Diabetes Control Program**

Performance Goal	Performance Measure	Targets	Actual Performance
Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.	For states receiving CDC funding for diabetes prevention and control programs (DPCPs), increase the percentage of persons with diabetes who receive annual eye and foot exams.	FY 04: Eye/72%; foot/62% (Increase baseline by 10%) FY 03*: Eye/72%; foot/62% (Increase baseline	FY 04: 10/2005  FY 03*: 10/2004
	*Refers to basic implementation states (Formerly comprehensive) only.	by 10%) FY 02*: Eye/72%; foot/62% (Increase baseline by 10%)	FY 02*: 10/2003
		FY 01*: Eye/72%; foot/62% (Increase baseline by 10%)	<b>FY 01*:</b> Eye/69.8%; foot/65.3%
		FY 00*: Eye/72%; foot/62% (Increase baseline by 10%)	<b>FY 00*:</b> Eye/69.0%; foot/62.4%
		25 25.67	FY 99*: Eye/67.3%; foot/57.8% FY 98*: Eye/64.7%;
			foot/56.5% FY 97*: Eye/65.6%; foot/56.6% FY 96*: Baseline: Eye/61.7%; foot/52.4%
Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.	For states receiving CDC funding for diabetes prevention and control programs (DPCPs), increase the percentage of persons with diabetes who receive at least two A1c measures per year.	FY 04: 72.5%	FY 04: 10/2005  FY 01: 63.3% FY 00: Baseline: 62.0%

### **Health Alert Network**

Performance Goal	Performance Measure	Targets	Actual Performance
Goals 1 and 3			
Goal 1: By 2005, build, operate	3. Expand front-line PH	FY 08: On-line GIS	<b>FY 08:</b> 12/2009
and maintain a nationwide electronic platform for information, communication, and training linking local, state, and	practitioners' access to Internet based, CDC- approved PH practice guidelines, scientific/	mapping FY 07: Best Practices/protocols expanded	FY 07: 12/2008
Federal public health agencies.	disease reference images, health and medical data,	<b>FŶ 06:</b> 1) Registry Complete; 2) 1 <sup>st</sup>	<b>FY 06:</b> 12/2007
Goal 3: By 2007 the rapid exchange of urgent health alerts will be validated through regular network testing	and info on the effectiveness of PH interventions.	phase of best practices info available on-line <b>FY 05:</b> 1) All HD's have 24/7 capacity	<b>FY 05:</b> 12/2006
HAN Objective		for receipt of HA messages; 2) on-line	
By 2007, state PH agencies will acknowledge receipt of HA messages within 30 min of		Registry 50% complete FY 04: Begin	<b>FY 04:</b> 12/2005
transmission (one hour for local PH)		implementation of Knowledge	F1 04. 12/2003
Establish and maintain three capacities at all State and local		Management/Media Asset Management systems.	
public health jurisdiction:  High speed, continuous		<b>FY 03:</b> 1) Expand the Public Health	FY 03: 12/2004
Internet connectivity Broadcast capability reaching local public		Image Library 2) Develop Knowledge	
health officials and key community partners 24		Management System for public health	
hours/day, 7 days/week Distance-learning		practice info.	
infrastructure capable of delivering Satellite or Web-Based programs to front-line practitioners		FY 02: Developed capability to webstream/archive live CDC/Public Health	FY 02: 12/2003
		Training Network (PHTN) broadcasts.	
	(Continued)	(Continued)	(Continued)

Performance Goal	Performance Measure	Targets	Actual Performance
(Continued)		FY 01: Initiate implementation of plan FY 00: Baseline: Develop plan	FY 01: Aug 01 web release of new PH Practice guidelines FY 00: Plan developed for enhancement of online information resources
Goal 1 and Goal 3 (Continued)  HAN Objective  Establish and maintain three capacities at all State and local public health jurisdictions:  High speed, continuous Internet connectivity  Broadcast capability reaching local public health officials and key community partners 24 hours/day, 7 days/week  Distance-learning infrastructure capable of delivering Satellite or Web-Based programs to front-line practitioners  By 2004 CDC will be able to transmit health alerts to all of the nation's state, territorial and local, senior public health agencies on a 24/7 basis, within 30 minutes of notification  By 2006 all state/local PH agencies will be able to broadcast Health Alerts within 1 hour of	4. Expand the connectivity and functionality of the Health Alert Network (HAN)	FY 05: 100% of all health departments demonstrate all 3 capacities FY 04: 95% coverage FY 03: Extend HAN to local PH agencies to cover 90% of the US population	FY 05: 12/2006  FY 04: 12/2005  FY 03: 12/2004  FY 02: Baseline: 86% of local health counties/jurisdictions have high speed internet connectivity.
notification	(Continued)	(Continued)	(Continued)

Performance Goal	Performance Measure	Targets	Actual Performance
Goal 1 and Goal 3 (Continued)	4. Continued	FY 01: Number of major metro areas increased to 54 and	FY 01: 55 areas and 3 communities
HAN Objective		3 Communities	
Establish and maintain three		demonstrating advanced	
capacities at all State and local public health jurisdictions:		applications of information	
<ul> <li>High speed, continuous</li> </ul>		technology and	
<ul><li>Internet connectivity</li><li>Broadcast capability</li></ul>		training for prep/response to	
reaching local public		chem/bio terrorism	
health officials and key community partners 24		(Exemplar Sites for Advanced PH	
hours/day, 7 days/week		Practice)	
Distance-learning infrastructure capable of		FY 00: Number of	<b>FY 00:</b> 40
delivering Satellite or		major areas increased	1 1 00. 10
Web-Based programs to front-line practitioners		to 25-35	
By 2004 CDC will be		FY 99: Number of	<b>FY 99:</b> 36
able to transmit health alerts to all of the		major metropolitan areas with health	
nation's state, territorial		sector dedicated	
and local, senior public health agencies on a		communications systems to facilitate/	
24/7 basis, within 30		expedite detection &	
minutes of notification		response to terrorist events will be	
By 2006 all state/local PH		increased to between	
agencies will be able to broadcast Health Alerts within 1 hour of		15 and 25 through HAN.	
notification		ΠΑΙΝ.	

Performance Goal	Performance Measure	Targets	Actual Performance
Goal 2: By 2007, enhance and maintain the skills and essential competencies of the PH workforce to perform the essential services of public health	1. Evaluate the impact on the performance/ preparedness of frontline public health practitioners resulting from education	FY 07: Ensure training plans are maintaining certification and credentialing.	FY07: 12/2008
on a routine and emergency basis through distance-based training and education.  HAN Objective	and training programs implemented or supported by CDC, including the Centers for Public Health	FY 06: 1) 100% of LHDs certified under "Project Public Health	<b>FY 06:</b> 12/2007
All public health     workers at the State and     local level with a role in     terrorism preparedness     and response should be     trained and certified in     the core and discipline-     specific competencies     for terrorism     preparedness and	Preparedness (CPHP) system.	Ready." 3) 100% of states are served by a CPHP. 4) 100% of LHDs deploy distributed learning technology in public health education and training. 5) All DLCs	
response.  All Health Alert Network and Distance- Learning Coordinators at the State and local level should be trained and certified in the deployment and use of the Health Alert Network and Distance- Learning Infrastructure.  All public health workers at the State and local level should have access to distance-based training and education		ry 05: 1) Evaluate impact in 50% of states; Share best practices and lessons-learned. 2) 30% of LHDs achieve certification under "Project Public Health Ready." 3) 90% of states are served by a CPHP.	FY 05: 12/2006
to meet continuing education requirements necessary for professional accreditation and licensing, including required CEU, CME, and CNE credits.	(Continued)	(Continued)	(Continued)

Performance Goal	Performance Measure	Targets	Actual Performance
Goal 2 and HAN Objectives Continued	1. Continued	FY 05: (continued) 4) 75% of LHDs deploy distributed learning tech. 5) 50% increase in certified DLCs	
		FY 04: 1) Evaluate impact in 30% of states 2) 10% of local health depts. (LHDs) certified under "Project Public Health Ready." 3) 80% of states are served by a CPHP. 4) 50% of LHDs deploy distributed learning tech. 5) 20% increase in certified DLCs.	FY 04: 12/2005
		FY 03: 1) Initiate evaluation in 10% of states. 2) Begin demonstration phase of "Project Public Health Ready." 3) 50% of states served by a CPHP. 4) 30% of LHDs deploy distributed learning technology in public health education and training. 5) 10% increase in certified DLCs	FY 03: 12/2004

Performance Goal	Performance Measure	Targets	Actual Performance
Goal 2 and HAN Objectives Continued	1. Continued	(Continued) FY 02: 1) Evaluation framework developed; network of public health evaluators established in CPHPs to develop implementation strategies. 2) (revised): Establish % of states/territories that have working relationships w/1 or more CPHP. Baseline is 30%. 3) (revised): Establish baseline % of local health departments; determine number of DLCs.	FY 02: 12/2003

# Part II. Goal-by-Goal Performance Measurement

# Performance Measurement Legend

Budget Page Number	В
Healthy People	НР
National Health Nutrition and Examination Survey	NHANES
HHS Strategic Plan Goal/Objective	HHS#
President's Management Agenda 1. Strategic Management of Human Capital 2. Increased Competitive Sourcing 3. Improved Financial Management 4. Expanded E-government 5. Enhanced Budget and Performance Integration	#

### Birth Defects / Disabilities and Health

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 87,462 Estimate

**FY 2003:** \$ 89,455 President's Budget

**FY 2002:** \$ 89,946 Enacted

# II-A. Birth Defects, Developmental Disabilities Prevention, and Disabilities and Health

### **Goal-by-Goal Performance Measurement**

### **Birth Defects and Developmental Disabilities Prevention**

1. **Performance Goal:** Prevent birth defects and developmental disabilities.

Performance Measure	Targets	Actual Performance	Reference
1. Decreasing the percentage of women who report any alcohol consumption during pregnancy.	<b>FY 04:</b> 10.0 % <b>FY 03:</b> 11.5 %	<b>FY 04:</b> 11/2004 <b>FY 03:</b> 11/2003 <b>FY 99:</b> Baseline: 12.8 %	<b>B</b> - 50
2. Reduce by 1% per year the number of children born with spina bifida and anencephaly through promotion of folic acid consumption by women of reproductive age.	FY 04: 2% reduction FY 03: 1% reduction	<b>FY 04:</b> 10/2004 <b>FY 03:</b> 10/2003 <b>FY 02:</b> Baseline: 2,151	<b>B</b> - 50 <b>1</b>
<b>3.</b> Increase the number of states collecting community-based data on autism and other developmental disabilities.	<b>FY 02:</b> 10	<b>FY 02:</b> 13 <b>FY 01:</b> Baseline: 4	<b>B</b> - 50
<b>4.</b> Increase the number of CDC-sponsored studies being conducted to find causes of autism, cerebral palsy, and mental retardation.	FY 02: 4	<b>FY 02:</b> 7 <b>FY 01:</b> Baseline: 2	<b>B</b> - 50
5. Increase the number of American births covered by birth defects monitoring programs, which use these data to plan services for children and evaluate prevention strategies.	<b>FY 04:</b> 2,700,000 <b>FY 03:</b> 2,600,000 <b>FY 02:</b> 2,500,000	FY 04: 10/2004 FY 03: 10/2003 FY 02: 2,540,730 FY 01: 2,096,988	<b>B</b> - 50

### Birth Defects /Disabilities and Health

### **Disabilities and Health**

**2. Performance Goal:** Improve the health and quality of life of Americans with disabilities.

Performance Measure	Targets	Actual Performance	Reference
1. By 2010, decrease the percentage of newborns who screen positive for hearing loss but are lost to follow-up to 10%.	FY 04: 30% FY 03: 35%	<b>FY 04:</b> 10/2004 <b>FY 03:</b> 10/2003 <b>FY 00:</b> Baseline: 43.6%	<b>B</b> - 50 <b>5</b>
2. Decrease the overall health disparity experienced by people with disability by increasing the number of states that implement a health promotion program to improve the health and quality of life for persons with disability.	FY 04: 7 FY 03: 6 FY 02: 5	FY 04: 10/2004 FY 03: 10/2003 FY 02: 7 FY 01: Baseline: 1	<b>B</b> - 50

### **Program Description and Context**

More than 120,000 infants are born with birth defects each year in the United States. The 17 most common birth defects cost approximately \$6 billion for children born in a single year. With medical advances, more babies with serious birth defects are surviving, and many experience lifelong disabilities, illness, and social challenges. In addition, 17% of U.S. children under the age of 18 have some type of developmental disability. Children and adults living with disabilities often suffer from secondary medical, social, emotional, family, and community problems. Causes of birth defects and developmental disabilities are unknown for about 75% of cases.

In response to these public health challenges, CDC seeks to promote the health of babies, children, and adults, and enhance the potential for full, productive living. This is accomplished through conducting research to identify the causes of birth defects and developmental disabilities, designing interventions to help children develop and reach their full potential, and promoting health and well-being among people of all ages with disabilities. To facilitate this work and to measure performance over time, CDC supports monitoring programs for birth defects and developmental disabilities and is working to ensure that disability status is included in all major health surveys. However, because of the need to monitor very large numbers of births to draw conclusions about changes in rates, changes in the prevalence rates of many of these conditions often take time to detect. CDC is also collecting data on behavior associated with the risk factors for specific birth defects and developmental disabilities.

### Birth Defects / Disabilities and Health

Lack of health promotion and disease prevention activities targeting individuals with disabilities has allowed these individuals to continue to experience medical, social, emotional, family, or community problems that can be prevented. Increased understanding of these preventable conditions may yield promising prevention approaches that can improve the quality of life for individuals living with disabilities. CDC is therefore focusing on preventing these secondary conditions, promoting health, and improving the quality of life among persons with disabilities. Activities include monitoring health status, conducting research on cost-effectiveness, identifying risk and protective factors, and implementing health promotion strategies that are proven effective.

Most CDC programs in these areas are relatively new and are building a foundation for future growth and development. The real impact of these programs will be felt in the next 10 years.

### **Program Performance Analysis**

CDC has major prevention programs underway in two areas – folic acid for prevention of spina bifida and fetal alcohol syndrome (FAS) prevention. Fortification of the food supply with folic acid (a B vitamin) has made possible major reductions in the rates of serious birth defects of the spine (spina bifida) and brain (anencephaly). However, the reductions are still less than is possible if all women of reproductive age consumed adequate amounts of folic acid before and during pregnancy. CDC is working with a variety of public and private partners to promote the use of folic acid. Two efforts in particular focus on increasing knowledge and awareness of folic acid among Hispanic women and among women who have had a previous pregnancy affected by spina bifida or anencephaly. CDC has also conducted and published the results of research demonstrating that folic acid may also reduce the occurrence of other birth defects.

In terms of FAS prevention, a great deal has been accomplished since the new objective on FAS prevention was added this year. Project CHOICES—a CDC-funded FAS intervention study—is moving forward rapidly. This research effort has shown that women in certain community—based settings, such as prisons and alcohol treatment facilities, have a seven-fold increased risk for having an alcohol-exposed pregnancy. In addition, a pilot intervention study in these settings has been shown to result in significant decreases in risk. A randomized controlled trial of this intervention is now under way. Two additional epidemiologic and intervention studies related to alcohol use and pregnancy among Latina women are also being implemented. In addition, a targeted media campaign geared toward African-American women is under way in Saint Louis, campaigns are also planned in Iowa and California, and plans for developing training and educational materials for professionals in health and social service agencies, law enforcement, and school systems are also moving along smoothly. This combination of activities along with enhanced monitoring efforts should position CDC to achieve its performance targets.

### Birth Defects / Disabilities and Health

CDC conducts a model birth defects monitoring program in the metropolitan Atlanta area and supports monitoring programs in 35 states through cooperative agreements. Increasing the number of births covered by such programs increases the representativeness of the data, and allows it to be used more effectively to draw programmatic and scientific conclusions. Our goals to establish prevalence rates will help us to more effectively allocate resources, develop prevention strategies, and evaluate the effectiveness of prevention efforts. Similarly, the ability to detect regional differences in prevalence rates will provide us with important clues about risk factors and causes of birth defects.

To look for causes and risk factors for birth defects, CDC has funded 7 Centers for Birth Defects Research and Prevention to conduct a large collaborative study of the causes of birth defects, the National Birth Defects Prevention Study. The Centers have developed a surveillance system to identify infants born with (case) and without (control) a selected list of birth defects. Through telephone interviews with the infant's mother, questions were asked about the pregnancy and mother's medical history, lifestyle, diet, medication use, and occupational and environmental exposures. All of the summary data from cases and controls are compared to identify any environmental and genetic factors that increase or decrease the risk of a birth defect. The database will continue to grow but it is sufficiently large now to be analyzed to look for differences in cases of specific birth defects and controls that may provide clues to causes for those birth defects. Researchers can now submit a proposal to the Centers' Data Sharing Committee to acquire access to the data. Because of the nature of research, we cannot promise when, or even if, we will find new causes of birth defects. Therefore, the performance measure is for the growth of the database and the number of researchers using the data since these are the activities that will eventually lead to discovery of causes of birth defects.

CDC efforts to monitor prevalence and to look for causes for developmental disabilities is not yet as well developed as the efforts for birth defects, but this program is now beginning to grow rapidly. We have performance measures for the growth of the program since it is too soon for the program to have an impact on health outcomes.

CDC is collaborating with the Health Resources and Services Administration (HRSA) to assist states in implementing a new program, the Early Hearing Detection and Intervention (EDHI) program. CDC's role is to help states establish programs to track the children who screen positive for hearing loss and ensure that these children get follow-up diagnostic testing and, if needed, enter early intervention programs. This tracking program can also be used to provide data for research into causes of hearing loss and for cost-benefit studies. Some states have already seen declines in the average age of diagnosis for hearing loss as a result of this program. A particular focus of our current efforts is to reduce the number of children who are lost to follow up.

### Birth Defects /Disabilities and Health

CDC has, at the direction of Congress, implemented programs to improve the health and quality of life for people living with disabilities. There are 2 major types of program activities. One program supports research to identify risk and protective factors, prevention effectiveness strategies, and cost effective health promotion interventions. The other activity supports state efforts to implement health and wellness programs for people with disability. One program developed by the research program, "Living Well with a Disability," has been proven to improve health and reduce medical costs and is now being implemented in several states.

# Chronic Disease Prevention and Health Promotion

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 834,047 Estimate

**FY 2003:** \$ 710,492 President's Budget

**FY 2002:** \$ 746,731 Enacted

### **II-B. Chronic Diseases Prevention and Health Promotion**

### **Goal-by-Goal Performance Measurement**

### **Early Detection of Breast and Cervical Cancer**

**1. Performance Goal:** Increase early detection of breast and cervical cancer by building nationwide programs in breast and cervical cancer prevention, especially among high-risk, underserved women.

Performance Measure	Targets	Actual Performance	Reference
1. Excluding breast cancers diagnosed on an initial screen in the NBCCEDP, diagnose at least 70% of women aged 40 and older at the localized stage.* (* first mammogram provided through CDC's NBCCEDP)	FY 02: 70% FY 01: 69% FY 00: 72% FY 99: 71%	FY 02: 4/2003 FY 01: 64% FY 00: 66% FY 99: 70% FY 98: 70% FY 95: 70%	<b>B</b> - 57
2. Excluding invasive cervical cancers diagnosed on an initial screen in the NBCCEDP, lower the age-adjusted rate of invasive cervical cancer in women aged 20 and older.*  (* first Pap test provided through CDC's NBCCEDP)	FY 04*: ≤15/100,000 FY 03*: ≤16/100,000 FY 02: ≤22/100,000 FY 01: ≤22/100,000 FY 00: ≤22/100,000 FY 99: ≤22/100,000	FY 04*: 4/2005 FY 03*: 4/2004 FY 02: 4/2003 FY 01: 14/100,000 FY 00: 16/100,000 FY 99: 19/100,000 FY 98: 23/100,000 FY 95: 26/100,000	<b>B</b> - 57
	*FY rate based on three years of data - see text.	*FY rate based on three years of data - see text.	

**2. Performance Goal:** Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of women screened.  Breast: mammogram or CBE  Cervical: Pap Smear	FY 04: 381,682 breast/ 275,000 cervical	FY 04: Mid- 2005  FY 03: 10/2004 FY 02: 10/2003 FY 01: 356,395 breast/ 265,306 cervical FY 00: Baseline: 229,000 breast/ 247,192 cervical	<b>B</b> - 57
2. Maintain the percentage of newly enrolled women who have not received a Pap test within the past five years.	<b>FY 04:</b> 22.5% cervical	FY 04: 10/2005 FY 03: 10/2004 FY 02: 10/2003 FY 01: 22.9% FY 00: Baseline: 21.7% cervical	<b>B</b> - 57
3. Increase the percentage of women with abnormal results* who receive a final diagnosis within 60 days of screening.  *Breast - abnormal mammogram (suspicious of abnormality, highly suggestive of malignancy, or assessment incomplete) and/or abnormal CBE.  *Cervical - abnormal Pap includes high grade SIL, squamous cancer, or abnormal glandular cells.	FY 04: 86.5% breast/64% cervical	FY 04: 10/2005  FY 03: 10/2004  FY 02: 10/2003  FY 01: 83.6% breast/ 61.9% cervical  FY 00: Baseline: 82.2 % breast/ 61.2 % cervical	<b>B</b> - 57
4. Increase the percentage of women with cancer who start treatment within 60 days of diagnosis.	FY 04: 95% breast/ 92% cervical	FY 04: 10/2005  FY 03: 10/2004  FY 02: 10/2003  FY 01: 93.1% breast/ 88.5% cervical  FY 00: Baseline: 94% breast/ 88% cervical	<b>B</b> - 57

### Breast and Cervical Cancer Continued

Performance Measure	Targets	Actual Performance	Reference
5. <u>Cervical</u> : Increase the percentage of women with precancerous lesions* who start treatment within 90 days of diagnosis	<b>FY 04:</b> 94%	FY 04: 10/2005 FY 03: 10/2004 FY 02: 10/2003 FY 01: 91.7% FY 00: Baseline: 92.4%	<b>B</b> - 57
*includes CIN II, CIN III, and CIS			

### **Tobacco Use Prevention**

**Performance Goal:** Reduce cigarette smoking among youth.

Performance Measure	Targets	Actual Performance	Reference
Reduce the percentage of youth (grades 9-12) who smoke.	FY 03: 26.5%** FY 01: 34.2%* FY 99: 36.4%	FY 03: 5/2004 FY 01: 28.5% FY 99: 34.8% FY 97: 36.4% FY 95: 34.8% FY 93: 30.5% FY 91: 27.5%	<b>B</b> - 57

<sup>\*</sup>YRBSS data released in June 2000 indicated achievement of the FY 01 target, and CDC revised the teen smoking projections.

## **Community-Based Prevention Research**

**Performance Goal:** Support prevention research to develop sustainable and transferable community-based behavioral interventions.

Performance Measure	Targets	Actual Performance	Reference
1. Ensure that at least one PRC in each DHHS region establishes research priorities and develops interventions in collaboration with a constituent community.	FY 02: At least 1 research project per PRC that reflects community-based participatory research	<b>FY 02:</b> 6/2003	<b>B</b> - 57
	FY 01: At least 1 research project per PRC that reflects community-based participatory research	FY 01: Achieved	
	FY 00: At least 1 research project per PRC that reflects community-based participatory research	FY 00: Achieved	
	FY 99: 1 PRC in each region	FY 99: Achieved	
		<b>FY 98:</b> >24	
<b>2.</b> Ensure that PRCs work toward closing the gap between research findings and public health practices.	FY 02: At least 1 research project per PRC aimed at closing the gap between research and practice.	FY 02: 6/2003	<b>B</b> - 57
		<b>FY 00:</b> Baseline: 1	

### **Heart Disease and Stroke**

**1. Performance Goal:** Increase the capacity of state cardiovascular health programs to address prevention of cardiovascular disease at the community level.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of states with five of the seven heart disease and stroke prevention capacities.	FY 02: 20 states FY 01: 15 states FY 00: 11 states FY 99: 8 states	FY 02: 6/2003 FY 01: Exceeded/18 FY 00: Exceeded/15 FY 99: Exceeded/11	<b>B</b> - 57

**2. Performance Goal:** Reduce death and disability due to heart disease and stroke and eliminate disparities.

Performance Measure	Targets	Actual Performance	Reference
1. Reduce the proportion of heart disease and stroke deaths that occur before transport to emergency services.	FY 04: Heart Disease Deaths 45% Stroke Deaths 45%	FY 04: 6/2004  FY 99: Baseline: Heart Disease Deaths 47% Stroke Deaths 48%	<b>B</b> - 57 <b>1</b>
2. Reduce the prevalence of uncontrolled high blood pressure (BP≥140/90), among patients with hypertension, especially among populations at high risk, in states that collaborate with community health centers.	FY 04: 45%	<b>FY 04:</b> 6/2004 <b>FY 02:</b> Baseline: 50%	<b>B</b> - 57 <b>1</b>

### **Diabetes**

**Performance Goal:** Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the percentage of diabetes control programs that adopt, promote, and implement guidelines for improving the quality of care for persons with diabetes.	FY 02: 100% FY 01: 100% FY 00: 100%	FY 02: 100% achieved FY 01: 100% achieved FY 00: 85% FY 99: 70% FY 98: 60%	<b>B</b> - 57
<b>2.</b> Conduct studies on translating research findings into clinical and public health practice, and publish results in peer-reviewed journals.	<b>FY 02:</b> 8 studies <b>FY 01:</b> 8 studies <b>FY 00:</b> 7 studies <b>FY 99:</b> 5 studies	FY 02: Achieved FY 01: Achieved FY 00: Achieved FY 99: 4 studies	<b>B</b> - 57
3. For states receiving CDC funding for diabetes control programs (DPCPs), increase the percentage of persons with diabetes who receive annual eye and foot exams.  * Refers to basic implementation states (formerly comprehensive) only.	FY 04: Eye/72%; foot/62% (Increase baseline by 10%)  FY 03*: Eye/72%; foot/62% (Increase baseline by 10%)  FY 02*: Eye/72%; foot/62% (Increase baseline by 10%)  FY 01*: Eye/72%; foot/62% (Increase baseline by 10%)	FY 04: 10/2004  FY 03*: 10/2004  FY 02*: 10/2003  FY 01*: Eye/69.8%; foot/65.3%	<b>B</b> - 57 <b>1</b>
	FY 00*: Eye/72%; foot/62% (Increase baseline by 10%)	FY 00*: Eye/69.0%; foot/62.4%  FY 99*: Eye/67.3%; foot/57.8% FY 98*: Eye/64.7%; foot/56.5% FY 97*: Eye/65.6%; foot/56.6% FY 96*: Baseline: Eye/61.7%; foot/52.4%	

### Diabetes Continued

Performance Measure	Targets	Actual Performance	Reference
4. Increase the percentage of DPCPs with one capacity in all key areas (e.g. surveillance, partnerships, communication networks, assessment of quality care, public awareness).	FY 02: 100% FY 01: 100% FY 00: At least 85% FY 99: At least 75%	FY 02: 80% - 100% FY 01: 80% - 100% FY 00: 75% - 100% FY 99: 69% - 100% FY 94: 36%	<b>B</b> - 57
5. For states receiving CDC funding for diabetes prevention and control programs (DPCPs), increase the percentage of persons with diabetes who receive at least two A1c measures per year.	FY 04: 72.5%	FY 04: 10/2005 FY 01: 63.3% FY 00: Baseline: 62.0%	<b>B</b> - 57 <b>1</b>
6. Increase the number of DPCPs that promote health system approaches to identifying persons who are at high risk for developing diabetes (e.g. obese and/or impaired glucose metabolism).  *New initiative	<b>FY 04:</b> 5	<b>FY 04:</b> 10/2005 <b>FY 02:</b> Baseline: 0	<b>B</b> - 57
7. By 2009, decrease by 25% the number of people with pre-diabetes who advance to diabetes among states with pre-diabetes programs.  *New initiative	FY 04: Establish baseline	FY 04: 10/2005	<b>B</b> - 57 <b>1</b>

### **Arthritis**

**Performance Goal:** Increase the capacity of state arthritis programs to address the prevention of arthritis and its complications at the community level.

Performance Measure	Targets	Actual Performance	Reference
1. Enhance state-based arthritis surveillance by increasing the number of states using BRFSS modules on arthritis and quality of life.	<b>FY 02:</b> 28 states <b>FY 01:</b> 35 states	FY 02: 29/arthritis; 22/quality of life FY 01: 50/arthritis; 15/quality of life FY 00: 36/arthritis; 19/quality of life FY 99: 8	<b>B</b> - 57
2. Increase the number of states addressing arthritis at the capacity building level.	<b>FY 02:</b> 8 states <b>FY 01:</b> 8 states	<b>FY 02:</b> 8/Achieved <b>FY 01:</b> 8/Achieved <b>FY 00:</b> 8	<b>B</b> - 57

### **National Program of Cancer Registries**

**Performance Goal:** Improve the quality of state-based cancer registries.

Performance Measure	Targets	Actual Performance	Reference
Increase the percentage of states funded by CDC's NPCR that report at least 95% of unduplicated, expected cases of reportable cancer in state residents in a diagnosis year.	FY 02: 80% FY 01: 75% FY 00: 60% FY 99: 30%	FY 02: 6/2003 FY 01: 65% FY 00: Exceeded/70% FY 99: Exceeded/60% FY 98: 29% FY 97: 17%	<b>B</b> - 57 <b>4</b>

## **HIV Prevention among School-Aged Youth**

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

Performance Measure	Targets	Actual Performance	Reference
1. Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90% or greater.	<b>FY 03:</b> 90% or more <b>FY 01:</b> 90% or more <b>FY 99:</b> 90% or more	FY 03: 7/2004 FY 01: 89% FY 99: Achieved/91% FY 97: 92% FY 95: 86%	<b>B</b> - 57
2. Increase the proportion of adolescents (grades 9-12) who abstain from sexual intercourse or use condoms if currently sexually active.	All adolescents FY 03: 89% FY 01: 89%	All adolescents FY 03: 7/2004 FY 01: 86% FY 99: 85% FY 97: 85% FY 95: 83% (YRBSS)	<b>B</b> - 57
	Black or African-Americans adolescents FY 03: 87% FY 01: 87%	Black or African-Americans adolescents FY 03: 7/2004 FY 01: 85% FY 99: 83% FY 97: 80% FY 95: 82% (YRBSS)	
	Hispanic or Latino adolescents FY 03: 88% FY 01: 88%	Hispanic or Latino adolescents FY 03: 7/2004 FY 01: 84% FY 99: 84% FY 97: 82% FY 95: 77% (YRBSS)	

### **Monitoring Risk Behaviors (Behavioral Risk Factor Surveillance System)**

**Performance Goal:** Help states monitor the prevalence of major behavioral risks associated with premature morbidity and mortality in adults to improve the planning, implementation, and evaluation of health promotion and disease prevention programs.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of states participating in the BRFSS that complete 4,000 telephone interviews per year.	<b>FY 02:</b> 18 states <b>FY 01:</b> 18 states	FY 02: 4/2003 FY 01: 18 Achieved FY 00: 18 FY 99: 9	<b>B</b> - 57

### **Nutrition, Physical Activity and Obesity**

**Performance Goal:** Decrease levels of obesity or reduce the rate of growth of obesity in communities reached through nutrition and physical activity interventions.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of nutrition and physical activity interventions that are implemented and evaluated in funded states.	FY 04: 12 interventions	<b>FY 04:</b> 12/2005 <b>FY 02:</b> 0 interventions	<b>B</b> - 57

### **Program Descriptions, Context, and Analyses**

## **Early Detection of Breast and Cervical Cancer Program Descriptions and Context**

The National Breast and Cervical Cancer Early Detection Program (NBCCEDP) was created by Congress with the passage of the Breast and Cervical Cancer Prevention Mortality Act in 1990. This legislation authorized CDC to establish the first national chronic disease program to increase access to and use of breast and cervical cancer screening services for low-income women who are uninsured or under-insured.

Breast cancer is the most commonly diagnosed nondermatologic cancer and the second leading cause of cancer deaths among women in the United States. In 2002, it was estimated that 203,500 new cases and 39,600 deaths would occur. Cancer of the uterine cervix would claim the lives of 4,400 women, and 12,900 new cases would be diagnosed. Research suggests that precancerous conditions and invasive cervical cancer are more likely to be found in women who have not ever been screened or have not been screened in the past five years and that women over 50 years of age are at increased risk of breast cancer. However, virtually all deaths from cervical cancer and more than 30% of deaths from breast cancer among women 50 years and older could be prevented through the widespread use of Papanicolaou (Pap) tests and screening mammography.

CDC's 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 quality screening services. CDC supports activities at the state, tribal, territorial and national levels in the following areas: screening; tracking, follow-up and case management; quality assurance; public and professional education; evaluation and surveillance; and partnership development. For women screened through the NBCCEDP with abnormal screening results and/or a diagnosis of cancer, assuring timely access to diagnostic and treatment services is critical. Although the NBCCEDP does not provide funding for treatment services, the Breast and Cervical Cancer Prevention and Treatment Act of 2000 ensures Medicaid services for women screened through the program if they are a U.S. citizen or a qualified alien.

### Early Detection of Breast and Cervical Cancer Program Performance Analysis

Through September 2001, the NBCCEDP has provided more than 3.6 million screening tests to over 1.4 million women. The program has diagnosed almost 12,000 breast cancers, 48,170 precancerous cervical lesions, and over 800 cases of invasive cervical cancer.

The first GPRA measure relates to diagnosing at least 70% of women aged 40 and older at the localized stage for breast cancer. In 2001, 62% of women in this group were diagnosed at the localized stage; this is below our target of 69% for 2001. Based on a recent study, problems were identified in grantee programs accurately reporting stage data. Studies have been initiated this year to better understand the problem including a linkage study among seven states that will compare our NBCCEDP stage data with cancer registries' data and a validation study to examine the reliability of the overall NBCCEDP MDE data. Due to our concerns about data quality, CDC will drop this measure after reporting in 2002. Based on results of the studies noted above, corrective actions will be implemented.

CDC continues to meet the established target for an age-adjusted rate of invasive cervical cancer in women aged 20 and older to not more than 22 per 100,000 Pap tests provided. For fiscal year 2001, the age-adjusted rate was 14 per 100,000.

CDC will make a slight revision to this measure beginning in FY 2003. Currently, the measure is calculated as a cumulative rate. A cumulative rate is used because the number of annual invasive cervical cancers is small and a rate based on a single year cannot be calculated with statistical stability. However, as the program has matured and more Pap tests have been provided, we can now assess this rate for a more recent time frame to provide more relevant data. Beginning in FY 2003, the rate will be based on a rolling three-year time frame rather than cumulative data (for instance, FY 2003 rate will reflect data for the time period 2001-2003). Using a three-year period assures statistical stability in the rate. CDC will continue to report data through FY 2002 based on the cumulative rate and existing target of less than or equal to 22 per 100,000 Pap tests. CDC has adjusted targets for FY 2003 and 2004 based on the revised time period and to reflect more ambitious goals.

CDC continues to increase the number of women screened through the NBCCEDP program. In fiscal year 2001,CDC screened 356,395 women for breast cancer and 265,306 for cervical cancer. CDC has included unduplicated women who receive either a mammogram and/or clinical breast exam (CBE) in the total number of screenings for breast cancer. CDC has adjusted the target for 2004 for breast cancer screening to 381,682 because the earlier target did not include women who have received a CBE.

CDC encourages programs to reach underserved women for screening, including women who are rarely or never screened for cervical cancer. CDC defines this as women who have not had a Pap test within the past five years. These women are often referred to as "hard to reach." In FY 2001, 22.9% of newly enrolled women were rarely or never screened, just exceeding our target of 22.5%. Because the measure relates only to newly enrolled women, projects must enroll NEW rarely and never screened women each year to meet this target. Therefore, the target for this measure will be quite challenging over time for our programs to meet because they must continually tap into communities of hard to reach women to identify those who are rarely and never screened. It is important to maintain an annual target at a level of 22.5%.

A parallel measure for breast screening is not included as a GPRA measure because CDC encourages programs to focus outreach for breast cancer screening to women aged 50 and older. This population represents those women at greatest risk for breast cancer. In addition, our priority has been to encourage re-screening among those women.

As for timely access to diagnostic services, 84% of women with abnormal breast cancer screening results and 62% of women with abnormal cervical cancer screening results received a final diagnosis within 60 days. The lower percentage for cervical cancer screening reflects challenges facing our programs including delays in Pap results reporting from laboratories, long waiting periods for appointments for diagnostic services, and difficulties in tracking "harder to reach" women. These figures for FY 2001 represent slight increases over FY 2000 figures. We have adjusted our FY 04 targets upward from 85% to 86.5% for breast screening and from 63% to 64% for cervical screening.

Ninety-three percent of women diagnosed with breast cancer and 89% of women diagnosed with invasive cervical cancer initiated treatment within 60 days while 92% of women with precancerous lesions initiated treatment within 90 days. These data have remained steady during FY 2000 and FY 2001. CDC has adjusted the cervical cancer FY 04 target upward from 90% to 92% and treatment of precancerous cervical cancer from 93.5% to 94%. In regard to these timeliness-related measures, relatively small percentage increases are proposed as targets. For the measures reflecting treatment initiation, our current performance is over 90%. CDC believes that, realistically, programs will likely not achieve results over 94-95% for these measures due to conditions outside of their control. For the timeliness measures related to time between abnormal results and final diagnosis, similar small increases are proposed. As noted above, several challenges confront programs in relation to this measure. These include delays in receiving lab results for Pap testing, waiting periods for diagnostic services, and challenges in tracking "hard to reach" women.

CDC continues to support activities to improve the quality and effectiveness of NBCCEDP. To that end, CDC is examining: 1) improved use of geographic information system (GIS) for targeting women for screening; 2) the reliability of the NBCCEDP surveillance data; 3) the impact of a case management policy on the program, including timeliness measures; and 4) the impact of the new Breast and Cervical Cancer Prevention and Treatment Act of 2000. CDC is confident that continued improvement in screening utilization will contribute to reducing cancer death rates and eliminating disparities in cancer death rates among women nationwide.

## Tobacco Use Prevention Program Description and Context

Tobacco use is the leading preventable cause of disability and death, directly contributing to the deaths of more than 440,000 Americans each year and costing more than \$75 billion annually in direct medical costs. Every day, more than 5,000 young people try cigarettes for the first time. Of today's children, 6.4 million can be expected to die prematurely if current smoking trends continue. CDC is committed to reducing tobacco use, with an ultimate goal of reducing the burden of tobacco-attributable disease. Comprehensive state programs, including school-based programs and local outreach efforts, have been shown to be effective in reducing the prevalence of tobacco use.

Through the National Tobacco Control Program (NTCP), CDC funds all 50 states, 7 territories, and the District of Columbia. The purpose of the NTCP is to build and maintain tobacco control programs within state and territorial health departments for a coordinated national program to reduce the health and economic burden of tobacco use. The NTCP has four goals: 1) preventing initiation of tobacco use among young people, 2) promoting cessation of tobacco use among youth and adults, 3) protecting the public from exposure to secondhand smoke, and 4) identifying and eliminating disparities in tobacco use among populations groups.

Each of these goals relates directly to the 21 Healthy People tobacco objectives. *Best Practices for Comprehensive Tobacco Control Programs* is a guidance document that translates the Healthy People objectives into specific, science-based program components, creating the structure for states to build upon. These components include:

- Community Programs to Reduce Tobacco Use;
- Chronic Disease Programs to Reduce the Burden of Tobacco-Related Diseases;
- School Programs;
- Enforcement:
- Statewide Programs
- Counter-Marketing;
- Cessation Programs;
- Surveillance and Evaluation: and
- Administration and Management.

As a result of the 1998 settlement agreement with the tobacco industry, states now have additional resources available to devote to tobacco control. As of April 12 2002, of the 48 states and the District of Columbia for which data were available, 42 states have invested \$637.2 million in FY 2002 from settlement revenues, and 3 states have invested an additional \$123.9 million from cigarette excise tax revenue. Another \$13.6 million in general revenues was invested by 9 states. State investment in tobacco control totals \$774.7 million in FY 2002. National funders of state tobacco control programs include federal agencies and private foundations. National funders, including CDC, continue to play an important role in state-level tobacco control efforts, with investments totaling \$89.8 million in FY 2002. In Tennessee and

the District of Columbia, funds from national sources are the only funds being invested in tobacco control. In 12 states, funding from national sources accounted for 50% or more of the funds being invested in that state. For the nation as a whole, combined resources from state and national sources for state-level tobacco control efforts in FY 2002 total \$861.9 million, representing \$3.16 per capita. However, only at least 6 states are meeting or exceeding the *Best Practices* lower-estimate funding recommendation. Two states (Arizona and Massachusetts) were not analyzed because their state budgets had not been finalized at the time of this report.

### Tobacco Use Prevention Program Performance Analysis

Between 1991 and 1997, cigarette use among youth (grades 9-12) increased from 27.5% to 36.4%, although the rate of increase in youth smoking slowed from 1995 - 1997. Data released from CDC's Youth Risk Behavior Survey in May 2002 indicate that the percentage of youth (grades 9-12) who smoke then dropped slightly to 34.8% in 1999, and dropped more significantly to 28.5% in 2001. Success in reducing the youth smoking rate is attributed to restrictions on the tobacco industry, increased state funding for tobacco control programs, technical assistance from the federal government to determine effective tobacco-control strategies, and coordination of tobacco-control efforts among public agencies and non-governmental organizations. Therefore, for FY 03, CDC has revised its target from 32.3% to 26.5%.

## Community-Based Prevention Research Program Description and Context

The Prevention Research Centers were first authorized by Congress in 1984. CDC's Health Promotion and Disease Prevention Research Center (PRC) program integrates the resources of 26 academic centers to develop and implement community-based prevention research interventions to remediate the nation's primary causes of death and disability. Each center, selected through a competitive process, conducts at least one core research project within an under served population that has a disproportionately large burden of death and disability. The centers work with groups as diverse as women, adolescents, and the elderly, and in areas as geographically distinct as Harlem, Appalachia, and the Southwest.

Expertise from the university-based PRCs is made available to health agencies, community-based organizations, and national nonprofit organizations. The link between university research and grassroots organizations helps promote the application of findings and results in practical, cost-effective, and innovative community programs. CDC's PRC program's collaborative efforts are highlighted in an article entitled "Observations from the CDC: Community Prevention Study (CPS): Contributions to Women's Health and Prevention Research." NIH's multi-year Women's Health Initiative (WHI) is one of the largest U.S. studies of women's health. A review of the WHI CPS's contributions indicates that this CDC-NIH collaboration is a model for advancing the research agenda in women's health especially because it helped accelerate action to promote women's health in diverse populations. Seven of the 26 PRCs also created models for preventing heart disease, diabetes, and the consequences of osteoporosis; detecting breast and cervical cancer; and evaluating hormone replacement therapy, and dietary and vitamin supplement use in women.

The PRCs' future is shaped by two main endeavors: evaluation and expanded collaboration. A project is now underway to evaluate the CDC's PRC program. Through the evaluation project, the centers and their partners are developing models to describe the centers' collective attributes, designing templates for documenting the effects of the centers' work, and establishing criteria for judging how well aims were achieved. This evaluation plan will be used to improve program operations and meet the accountability requirements of the program's diverse local and national stakeholders. Initiatives are also underway to increase collaboration with federal and nonfederal partners. For example the PRCs are developing ways to strengthen partnerships with the Association of State and Territorial Chronic Disease Directors and the Association of State and Territorial Directors of Health Promotion and Public Health Education. The PRCs also continue to encourage community partners throughout the country to contribute to prevention research.

## Community-Based Prevention Research Program Performance Analysis

CDC achieved the FY 2001 target of community-based, participatory research projects in every PRC. Based on a review of PRC demonstration projects and continuation applications, CDC believes that the PRCs will continue to conduct research projects that reflect the needs of their communities. This performance measure will be eliminated effective FY 2002.

CDC achieved the FY 2001 target of ensuring that at least one research project per PRC is aimed at closing the gap between research and practice. In an effort to move from process oriented measures, this measure will be eliminated effective FY 2003. However, CDC will continue to monitor progress in this area internally.

### Heart Disease and Stroke Program Description and Context

Cardiovascular disease (CVD)--primarily heart disease and stroke--is the nation's number-one killer of men and women across all racial and ethnic groups. More than 40% of deaths in the United States-900,000 each year-are directly attributable to heart disease and stroke, and CVD is the leading cause of death in all states. Associated annual costs exceed \$329 billion. Major disparities exist among population groups, with a disproportionate burden of death and disability from heart disease and stroke in racial/ethnic populations such as African-Americans. The number of people with CVD is likely to increase as the population ages, particularly in populations with uncontrolled high blood pressure, a major risk factor for both heart disease and stroke. While high blood pressure cannot be cured, levels can be controlled with appropriate treatment. Among hypertensive patients, the prevalence of uncontrolled high blood pressure is 50%: there is evidence that many high risk patients do not receive medication. Treatments exist for both heart attack and stroke, but prompt emergency treatment within a few hours after the onset of symptoms is key to reducing disability and death. Almost 47% of heart disease deaths and 48% of stroke deaths occur before emergency services arrive; many of these deaths could be reduced if the public recognized symptoms and responded quickly by seeking emergency care.

Scarce public health resources have prohibited the development of an effective nationwide cardiovascular health (CVH) program. Such a program is needed that promotes health systems policy changes that encourage the appropriate treatment of high blood pressure, high cholesterol levels, stroke, and heart disease. CDC partners and collaborates with national organizations and other federal agencies to increase public awareness of symptoms for both heart attack and stroke, to promote standard of care guidelines among health care providers for the treatment of high blood pressure, high cholesterol, heart disease, and stroke, and to educate patients to have a more informed role in treatment management.

CDC is building a nationwide CVH state program to place an additional focus on stroke treatment and prevention, which includes preventing the major risk factor for stroke--uncontrolled high blood pressure. Because there is little state and national data to monitor improvements in heart disease, stroke, high blood pressure, and high cholesterol, CDC will be developing registries and new surveillance systems to increase the surveillance capacity of state programs. CDC's crosscutting approach to the prevention of both heart disease and stroke includes collaboration with other CDC Divisions on the prevention of behavioral risk factors such as tobacco use, physical inactivity, and poor nutrition, and on the control of diabetes.

In the first four years, the CVH state program funded states to focus on policy and environmental actions to increase nutrition and physical activity and promote cardiovascular health. This focus which has been expanded to emphasize the prevention and treatment of high blood pressure, high cholesterol, heart disease, and stroke requires new performance measures to evaluate each state's ability to promote changes in the public, high risk patients, health care providers, and health care systems about prevention and treatment of these outcomes. New performance measures for FY 04 will include: (1) decreasing the proportion of heart disease and stroke deaths that occur pre-transport through national and state-level health communication programs about symptom awareness and the need to call 9-1-1 for emergency transport; and (2) reducing the prevalence of uncontrolled high blood pressure through a collaboration between states and their Federally Qualified Community Health Centers, which provide health care to underserved, uninsured, and minority populations.

### Heart Disease and Stroke Program Performance Analysis

CDC has expanded its efforts to protect Americans from cardiovascular disease. In FY 1998 (the program's first year of funding), CDC funded 8 states, 7 of which achieved five of the seven capacities. In FY 1999, it funded a total of 11 states and all 11 states met at least five capacities. In FY 2000, CDC funded a total of 25 and a total of 15 met the performance measure. In FY 2001, CDC funded an additional 3 states, bring the number of states to 28, with 22 receiving capacity building funds and 6 receiving basic implementation funds. CDC exceeded the 2001 target with 18 states achieving five of the sever heart disease and stroke prevention capacities. FY 2002 performance data will be available June, 2003. In FY 03 this capacity performance measure will be eliminated because new goals for performance measures have been added that measure the impact or outcomes of the program (see Program Description and Context section above).

States are already documenting prevention achievements. Intra- and inter-state stroke networks and coalitions have been developed. States will begin assessing public awareness of stroke and heart disease symptoms at the state level in 2003. Health communications tools to enhance signs and symptom campaigns are being developed to assist the states with this critical piece to reducing the proportion of heart attack and stroke deaths which occur before transport to emergency.

## Diabetes Program Description and Context

Over 17 million Americans suffer from diabetes, and the number of new cases is increasing steadily – by approximately 1 million per year. Diabetes is now the sixth leading cause of death in the United States and the primary cause of new cases of blindness, non-traumatic amputations, and kidney failure in adults. CDC's National Diabetes Control Program conducts health promotion and disease prevention activities to improve the quality of care health systems provide to persons with diabetes. The program activities support and promote preventive health care services proven to be effective in reducing the onset and progression of diabetes-specific complications. The diabetes program is a multifaceted, science-driven public health program that monitors the extent of the diabetes problem in the U.S. through surveillance; translates research findings into clinical and public health practice; conducts state-based diabetes control programs; and, provides information to increase public awareness about how to control diabetes. CDC places a priority on reaching high-risk and disproportionally affected populations.

CDC funds diabetes prevention and control programs (DPCPs) in 16 states at a basic implementation level and 34 states at the Capacity building level. Basic implementation DPCPs are expected to expand the basic core activities to function throughout the state. Basic implementation DPCPs are demonstrating measurable success. For example, over a 2-year period, the New York DPCP, which collaborates with 14 regional community coalitions and 3 diabetes centers of excellence, reduced hospitalization rates by 35% and decreased lower-extremity amputations rates by 39%. In Michigan, a long-standing DPCP has produced a 45% lower rate of hospitalizations, a 31% lower rate of lower-extremity amputations, and a 27% lower death rate for participants.

#### **Program Performance Analysis**

CDC's current GPRA measures were initially established to assess the progress state DPCPs were making in meeting capacity building standards (that is establishing the ability to perform key elements essential to implementing population-based approaches to diabetes control). CDC also focused on the progress the state DPCPs were making in influencing quality care practices and how well states funded at the basic implementation level were doing in improving preventive care practices. As a result, 5 of the 7 CDC diabetes GPRA measures are directly related to state DPCP activities. These measures focused on process and enabled CDC to gauge DPCP's progress through significant developmental stages. The remaining measure was designed to capture the CDC's progress in conducting translational research and disseminating the findings. CDC has also added GPRA measures which relate to diabetes primary prevention activities.

CDC's GPRA reports demonstrate that state DPCPs have made significant progress over the years since the measures were established. Already, they have achieved the established targets for two measures. The third measure assessing increases in foot and eye exams, is one which states are making equally good progress. While the foot exam goal has been achieved, there is still work to be done to reach the eye exam goal. Only the 16 states funded at the basic implementation level are included in the analysis. Starting with the actual performance for FY 04, CDC will analyze data from both basic implementation and capacity building DPCPs. A brief summary of the accomplishments and progress follows:

<u>Performance Measure 1 - Goal Achieved</u>: By the end of FY 2002, 100% of the DPCPs had continued to adopt, promote, and implement guidelines for improving the quality of care for persons with diabetes. Applying the tools provided by diabetes research to influence positive changes in the preventive care practices undertaken in health systems is essential to the task of reducing diabetes. In reaching this critical goal, CDC will continue its work with states to sustain this effort.

<u>Performance Measure 2 - Goal Achieved</u>: CDC also conducted 8 prevention research studies to understand how to apply diabetes scientific findings in clinical and public health practice. For example, the Translating Research into Action for Diabetes (TRIAD) study is examining the influence of managed care structure on process and outcomes of diabetes care. TRIAD is important because it is the first multi-center study of diabetes quality of care, quality of life and factors affecting them. Ultimately, CDC will develop interventions to overcome the identified barriers.

Performance Measure 3: In FY 2002, Behavioral Risk Factor Surveillance System data from 13 of 16 basic implementation DPCPs showed that CDC had achieved the performance target for increasing the percentage of person with diabetes who receive annual foot exams. Diabetes is the leading cause of non-traumatic lower extremity amputations, yet over half of the over 80,000 amputations that occur annually could be prevented through appropriate preventive care and treatment. Although the data showed an increase in eye exams, CDC is still striving to achieve the target for eye exams in persons with diabetes. The estimates calculated for eye and foot exams are only among the 16 basic implementation states, and among these states, some of them are missing data each year. CDC usually has data on 10-13 of the 16 states each year. States conduct the BRFSS telephone survey annually, however not all of the states choose to include the Diabetes Module each year. It is possible that with all 16 states reporting, the target would be achieved. CDC will encourage all states to use the Diabetes Module regularly. CDC will also continue to work with the state DCPs to influence the preventive care practices of health systems and to inform providers and persons with diabetes about the importance of receiving annual eye exams to discover and treat diabetes-related eye disease in the earliest stages.

<u>Performance Measure 4 - Goal Achieved</u>: CDC's last performance measure monitoring the percentage of DPCPs that achieve core capacities presents a reporting challenge because the level of achievement for the several core capacities identified in the measure varies among the 58 DPCPs. Nevertheless, reports indicate an increase in FY 2001 and FY 2002 in this area. All states have established the necessary capacities in surveillance and partnership networks; however development of the capacity to establish and sustain communication networks, to assess quality of care, and to increase public awareness varies among the DPCPs.

CDC proposes to phase out measures where the goals were achieved. CDC's final report on Performance Measures 1, 2, and 4 will occur in 2002. CDC is introducing one new measure to capture funded states progress in increasing A1c testing rates to the recommended level. The A1c (A-one-C) test—short for hemoglobin A1c—measures blood glucose (sugar) control over the last 3 months. The suggested target for people with diabetes is 7%; however, many people with diabetes have levels of 9% or higher. Reducing blood glucose levels by just 1% among people with diabetes reduces their risk for microvascular complications (eye, kidney, and nerve disease) by 40%. These two measures reflect the evolution of CDC's National Diabetes Program focus from process outcomes to intermediate impact outcomes.

Effective FY 04, CDC is proposing to increase the number of DPCPs that promote health system approaches to identifying persons who are at high risk for developing diabetes (e.g. obese and/or impaired glucose metabolism). In addition, CDC seeks to establish the ability to track the number of people with pre-diabetes and their measures of nutrition, physical activity, and obesity. This will provide comprehensive data for program planning.

In 2001, exciting results were announced from two landmark clinical trials on the prevention of type 2 diabetes in high risk adults. Both studies, one conducted in Finland and a major clinical trial from the U.S., the Diabetes Prevention Program, demonstrated that sustained lifestyle change, including modest weight loss and physical activity, resulted in striking and substantial reduction in the incidence of diabetes among very high risk adults with impaired glucose tolerance or pre-diabetes, most of whom were obese. Estimates are that there are nearly 17 million adults with pre-diabetes. Because of the rapid increases observed in both obesity and diabetes, it is critical that CDC translate the new science of primary prevention into widespread public health action now.

CDC's FY 04 initiative focuses on pre-diabetes and obesity by supporting pilot programs to prevent obesity and the onset of diabetes and implementing interventions for physical activity and healthful diets in states and communities. These programs will target populations at highest risk for developing type 2 diabetes, especially racial and ethnic minority populations.

## Arthritis Program Description and Context

Congress established the CDC arthritis program in 1999 following the development of the National Arthritis Action Plan (NAA) - a landmark plan released by the Arthritis Foundation, CDC, and the Association of State and Territorial Health Officials.

Arthritis is a large and growing problem. It affects an estimated 70 million persons - including nearly one of every three adults in the United States – making it one of the most common diseases in the United States. The nation's leading cause of disability, arthritis limits daily activities for more than 7 million people. By 2020, an estimated 60 million persons will be affected and more than 11 million persons will have some limitation because of arthritis. The costs of arthritis treatment and lost productivity because of arthritis are enormous – totaling \$65 billion.

The overall goal of CDC's arthritis program is to improve the quality of life of persons affected by arthritis by decreasing pain and disability and improving physical, psychosocial, and work functions. One of the ways the CDC Arthritis Program works toward this goal is by increasing self management attitudes and behaviors (including physical activity) among persons with arthritis. CDC's multifaceted approach for translating research findings into public health practice emphasizes: 1) support to states to develop/enhance public health programs that address arthritis, 2) activities to monitor the burden and impact of arthritis, 3) activities to increase public awareness and appropriate self management, and 4)efforts to improve the quality of care. CDC has been successful in helping states to monitor the burden of arthritis and its impact in their populations using the BRFSS.

#### **Program Performance Analysis**

In FY 2002, 36 state health departments will receive CDC funding for arthritis programs (28 states funded at \$120,000 and 8 states at \$320,000). Support of state arthritis programs is the CDC Arthritis Program's largest budget item. Since 1999 when states were first funded, CDC has been successful in helping states monitor the burden of arthritis and its impact in their populations using the BRFSS and in developing the public health foundation to address arthritis. CDC has strived to increase the number of states that use arthritis and quality of life measures on the BRFSS. Beginning in 2003 and continuing every other year, the arthritis questions will be included in the core questions of the BRFSS. CDC has achieved the second performance measure of increasing the number of states (8) that address arthritis at the capacity building level. Therefore, effective 2003, these two performance measures will be deleted. CDC will continue to have internal measures to monitor the performance of the arthritis program.

### National Program of Cancer Registries Program Description and Context

Cancer is the second leading cause of death among Americans. In 2002, an estimated 555,500 Americans will die of cancer, and approximately 1.3 million new cases of cancer will be diagnosed. The United States spends an estimated \$156.7 billion annually on cancer care, including healthcare expenditures and lost productivity from illness and death. CDC's National Program of Cancer Registries (NPCR) is a fundamental component of CDC's state-based cancer control strategy. Passed by Congress in 1992, the Cancer Registries Amendment Act, Public Law 102-515, authorized CDC to implement a program to provide funds and guidance to supplement state health department efforts toward establishing or enhancing central cancer registries. Currently, CDC supports registries in 45 states, the District of Columbia, and 3 territories, representing 96% of the U.S. population. CDC also provides training in data collection, analysis, interpretation, and quality assurance for completeness, timeliness, and quality.

NPCR has made it possible for the vast majority of states to collect a standard set of data elements on all cancer cases for each year. Collection of complete data is critical to the program. Cancer registries help states report on cancer trends, assess program impact, identify cancer clusters, and respond to public inquiries and reports of suspected increased cancer occurrence. The proposed performance measure is therefore the most critical to the eventual success and usefulness of the program.

To maximize the benefits of state-based cancer registries, CDC implemented the NPCR-Cancer Surveillance System (NPCR-CSS) for receiving, assessing, enhancing, aggregating, and disseminating data from NPCR programs. This system of cancer statistics has provided valuable feedback to help state registries improve the quality and usefulness of their data. By summarizing regional- and national-level data, NPCR will facilitate the study of rare cancers, cancer in children and racial and ethnic minority populations, and occupation-related cancer.

#### **Program Performance Analysis**

CDC supports 45 state registry programs and the District of Columbia: 44 for basic implementation of established central registries and 2 for capacity building. According to January 2002 data (for cancer cases diagnosed in 1999), 65% (30 of 46) of NPCR states were at least 95% complete within 24 months of the close of the diagnosis year. The Fiscal Year 2001 target of 75% represents a 15% increase from 60% in Fiscal Year 2000. Although this ambitious target was not met, more than 76% of NPCR states were between 90% and 95% complete within 24 months of the close of the diagnosis year. NPCR staff are working closely with those states that have failed to meet program standards or achieve North American Association of Central Cancer Registries (NAACCR) certification, including an assessment of the individual standard the state may have failed to achieve. Project officers work with each

state to develop a plan of action to address compliance with the standard and monitor progress toward achieving both NPCR program standards and NAACCR certification. In an effort to eliminate process oriented measures, CDC will eliminate this measure effective 2003. CDC will continue to measure program performance internally.

### HIV Prevention among School-Aged Youth Program Description and Context

In the United States, HIV-related death has the greatest impact on young and middle-aged adults, particularly racial and ethnic minorities. It has been estimated that at least half of all new HIV infections in the United States are among people under 25 years of age, and the majority of young people are infected sexually. In 1998, HIV was the fifth leading cause of death for Americans between the ages of 25 and 44. Many of these young adults likely were infected in their teens and twenties.

Every school day, 53 million young people attend nearly 117,000 schools across our nation. Because of the size and accessibility of this population, school health programs are one of the most efficient means of preventing new HIV infections among young people. Scientific evaluations of school-based HIV prevention programs have shown that these programs are cost-effective and decrease sexual risk behaviors among high school students. These same studies show that the programs do not increase sexual activity among students.

CDC employs four strategies to reduce risk behavior among youth. First, CDC conducts surveillance activities to monitor six categories of priority health risk behaviors, including sexual behaviors and school health policies and programs among all 50 states. These activities are primarily conducted through CDC's Youth Risk Behavior Surveillance System (YRBSS) and School Health Policies and Programs Study (SHPPS). Second, through research synthesis, CDC identifies best practices and disseminates this information through guidelines development, research registries, and a system of identifying programs that have shown credible evidence of effectiveness. CDC's adolescent and school health programs synthesize and apply research to assist adolescent and school health researchers and to inform practitioners in the field responsible for implementing school health policies and programs. Third, CDC funds several programs to enable its constituents to implement adolescent and school health programs. These programs provide young people with the skills and knowledge needed to avoid infection with HIV, and other sexually transmitted diseases. And fourth, CDC provides technical assistance to state and local education agencies to help them evaluate the quality and effectiveness of their school health policies, teacher training, and curricula. CDC also conducts evaluation research to test effectiveness of school-based interventions designed to prevent HIV/STD infection and other serious health problems.

CDC funds 56 state and territorial education agencies, 18 local education agencies, and 41 national non-governmental organizations to implement HIV prevention education programs in schools. 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 HIV infected.

### HIV Prevention among School-Aged Youth Program Performance Analysis

In FY 2000, CDC decided to replace two previous HIV performance measures (i.e., never having intercourse and using condoms if sexually active) with the a single measure, the leading health indicator on responsible sexual behavior from HP 2010: "Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if sexually active." This measure is also consistent with language in the draft CDC HIV Prevention Plan, which states "our nation's efforts should increase the proportion of adolescents who consistently engage in behaviors that reduce risk of HIV acquisition or transmission." The 1999 YRBSS data indicate that the proportion of adolescents (grades 9-12) who abstained from sexual intercourse or used condoms if currently sexually active was 85%. Because this measure was recently developed and adopted for use (May 2000), a FY 1999 target was never established.

To address the issue of health disparities among ethnic groups, two additional measures were added to address black/African-American and Hispanic/Latino populations. Surveillance summaries demonstrate that these two groups are disproportionately affected by HIV/AIDS and consequently warrant special attention. By including these two new measures, CDC acknowledges the importance of the HP 2010 goal to eliminate health disparities. In addition, the inclusion of the measures complements CDC's Racial and Ethnic Approaches to Community Health (Reach 2010) Demonstration Program.

For FY 2001, CDC continued to implement its national HIV prevention among school-aged youth program, reaching 53 million young people in 117,000 schools across our nation. CDC also implemented the 2001 National Youth Risk Behavior Survey (YRBS) and published data from this survey in the MMWR on June 28, 2002.

Data from the 2001 national YRBS demonstrate that 89% of high school students have been taught HIV/AIDS prevention in school (FY 01 target = 90% or higher). The 2001 data indicate that this measure has remained stable since 1997 (92%) and that the small fluctuations in 1999 (91%) and in 2001 (89%) are not significantly different from time to time when considering the confidence intervals associated these sample data. CDC will continue to analyze these data and evaluate the policies, programs, and strategies in place to continuously improve the effectiveness of school-based HIV/AIDS prevention education. This measure will remain because it is highly relevant and important to prevention efforts.

Data from the 2001 national YRBS also demonstrate that 86% of all adolescents (FY 01 target = 89%), 85% of Black or African-American adolescents (FY 01 target = 87%), and 84% of Hispanic or Latino adolescents (FY 01 target = 88%) abstained from sexual intercourse or used condoms if sexually active. As described above, these data also reflect that these measures have remained stable since 1999, after demonstrating increases from 1991 to 1997. CDC will continue to review, analyze, and discuss the possible reasons for not reaching the FY 01 targets, in consultation with our funded states, cities, and national non-governmental organizations, and will make programmatic adjustments as needed to improve program effectiveness required to reach the stated targets.

Data to report on FY 2003 GPRA performance measures will be available in July 2004 when the 2003 national YRBS data will be released.

## Monitoring Risk Behaviors (Behavioral Risk Factor Surveillance System) Program Description and Context

The Behavioral Risk Factor Surveillance System (BRFSS) is a unique, state-based telephone survey through which states routinely collect information on behavioral risk factors and demographics. Active in all 50 states, 3 territories, and the District of Columbia, the BRFSS continues to be the primary source of information (for many states it is the only source) on risk behaviors that contribute to the leading causes of death among U.S. adults. For almost 20 years, the BRFSS has served as the backbone of surveillance for chronic disease prevention and health promotion. CDC provides funding, consults with state staff, edits and processes the data from each state's monthly interviews, and returns prevalence information and reports to states for their use. Nationwide, the BRFSS conducts about 200,000 interviews per year.

States use BRFSS data to make program decisions, target resources, monitor and evaluate program performance, educate the public, and alert public officials to health risks and disease prevalence. More than 60% of states use BRFSS data to set health objectives, prepare planning documents, and design disease prevention programs. Nearly two-thirds of states use BRFSS data to support legislative efforts (e.g., tobacco-related legislation). Although the BRFSS was designed to produce state-level estimates, data have been used in research studies and combined across states, for example, to estimate the extent of alcohol and tobacco use among pregnant women. Alabama used BRFSS data to support legislation restricting indoor smoking and mandating seatbelt use; Maryland determined priorities for Healthy Maryland 2010; and Michigan developed, implemented, and evaluated programs to reduce the risk of CVD. After the bomb explosion in Oklahoma City, health department staff analyzed questions on stress, nightmares, and feelings of hopelessness to better address the psychological impact of the disaster. In Arkansas, BRFSS data assessing the correlation between physical activity and hypertension among black women have been used to target special intervention and education programs.

## Monitoring Risk Behaviors (Behavioral Risk Factor Surveillance System) Program Performance Analysis

Meaningful estimates from BRFSS data depend on an adequate sample size of respondents. At present, sample sizes in states range from approximately 1,700 to approximately 7,500. A sample size of 4,000 completed interviews per state per year is adequate to measure progress towards state goals and Healthy People (HP) 2010 objectives and to monitor prevalence among certain population groups in terms of race, ethnicity, and age. A sample size of 4,000 permits better identification of geographic and demographic variations in health risk behaviors which programs can use to target interventions. In FY 2001, 18 states had a sample size of at least 4,000 completed interviews, thus achieving its target. FY 2002 data will be available April, 2003.

Whereas CDC will strive to increase the number of states that complete 4,000 telephone interviews per year, CDC will eliminate this measure effective FY 2003. BRFSS will remain a vital data and reference source for CDC, State and local health departments, public health professionals and others. Detailed information regarding the BRFSS will remain in Appendix D: Verification and Validation.

### Nutrition, Physical Activity and Obesity Program Description and Context

Physical inactivity and unhealthy eating contribute to obesity, cancer, cardiovascular disease, and diabetes. Together, they are responsible for at least 300,000 preventable deaths each year.

Following dramatic increases in overweight and obesity among U.S. adults between 1987 and 1999, obesity has reached epidemic proportions; more than 60% of adults are now overweight or obese. Moreover, the epidemic is not limited to adults: the percentage of young people who are overweight has more than doubled in the last 30 years. Between 10% and 15% of Americans aged 6-17 years are considered overweight. People who are overweight are at increased risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities, and some cancers. The estimated annual cost of obesity in the United States is over \$100 billion. Promoting regular physical activity and healthy eating and creating an environment that supports these behaviors are essential to reducing the epidemic of obesity.

Despite the proven benefits of physical activity, more than 60% of American adults do not engage in levels of physical activity necessary to provide health benefits. More than 25% are not active at all in their leisure time. Activity decreases with age and is less common among women than men and among those with lower income and less education. Insufficient physical activity is not limited to adults. More than a third of young people in grades 9-12 do not regularly engage in vigorous physical activity. Daily participation rates in high school physical education classes dropped 42% in 1991 and 29% in 1999.

We now know that good nutrition lowers the risk for many chronic diseases, including obesity, heart disease, stroke, some types of cancer, diabetes, and osteoporosis. A considerable gap remains between recommended dietary patterns and what Americans actually eat. Only about one-fourth of U.S. adults eat the recommended five or more servings of fruits and vegetables each day. Poor eating habits are often established during childhood. More than 60% of young people eat too much fat, and less than 20% eat the recommended five or more servings of fruits and vegetables each day.

Initial CDC program activities have focused on building state capacity to develop state nutrition and physical activity programs. The purpose of the national program is to prevent and reduce obesity and chronic diseases by supporting states in the development and implementation of nutrition and physical activity interventions, particularly through population-based strategies such as policy-level change, physical environmental approaches that promote physical activity and healthy eating, and the social marketing planning process. Since FY 2000, twelve states health departments have been funded to build capacity. These states are (a) developing plans for targeted populations; (b) developing appropriate internal and external partnerships to carry out the plans; and (c) developing, conducting, and evaluating nutrition and physical activity intervention projects in the populations. When states establish core capacity, they will develop and implement large-scale nutrition and physical activity programs. Implementation programs will: 1) expand effective pilot interventions to include a full range of interventions in communities, 2) expand partnerships with other Health Department units and external partners to maximize impacts of the statewide program, and 3) implement all aspects of the state plan and review and update the plan periodically. To date, no states receive implementation funding.

CDC has devised a logic model that describes the national program. This model is used as a tool to guide the evaluation of the program and the development of the program performance measures. Since this is a relatively new program, the performance measures currently are process and impact objectives rather than final health outcome objectives. The ultimate goal of this program is to result in positive health outcomes of improved dietary intake, improved physical activity levels, decreased obesity, and decreased chronic diseases. The program will achieve these long-term outcomes through effective community interventions developed using evidence-based, scientific resources, state and community policies and environmental supports, and increased and sustainable resources from states and other partners mobilized and targeted for nutrition and physical activity. The performance measures will assess the number of interventions for nutrition and physical activity that are implemented and evaluated in funded states.

### Nutrition, Physical Activity and Obesity Program Performance Analysis

During the first two years of the program, the 12 funded states are developing statewide action plans and initiating and evaluating interventions. State partners include public health organizations, food producers and marketers, medical and education providers, parks and recreation, transportation, urban planning, local media, and communities. All twelve states are implementing and evaluating nutrition and physical activity health promotion interventions to address overweight and chronic disease in specific populations. Results will include a number of refined programs, ready for adoption by other states and communities. States are also funded to improve their capacity to address the physical activity, nutrition and obesity prevention goals in part by working across programs such as diabetes, cardiovascular disease, asthma, school health, the Supplemental Food Program for Women, Infants and Children and other programs which benefit from overweight prevention and control.

Evidence based programs that work to promote healthy eating, activity, healthy weight and breastfeeding are identified and disseminated through CDC's efforts to train the public health work force. The Task Force on Community Preventive Services published six effective interventions to promote physical activity. An evidence based chapter on effective obesity prevention for the Guide on Community Preventive Services will be published in 2003. Other existing documents that elaborate strategic plans include: Guidelines for Comprehensive Programs to Promote Healthy Eating and Physical Activity, National Blueprint for Increasing Physical Activity Among Adults age 50 and Older, Promoting Better Health for Young People Through Physical Activity and Sports, and the HHS Blueprint for Action on Breastfeeding. These resources help CDC educate and train state and local officials to implement these guidelines in states and communities.

Information collected from high-quality surveillance systems and periodic surveys directs national efforts to solve the obesity epidemic. CDC is improving and expanding systems for monitoring vegetable and fruit consumption, physical activity levels, and the behavioral determinants of eating and physical activity, such as hours of television viewing.

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 150,227 Estimate

**FY 2003:** \$ 152,417 President's Budget

**FY 2002:** \$ 153,397 Enacted

### II-C. Environmental Health

# **Goal-by-Goal Performance Measurement Biomonitoring**

**1. Performance Goal:** Develop laboratory capacity to monitor human exposure to chemicals in the environment.

Performance Measure	Targets	Actual Performance	Reference
Develop laboratory methods to measure human exposure to previously undetected environmental chemicals.	FY 04: 14 new chemicals FY 03: 13 new chemicals FY 02: 13 new chemicals FY 01: 8 new chemicals FY 00: 8 new chemicals FY 99: 8 new chemicals	FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 01: Achieved FY 00: Achieved FY 99: Achieved FY 97: Baseline: 200	<b>B</b> - 76 <b>HP</b> - 113

**2. Performance Goal:** Periodically determine the number of Americans exposed to environmental chemicals and the degree of their exposure.

Performance Measure	Targets	Actual Performance	Reference
Test a sample of Americans for exposure to an increasing number of priority environmental chemicals.	<b>FY 04:</b> 100 chemicals; report on the 100 chemicals from the previous year.	<b>FY 04:</b> 9/2004	<b>B</b> - 76 <b>HP</b> - 113
Chemicus.	<b>FY 03:</b> 100 chemicals; report on the 75 chemicals from the previous year.	<b>FY 03:</b> 9/2003	
	<b>FY 02:</b> 75 chemicals; report on the 50 chemicals from the previous year.	FY 02: Achieved	
	<b>FY 01:</b> 50 chemicals; report on the 27 chemicals from the previous year.	<b>FY 01:</b> Achieved: released <i>Report</i> on 27 chemicals. Completed testing of 50 chemicals for next <i>Report</i>	
	FY 00: 25 chemicals	<b>FY 00:</b> Exceeded/27	

### **Newborn Screening Quality Assurance**

**Performance Goal:** Ensure the quality of laboratory technologies to quickly and accurately detect inherited disorders in newborns.

Performance Measure	Target	Actual Performance	Reference
Increase the number of disorders covered by the Newborn Screening Quality Assurance Program	FY 02: 32 disorders FY 01: 15 disorders	FY 02: 32 disorders FY 01: 15 disorders FY 00: 15 (baseline)	<b>B</b> - 76

#### **Asthma**

**Performance Goal:** Reduce the burden of asthma.

Performance Measure	Targets	Actual Performance	Reference
Reduce hospitalizations due to asthma for states that have implemented a comprehensive asthma control program.	<b>FY 04:</b> 10% reduction <b>FY 02:</b> Baseline*  Age Rate/10,000  < 5 yrs 60.9  5-64 yrs 13.8  ≥65 yrs 19.3	FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: 3/2003	B - 76 HP - 24 1

<sup>\*</sup>Data source: Healthy People 2010. Actual performance is determined the following year due to data collection and analysis lag.

#### **Childhood Lead Poisoning**

**Performance Goal:** Reduce the burden of lead poisoning in children.

Performance Measure	Targets	Actual Performance	Reference
Reduce the number of children with elevated blood lead levels.*	<b>FY 03:</b> 35% reduction <b>FY 99:</b> 25% reduction	<b>FY 03:</b> Estimated 09/2006 <b>FY 99:</b> 300,000*	B - 76 NHANES

<sup>\*</sup>Based on the NHANES data, it is estimated that in the United States approximately 300,000 children under six years old have blood lead levels (BLLs) equal to or greater than 10 micrograms per deciliter (mcg/dL). However, the number of children in the sample with elevated BLLs is relatively small and the statistical sampling error must be considered. Using the estimated sampling error, it is most likely (95 percent confidence) that the number of children with elevated BLLs is between 185,700 and 640,000. As more years of NHANES data become available, the estimated number can be reported with more precision.

### **Genomics and Disease Prevention**

**Performance Goal:** Increase the availability of useful information on specific DNA-based tests to public health professionals and the public at large.

Performance Measure	Targets	Actual Performance	Reference
Use data which define the utility of DNA-based tests to educate public health professionals and the public at large on the usefulness of the tests in fighting disease. (Note: We rephrased this measure to make it more comprehensible.)	FY 04: 7 tests FY 03: 6 tests FY 02: 4 tests FY 01: 3 tests	FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 01: Achieved FY 00: Baseline: 0	<b>B</b> - 76

### **Environmental Health Tracking and Infrastructure**

**Performance Goal:** Increase the capacity of state and local health departments to deliver environmental health services in their communities.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of state and local health departments provided with consultation and/or technical assistance to address environmental health service issues.	FY 04: 27 sites FY 03: 25 sites FY 02: 17 sites FY 01: 5 sites	FY 04: 9/2004 FY 03: 9/2003 FY 02: Exceeded/25 FY 01: Exceeded/14 FY 00: Baseline: 0	<b>B</b> - 76

### **Program Descriptions, Context, and Analyses**

## Biomonitoring Program Description and Context

To protect the public from death or disease resulting from exposure to environmental chemicals, CDC's Environmental Health Laboratory assesses human exposure using biomonitoring (i.e., the direct measurement of environmental chemicals in human samples, such as blood or urine). Biomonitoring measures the amount of a chemical that actually gets into people and is a more accurate determination of this dose than estimating it from levels of chemicals measured in air, water, soil, or food. CDC uses its biomonitoring expertise to assess the exposure of the U.S. population to chemicals, to assist state and local public health officials evaluating exposure of populations or individuals to chemicals, and to conduct studies that determine what levels of exposure are safe and what levels cause death or disease. CDC is also working with states to transfer biomonitoring technology to public health laboratories. Biomonitoring exposure information is critical to determine health risk resulting from an exposure situation – ranging from a high exposure of significant health risk warranting immediate attention to a background level exposure of minimal health significance needing no public health response. Specifically, biomonitoring —

- Markedly diminishes confusion about exposure and promotes appropriate management of health-related emergencies.
- Reduces misclassification of dangerous health situations as safe and vice versa.
- Substantially improves the allocation of financial and human resources to productive intervention and remediation efforts.
- Determines and tracks the efficacy of interventions aimed at reducing exposure and disease.
- Identifies at-risk population groups, such as children, that have high susceptibility to disease caused by exposure to environmental chemicals.
- Provides unique assessment of individual and population exposure in health studies that determine how much exposure causes disease or death.

### **Program Performance Analysis**

CDC scientists have been measuring levels of chemicals in people for at least 25 years for national studies of population exposures and for studies to examine exposures of specific populations and have contributed significantly to the body of scientific knowledge about the levels and types of environmental chemicals that affect people's health. Key factors influencing the results of CDC's National Biomonitoring Program stem from innovations that have increased the sensitivity, specificity, accuracy, precision, and ruggedness of analytical methods as well as from the ability to measure many chemicals using one method and to increase the number of samples that can be analyzed per day.

- CDC can now measure at least 230 environmental chemicals in blood or urine.
- CDC uses state-of-the art analytical methods to measure the presence of these chemicals at very low levels, such as parts per trillion or parts per quadrillion, and typically measures these levels in less than a teaspoon of blood or urine.
- CDC issued the first *National Report on Human Exposure to Environmental Chemicals*, which provides data on the general U.S. population's exposure to environmental chemicals.
- The first *Report* provided information about levels of 27 chemicals; the second *Report* will contain information on at least 75 chemicals, including new data on the 27 chemicals in the first *Report*. Subsequent *Reports* will provide detailed assessments of exposure levels among different population groups defined by age, sex, race or ethnicity, urban or rural residence, education level, income, and other characteristics.
- CDC has extended is biomonitoring efforts to state public health laboratories by awarding 25 planning grants totaling \$5 million to 22 individual states and three consortia comprising 11states to develop, implement, and expand state-based monitoring programs. Plans are currently under CDC review.
- CDC uses its biomonitoring expertise to investigate unusual exposures and to study the causes of disease and birth defects. For instance, CDC participated in an exposure investigation of New York City firefighters involved in rescue operations after terrorist attacks on the World Trade Center. CDC scientists also analyzed blood and urine samples for an investigation of a cluster of cases of childhood leukemia in Nevada.
- CDC is using biomonitoring as the foundation of its response to chemical terrorism by developing rapid analytical methods to identify potential chemical terrorism agents and is also transferring selected methods to designated state public health laboratories.

All analytical methods developed must be certified under the Clinical Laboratory Improvements Act of 1988 (CLIA). (Appendix D)

#### **Newborn Screening Quality Assurance**

Although the Newborn Quality Assurance (QA) Program will continue beyond the current fiscal year, the GPRA measure will be dropped as the program has continuously met the target of 32 disorders.

## Asthma Program Description and Context

In 1999, an estimated 26.7 million people in the United States reported that they had been diagnosed with asthma sometime in their lives. An estimated 10.5 million reported an attack in the previous 12 months. Although millions of Americans are currently experiencing symptoms from asthma, the good news is asthma can be controlled with proper medical and environmental management. People with asthma are encouraged to work with their doctors to develop a personalized asthma management plan, follow that plan, and then monitor the plan's effectiveness. The cornerstones of asthma management are taking asthma medication and avoiding contact with environmental "triggers" of asthma, including cockroaches, dust mites, furry pets, mold, tobacco smoke, and certain chemicals.

Recent statistics show that the death rate for asthma has plateaued and may be decreasing, and hospitalization rates have steadily decreased since the mid-1980s; however, severe asthma continues to affect a disproportionate number of poor, minority, and inner-city populations. Emergency department visit rates have continued to increase slowly for African-Americans and emergency room visit, hospitalization and death rates are three times higher for African Americans than for whites. Emergency department visits and hospitalizations are an indication that the individuals' asthma is not being adequately managed.

Asthma is also a significant cause of disability among children. Approximately 5 million children have asthma. From 1994 through 1996, an estimated 14 million missed school days were attributed to asthma each year, and 23.6% of 5- to 17-year-olds with asthma reported that their activities had been limited by asthma.

In 1999, CDC began developing its National Asthma Control Program with funding of \$1.2 million. The program supports the goals and objectives of Healthy People 2010 for asthma and is based on the following three public health principles:

**Tracking:** collecting and analyzing data on an ongoing basis to understand when, where, and in whom asthma occurs;

**Interventions:** assuring that scientific information is translated into public health practices and programs to reduce the burden of asthma;

**Partnerships:** making sure that all stakeholders have the opportunity to be involved in developing, implementing, and evaluating local asthma control programs.

Building state-based asthma control programs is an important component of CDC's asthma control strategy. Ultimately, State Health Department activities will reduce the number of deaths, hospitalizations, emergency department visits, school or workdays missed, and limitations on activity due to asthma.

## Asthma Program Performance Analysis

CDC aims to reduce hospitalizations due to asthma through supporting states in building comprehensive asthma control programs that include building and using surveillance systems to track asthma and using that data to provide interventions to people most in need, thereby preventing hospitalizations and other adverse health effects of asthma. The only way that states will know where and how to target their intervention efforts and to assess whether they are reducing hospitalizations and other adverse effects due to asthma is through data provided by strong state-based surveillance systems. In fiscal year 2002, CDC funded 99 sites, including states, universities, hospitals, and non-profits, for asthma control activities. CDC funded 23 states and the District of Columbia to develop asthma control plans and 6 states to implement their final asthma control program plans. CDC also funded six urban school districts and six national non-governmental organizations to support and address asthma control. In fiscal year 2003, CDC will increase its support for state-based programs to: 1) improve the state's ability to track asthma, implement science-based asthma interventions, and build partnerships related to asthma control; and 2) improve the ability of schools to prevent asthma attacks, resulting in a decrease in hospitalizations. CDC remains committed to supporting state-based programs but will discontinue reporting on the number of states funded for core asthma programs.

### Childhood Lead Poisoning Program Description and Context

Lead poisoning is a major environmental health threat to children. The National Academy of Sciences has reported that even relatively low levels of lead exposure - 10 micrograms per deciliter ( $\mu g/dl$ ) - are harmful and are associated with decreased intelligence, behavior problems, and other physical problems. During the past two decades, there has been a dramatic reduction of the prevalence of lead poisoning in young children in the U.S. This reduction was due to a number of different strategies, including the removal of lead from gasoline and new house paint and the implementation of prevention programs by CDC, Housing and Urban Development, and the Environmental Protection Agency.

Despite these successes, however, childhood lead poisoning remains a serious problem. CDC estimates that as many as 600,000 young children still have elevated blood lead levels. Children from low-income backgrounds, especially racial and ethnic minorities living in substandard, poorly maintained housing built before 1960, are at highest risk for lead poisoning. Nearly 22% of non-Hispanic black children living in homes built before 1946 have elevated blood lead levels, compared with <2% in non-Hispanic whites living in newer homes. Medicaid-enrolled children account for 60% of all children with elevated blood lead levels. Recent data show that only 19% of Medicaid-enrolled children have been screened for lead poisoning.

In response to recent findings, CDC has shifted the emphasis from universal screening of all U.S. children to targeted screening of high-risk children. Policy recommendations and funding guidelines have been revised accordingly. The CDC-supported federal Advisory Committee on Childhood Lead Poisoning Prevention developed recommendations for screening and improved case management. CDC also expanded its use of geographic information system (GIS) software using U.S. census data on income, race, and age of housing stock to identify high-risk geographic areas. CDC works closely with CMS to increase screening of Medicaid-enrolled children and is expanding technical assistance, consultation, and training to support state and local health officials and their prevention programs.

### Childhood Lead Poisoning Program Performance Analysis

CDC provides national leadership, technical assistance, and surveillance to prevent and reduce childhood lead poisoning. NHANES (1999) data indicate that approximately 300,000 children (aged 1-5 years) have blood lead levels of 10 micrograms/deciliter or greater. These data represent an almost 30% reduction in the number of children with lead poisoning in the United States as compared to 890,000 children in 1991-1994. This decrease is largely due to cooperative efforts between State and Local Childhood Lead Poisoning Prevention Programs and CDC, HUD and EPA. Activities include: (1) increased awareness of lead poisoning within high risk communities; (2) improved screening among the most at-risk populations; (3) implementation and enforcement of protective policies at the federal, state, and local levels; and (4) increased access to lead hazard reduction resources in some communities.

## **Genomics and Disease Prevention Program Description And Context**

CDC integrates discoveries in human genetics into disease prevention strategies as outlined in the 1997 CDC strategic plan, *Translating Advances in Human Genetics into Public Health Action*, as well as the update to the 1997 plan, *Genomics and Public Health at CDC: 2002-2006.* CDC promotes public health genomic knowledge and capacity through: 1) state- and community-level health assessment and planning, 2) public health research on gene-environment interactions along with the evaluation of genetic testing, 3) development of an interactive genomics and health information system to provide current updates on the latest knowledge, 4) a national program for implementing effective and ethical disease interventions through university-based Centers of Genomics and Public Health, and 5) communication and training strategies for providing relevant genetics information to various audiences. These programs are collaborative efforts among public, academic, and private organizations that strengthen crosscutting research, training, laboratory, and preventive health programs. By integrating genomics into existing public health programs, CDC and its partners are expanding opportunities to target interventions to persons with specific genetic variants that reduce their risk of disease and disability.

### Genomics and Disease Prevention Program Performance Analysis

CDC actively promotes the integration of human genetics into public health prevention activities. CDC's genetics activities in this pursuit can be broken down into two facets: integrating scientific advances in genetics into public health action and developing state public health capacity for such integration. CDC has started assessing DNA-based tests for clinical and public health utility, and the goal of four tests was achieved during FY 2002. CDC will continue to provide technical assistance to states to integrate genetics into public health, however, the measure of state programs funded will be discontinued.

# **Environmental Health Tracking and Infrastructure Program Description and Context**

There is no doubt that the environment plays a role in human development and health. Some links between environmental exposures and disease such as asbestos and lung cancer or lead and impaired cognitive development in children are well documented. Others, such as a possible link between disinfectant byproducts and bladder cancer are suspected, but still not proven. In 1988, The Institute of Medicine in its report *The Future of Public Health* noted that the removal of environmental health authority from public health agencies has led to fragmented responsibility, lack of coordination, and inadequate attention to the health dimensions of environmental problems. In January 2001, the Pew Environmental Health Commission, chaired by former Senator Lowell Weicker, Jr., issued a report entitled *America's Environmental Health Gap: Why the Country Needs a Nationwide Health Tracking Network.* In this report, the Commission documented that the existing environmental health system was inadequate and fragmented and recommended a "Nationwide Health Tracking Network for disease and exposures."

To achieve a national network, CDC will have to develop environmental health capacity and comprehensive tracking programs in all 50 states. An incremental approach will be necessary to develop a standards-based environmental public health tracking network that allows direct electronic data reporting and linkage within and across health effect, exposure, and hazard data and can interoperate with other public health systems. The key building blocks necessary for effective tracking programs at the national, state, and local level include: 1) collaboration and partnerships between traditional health and environmental focused entities (private and public); 2) local capacity and infrastructure in terms of personnel expertise and the latest technology; 3) appropriate, timely and complete data; and 4) mechanisms for timely dissemination of information to those responsible for prevention and control.

# **Environmental Health Tracking and Infrastructure Program Performance Analysis**

In FY 02, CDC took a series of steps toward development of a standards-based environmental public health network:

- Stakeholder input was solicited through a series of working group meetings. Four workgroups comprised of representatives from about 30 organizations including state and local public health and environment agencies, the EPA and other relevant federal agencies, academia, and other non-governmental organizations were convened to develop recommendations for shaping of an environmental public health tracking program. The workgroups addressed the following issues: (1) organization and management; (2) data technology and tracking methodology; (3) tracking system inventory and needs assessment; and (4) translation, policy, and public health action.
- A request for assistance (RFA cooperative agreement) was developed to make funding available to up to 15 states and local health departments to move toward development of statewide/local systems that link hazard, exposure, and health effects data for those health conditions that are identified in the literature has having possible environmental links and that are priorities for a state. The RFA will be announced June 2002.
- The objectives of these projects are to: build environmental public health capacity; increase collaboration between environmental and health agencies; identify and evaluate existing data systems; build partnerships with non-governmental organizations and communities; develop model systems that link data and can be generalizable to other states/localities; and demonstrate the utility of these model systems in planning public health actions.

Regarding its goal of developing core capacity in environmental health services, CDC has begun the process of developing such capacity by providing relevant services to and expanding collaborations with its constituents. CDC achieved and exceeded its goal of assisting 5 sites in FY 2001 and has changed the targets for FY 2002 and FY 2003 from 7 states to 17 and 25 states, respectively. The FY 2001 goal of 5 sites was greatly exceeded due to unexpected funding from discretionary sources; FY 2002 appropriations included increased funding for tracking and capacity development. Internal, as well as external, requests increased dramatically following the 9-11-01 occurrences and anthrax outbreaks in New York City and Washington, D.C. By virtue of our interactions with State and Local Health departments in FY 2001 and FY 2002, the knowledge that expertise in Environmental Health Services exists at CDC and the numbers of requested consultations thus increased. The goals were exceeded largely due to the prolonged state of heightened awareness and preparedness on the part of CDC staff.

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 76,158 Estimate

**FY 2003:** \$ 78,133 President's Budget

**FY 2002:** \$ 80,156 Enacted

## II-D. Epidemic Services and Response Goal-by-Goal Performance Measurement

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

Performance Measure	Targets	Actual Performance	Reference
1. Based on established criteria continue to publish the Morbidity and Mortality Weekly Reports (MMWR) series of publications including Reports and Recommendations, Surveillance Summaries, and the Annual Summary to communicate major public health events to the media, public policy makers and health professionals through multiple media channels print, television, radio, interactive World Wide Web.	MMWR Issues Published:  FY 02: 86 FY 01: 86 FY 00: 81 FY 99: 77	MMWR Issues Published:  FY 02: 86 issues FY 01: 86 issues FY 00: 81 issues FY 99: 77 issues published and available on the CDC Internet site at:  http://www2.cdc.gov/mmwr/.	B - 84 # 1
2. The MMWR will refine communication efforts through a Center-wide communications plan to provide a framework for current activities and maximize communicating public health messages through print and the World Wide Web.	FY 02: Prepare final report on the implementation and enhancements of the CDC communications plan.	<b>FY 02:</b> Implemented the <i>MMWR</i> redesign in January 2002.	<b>B</b> - 84
	FY 01: Plan implemented and enhanced based on CDC communications assessment.	FY 01: Plan is completed and implementation is under way. The MMWR is undergoing redesign and will reflect the changes in February 2002.	

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

Performance Measure	Targets	Actual Performance	Reference
1. The number of states with a plan for a comprehensive information network will be increased.	<b>FY 01:</b> 20 states <b>FY 99:</b> 18 states	FY 01: In FY 2001, CDC made the transition from the National Notifiable Disease Surveillance System (NNDSS) to the National Electronic Disease Surveillance System (NEDSS). Responsibility for NEDSS implementation lies within the Information Resource Management Office (IRMO) in the CDC Office of the Director. Program staff who formerly supported NDIS are currently supporting IMO's effort to implement NESS. FY 99: 33 states FY 97: 14 states.	B - 84 # 5
2. The number of states who have implemented a comprehensive information network will be increased.	<b>FY 01:</b> 9 states <b>FY 99:</b> 2 states	FY 01: In FY 2001, CDC made the transition from the National Notifiable Disease Surveillance System (NDIS) to the National Electronic Disease Surveillance System (NESS). Responsibility for NESS implementation lies within the Information Resource Management Office (IMO) in the CDC Office of the Director. Program staff who formerly supported NDIS are currently supporting IMO's effort to implement NESS. FY 99: 4 states FY 98: 0 states	B - 84 # 5

(\*Note: Beginning in FY 1999, this initiative was expanded to address the need of major metropolitan areas for health-sector dedicated communications systems to support detection and response to terrorist events with support from the Public Health Response to Terrorism/Bioterrorism activity (see section II. -Q., Bioterrorism.)

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

Targets	Actual Performance	Reference
EIS Response to Requests:  FY 02: At least 95% FY 01: At least 95% FY 00: At least 95%	EIS Response to Requests:  FY 02: 99% FY 01: 99% FY 00: 99%	<b>B</b> - 84
	EIS Response to Requests:  FY 02: At least 95% FY 01: At least 95%	EIS Response to Requests:  EIS Response to Requests:  FY 02: At least 95% FY 01: At least 95% FY 00: At least 95% FY 00: 99% FY 00: 99%

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

Performance Measure	Targets	Actual Performance	Reference
<b>1.</b> Increase the number of professional prevention effectiveness staff and fellows.	FY 02: 43 FY 01: 43 FY 00: 40 FY 99: 32	FY 02: 43 FY 01: 43 FY 00: 32 FY 99: 24	<b>B</b> - 84
2. Increase the number of staff in CIOs who can use prevention effectiveness methods.  (Measured by the number of staff completing the annual Prevention Effectiveness Course).	Increase in Staff:  FY 02: By 110 persons FY 01: By 110 persons FY 00: By 80 persons FY 99: By 80 persons	Increase in Staff:  FY 02: 136 persons FY 01: 110 persons FY 00: 80 persons FY 99: 80 persons FY 98: 60 persons	<b>B</b> - 84
<b>3.</b> Increase the number of prevention effectiveness studies conducted by CIOs.	FY 02: By 60 studies FY 01: By 60 studies FY 00: By 60 studies FY 99: By 60 studies	FY 02: 82 studies FY 01: 60 studies FY 00: 60 studies FY 99: 7 studies	<b>B</b> - 84

**5. 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.

Performance Measure	Targets	Actual Performance	Reference
1. Provide for effective workforce for staffing state and local health departments and in other public health related organizations.	FY 02: 90% of the second and third classes of the Public Health Prevention Service (PHPS) will remain in public health with 50% working in state/local health departments.	FY 02: Following graduation, 82% of the third PHPS class had remained in public health with 36% working in state/local health departments and 27% working at the federal level.	<b>B</b> - 84
	FY 01: 90% of the first and second classes of the PHPS will remain in public health with 50% working in state/local health departments.	FY 01: 80% of the first and second PHPS classes have remained in public health and 28% are working in state/local health departments	
	FY 00: 90% of the first class of the PHPS will remain in public health with 50% working in state/local health departments.	FY 00: Following graduation, 76% of the first class remained in public health and 26% are working	
2. By FY 2002, implement the plan to address needed changes in EIS training methodologies identified in the evaluation study.	FY 02: Finalize the implementation of the second phase of the plan. Prepare final report on the implementation process.	FY 02: At this time, the plan was not implemented. A more comprehensive, formal evaluation of the EIS Program is scheduled in FY 2003 and 2004.	<b>B</b> - 84
	<b>FY 01:</b> Implement the second phase of the plan.	FY 01: Second phase of the plan was implemented	
	FY 00: Develop the plan.	FY 00: Plan Developed.	
	FY 99: The second phase of EIS evaluation will be completed and the first phase findings will be implemented.	FY 99: Second phase of the EIS evaluation has been completed. Results of the first phase are being implemented.	

Performance Measure	Targets	Actual Performance	Reference
3. Number of courses to train state and local public health professionals in epidemiology, surveillance, informatics, prevention effectiveness, and management through a program modeled after the EIS program.	<b>FY 03</b> : 0	<b>FY 03:</b> Available 6/2003	<b>B</b> - 84
<b>4.</b> Number of EIS officers assigned to state or municipal health departments.	FY 04: 78 FY 03: 64	<b>FY 04:</b> Available 6/2004 <b>FY 03:</b> Available 6/2003	B - 84 # 2 & 5

### **Program Description and Context**

CDC's epidemic services and response program provides resources and scientific expertise for:

- Rapidly communicating critical information to public health officials about disease outbreaks and other acute health events and trends in health and health behaviors;
- Training public health professionals who are prepared to respond to public health emergencies, outbreaks, and other assistance requests;
- Developing and refining research methods and strategies to the benefit of public health practice; and
- Developing, operating, maintaining, and evaluating surveillance systems.

#### **Communications**

Epidemic services and response communicates critical information to public health officials by publishing the *Morbidity and Mortality Weekly Report*. The Morbidity and Mortality Weekly Report (MMWR) is CDC's main channel for communicating public health news about disease outbreaks and trends in health and health behavior. The weekly MMWR is one of a family of publications that include the MMWR Recommendations and Reports and the CDC surveillance Summaries, and the CDC Annual Summary of Notifiable Diseases. These Reports provide a diversity of information on health-related topics, including breaking news of emerging health threats, recommendations and guidelines for clinical, laboratory, and other care settings and strategies for effective public health interventions. This publication is available in print and on the Internet.

### **Training**

CDC's 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 all be trained to keep abreast of effective techniques for containing health threats. CDC conducts training programs in five critical areas: (1) epidemiology, (2) public health practice, (3) informatics, (4) preventive medicine, and (5) prevention effectiveness. These programs are targeted at building and maintaining the capacity of local, state, national, and global public health staff to carry out high-quality, science-based public health programs and interventions.

#### **Applied Research**

CDC carries out a variety of applied research and methods development activities. Some of the areas of research include: social determinants of health, aberration detection, burden of disease, injury and death, prevention effectiveness, and health care quality.

#### Surveillance

CDC monitors and tracks over 60 mandated notifiable infectious diseases in the United States, including food borne illness outbreaks, contaminated water sources (i.e., swimming pools), influenza, and others. This health information is reported by health care providers and laboratories to state health departments and is used to identify and control disease outbreaks. CDC staff provide technical assistance and consultation on surveillance principles and methods to international, state, and local health agencies, as well as to nontraditional partners such as medical examiners and coroners, health maintenance organizations, and private industry.

### **Program Performance Analysis**

Maximize the distribution and use of scientific information and prevention messages through modern communication technology.

Based on established criteria continue to publish the Morbidity and Mortality Weekly Reports (MMWR) series of publications including Reports and Recommendations, Surveillance Summaries, and the Annual Summary to communicate major public health events to the media, public policy makers and health professionals through multiple media channels -- print, television, radio, interactive World Wide Web: In FY 2002, the Morbidity and Mortality Weekly Report (MMWR) provided a series of multiple channel publications including 158 MMWR weekly articles, 24 Recommendations and Reports, 4 CDC Surveillance Summaries and articles highlighting key health events. CDC met its target for the FY 1999, FY 2000, FY 2001, and FY 2002 goals to enhance the scientific quality and public health applicability of the MMWR to communicate public health news about disease outbreaks and trends in health and health behavior by publishing 86 issues of the MMWR. JAMA reprints weekly articles routinely, and the Massachusetts Medical Society publishes and distributes the MMWR to approximately 25,000 additional subscribers. Further dissemination through the development of communications partnerships began shortly after the attacks on September 11.

The MMWR will refine communication efforts through a Center-wide communications plan to provide a framework for current activities and maximize communicating public health messages through print and the World Wide Web: In FY 2002, the CDC-wide communications plan to enhance health communications as a vital component of public health strategies in promoting health and preventing disease and injury was implemented as redesigned in FY 2001.

Encourage state health departments to develop efficient and comprehensive public health information and surveillance systems by promoting the use of Internet and by focusing on development of standards for communications and data elements.

The number of states with a plan for a comprehensive information network will be increased: In FY 1999, CDC continued to recognize the need of state health departments to develop public health comprehensive information networks to support all essential public health services. CDC approached this challenge systematically by assisting state health departments in developing plans for comprehensive networks and in implementing those networks. In FY 1999, this initiative expanded to address the need of major metropolitan areas for health-sector dedicated communication systems to support detection and response to terrorist events. (See Section 2.12, "Public Health Response to Terrorism.") In FY 1999, 33 states have established a plan for a comprehensive network. In FY 2001, CDC made the transition from the National Notifiable Disease Surveillance System (NDIS) to the National Electronic Disease Surveillance System (NEDSS). Responsibility for NEDSS implementation lies within the Information Resource Management Office (IRMO) in the CDC Office of the Director. Program staff who formerly supported NDIS are currently supporting IRMO's effort to implement NEDSS.

The number of states who have implemented a comprehensive information network will be increased: In FY 1999, 4 of the 33 states mentioned above as having an established plan, have implemented the plan for a comprehensive information network. In FY 2001, CDC transitioned from the National Notifiable Disease Surveillance System (NDIS) to the National Electronic Disease Surveillance System (NEDSS). Responsibility for NEDSS implementation lies within the Information Resource Management Office (IRMO) in the CDC Office of the Director. Program staff who formerly supported NDIS are currently supporting IRMO's effort to implement NEDSS.

# Efficiently respond to the needs of our public health partners through the provision of epidemiologic assistance.

Based upon established criteria for participation, Epidemic Intelligence Service (EIS) officers will respond to at least 95% of the requests for epidemic assistance from domestic and international partners: In FY 2002, the Epidemic Intelligence Service (EIS) Program coordinated 83 Epidemic Assistance Investigations (Epi-Aids), and over 300 state-based field investigations. Epidemics are prevented and controlled by mobilizing and deploying CDC staff, primarily Epidemic Intelligence Service (EIS) officers, to respond rapidly to disease outbreaks

and disaster situations. At the request of public health officials - at the state, national, or international level - CDC provides assistance by participating in epidemiologic field investigations. During these investigations, CDC staff act as consultants to a state or local health department or the health ministry of the host nation, investigating the patterns of disease or injury occurrence, the levels of risk behaviors, the identity of the causative agent, the transmission of the condition of concern, and the impact of preventive interventions. Each year, some requests for assistance are received which do not meet the established criteria or definition of a disease outbreak. All requests are reviewed; for those requests meeting the outbreak criteria, EIS Officers are deployed to aid in the investigation or disaster relief.

In FY 1999 through 2002, CDC exceeded its target of responding to "at least 95%" of the requests for epidemic assistance from domestic and international partners by responding to 99% of the requests. The requests for which CDC did not respond (1%) were international requests and could not be conducted due to the inability to get country clearance, the lack of funding from international organizations, or safety issues. During investigations, CDC staff provide training to public health staff on-site resulting in the ability of state and local staff to manage outbreak investigations without direct CDC assistance. In this event, technical assistance is provided by CDC in resolving outbreaks at the local level. In FY 2002 and beyond, CDC will continue to conduct activities involving rapid solutions to problems such as local identification of food poisoning to national and international investigations of deadly diseases, bioterrorism events, environmental hazards, or natural disasters. To accomplish this, CDC will maintain well trained professionals able to investigate health problems affecting the U.S. population and to achieve prevention goals.

# Build expertise within CIOs to conduct prevention effectiveness studies of public health interventions.

Increase the number of professional prevention effectiveness staff and fellows: In FY 2001, CDC continually sought to improve health but to do so in economically responsible ways. When human and financial resources are limited, public health efforts must focus on prevention strategies that yield the most benefit for the investment. The Prevention Effectiveness program includes a fellowship and a training course. Together these demonstrate how spending money to prevent disease and injury and promote healthy lifestyles makes good economic sense. Prevention strategies are evaluated on: (1) the health impact of the related disease, injury, or disability on U.S. society; (2) the effectiveness of the prevention strategy; (3) the costs of the disease, injury, or disability; and (4) the cost-effectiveness of the strategy. For instance, some childhood vaccines, save up to \$29 in direct medical costs for each dollar spent. Other strategies, such as yearly mammograms, carry a net cost but are considered cost-effective because they provide considerable value in return for the money invested. In FY 2002, the number of fellows exceeded the FY 2002 goal with 51 fellows.

<u>Increase the number of staff in CIOs who can use prevention effectiveness methods:</u> The number of staff that completed the annual Prevention Effectiveness Course exceeded the FY 2002 goal with 136 additional persons.

<u>Increase the number of prevention effectiveness studies conducted by CIOs:</u> CDC met its established target for FY 2000, FY 2001. CDC exceeded its established target for FY 2002 in building expertise to conduct prevention effectiveness studies of public health interventions and will continue to determine what prevention strategies are effective and what it costs to implement them.

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.

Provide for effective workforce for staffing state and local health departments and in other public health related organizations: An expanding mission, new programs, and new partners in public health underscore the need for a public health workforce able to apply a broad range of disciplines and strategies to develop effective prevention programs that improve and promote health. The Public Health Prevention Service (PHPS) program, established as a 3-year program of training and service, consists of two rotational assignments at CDC and one two-year field assignment in a state or local health department or agency. Masters-level Prevention Specialists from a variety of disciplines are trained to apply sound public health principles in the development, implementation, and evaluation of public health programs. Assignments include experiences in program development, management, and translating science into practice, including policy-making from these perspectives. The combination of federal, state, and local experiences, augmented by formal and informal instruction, provides a wide range of program activities to develop broad public health skills. Currently, there are 89 Prevention Specialists in the PHPS program. Fifty-four are assigned to state and local health departments and 35 are in assignments at CDC. One hundred sixty-nine Prevention Specialists have entered the program over the past 6 years; 67 have completed the program and are PHPS alumni.

On September 22, 2002, 22 Prevention Specialists in the 1999 PHPS Class completed the program and became alumni. Of these, 6 (27%) are employed by the federal government with 4 at CDC; 8 (36%) are employed at State or Local Health Departments; 2 (9%) are working with academic or research centers; and, 4 (18%) are undecided.

By FY 2002, implement the plan to address needed changes in EIS training methodologies identified in the evaluation study: At this time, the plan was not implemented. A more comprehensive, formal evaluation of the EIS Program is scheduled in FY 2003 and 2004.

Number of EIS officers assigned to state or municipal health departments: New measure; no performance analysis to date.

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 124,621 Estimate

**FY 2003:** \$ 126,161 President's Budget

**FY 2002:** \$ 126,750 Enacted

#### **II-E. Health Statistics**

### **Goal-by-Goal Performance Measurement**

### Revised FY 2004 Performance Measurement Chart

**Performance Goal:** Monitor trends in the nation's health through high-quality data systems and deliver timely data to the nation's health decision-makers.

Performance Measure	Targets	Actual Performance	Reference
1. Monitor the nation's health through high-quality data systems by: conducting on-going surveys, increasing participant response rates, and working with partners.	FY 04: a) Conduct 4 ongoing surveys and data systems that produce detailed trend data for monitoring health.	<b>FY 04:</b> 11/2004	<b>B</b> - 93
races, and worming with partners.	momeoring neutrin	<b>FY 03:</b> 11/2003	
		FY 02: Achieved	
		FY 01: Achieved	
		FY 00: Achieved FY 99: Achieved	
		FY 97: Achieved	
	FY 04: b) Increase and maintain 78% participation for the National Health and Nutrition Examination Survey (NHANES) through improved outreach with communities, constituents, states and policy-makers.	FY 04: 11/2004  FY 03: 11/2003 FY 02: 78% response rate. FY 00: 81% response rate. FY 99: Baseline 72% response rate.	

Performance Measure	Targets	Actual Performance	Reference
(continued)	FY 04: c) Work with NAPHSIS and other partners on efforts to implement electronic death registration systems to improve the timeliness and accuracy of vital health data.	FY 04: 11/2004 FY 03: 11/2003	<b>B</b> - 93
		FY 02: Meetings with NAPHSIS and other partners held.	
		<b>FY 00:</b> 0 states, non- profit groups such as NAPHSIS.	
2. Deliver timely data to the nation's health decision - makers by: reducing data release time lags, making statistics Internet accessible, and producing publications.	FY 04: a) Reduce time lags for release of core data systems by 5% Vital Statistics (VS):	FY 04: 11/2004	<b>B</b> - 93
	Release 2003 Preliminary data in <b>9 months from end of data</b> collection year.		
		<b>FY 03:</b> 11/2003	
		FY 02: Met or exceeded all targets except release of Final 2000 Mortality data. Final Mortality data, released in 21 months, a 19% reduction from baseline.	
		FY 01: Met or exceeded all except release of 2000 Final Mortality data. Data were released in 21 months, a 19% reduction from baseline.	
		FY 00: Achieved	
		FY 99: Achieved	

Performance Measure	Targets	Actual Performance	Reference
(continued)	FY 04: b) Make health statistics available via the Internet, including the development of one new product.	FY 04: 11/2004	<b>B</b> - 93
	product.	FY 03: 11/2003 FY 02: NCHS website made accessible to the visually	
		impaired.  FY 01: Achieved.  FY 00: Monthly vital statistics available for viewing, searching, downloading within	
		4 months.  FY 99: Monthly vital statistics available for viewing, searching, downloading within 4 months.	
	<b>FY 04: c)</b> Produce reports and publications such as <i>Health, United States</i> that document trends, issues, and problems in health	<b>FY 04:</b> 11/2004	
	and problems in health.	FY 03: 11/2003 FY 02: Health, United States 2002 — Trends in Health of the Nation released in	
		September 2002.  FY 01: Health, United States 2001 + Urban and Rural health Chart book.	
		FY 00: Health, United States 2000 + Adolescent Health Chart book.	

## Previous Presentation of Goal-by-Goal Performance

This chart has been updated, and will continue to be updated accordingly until all measures are phased out in FY 04.

**1. Performance Goal:** Monitor trends in the nation's health through high-quality data systems addressing issues relevant to decision makers.

Performance Measure	Targets	Actual Performance	Reference
1. Conduct ongoing surveys and data systems that produce detailed trend data for monitoring health.	FY 03: 4 data systems FY 02: 4 data systems FY 01: 4 data systems FY 00: 4 data systems FY 99: 4 data systems	FY 03: 11/2003 FY 02: Achieved FY 01: Achieved FY 00: Achieved FY 99: Achieved FY 97: Baseline: 3	<b>B</b> - 93
2. Develop, test, and support SLAITS.	FY 03: Provide management, oversight, technical support to prospective SLAITS users. FY 02: Provide management, oversight, technical support to prospective SLAITS users. FY 01: Provide management, oversight, technical assistance to prospective SLAITS users. FY 00: Provide management, oversight, technical coordination for a	FY 03: 11/2003  FY 02: Achieved  FY 01: Achieved  FY 00: Achieved	<b>B</b> - 93
	survey on children with special healthcare needs.  FY 99: Develop SLAITS; pretest in 3 sites, including 1 Indian reservation.	FY 99: Achieved	

Performance Measure	Targets	Actual Performance	Reference
3. Develop new monitoring tools to address emerging topics.	FY 03: Provide management oversight and technical support to prospective users of Community Health and Nutrition Examination Survey. (CHANES)	FY 03: 11/2003	<b>B</b> - 93
	FY 02: Refine plans to implement new tools to assess racial/ethnic data and other key health issues.	FY 02: Transition to new race categories as indicated in OMB Classification System.	
	<b>FY 01:</b> Move NHANES to an ongoing data system.	FY 01: Achieved	
	FY 00: Complete Year 1 of NHANES data collection using automated survey, examination, and laboratory methods.	FY 00: Achieved	
	FY 99: Finalize development of NHANES; conduct a pretest.	<b>FY 99:</b> Conducted pretest; fielded survey.	
4. Increase and maintain participation in the National Health and Nutrition Examination Survey	FY 03: Maintain 78% response rate for NHANES.	<b>FY 03:</b> 11/2003	<b>B</b> - 93
(NHANES) through improved outreach with communities, constituents, States, and policymakers.	FY 02: Improve response rate of NHANES to 78% through enhanced approaches to media and outreach, including Congressional briefings, meetings with state health departments, or press releases.	FY 02: 78% response rate achieved.	
	Telediscs.	<b>FY 01:</b> 81% response rate achieved.	
		<b>FY 00:</b> 80% response rate.	
		FY 99: Baseline 72% response rate.	

## **2. Performance Goal:** Improve the nation's vital statistics system

Performance Measure	Targets	Actual Performance	Reference
1. Work with partners on efforts to implement electronic death registration systems to improve the timeliness and accuracy of vital health data.	FY 03: Work with NAPHSIS & other partners to assist states in implementation.  FY 02: Work with NAPHSIS to define	FY 03: 11/2003  FY 02: Meetings with NAPHSIS and other	<b>B</b> - 93
	specific and standards for electronic registration system.	partners held.  FY 00: Baseline: 0 States, non-profit groups such as NAPHSIS.	

### **3. Performance Goal:** Deliver timely data to the nation's health decision makers.

Targets	Actual Performance	Reference
FY 03: Maintain time lag of data release at 2002 level.	<b>FY 03:</b> 11/2003	<b>B</b> - 93
Vital Statistics (VS):Release Preliminary 2002 data in 9 months from end of data collection period; Release final 2001 Natality data within 16 months, 16% reduction from baseline; Release final 2000 mortality data within 18 months, 30% reduction from baseline.		
Health Interview Survey: Release selected data within 6 months of collection and		
complete data set within 18 months, a 30% reduction from baseline		
	FY 03: Maintain time lag of data release at 2002 level.  Vital Statistics (VS):Release Preliminary 2002 data in 9 months from end of data collection period; Release final 2001 Natality data within 16 months, 16% reduction from baseline; Release final 2000 mortality data within 18 months, 30% reduction from baseline.  Health Interview Survey: Release selected data within 6 months of collection and complete data set within 18	FY 03: Maintain time lag of data release at 2002 level.  Vital Statistics (VS):Release Preliminary 2002 data in 9 months from end of data collection period; Release final 2001 Natality data within 16 months, 16% reduction from baseline; Release final 2000 mortality data within 18 months, 30% reduction from baseline.  Health Interview Survey: Release selected data within 6 months of collection and complete data set within 18 months, a 30% reduction

Performance Measure	Targets	Actual Performance	Reference
(continued)	FY 02: Reduce time lag of data release by 5%  Vital Statistics (VS): Release of 2000 final mortality data in 18 months or a 30% reduction from baseline; release of 2000 final natality data in 16 months or an 11% reduction from baseline; preliminary VS 2001 data available within 9 months or a 10% reduction from baseline.	FY 02: Met or exceeded all targets except release of 2001 Final Mortality data. Data were released within 21months – a 19% reduction from baseline.	<b>B</b> - 93
	Health Care Surveys: Release of 2000 National Hospital Discharge Survey data in 18 months or a 14% reduction from baseline.		
	Health Interview Surveys: Release of 2000 National Health Interview Survey data in 20 months or a 23% reduction from baseline.		
	FY 01: Vital Statistics: Release 1999 mortality data in 18 months, 30% reduction and natality data in 16 months 11% reduction; make preliminary 2000 data available in 9 mos, 10% reduction.	FY 01: Met or exceeded all except release of 2000 Final Mortality data. Data were released in 21 months, a 19% reduction from baseline.	
	Health Care Surveys: Release 1999 NHDS data in 18 months, 14% reduction from baseline.		
	Health Interview Surveys: Release 1999 NHIS data in 20 mos. (23% reduction).		

Performance Measure	Targets	Actual Performance	Reference
continued)	FY 00: Reduce time lag in release of final VS by 2 months. Note: Data are currently released within 21 months after the end of data collection year.	FY 00: Achieved.	<b>B</b> - 93
	<b>FY 99:</b> Reduce time lag in release of core data systems by 5%.	FY 99: Vital Statistics: 1997 mortality data in 18 mos. (30% reduction) and natality data in 16 mos. (11% reduction); prelim. 1995 data in 10 mos. (11% reduction).	
		Health Care Surveys: 1997 NHDS data in 20 mos. (5% reduction).	
		Health Interview Surveys: 1997 NHIS data in 20 mos. (23% reduction).	
		FY 96: Baseline: Vital Statistics: 1993 mortality data in 26 mos; 1994 natality data in 18 mos; prelim. 1995 data in 10 mos.	
		Health Care Surveys: 1995 NHDS data in 21 mos.	
		Health Interview Surveys: 1994 NHIS data in 26 mos.	
		Health Examination Surveys:	
		NHANES III 2 <sup>nd</sup> half (1991-1994) in 31 months.	

# **4. Performance Goal:** Disseminate health data in innovative ways.

Performance Measure	Targets	Actual Performance	Reference
1. Make health statistics available via the Internet.	FY 03: Maintain current products.	<b>FY 03</b> : 11/2003	<b>B</b> - 93
	FY 02: Develop at least one new product for the Internet. (Target was increased based on ability to do more.)	FY 02: Achieved	
	<b>FY 01:</b> Develop at least one new product for the Internet.	FY 01: Achieved	
	FY 00: Monthly vital statistics available for viewing, searching, downloading within 4 months.	FY 00: Achieved	
	FY 99: Monthly vital statistics available for viewing, searching, downloading within 4 months.	FY 99: Achieved  FY 96: Within 6 months.	
2. Release statistics in new formats to speed the release of data on	<b>FY 03:</b> Maintain release of statistics in current formats.	<b>FY 03:</b> 11/2003	<b>B</b> - 93
high-priority topics.	FY 02: Release one data set in new format. (Target was increased based on ability to do more.)	<b>FY 02:</b> NCHS website made accessible to the visually impaired.	
	<b>FY 01:</b> 1 report in new format.	FY 01: Achieved	
	<b>FY 00:</b> 1 report	FY 00: Achieved	
		FY 99: Multiple publications and products.	
		FY 98: Teenage Births in the United States: National and State Trends 1990-96.	

Performance Measure	Targets	Actual Performance	Reference
3. Produce reports and publications that document trends, issues, and problems in health.	FY 03: Produce reports and publications.	<b>FY 03:</b> 11/2003	<b>B</b> - 93
issues, and problems in nearth.	<b>FY 02:</b> Produce reports and publications.	FY 02: Health, United States 2002 Trends in Health of the Nation was released September 2002.	
	<b>FY 01:</b> Produce reports and publications.	<b>FY 01:</b> Health, United States 2001+ Urban and Rural Health Chart book	
	<b>FY 00:</b> Produce reports and publications.	<b>FY 00:</b> Health, United States, 2000 + Adolescent Health Chart book.	
<b>4.</b> Increase the number of persons who obtain health information from the NCHS website.	FY 03: Develop at least one product to facilitate use of statistical data on the web.	FY 03: 11/2003	<b>B</b> - 93
	FY 02: a) Increase the number of people who obtain statistical information from the website by 5%. b) Develop a product to educate the public on the use of statistical data.	FY 02: 3.6 million visitor sessions where users obtained selected data or information.	
		<b>FY 01:</b> 3.2 million visitor sessions where user obtained selected data or information.	

## **Program Description and Context**

CDC's National Center for Health Statistics (NCHS) is the nation's principal health statistics organization. NCHS collects, analyzes, and disseminates information to help guide actions and policies that improve the health of Americans.

In and effort to consolidate measures, NCHS has only one performance goal for FY 2004:

Monitor trends in the nation's health through high-quality data systems addressing issues relevant to decision-makers, and deliver timely data to the nation's health decision-makers.

Below is a description of CDC's NCHS performance measurements and FY 2002 updates:

**1.)** Monitor the nation's health through high-quality data systems by: conducting on - going surveys, increasing participant response rates, and working with partners - NCHS data systems monitor a broad range of trends and issues key to understanding the health of Americans and the national health care system. Topics range from trends in mortality, teen childbearing, health insurance coverage, asthma rates, and nursing home usage. Monitoring these issues improves our understanding of health and the health care delivery system.

In FY 2002, all 4 data systems were operating. The National Health and Nutrition Examination Survey achieved a 78% response rate through improved outreach with communities, constituents, states and policy - makers. Lastly, meetings with NAPHSIS were conducted to discuss the details of re-engineering a vital statistics system based on national standards and definitions.

2) <u>Deliver timely data to the nation's health decision - makers by: reducing data release time lags, making statistics Internet accessible, and producing publications</u> - In order to have an accurate understanding of the health of the Nation, data must be processed and analyzed in a timely manner. It is also important to continually improve handicap accessibility, and to create new data dissemination techniques to meet the needs of our users.

In FY 2002, preliminary data for 2001 natality was released in June 2002, within just 6 months of data collection year. Final 2000 natality data was released in February 2002, within 13 months of end of data collection year, far exceeding the goal of 16 months. A new product to make CDC's NCHS website more accessible to the visually impaired was also implemented. Lastly, *Health, United States* is available on-line, has been mailed to data users, and post cards were sent out to announce its availability.

Previous measurements and goals have been appropriately updated and changed accordingly below. Goals that have been dropped will continue to be updated until they are phased out in FY 2004. The program description and context has also been updated accordingly in the text below.

Through NCHS, CDC collects and analyzes health data and disseminates health information through many venues such as:

National Health Interview Survey (NHIS) - This survey obtains information on the nation's health status through confidential household interviews. Interviewers annually collect information on topics such as: health status, health insurance coverage, utilization of health care, access to health care, causes of injury, immunization rates, and HIV testing practices. The data are used by health agencies and organizations to plan and monitor health policies and programs.

<u>National Vital Statistics System</u> - This system is the source of the nation's birth and death statistics. The collection and registration of these vital events are governed by the laws of states and registration areas. Vital records and reports originate with hospitals, physicians, and funeral directors. Records are compiled by the states and forwarded to CDC.

<u>National Survey of Family Growth</u> - This is a multipurpose survey and consists of personal interviews with a national sample of women and, for the first time, men 15-44 years of age in the civilian noninstitutionalized population. Its main function is to collect data on factors affecting pregnancy and reproductive health.

National Health Care Survey - This survey provides a picture of how hospitals, emergency and outpatient departments, ambulatory surgery centers, nursing homes, hospices, and office-based physicians deliver health care. It serves as a rich source of data on healthcare utilization and characteristics of patients and providers. CDC constitutes a significant resource for monitoring healthcare use, the impact of medical technology, and the quality of care provided to a changing U.S. population.

National Health Nutrition and Examination Survey (NHANES) - This survey is the only national source of objectively measured health data capable of providing accurate estimates of both diagnosed and undiagnosed medical conditions in the population. Through physical examinations, clinical and laboratory tests, and interviews, NHANES assesses the health status of a representative sample of U.S. adults and children. Mobile exam centers travel throughout the country to collect data on chronic conditions, nutritional status, behavioral risk factors, dental health, vision, and other factors that cannot be assessed by use of interviews alone. Findings from this survey are essential for determining rates of major diseases and health conditions and for developing public health policies and interventions.

CDC data are used for decision making and research. To support these uses, CDC makes its data available through a variety of mechanisms. These include CDC and DHHS publications, articles in peer-reviewed journals, de-identified electronic data sets, and electronic access to summary reports via the Internet. CDC also serves as a resource for other agencies and the public on statistical methods, analytic techniques, and data sources. CDC uses all reasonable methods, technologies, and legislative authority to protect the privacy and confidentiality of citizens who participate in its surveys.

Biomedical research also depends on CDC's data. High quality data are essential to researchers, assisting them in setting research priorities, in forming medical hypotheses, and evaluating clinical findings using nationally representative benchmarks. CDC surveys allow researchers to apply a finding from limited clinical setting to a broad population context. In order to understand the impact of a clinical discovery, CDC data describe the impact and burden within the national population. CDC surveys also help track the diffusion of technology, procedures, and medicines, as well as prevention techniques, through the health care system.

CDC data systems and related activities support DHHS programs and policies by providing health information for identifying and understanding health problems, tracking goals, and evaluating programs. For example, CDC data support the following DHHS priorities: 1) addressing racial and ethnic differentials in health, by providing data to identify problems and track progress; 2) implementing HP 2010 by providing the underlying data infrastructure for setting targets and tracking progress in meeting health objectives; and 3) supporting GPRA by providing data to identify action areas and by providing neutral, objective tracking data used across DHHS agencies.

### **Program Performance Analysis**

CDC met or exceeded all health statistics performance measures for FY 2001. In FY 2002 we met or exceeded all health statistics performance measures. With the return of NHANES to field operations, all four of CDC's major data systems are in operation, adding a critical dimension to its ability to monitor trends in the nation's health. CDC established NHANES as an ongoing – instead of periodic – survey with its return to the field in 1999. A new, automated, state-of-the-art communications infrastructure collects and processes all NHANES data, nearly eliminating the need for paper forms and manual coding. In FY 2000, NHANES interviewed and examined approximately 5,000 individuals in 15 scientifically selected communities across the nation to generate national estimates. This same sample size was obtained in FY 2001 and is expected to be maintained in FY 2002.

The most recent topical focus of States and Local Area Integrated Telephone Survey (SLAITS) began field testing in 1999 and full implementation in Fall 2000. SLAITS will provide: data to 50 states and the District of Columbia on children under 18 with special healthcare needs, state-specific estimates of children's health insurance coverage, and national estimates for the reasons low-income uninsured children are not enrolled in Medicaid or the State Children's Health Insurance Program (SCHIP). In FY 2001, CDC continued to provide necessary technical assistance to the survey. Data collection will end in FY 2002 and a data file will be released to the public early 2003. In 2002, a survey of asthma prevalence and treatment will be conducted in 4 states. SLAITS modules are partnerships between CDC and sponsor organizations. In 2001, partners included Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB), National Center for Environmental Health (CDC/NCEH) and the Assistant Secretary for Planning and Evaluation (ASPE).

The Community Health and Nutrition Examination Survey is being developed as a new monitoring tool to answer questions and monitor the health of specific racial and ethnic populations groups. Using the flexible, efficient CHANES model, it would be possible to provide information on racial and ethnic population subgroups not adequately covered in ongoing national studies. CHANES uses smaller-scale, more flexible examination centers than the "parent national survey" (NHANES). CDC is offering this new monitoring tool to implement a series of focused research studies to interested collaborators.

In FY 2002, CDC has been working with the National Association for Public Health Statistics and Information Systems to develop a national standardized web-based vital statistics data collection system. This system will provide more timely and higher quality data that better describes the population by enabling a faster and more efficient transfer of data, and enhanced data integration among Federal, state and local entities.

CDC exceeded the 5% reduction in time lag for the release of data from the major data systems. This goal will be maintained to ensure continuous improvement in the timeliness of CDC data. In FY 2001, CDC met or exceeded the 5% reduction in time lag for the release of data from the major data systems. Preliminary 2000 vital statistics data were released in July 2001 – just 7 months after data collection – two months earlier than anticipated. Final Hospital Discharge data were released in just 14 months, a 33% reduction from baseline of 21 months and 4 months sooner than anticipated. In FY 2002, preliminary data for 2001 natality was released in June 2002, just 6 months of data collection year. Final 2000 natality data was released in February 2002, within 13 months of end of data collection year, far exceeding the goal of 16 months.

Early release of selected estimates for the 2000 and early 2001 National Health Interview Surveys happened within 9 months of data collection. Selected elements include data on insurance coverage, pneumococcal vaccination, obesity, and participation in leisure time physical activities. Final 1999 mortality data were released in 21 months instead of the planned 18 months – 3 months longer than anticipated but a 19% reduction from the baseline of 26 months. This delay was due in part to a major change in the coding system through the implementation of the 10<sup>th</sup> revision to the International Classification of Diseases, used to categorize cause of death. CDC is working with states and other partners on efforts to develop electronic birth and death registration systems to improve the timeliness and accuracy of vital statistics data. The delay in data release of final mortality data continued in FY 2002. Although, preliminary mortality data for 2001 was released in September 2002, the final 2000 mortality data were released in 21 months instead of the planned 18 months – 3 months longer than anticipated but a 19% reduction from the baseline of 26 months.

CDC has produced and released data in new formats to document trends, issues, and problems in health. CDC released *Health, United States: Trends in the Health of Americans* in September 2002. It documents and describes the health of residents all over the United States. New initiatives are being taken to disseminate the books faster by having them mailed out on the date of release in addition to post card announcements, and the actual book being available on the CDC's NCHS website.

In FY 2002, *America's Children: Key National Indicators of Well - Being 2002* was released. This was produced by the Interagency Forum on Child and Family Statistics in July 2002. For the fourth consecutive year, CDC led the efforts on the production of the report. The report contained data on key indicators of children's health monitored through Federal statistics covering areas related to health, economic security, behavior, education, and social and physical environment of children in the U.S. The report also included a new indicator on the number of children with parents born outside the U.S.

In FY 2002, CDC has taken advantage of technological advances, such as use of the Internet, to

make data more timely and accessible. Virtually all NCHS publications are available on the Internet concurrent with their release in published form. All CDC NCHS data is now available, from 1968 to present, on CD-ROM. Available data sets include: 2000 National Ambulatory Medical Care Survey, 2000 National Hospital Ambulatory Medical Care Survey, 2000 National Home and Hospice Survey, 1999 National Health Interview Survey, and 1999 - 2000 National Health and Nutrition Examination Survey. CDC also recently made its website accessible to visually impaired data users. Other efforts are being made to increase the accessibility and usability of its data systems and website for disabled people.

<u>Verification/Validation of Performance Measures:</u> CDC will verify performance via contractor reports, pretest reports, meeting proceedings, publications, and website records.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 1,281,176 Estimate

**FY 2003:** \$ 1,235,000 President's Budget

**FY 2002:** \$ 1,131,826 Enacted

#### **II-F. HIV/AIDS Prevention**

### **Goal-by-Goal Performance Measurement**

**Overarching Performance Goal:** Reduce the number of new HIV infections.

Performance Measure	Targets	Actual Performance	Reference
1. Reduce the number of HIV infection cases diagnosed each year among people <25 years of age.	FY 04: Overall: 1,900 reported cases.*	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 2,344 FY 00: Overall: 2,086 reported cases.*	<b>B</b> - 101 <b>1</b>
2. Decrease the number of perinatally acquired AIDS cases, from the 1998 base of 235 cases.	FY 04: <139 cases FY 03: <139 cases FY 02: 141 cases FY 01: 151 cases FY 00: 203 cases FY 99: 214 cases	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: Exceeded/100 FY 00: Exceeded/102 FY 99: Exceeded/171 FY 98: 235 FY 97: 310 FY 96: 509**	<b>B</b> - 101 <b>HP</b> - 13-17 <b>1</b>
3. Reduce the annual incidence of new HIV infections	FY 03: 35,600 new infections/yr FY 02: 35,600 new infections/yr FY 01: 37,900 new infections/yr FY 00: 40,000 new infections/yr FY 99: Measure rates of transmission of new HIV infections.	FY 03: 9/2005 FY 02: 9/2004 FY 01: 9/2003 FY 00: Estimated baseline: 40,000 FY 99: Estimated baseline: 40,000 ***	

<sup>\*</sup> CDC will revise baseline and targets when data from more states with adequate HIV reporting systems are available. Current data are from 25 states with HIV reporting.

<sup>\*\*</sup> Baseline changed from reported to diagnosed cases to increase accuracy

<sup>\*\*\*</sup> Declines in incidence related to funding increases in FY 2001 will not be realized until at least FY 2002 and will be reported in FY 2003.

# Domestic HIV/AIDS Goal-by-Goal Performance Measurement

**1. Performance Goal:** Decrease the number of persons at high risk for acquiring or transmitting HIV infection.

Performance Measure	Targets	Actual Performance	Reference
1. Among HIV-infected persons > 18, increase the proportion who were abstinent during the past 12 months or used a condom the last time they had sex.	<b>FY 04:</b> 70%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 60%	<b>B</b> - 101 <b>1</b>
2. Decrease the percent of HIV-infected IDUs who shared needles in past 12 months.	FY 04: 30%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 35%	<b>B</b> - 101 <b>1</b>

**2. Performance Goal:** Increase the proportion of HIV-infected people who know they are infected.

Performance Measure	Targets	Actual Performance	Reference
1. Among persons with HIV infection, increase the proportion diagnosed before progression to AIDS.	<b>FY 04:</b> 80%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 78% FY 00: 76% Data are from 25 states with HIV reporting.	<b>B</b> - 101 <b>HP</b> - 13-15 <b>1</b>
2. Among persons with HIV infection attributed to heterosexual behavior, increase the proportion diagnosed before progression to AIDS.	FY 03: 83% FY 02: 82% FY 01: 82%	FY 03: 8/2004 FY 02: 8/2003 FY 01: 82% FY 00: 80% FY 99: 81% Data are from 25 states with HIV reporting.	<b>B</b> - 101 <b>HP</b> - 13-15

Performance Measure	Targets	Actual Performance	Reference
3. Among persons with HIV infection attributed to injecting drug use, increase the proportion diagnosed before progression to AIDS.	FY 03: 76% FY 02: 76% FY 01: 76%	FY 03: 8/2004 FY 02: 8/2003 FY 01: 75% FY 00: 74% FY 99: 75% FY 98: 73% Data are from 25 states with HIV reporting.	<b>B</b> - 101 <b>HP</b> - 13-15 <b>1</b>
<b>4.</b> Among persons with HIV infection attributed to male-to-male sexual contact, increase the proportion diagnosed before progression to AIDS.	FY 03: 75% FY 02: 74% FY 01: 74%	FY 03: 8/2004 FY 02: 8/2003 FY 01: 76% FY 00: 74% FY 99: 73% FY 98: 74% Data are from 25 states with HIV reporting.	<b>B</b> - 101 <b>HP</b> - 13-15 <b>1</b>
5. Increase the percentage of HIV-positive tests with post-test counseling sessions reported from CDC funded test sites.	FY 04: 80% FY 03: 75% FY 02: 75% FY 01: 70% FY 00: 65% FY 99: 60%	FY 04: 10/2005 FY 03: 10/2004 FY 02: 10/2003 FY 01: Exceeded/71.3% FY 00: 69.3% FY 99: 70.0% FY 98: 73.1% FY 97: 67.4% FY 96: 74.4%	<b>B</b> - 101 <b>5</b>

**3. Performance Goal:** Increase the proportion of HIV-infected people who are linked to appropriate prevention, care and treatment services.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the proportion of HIV-infected people who received some form of medical care within 3 months of HIV diagnosis.	FY 04: 80%	FY 04: 8/2005 FY 03: 8/2004 FY 02: 79.5% FY 01: 79%	<b>B</b> - 101 <b>HHS</b> - 3.4; 4.4
Data are from interviews taken from a sample of persons in 16 areas.			

Performance Measure	Targets	Actual Performance	Reference
2. Expand the number of states that are able to measure:*  1. Adherence to treatment	<b>FY 03:</b> Initiate analyses of data.	FY 03: Initiated analyses	<b>B</b> - 101
2. Impact of antiretroviral therapy (ART) on long term survival.	<b>FY 02:</b> Continue to support the same states funded in FY 01.	FY 02: Adherence/19; impact 11	
*This study was initiated with three components: access to care, adherence to treatment and impact of ART. The access to care component ended in FY 2001.	<b>FY 01:</b> Continue to expand the numbers of states that collect data and can measure care and treatment outcomes.	FY 01: Access/6; adherence/16; impact/11	
2001.		FY 00: Access/5; adherence/15; impact/11	
		FY 99: Access/4; adherence/12; impact/11	
3. Refine methods for measuring long-term survival.	FY 03: Expand new methods to include understanding of factors associated with long-term survival. Publish final methods and instruments for collection of data on factors associated with long-term survival.	<b>FY 03:</b> 9/2004	<b>B</b> - 101
	<b>FY 02:</b> Develop new methods based on findings.	<b>FY 02:</b> 9/2003	
	<b>FY 01:</b> Publish final results; disseminate methodology.	FY 01: Achieved/ published final results; disseminated methodology & software.	
	FY 00: Publish preliminary results of ASD survival analyses.	FY 00: Exceeded/ published final results.	
	FY 99: Measure trends in long-term survival and rates of transmission of new infections.		

**4. Performance Goal:** Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the number of states and District of Columbia that conduct HIV case reporting in adults and adolescents.	FY 04: 51 states and D.C. FY 03: 50 States FY 02: 50 states FY 01: 45 states FY 00: 40 states	FY 04: 9/2005 FY 03: 9/2004 FY 02: 48 states, 33 report by name. FY 01: Met/ 45 states. 33 report by name. FY 00: Exceeded/ 43 states. 33 report by name. FY 99: Released Guidelines, 34 states (reports); 4 states, 1 territory (other method)	<b>B</b> - 101
2. Measure HIV incidence and prevalence in high-risk populations.	FY 03: 30 sites FY 02: 21 sites FY 01: 30 sites FY 00: 53 sites	FY 03: 9/2004 FY 02: 21 FY 01: 21 FY 00: 53 sites FY 99: 53 sites	<b>B</b> - 101
3. Percentage of states that adopt and maintain recommended security and confidentiality standards.	FY 03: 100% of states FY 02: 100% of states FY 01: 100% of states FY 00: 100% of states FY 99: Update <i>Guidelines</i> to include security and confidentiality standards.	FY 03: 12/2003 FY 02: Achieved FY 01: Achieved FY 00: Achieved FY 99: 100%	<b>B</b> - 101
4. Fund community-based organizations to provide HIV prevention services to persons at high risk for HIV infection.	FY 03: 259 awards FY 02: 259 awards FY 01: 240 awards FY 00: 180 awards FY 99: 139 awards	FY 03: 10/2003 FY 02: Achieved/259 FY 01: Exceeded/259 FY 00: Exceeded/253 FY 99: Achieved FY 97: 94	<b>B</b> - 101

# HIV/AIDS Prevention

Performance Measure	Targets	Actual Performance	Reference
5. Fund community coalition planning and implementation projects to expand community demonstration projects.	<b>FY 03</b> : 11	<b>FY 03:</b> 8/2003	<b>B</b> - 101
	<b>FY 02:</b> 11	<b>FY 02:</b> Achieved/11	
	<b>FY 01</b> : 10	FY 01: Exceeded/11	
	FY 00: Fund 3 grants of 20 planning grants initially funded.	<b>FY 00:</b> Exceeded/10	
	FY 99: Fund 20 projects.	FY 99: Achieved	
		<b>FY 97</b> : 0	

# International HIV/AIDS Goal-by-Goal Performance Measurement

**Performance Goal:** Working with other countries, USAID, and international and U.S. government agencies, reduce the number of new HIV infections among 15- to 24-year-olds in sub-Saharan Africa from an estimated 2 million by 2005.

Performance Measure	Targets	Actual Performance	Reference
1. Initiate, expand, or strengthen HIV/AIDS prevention, care, treatment and support activities globally.	Surveillance FY 04: 25 countries/regions FY 03: 25 countries/regions FY 02: 25 countries/regions FY 01: 18 countries/regions FY 00: 15 countries/regions  Voluntary counseling and testing FY 04: 25 countries/regions FY 03: 25 countries/regions FY 06: 25 countries/regions FY 01: 19 countries/regions FY 00: 12 countries/regions FY 00: 12 countries/regions  Locally appropriate technical assistance for treatment of STDs, TB, and other opportunistic infections. FY 04: 25 countries/regions FY 03: 25 countries FY 04: 25 countries FY 06: 5 countries FY 01: 15 countries FY 00: 5 countries	Surveillance FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: Exceeded/22 FY 00: 13  Voluntary counseling and testing FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: 18 FY 00: Achieved  Locally appropriate technical assistance for treatment of STDs, TB, and other opportunistic infections. FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: Exceeded/18 FY 00: Exceeded/11	<b>B</b> - 101

Performance Measure	Targets	Actual Performance	Reference
2. Initiate, expand, or strengthen perinatal HIV prevention programs in collaboration with national and international partners.	FY 03: 20 countries FY 02: 17 countries FY 01: 10 countries FY 00: 5 countries	FY 03: 9/2004 FY 02: 9/2003 FY 01: Exceeded/13 FY 00: Exceeded/8	<b>B</b> - 101
This measure will be revised to:			
Increase the number of Preventing Mother to Child Transmission Initiative countries that have: Coordinated needs assessments:	Coordinated needs assessments <b>FY 04:</b> 7 countries/regions	Coordinated needs assessments FY 04: 9/2005 FY 02: Baseline: 0 countries/ regions	
<ul> <li>Planned programs; and</li> <li>Begun implementation.</li> </ul>	Planned programs <b>FY 04:</b> 7 countries/regions	Planned programs FY 04: 9/2005 FY 02: Baseline: 0 countries/ regions	
	Begun implementation <b>FY 04:</b> 7 countries/regions	Begun implementation FY 04: 9/2005 FY 02: Baseline: 0 countries/regions	

### **Overarching Program Description and Context**

CDC has been involved in the fight against human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS) from the earliest days of the epidemic and remains a domestic and global leader in HIV/AIDS prevention and control. Over the past several years, three new initiatives have significantly affected program activities. In 1999, Congress through the Minority AIDS Initiative program provided funding to CDC for the prevention of HIV in communities of color. In 2000, Congress provided first-time funding to CDC to address the HIV/AIDS epidemic in 15 countries in Africa and Asia. This program now reaches 25 countries on 3 continents. In 2001, CDC published a revised HIV Prevention Strategic Plan in concert with other federal agencies, partners and outside experts.

HIV remains a deadly infection for which there is no vaccine or cure and for which treatments are limited. Through December 2001, just over 816,000 Americans were reported with AIDS, and more than 467,000 (57%) had died. An estimated 850,000 to 950,000 persons are living with HIV infection in the United States. Although HIV incidence has decreased substantially from the high of 150,000 cases per year in the late 1980s, CDC estimates that 40,000 Americans become infected with HIV every year.

Over the past decade, the HIV/AIDS epidemic has expanded into new populations. More persons of color (especially women) and young persons are becoming infected with HIV. In 2000, AIDS prevalence was higher among African-Africans than among any other racial or ethnic group surveyed. In 2001, Hispanics accounted for 20% of new persons living with AIDS. An estimated 50% of those now infected with HIV in the United States became infected during their youth. Among men, the majority of new AIDS cases, 53%, are among men who have sex with men (MSM). Recent evidence of resurgent unsafe behaviors and outbreaks of other STDs among MSM underscore the importance of sustaining and improving prevention efforts for this population.

In addition to the high costs in terms of morbidity and mortality, HIV has high economic costs. The estimated lifetime cost in the United States of treating just one person infected with HIV is \$155,000. With approximately 40,000 persons infected each year, America faces additional annualized costs of more than \$6 billion every year, dwarfing the amount CDC spends to prevent new infections.

The global toll of HIV is staggering. UNAIDS estimates that, at the end of 2002, 42 million adults and children were living with HIV/AIDS and nearly 22 million had died. In 2002 alone, an estimated 5 million persons, including more than 800,000 children, were newly infected with HIV, and 3 million had died of AIDS. The most severely affected countries are in sub-Saharan Africa; 70% of those living with HIV/AIDS reside in this region. HIV/AIDS has had a devastating toll on families in these countries, resulting in loss of income, ongoing costs for care of family members with AIDS and AIDS-related illnesses, and dissolution of basic family and community structures. By 2010, demographers project that life expectancy will fall from 66 to 33 years in Zambia and from 70 to 40 years in Zimbabwe. HIV surveillance and other data reveal emerging epidemics in India, China, the Ukraine, and other parts of the world.

Despite great declines in morbidity and mortality due to HIV/AIDS in the United States over the last 15 years, the number of new infections each year remains unacceptably high. In recognition of the need for a new national strategy, CDC worked with experts in public health, prevention science, and medicine and representatives from affected communities to devise a strategic plan to reduce by half the number of new HIV infections. The overarching goal is reduce the number of new HIV infections in the United States from an estimated 40,000 to 20,000 per year by 2005, focusing particularly on eliminating racial and ethnic disparities in new HIV infections. Through the plan, CDC aims to:

- 1. Decrease by 50% the number of persons in the United States at high risk for acquiring or transmitting HIV infection by delivering targeted, sustained and evidence-based HIV prevention interventions.
- 2. Through voluntary counseling and testing, increase from the current estimated 70% to 95% the proportion of HIV-infected people in the United States who know they are infected.
- 3. Increase from the current estimated 50% to 80% the proportion of HIV-infected people in the United States who are linked to appropriate prevention, care, and treatment services.

4. Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective prevention interventions, and evaluate prevention programs.

CDC has also set a goal for international HIV/AIDS to assist in reducing HIV transmission and improving HIV/AIDS care and support in partnership with resource-constrained countries. In crafting the plan, CDC acknowledged that these goals could not be achieved without significantly increased funding levels. The performance targets for FY 2004 in this document reflect amounts currently budgeted for domestic HIV AIDS prevention.

The HIV Prevention Strategic Plan is being used to guide CDC's investment in HIV prevention and to monitor access, care and treatment. The goals in this performance plan are aligned with the goals of the strategic plan. In crafting the plan, CDC acknowledged that these goals could not be achieved without significantly increased funding levels. CDC's HIV Prevention Strategic Plan is available at: <a href="http://www.cdc.gov/nchstp/od/news/prevention.pdf">http://www.cdc.gov/nchstp/od/news/prevention.pdf</a>. Targets for most performance measures in this document reflect current funding levels.

#### Domestic Strategies, Activities, and Resources

CDC's approach to implementing the plan involves collaborations with a broad spectrum of partners and focuses on four areas: recognition, intervention, capacity building, and evaluation. Priority-setting for health protection activities is based on information gathered through CDC's HIV/AIDS recognition activities – surveillance and research. Surveillance is the tool by which CDC and state/local health departments track the epidemic and understand its dynamics. Surveillance provides demographic, laboratory, clinical, and behavioral data that are used to identify populations at greatest risk for HIV infection. Surveillance data also help CDC estimate the size and scope of the epidemic at the national level.

CDC provides funding and technical assistance to state and local health departments to conduct HIV/AIDS surveillance. Every state requires reporting of the number of persons diagnosed with AIDS each year. This information is used to identify those in need of services and care, allocate prevention and treatment resources, and track the course of the epidemic. However, because of the long latency of the disease, AIDS cases alone are not indicative of recent trends in the epidemic. Consequently, CDC has encouraged states to report HIV infections.

CDC also conducts specialized surveys of infected and high-risk persons to better understand the dynamics of the epidemic. For example, the Supplement to HIV/AIDS Surveillance (SHAS) is a survey of adults newly reported to have HIV infection or AIDS. Results help improve the understanding of sociodemographic characteristics of HIV-infected persons, sexual and drug-using behaviors, access to health care, HIV testing patterns, minority health issues, and use of and adherence to prescribed therapies. HIV/AIDS monitoring systems give CDC a clear, timely view of populations at risk and provide a scientific basis for developing prevention strategies and setting priorities.

While CDC has a strong tradition of supporting interventions that prevent HIV infection in persons at high risk, the changes in the epidemic have led CDC to broaden its focus to include the growing number of persons who are living with HIV and their partners. Medical science has made great progress in treating HIV infection and associated opportunistic infections. Research consistently shows the prevention benefit of early diagnosis and ongoing care and services for people living with HIV. At the same time, prevention research has revealed that persons who know they are HIV infected are more likely to make informed decisions to protect partners. For these reasons, it is vital for HIV-infected persons to know they are infected and to seek appropriate medical care as early as possible. CDC will build on activities to strengthen the HIV prevention, care, and treatment interface.

Early in the epidemic, CDC recognized that the involvement of affected communities was a critical success factor in HIV/AIDS prevention programs. Although HIV/AIDS in the United States is often referred to as a single epidemic, it is, in truth, composed of many smaller epidemics that often differ substantially. Once a disease that mainly affected white MSM and injection drug users, HIV/AIDS is increasingly affecting heterosexual persons, gay men of color, and young persons (ages 13-24). Communities of color are disproportionately affected. Overwhelming evidence, including historical experience and scores of careful scientific studies, demonstrates that well-designed prevention programs can help reduce the number of new infections. However, to produce lasting behavior change, prevention programs must consider the social and cultural realities of the persons at greatest risk.

CDC uses several tools to involve communities in HIV prevention. These include community planning, coordinated through health departments, and direct funding of community-based

#### **Targeting Interventions to Marginalized Populations**

U.S. prisons and jails hold 2 million persons and release approximately 12 million inmates into the community annually. These facilities house persons who are disproportionately affected by high rates of infectious diseases such as HIV/AIDS. The confirmed AIDS case rate among prisoners was five times the U.S. rate in 1999. Approximately 80% of prisoners have a history of substance abuse. Most facilities lack comprehensive discharge planning to link releasees with community-based providers for health care, substance abuse treatment, and other services.

CDC promotes a community approach to improve the health of inmates via collaborations with correctional institutions, public health agencies, and community-based healthcare and social service organizations. In FY 1999, CDC and HRSA funded 7 health departments to design and implement innovative demonstration projects for HIV prevention and care in jails, prisons, and/or juvenile detention centers. The Massachusetts Department of Public Health used this funding to implement an intensive case management program for inmates with HIV infection who are nearing release. Each of the state's five regions has a Transitional Intervention Project (TIP) team, consisting of a social worker and case manager, that meets with inmates before release to assess their needs, arrange for medical and social services, and monitor their transition.

organizations. Through the HIV community planning process, communities tailor HIV prevention programs to local needs. Committees that include representatives from all affected communities, state and local health departments, and key non-governmental organizations providing HIV prevention and related services, and experts in

epidemiology, behavioral science, and program evaluation collaborate to determine the most appropriate HIV prevention interventions based on local epidemic data, community resources, and science.

Since 1989, CDC has provided funding directly to community-based organizations to conduct HIV prevention activities. Many of these organizations have a history of serving populations most-affected by the epidemic. Since 1999, CDC has received additional funding through the Minority AIDS Initiative to augment existing efforts to address racial and ethnic disparities in HIV/AIDS. These funds help communities build the basic services and infrastructure needed to implement HIV prevention programs and link HIV-infected and at-risk individuals to other health and social services.

#### **Local HIV Prevention in California**

Twenty-one California local health departments provide outreach, counseling, and testing in highrisk communities with the Neighborhood Interventions Geared to High Risk Testing (NIGHT). NIGHT outreach workers -- often former or current members of the communities in which they work – use mobile vans to provide education, referrals, and follow-up services directly to at-risk communities.

Underpinning its intervention programs are capacity building efforts. To build the capacity of its state and CBO partners to prevent HIV, CDC:

- Supports national meetings and satellite broadcasts as a forum for sharing new ideas and best practices;
- Funds non-governmental organizations to provide training, materials, and direct technical assistance to CBOs; and
- Synthesizes and disseminates information on science-based interventions.

Finally, CDC works to evaluate its programs to monitor progress and to refine efforts. CDC's evaluation efforts include an evaluation of CDC's Minority AIDS Initiative activities and development of state and local health department evaluation guidance. Currently, CDC is revising its grant application process to require more information on performance, especially as it relates to CDC's overall goals, and ways to manage the program based on performance information.

#### International Strategies, Activities, and Resources

CDC is working with HRSA, NIH, USAID, the Department of State, and other agencies and organizations to help ministries of health in Africa, Asia, and Latin America address the devastating impact of HIV/AIDS. These efforts compliment multilateral efforts, including the Global Fund to Combat HIV, TB, and Malaria. CDC (in collaboration with USAID) has established a field presence in 25 countries in Africa, Asia, and Latin America to help national HIV/AIDS control programs. CDC plans to establish a presence in at least one additional country in 2003. In FY 2004, CDC (in collaboration with USAID), will undertake an initiative to prevent mother-to-child transmission of HIV in 14 countries in Africa and the Caribbean.

Global AIDS Program Countries FY 2002		
Angola	Mozambique	
Botswana	Namibia	
Brazil	Nigeria	
Cambodia	Rwanda	
China	Senegal	
Cote d'Ivoire	South Africa	
Democratic Rep.	Tanzania	
of Congo		
Ethiopia	Thailand	
Guyana	Uganda	
Haiti	Vietnam	
India	Zambia	
Kenya	Zimbabwe	
Malawi		

CDC works with host countries and other key partners to assess the needs of each country and design a customized program of assistance that fits within the host nation's strategic plan. CDC will focus on two or three major program areas in each country. Priorities include:

- Primary prevention of HIV infection through activities such as expanding voluntary counseling and testing programs, building programs to reduce maternal-to-child transmission, strengthening programs to reduce blood transmission.
- Improving the care and treatment of HIV/AIDS, STDs and related opportunistic
  infections by improving STD management, enhancing care and treatment of
  opportunistic infections including tuberculosis, and initiating targeted antiretroviral
  treatment demonstration projects.
- Strengthening the capacity of countries to collect and use surveillance data and to manage national HIV/AIDS programs by expanding HIV/STD/TB surveillance programs and strengthening laboratory support for surveillance, diagnosis, disease monitoring and HIV screening for blood safety.

For example, prevention of mother-to-child-transmission (MTCT) of HIV infection has been identified as a priority in both Uganda and Kenya. In Uganda, CDC funds 10 counselors for the MTCT program at the prenatal clinic in Mulago Hospital, which serves more than 34,000 women annually. In Kenya, CDC is working with multiple partners to introduce MTCT prevention activities to the Pumwani Maternity Hospital in Nairobi. More than 23,000 babies are born at this facility each year. The estimated HIV prevalence in mothers there is approximately 16 percent.

#### **Program Performance Analysis**

### **Overarching Goal:** Reduce the number of new HIV infections.

Historically, new AIDS cases (AIDS incidence) were the basis for assessing needs for prevention and treatment programs. However, potent new antiretroviral therapies are delaying or preventing the development of AIDS in many HIV-infected persons and AIDS data are no longer sufficient to describe the epidemic. Data on HIV are now needed to monitor the effect of the epidemic. CDC is working with states to implement and improve HIV reporting and is studying methods to estimate HIV incidence nationally. Until comparable HIV data are available nationwide, CDC will continue to use AIDS data to report most nationwide statistics. CDC currently reports HIV data from 25 state and will add additional states as data becomes available.

# 1. Reduce the number of HIV infection cases diagnosed each year among people <25 years of age.

The number of HIV infection cases among persons < 25 years of age diagnosed each year is the best data available for monitoring new HIV infections. HIV infections occurring in those < 25 years of age are likely to have been acquired recently and thus are a relatively good proxy measure of HIV incidence. Also, these data enable CDC to look at yearly trends in a meaningful way. Data or cases come from the HIV/AIDS Reporting System (HARS), a population-based national surveillance system that collects demographic, clinical and behavioral information on all AIDS cases diagnosed in the United States, as well as HIV cases diagnosed in states with HIV reporting requirements. CDC will report data on HIV infections among persons under 25 years of age for heterosexuals, men who have sex with men, and injecting drug users in the next GPRA report. This measure is still being discussed and might undergo slight revisions.

#### 2. Decrease the number of perinatally acquired AIDS cases, from the 1998 base of 235 cases:

Surveillance data reported through June 2001 show sharply declining trends in perinatal AIDS cases; this decline was strongly associated with increasing zidovudine use in pregnant women who were aware of their HIV status. More recently, improved treatment also likely delayed onset of AIDS for HIV-infected children. With efforts to maximally reduce perinatal HIV transmission and increase treatment for those infected, declines are likely to continue. Declines may be affected by treatment failures and missed opportunities to prevent transmission. The data for this measure is not available at this time because the CDC HIV/AIDS Surveillance Report is delayed due to the transition from AIDS case reporting to HIV reporting. The data will be available for the next GPRA report.

#### 3. Reduce the annual incidence of new HIV infections.

This measure is being phased out and replaced by performance measure number 1 above. CDC will estimate reductions in HIV incidence when the new methods for estimating incidence are applied in a sufficient number of states and the data are available for analysis. Preliminary data using the new methods should be available in 2004.

## Goal # 1: Decrease the number of persons at high risk for acquiring or transmitting HIV infection.

1. Among HIV-infected persons >= 18, increase the proportion who were abstinent during the past 12 months or used a condom the last time they had sex.

Because every new HIV infection is the result of transmission from an infected person, encouraging infected persons to adopt safe behaviors in one of the highest priorities of HIV prevention. To reduce the risk of HIV transmission from infected persons, CDC-funded grantees have increased the number of prevention interventions aimed at supporting the adoption and maintenance of safer behaviors. Moreover, since 1998 CDC has funded five demonstration projects which provide comprehensive services with risk-reduction interventions at individual, group and community levels to HIV-infected persons. Abstinence and consistent use of condoms are effective methods for preventing HIV transmission.

#### 2. Decrease the proportion of HIV-infected IDUs who shared needles in the past 12 month.

CDC has added this new performance measure to reflect progress in reducing HIV transmission from injecting drug use. An estimated 32 percent of people now living with AIDS are or were injecting drug users.

#### Goal # 2: Increase the proportion of HIV-infected people who know they are infected.

To achieve further declines in AIDS incidence and deaths, HIV-infected persons must seek testing earlier in the course of their disease and receive and adhere to complex treatment regimens. In addition, new HIV infections must be prevented.

1-4. Among persons with HIV infection, increase the proportion diagnosed before progression to AIDS.

As deaths due to AIDS have decreased and the rate of new infections has remained stable, the number of persons living with HIV/AIDS has increased. If incidence does not decrease, the number of persons living with HIV and AIDS is expected to continue to increase slightly each year. The increasing number of persons living with HIV and AIDS provides further evidence of the importance of continuing HIV prevention programs.

Measures 1 through 4 are indicators of the percent of persons who did not know they were HIV-infected until late in the spectrum of the disease. These individuals were not diagnosed with HIV until they had already developed an AIDS defining condition. The percent of persons diagnosed with HIV and AIDS simultaneously should decrease over time if a greater proportion of HIV-infected persons find out their HIV status earlier. Activities related to these measures include efforts to increase knowledge of HIV status through voluntary counseling and testing, and to link infected persons with prevention, care, and treatment services. Measure 1 is a new measure and is intended to replace measures 2 through 4 under Goal # 2 in the tables. Measures 2 through 4 address the same issue but are targeted to different risk groups and will be phased out when data for FY 2003 are reported.

5. Increase the percentage of HIV-positive tests from CDC-funded test sites with post-test counseling sessions reported.

The HIV Counseling and Testing System (CTS), initiated in 1990, is the principal source of information on the use of publicly funded HIV counseling, testing, and referral services in the United States. Client demographic, behavioral, and HIV test results are reported to CTS about each reported HIV counseling, testing, and referral episode in a CDC-funded site. Each year, approximately 2 million HIV tests are reported from over 11,000 sites, each with varying test return rates. CDC is working with all grantees to continue improving the return rates for HIV-positive test results and is evaluating grantees' reporting systems. Information obtained from the evaluation will be used to develop a comprehensive plan to ensure that all people receiving an HIV-positive test result from a CDC-funded site know their HIV status. Recent conditional approval by FDA of a rapid HIV-1 test will allow return of HIV test results "while you wait." This measure may be revised when rapid testing becomes more widespread. Additional strategies to improve client return for HIV-positive test results, such as provider peer training to replicate successful programs, will be instituted later this year.

**Goal # 3:** Increase the proportion of HIV-infected people who are linked to appropriate prevention, care and treatment services.

1. <u>Increase the proportion of HIV-infected people who received some form of medical care within 3 months of HIV diagnosis.</u>

This measure reflects linkage to care after initial diagnosis. Most HIV-infected persons should be evaluated by a physician soon after receiving their initial positive test results. However, many persons are not evaluated because of fear or lack of access to medical care. The data for this measure are collected through interviews with HIV-infected persons in 16 areas.

<u>2. Expand the number of states that are able to measure: 1. Adherence to treatment; 2. Impact of antiretroviral therapy (ART) on long term survival:</u>

CDC funds health departments to collect information on the care of all persons with HIV/AIDS. Health departments use these data for both care and prevention programs. This population-based surveillance captures data on persons who receive care through the private and public sectors, as well as persons who do not receive care at all. The care of most persons with HIV or AIDS is funded by Medicaid, Medicare, and the Ryan White CARE Act. Data on adherence identify persons at increased risk for morbidity and mortality. Because non-adherence can lead to the development of drug-resistant viral strains, these data also identify areas where surveillance for drug-resistant strains may be needed. Data on long-term survival identify populations underserved by prevention and care programs.

In FY 2002, the number of states monitoring adherence to treatment increased. The number of states monitoring the impact of antiretroviral therapy on long-term survival remained the same. This measure will be phased out when the data for FY 2003 are reported.

#### 3. Refine methods for measuring long-term survival:

Midway through the 1990s, effective therapies became available for HIV-infected persons. The effect of these treatments on AIDS incidence and deaths were detected at the population level through surveillance as early as 1996. As the number of deaths have decreased and the rate of new infection remained stable, AIDS prevalence has steadily increased each year. CDC has two longitudinal studies to determine long-term survival of patients in medical care. This measure is being phased out.

**Goal # 4:** Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.

## 1. Increase the number of states and District of Columbia that conduct HIV case reporting in adults and adolescents:

As of November 2002, 48 states, Puerto Rico, Guam, and the Virgin Islands conducted some type of surveillance for HIV infection. Thirty-three of these states use the same confidential, name-based method for reporting infections in adults and adolescents that is used in AIDS surveillance; 15 others used other systems. CDC anticipates that by 2003 all states will have implemented HIV surveillance as an extension of their AIDS surveillance activities. In the future, CDC will report the number of states which have confidential name-based reporting and those which use other reporting systems such as coded identifiers to report HIV cases. Currently, only data from name-based reporting systems can be used in CDC reports. The remaining methods need to be evaluated to determine if they meet reporting standards.

### 2. Measure HIV incidence and prevalence in high-risk populations:

Testing technology now can distinguish recent or "incident" HIV infections from "remote" infections among tests positive for HIV. In FY 2000 and 2001, CDC began funding prospective and retrospective studies in 21 sites to: 1) measure HIV incidence and prevalence in high risk populations, and in certain health care settings and geographical areas; and 2) to analyze and disseminate data from surveys to assist in evaluating the impact of HIV prevention efforts.

The incidence studies used the testing technology to measure HIV incidence; the data are used to guide local HIV prevention and care efforts. Funding for these studies will be discontinued in FY 2003. New HIV incidence studies were piloted in FY 2002 and will be implemented in FY 2003 in over 20 of the States with HIV reporting systems.

# 3. Percentage of states that adopt and maintain recommended security and confidentiality standards:

CDC is phasing out this process measure because the target was achieved from FY 1999 through FY 2002. Moreover, failure to maintain recommended standards is unexpected and unacceptable.

## 4. Fund community-based organizations to provide HIV prevention services to persons at high risk for HIV infection:

In 1988, CDC made funding available for the National and Regional Minority Organizations (NRMOs) program designed to provide technical assistance to community-based prevention efforts. In 1989, CDC began to provide direct funding to minority community-based organizations (CBOs). Since then, funding from the Minority AIDS Initiative has supported additional prevention efforts including capacity building assistance to CBOs, targeted efforts by health departments to address minority communities, focused CBO programs, demonstration projects to test new interventions, and communication efforts to increase knowledge of serostatus.

In 2001, CDC made 271 awards to CBOs. Most of these programs address the needs of persons considered to be at high-risk for acquiring or transmitting HIV infection, including men having sex with men, injecting drug users, youth, homeless persons, sex workers, and incarcerated persons. CDC anticipates continued funding of these CBOs in 2002 and 2003. This measure will be phased out after the results for FY 2003 are presented.

# 5. Fund community coalition planning and implementation projects to expand community demonstration projects:

In FY 1999, CDC awarded 20 planning grants for community coalition development to sustain, improve, and expand HIV prevention services for racial/ethnic minority populations. In FY 2002, CDC funded 11 of these grantees to implement community coalition development project. This measure will be phased out after the results for FY 2003 are presented.

**Goal #5:** Working with other countries, USAID, and international and U.S. government agencies, reduce the number of new HIV infections among 15- to 24-year-olds in sub-Saharan Africa from an estimated 2 million by 2005.

CDC continues to develop programs in 25 countries in sub-Saharan Africa, Asia, Latin America, and the Caribbean. In collaboration with USAID, CDC will begin to implement the International Mother and Child Prevention Initiative, an initiative to prevent the transmission of HIV from mother to infants and to improve health care delivery in Africa and the Caribbean. CDC has assigned staff in 25 countries as of December 2002 and has hired approximately locally employed staff in host countries. CDC has established 50 cooperative agreements to extend the scope and reach of its activities. An evaluation plan for all activities has been developed; the countries have submitted annual reports, tracking over 80 indicators; in-depth case studies of CDC's value-added in these countries have begun. CDC has worked closely with external partners including the United States Agency for International Development (USAID), the World Health Organization (WHO) and the World Bank, among others to develop a set of common, core indicators of progress.

# 1. Initiate, expand, or strengthen HIV/AIDS prevention, care, treatment and support activities globally.

#### Surveillance.

With funding received in 2001, CDC supported surveillance efforts in 22 countries. CDC expects to expand this to all global AIDS program countries with funding received in 2002. In addition, 870 country nationals have participated in surveillance trainings sponsored/co-sponsored by CDC and/or conducted by CDC staff in Botswana, Cote d'Ivoire, Ethiopia, Kenya, Mozambique, Nigeria, South Africa, Zambia, Zimbabwe; 300 country nationals were trained in Vietnam.

#### Voluntary counseling and testing.

CDC continues to strengthen voluntary counseling and testing (VCT) programs in 18 countries by providing technical assistance to ensure the quality and accuracy of HIV testing, strengthening laboratory diagnostic capabilities, identifying methods to target groups at high risk, and enhancing linkages between VCT and health and social services. CDC staff in Botswana, Cote d'Ivoire, Ethiopia, Kenya, Mozambique, South Africa and Uganda have supported co-sponsored and/or attended 95 meetings in Africa relating to the development of national, regional, district, and/or local strategic planning, policy and/or guidelines for

voluntary counseling and testing. In addition, 520 country nationals have participated in voluntary counseling and testing trainings sponsored/co-sponsored by CDC/GAP and/or conducted by CDC staff in Botswana, Cote d'Ivoire, Ethiopia, Kenya, Mozambique, South Africa, Uganda; 370 country nationals were trained in Vietnam. 99,505 individuals have been tested and 17,407 individuals have tested HIV+ in voluntary counseling and testing sites supported with CDC/GAP funds in Botswana, Cote d'Ivoire, Kenya, and Uganda.

Technical assistance for treatment of STDs, TB, and other opportunistic infections:

In 2001, CDC has worked to initiate, expand or strengthen locally appropriate technical assistance for treatment of sexually transmitted infections (STIs), tuberculosis, and other AIDS-related diseases in 18 countries. For example, 150 country nationals have participated in STI training sponsored/co-sponsored by CDC and/or conducted by CDC staff in Botswana, Cote d'Ivoire, Ethiopia and Zambia; 2 country nationals were trained in Vietnam; 686 country national have participated in TB training sponsored/co-sponsored by CDC and/or conducted by CDC staff in Botswana, Cote d'Ivoire, South Africa, Uganda, Zambia.

# <u>2. Initiate, expand, or strengthen mother-to-child HIV prevention programs in collaboration with national and international partners:</u>

CDC enhanced support for the implementation of programs that provide interventions to prevent perinatal transmission of HIV in 13 countries. Botswana, Cote d'Ivoire, Kenya, South Africa, Uganda and Zimbabwe have supported co-sponsored and/or attended 78 meetings in Africa relating to the development of national, regional, district, and/or local strategic planning, policy and/or guidelines for preventing mother to child HIV/AIDS transmission (PMTCT). Thirteen cooperative agreements, contracts or other funding mechanisms for preventing mother to child transmission have been awarded in Botswana (4), Kenya (4), Uganda (3), Zimbabwe (1) and Thailand (1). Three hundred and sixty-nine country national have participated in PMTCT trainings sponsored/co-sponsored by CDC/GAP and/or conducted by CDC/GAP staff in Botswana, Cote d'Ivoire, Kenya and Zimbabwe. CDC is supporting national coordinating committee(s) for PMTCT programs in Zimbabwe, Botswana, Cote d'Ivoire, Kenya, South Africa, and Uganda. CDC will continue to identify barriers to these services and evaluate the outcomes of interventions on both infants and mothers and to assess ways to expand prevention to infants' fathers as well.

In June 2002, the President announced a new \$500 million dollar International Mother and Child Prevention Initiative. The Initiative will be jointly implemented by HHS and USAID. When fully funded, this effort is intended to reach one million women annually reduce mother to child transmission by 40 percent within 5 years or less in 12 African countries and the Caribbean. Implementation plans are currently being developed by a joint HHS-USAID workgroup. In recognition of CDC's involvement with the Initiative, the current performance measure will be revised in the 2004 performance plan to read "Increase the number of *Preventing Mother to Child Transmission Initiative* countries that have coordinated needs assessments, planned programs, and begun implementation."

### **Total Funding**

Funding for FY 2002 - FY 2004 are included in the HIV/AIDS funding table.

## II-G. Sexually Transmitted Diseases

## Prevention of STD-Related Infertility and Syphilis Elimination Goal-by-Goal Performance Measurement

**1. 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 Measure	Targets	Actual Performance	Reference
1. Reduce the prevalence of <i>Chlamydia trachomatis</i> among high-risk women under age 25, from 11.6%.  Source: U.S. Department of Labor; U.S. Job Corps	FY 03: <10% FY 02: <10% FY 01: <8% FY 00: <8% FY 99: <8%	FY 03: 8/2004 FY 02: 8/2003 FY 01: 10.6% FY 00: 11.9% FY 99: 11.5% FY 98: 11.7% FY 95: 11.6%	<b>B</b> - 101 <b>1</b>
2. Reduce the prevalence of Chlamydia trachomatis among women under age 25 in publicly funded family planning clinics.  Source: Regional Infertility Prevention Programs; CDC	FY 04: <5% median FY 03: <5% median FY 02: <5% median FY 01: <6% median FY 00: <6% median FY 99: <6% median	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: Achieved/5.6% FY 00: Achieved/5.2% FY 99: Achieved/5.5% FY 98: 5.4% FY 96: 9.0%	<b>B</b> - 101 <b>HP</b> - 25-1a <b>1</b>
3. Reduce the incidence of gonorrhea in women aged 15-44.  Source: STD Morbidity Surveillance System; CDC	FY 04: <250/100,000 women FY 03: <250/100,000 women FY 02: <250/100,000 women FY 01: <250/100,000 women FY 00: <250/100,000 women FY 99: <250/100,000 women	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: 286/100,000 FY 00: 278/100,000 FY 99: 286/100,000 FY 97: 264/100,000 FY 96: 258/100,000 FY 95: 303/100,000	<b>B</b> - 101 <b>HP</b> - 25-2 <b>1</b>

Performance Measure	Targets	Actual Performance	Reference
4. Reduce the incidence of PID, as measured by a reduction in hospitalizations for PID, in women aged 15-44.  Source: National Hospital Discharge Survey, 2000 (latest data available)	FY 03: <125/100,000 women FY 02: <125/100,000 women FY 01: <125/100,000 women FY 00: <125/100,000 women FY 99: <125/100,000 women	FY 03: 12/2005  FY 02: 12/2004  FY 01: 12/2003  FY 00: Achieved:	<b>B</b> - 101 <b>1</b>
5. Reduce the number of initial visits to physicians for PID in women aged 15-44.  Source: National Disease and Therapeutic Index (NDTI), IMS America, Ltd.		FY 04: 12/2005 FY 03: 12/2004 FY 02: 12/2003 FY 01: 244,000 visits FY 00: 254,000 visits FY 99: 250,000 visits FY 97: 260,000 visits FY 96: 286,000 visits FY 95: 262,000 visits	<b>B</b> - 101 <b>HP</b> - 25-6 <b>1</b>

## **2. Performance Goal:** Reduce the incidence of primary and secondary syphilis.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the percentage of U.S. counties with an incidence of P&S syphilis in the general population of ≤4/100,000.  Source: STD Morbidity Surveillance Systems, CDC	FY 04: >95% of counties FY 03: >95% of counties FY 02: >92% of counties FY 01: >90% of counties FY 00: >90% of counties FY 99: 85% of counties	FY 04: 8/2005 FY 03: 8/2004 FY 02: 8/2003 FY 01: Achieved/94% FY 00: Achieved/93% FY 99: Achieved/91% FY 98: 90% FY 97: 87% FY 96: 90% FY 95: 81%	<b>B</b> - 101 <b>1</b>

Performance Measure	Targets	Actual Performance	Reference
2. Increase the percent reduction in	<b>FY 04:</b> 15%, to 13:1	<b>FY 04:</b> 8/2005	<b>B</b> - 101
the racial disparity.	<b>FY 03:</b> 15%, to 15:1	<b>FY 03:</b> 8/2004 <b>FY 02:</b> 8/2003	1
Reported ratio is black:white	<b>FY 02:</b> 15%, to 18:1 <b>FY 01:</b> 15%, to 20:1^	<b>FY 01:</b> Achieved:	
		30% reduction to 16:1	
	<b>FY 00:</b> 15%, to 25:1 <sup>^</sup>	<b>FY 00:</b> Achieved:	
		20% reduction to 24:1	
	<b>FY 99:</b> 15%, to 29:1 <sup>^</sup>	<b>FY 99:</b> 12% reduction to 30:1	
		<b>FY 98:</b> 21% reduction to 34:1	

<sup>^</sup>These targets were re-computed using the actual performance rate ratio for FY 1998 and FY 1999 rather than the target ratio for the previous fiscal year.

#### **3. Performance Goal:** Reduce the incidence of congenital syphilis.

Performance Measure	Targets	Actual Performance	Reference
Reduce the incidence of congenital syphilis per 100,000 births.  Source: STD Morbidity Surveillance Systems, CDC	FY 04: <12 FY 03: <12* FY 02: <12 FY 01: <12 FY 00: <12 FY 99: <20	FY 04: 8/2005 FY 03: 8/2004* FY 02: 8/2003 FY 01: Achieved: 11.1 FY 00: 14.0 FY 99: Achieved: 14.5 FY 98: 21.3 FY 97: 27.8 FY 96: 32.9 FY 95: 47.7	<b>B</b> - 101 <b>HP</b> - 25-9 <b>1</b>

## **Program Description and Context**

Programs to protect Americans from the immediate and long-term complications of sexually transmitted diseases (STDs) were first established in 1936 through collaborative efforts of federal, state, and local health authorities. Since then, rates of STDs have declined substantially. Nevertheless, STDs remain epidemic in the U.S. and disproportionately affect adolescents, women and infants, and communities of color.

The U.S. continues to record the highest STD rates in the industrialized world. STDs are the most commonly reported infections of all notifiable diseases reported to CDC. Because most STDs are asymptomatic and several of the most common STDs are not routinely reported, the true burden of STDs is many times greater than that reflected by national surveillance statistics. An estimated 15 million new cases of non-HIV STDs, such as syphilis, chlamydia, gonorrhea, genital herpes, and human papillomavirus (HPV), occur each year at an annual cost of at least \$10 billion. STDs are even more costly when viewed in terms of human suffering. Severe, lifelong consequences that often follow these infections include involuntary infertility, potentially fatal tubal pregnancy, other adverse pregnancy outcomes such as stillbirths and newborn (congenital) infections, and increased risk of HIV transmission.

Investment in STD prevention now results in future savings in direct healthcare expenditures. For example, syphilis and its complications, such as congenital syphilis and increased HIV transmission, are estimated to cost the U.S. healthcare system more than \$960 million annually. The health consequences from chlamydial infections in women are conservatively estimated to result in an additional \$2.4 billion each year. In addition to causing irreversible and costly reproductive health consequences, chlamydia and syphilis infections increase the risk of HIV transmission among adults at least two to fivefold.

With the exception of hepatitis B, which is caused by a virus, there are no vaccines for STDs. Strategies to prevent STDs include promoting safe sexual behaviors, including abstinence and use of barrier protection; clinical services; counseling; and partner notification. *Safe sexual behavior*, including abstinence and use of barrier protection, can dramatically limit the magnitude of the STD epidemic in the U.S. Common bacterial STDs, such as chlamydia, gonorrhea, and syphilis, are curable and can be controlled and prevented with *clinical services* that include screening, diagnosis, and treatment. Common viral STDs, such as genital herpes and HPV, are treatable but not curable. *Counseling* has been proven effective in helping high-risk persons modify their sexual behaviors. *Partner notification* can interrupt chains of transmission in local sexual networks.

CDC works to prevent and control STDs in the U.S. Principal activities include: 1) monitoring disease trends using national and local data to focus and assess prevention activities; 2) conducting behavioral, clinical, and health services research and program evaluation to provide a scientific base for improving program efforts; and 3) providing financial, direct personnel, and technical assistance to state and local health departments to deliver clinical and prevention services.

Both providers and the public need credible information to fight STDs. CDC and its partners provide education and training through guideline development, regional STD/HIV Prevention Training Centers, and programs to ensure that providers are adequately prepared to provide optimal STD treatment, care, and prevention services.

#### **Infertility Prevention Program:**

CDC supports chlamydia screening and prevention services for uninsured and under-insured women attending family planning, STD , and other women's health clinics. These screening

programs are working to reduce the prevalence of chlamydia. Although all states and territories conduct some screening programs, large numbers of at-risk women are not reached. CDC conducts research to identify the biologic and behavioral determinants of chlamydia transmission and the feasibility, acceptability, and cost-effectiveness of chlamydia screening for

#### **Regional Chlamydia Screening Programs**

The effectiveness of large-scale screening programs in reducing chlamydia prevalence in women has been well documented in areas where this intervention has been in place for several years. After adjusting trends in chlamydia positivity to account for changes in laboratory test methods and associated increases in test sensitivity, chlamydia test positivity decreased in five of 10 HHS regions from 2000 to 2001, increased in four regions, and remained the same in one region. Although chlamydia positivity has declined in the past year in some regions due to the effectiveness of screening and treatment of women, continued expansion of screening programs to populations with higher prevalence of disease may have contributed to increases in positivity in

elimination of syphilis in the U.S., which focuses on: community involvement in the development and implementation of syphilis elimination plans; enhanced surveillance; outbreak response preparedness; biomedical and behavioral interventions; enhanced health promotion; and assessment of quality and coverage of services. Resources are targeted to areas where syphilis persists at high levels and where there is a substantial potential for syphilis epidemics to reignite. (See Appendix C)

#### **Program Performance Analysis**

## Goal 1- Prevention of STD-Related Infertility

males. Infections due to *Neisseria* gonorrhea, like those resulting from *Chlamydia trachomatis*, are a major cause of PID in the U.S. In addition, epidemiologic and biological studies provide strong evidence that chlamydial and gonococcal infections facilitate the transmission of HIV infection.

#### **Syphilis Elimination:**

CDC has undertaken an initiative to eliminate syphilis in the U.S. This effort builds on existing STD programs and takes advantage of the opportunity afforded by recent historic lows in syphilis rates. CDC has published a national plan for the

#### Syphilis Elimination Demonstration Sites

Of the project sites receiving funding for syphilis elimination, three counties received additional funds prior to the official launch of the *National* Plan to Eliminate Syphilis from the United States. These demonstration sites (Davidson County, TN; Wake County, NC; and Marion County, IN) had established community partnerships prior to the national campaign, which greatly improved their ability to rapidly implement the National Plan. In each of the sites, a coalition with broad community representation led to collaboration among health departments, providers, corrections institutions, hospitals, faith communities and social service agencies ultimately translating into increased screening and case-finding. These efforts resulted in an average decline of P&S syphilis rates among the demonstration sites at 69% from 1999 to 2001.

#### Chlamydia

In 2001, CDC achieved the goal of reducing chlamydia prevalence among women attending family planning clinics. The median chlamydia test positivity among 15- to 24-year-old women who were screened during visits to selected family planning clinics in all states and outlying areas was 5.6% (range, 2.7% to 13.9%). However, in nearly all states chlamydia positivity was greater than the HP2010 objective of 3.0%.

Increases in reported chlamydial infections during the 1990s reflected the expansion of chlamydia screening activities, use of increasingly sensitive diagnostic tests, an increased emphasis on case reporting from providers and laboratories, and improvements in the information systems for reporting. In parts of the United States where large scale chlamydia screening programs have been instituted, prevalence of the disease has declined substantially. However, many women who are at risk for this infection are still not being tested, reflecting the lack of awareness among some health care providers and the limited resources available to support screening. Chlamydia screening and reporting are likely to expand in response to the Health Plan Employer Data and Information Set (HEDIS) measure for chlamydia screening of sexually active women 15 through 25 years of age. HEDIS measures are used to report on the performance of medical care provided through managed care organizations.

#### Gonorrhea

Reduce the incidence of gonorrhea among women aged 15-44: The U.S. experienced a 73.9% decline in the reported rate of gonorrhea in the U.S. from 1975 to 1997. The rate increased in 1998 and has remained essentially unchanged since. Among women aged 15-44, the 2001 rate was 286 per 100,000 exceeding the target rate of 250. Although increased screening (usually associated with simultaneous testing for chlamydial infection), use of more sensitive diagnostic tests, and improved reporting may account for a portion of the recent increase, true increases in disease in some populations and geographic areas also appear to have occurred.

#### **Pelvic Inflammatory Disease**

The reported number of initial visits to physicians' offices for PID through the National Disease and Therapeutic Index has generally declined from 1993 through 1998 but has remained, for the most part, unchanged since 1998.

### **Goal 2 - Syphilis Elimination**

The rate of primary and secondary (P&S) syphilis in the United States declined by 89.2% from 1990 through 2000. Despite national progress toward syphilis elimination, syphilis remains an important problem in the South and in some urban areas in other regions of the country.

Recently, outbreaks of syphilis among men who have sex with men (MSM) have been reported, possibly reflecting an increase in risky behavior in this population. The rate of P&S syphilis increased slightly in 2001from 2.1 to 2.2 per 100,0000 (the first annual rate increase since 1990); this increase was observed only in men. The number of P&S syphilis cases reported to CDC increased to 6,103 from 5,979 in 2000, an increase of 2.1%.

However, substantial progress has been made in syphilis elimination efforts:

	1997	1998	1999	2000	2001
Reported primary and secondary syphilis rate (per 100,000 pop.)	3.2	2.6	2.4	2.1	2.2
Syphilis-free counties	75%	78%	79%	80.3%	80.2%
Number of counties responsible for 50% of new cases	31	28	25	22	21
Black:white reported rate ratio	43:1	34:1	29:1	24:1	16:1

#### **Goal 3- Reduce the Incidence of Congenital Syphilis**

The lack of syphilis serologic testing and treatment during pregnancy remains the major reason that congenital syphilis persists in the U.S. Each positive test in a child is considered a medical emergency with immediate health services follow-up. The absence of testing is often related to complete lack of, or late initiation of, prenatal care. Between 2000 and 2001, the overall rate of congenital syphilis decreased by 20.7% in the U.S., from 14.0 to 11.1 cases per 100,000 live births.

The continuing decrease in the rate of congenital syphilis likely reflects the substantial reduction in the rate of P&S syphilis among women that has occurred in the last decade. During the period from 1991 through 2001, the average yearly percentage decrease in the congenital syphilis rate was 19.8%. The average yearly percentage decrease in the rate of P&S syphilis reported among women for the years 1991 through 2001 was 20.8%.

All data are reported by calendar year. See Appendix D for additional data verification and validation information for each disease area.

#### **Total Funding**

Funding for FY 2002 - FY 2004 are included in the HIV/AIDS funding table.

#### II-H. Tuberculosis

## **Goal-by-Goal Performance Measurement**

**Performance Goal:** Eliminate Tuberculosis in the United States.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the percentage of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months).	FY 04: 88% FY 03: 88%* FY 02: 88% FY 01: 88% FY 00: 85% FY 99: 85%	FY 04: Mid-2007 FY 03: Mid-2006* FY 02: Mid-2005 FY 01: Mid-2004 FY 00: Mid-2003 FY 99: 79.9% FY 98: 79.1% FY 97: 77.2% FY 96: 75.1% FY 95: 72.4% FY 94: 67.6%	<b>B</b> - 101 <b>HP</b> - 14-12 <b>4</b>
2. Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results.	FY 04: 95% FY 03: 95%* FY 02: 95% FY 01: 95% FY 00: 93% FY 99: 92%	FY 04: Mid-2005 FY 03: Mid-2004* FY 02: Mid-2003 FY 01: 92.2% FY 00: 92.7% FY 99: 91.9% FY 98: 90.9% FY 97: 88.5% FY 94: 74.7%	<b>B</b> - 101 <b>4</b>
3. Increase the percentage of contacts of infectious (AFB smearpositive) cases who are placed on treatment for latent TB infection and complete a treatment regimen.	FY 04: 63% FY 03: 63%* FY 02: 63% FY 01: 63%^ FY 00: 75% FY 99: 75%	FY 04: Mid-2006 FY 03: Mid-2005* FY 02: Mid-2004 FY 01: Mid-2003 FY 00: 56.7% FY 99: 59.3% FY 98: 74.0% FY 97: 71.6% FY 93: 68.4%	<b>B</b> - 101 <b>HP</b> - 14-13 <b>4</b>

<sup>\*</sup>Data for this measure are reported by calendar year.

<sup>^</sup>Targets changed to reflect revisions in data collection methods.

Performance Measure	Targets	Actual Performance	Reference
4. Increase the percentage of other high-risk infected persons who are placed on treatment for latent TB infection and complete a treatment regimen.	FY 02: 72% FY 01: 72% FY 00: 70% FY 99: 70%	FY 02: Unable to analyze data** FY 01: Unable to analyze data** FY 00: Unable to analyze data** FY 99: Unable to analyze data** FY 98: 62.9% FY 97: 60.6% FY 93: 64.8%	<b>B</b> - 101 <b>HP</b> - 14-13
5. For TB case reports sent to CDC from states, increase the percentage in which at least 90% of core data items are complete.	FY 03: 95% FY 02: 95% FY 01: 95%  FY 00: States will report to CDC for identified variables:  Date of birth Country of origin Sex Race Mo/yr arrived US Status at TB diagnosis Disease site Sputum smear Sputum culture TB skin test Initial drug regimen Initial drug susceptibility results Previous TB Year of previous diagnosis (continued)	FY 03: Mid-2004 FY 02: Mid-2003 FY 01: 16 out of 22 core variables greater than or equal to 95% complete.  Remaining variables: Mo/yr arrived US 85.6% TB skin test 92.6% Initial drug susceptibility results 92.2% Year of previous dx 89.6% HIV status 46.0% HIV status (25-44) 57.8%  FY 00: 16 out of 22 core variables greater than or equal to 95% complete.  Remaining variables: Mo/yr arrived US 84.7% TB skin test 92.9% Initial drug susceptibility results 92.7% Year of previous dx 92.4% HIV status (25-44) 58.1%	<b>B</b> - 101

<sup>^</sup>Targets changed to reflect revisions in data collection methods.
\*Data for this measure are reported by calendar year.

## Tuberculosis

Performance Measure	Targets	Actual Performance	Reference
5. Continued	FY 00: HIV status HIV status (25-44) Resident of correctional facility Resident of long-term care facility Sputum conversion Reason therapy stopped DOT use Date therapy stopped (Note: the percentages reported are the percentage with complete reporting results for each variable.)	FY 99: 16 out of 22 core variables greater than or equal to 95% complete. Remaining variables: Mo/yr arrived US 84.2% TB skin test 92.2% Initial drug susceptibility results 91.9% Year of previous dx 92.6% HIV status 44.3% HIV status (25-44) 57.2%  FY 93: 7 out of 18 applicable core variables greater than or equal to 95% complete. Other core variables apply to FY 95 data set for 1993 cases. Remaining variables: Mo/yr arrived US 63.4% Sputum smear 94.3% Sputum culture 92.5% TB skin test 81.6% Initial drug regimen 88.9% Initial drug regimen 88.9% Initial drug susceptibility results 68.4% Year of previous dx 92.4% HIV status (25-44) 33.0% Resident of correctional facility 83.6% Resident of long-term care facility 67.9%	B - 101

### **Program Description and Context**

CDC administers and promotes a national program for the prevention, control, and elimination of tuberculosis (TB) in the United States. These activities are authorized in the Public Health Service Act. Section 317E.

Many people think that tuberculosis is a disease of the past. One reason for this belief is that the U.S. is currently seeing a decline in TB and new TB cases are at an all-time low. However, this very success may lead to declining attention to TB control, making the nation vulnerable to the complacency and neglect.

There is reason for concern, as the nation has felt the ill effects of complacency and neglect of TB before. In the 1970s and early 1980s, TB control efforts were scaled back and many states and cities redirected TB prevention and control funds to other programs. Consequently, the trend toward elimination was reversed, and the nation experienced a resurgence of TB, with a 20% increase in cases reported between 1985 and 1992. Many of these cases were difficult-to-treat, drug-resistant TB. The nation mobilized additional resources to combat the resurgence in the 1990s. This effort has paid off; in 2001 the nation achieved the ninth consecutive year of decline. Regaining control of TB has clearly been one of the major public health success stories of the last decade and has put the nation back on track toward TB elimination.

Still, TB continues to pose considerable challenges. All 50 states and District of Columbia continue to report TB cases each year and nearly 16,000 cases of TB disease occurred in the U.S. during 2001. Every new TB case has the potential to spread if not promptly recognized and treated.

Further, an increasing proportion of cases in the U.S. are among persons born outside the country. Foreign-born persons now account for half of all U.S. TB cases, reflecting the potential impact of the global epidemic of TB on the health of people in the U.S. and elsewhere.

Drug-resistant TB also poses a continuing threat. If persons with TB disease do not complete their full course of treatment, they can develop and spread strains of TB that are resistant to available drugs. One case of multidrug-resistant (MDR) TB can cost up to \$1 million to treat. Some U.S. areas are also having increasing difficulty in ensuring proficiency among healthcare providers in diagnosing and treating TB disease and latent TB infection. Diagnosis of infectious cases may be delayed because of their lack of experience, resulting in unnecessary disease transmission to others.

In 1989, CDC set a goal to eliminate TB in the United States, with elimination defined as less than 1 case per 1,000,000 persons. This goal was reaffirmed by the Advisory Council for the Elimination of Tuberculosis (ACET) in 1999 and by the Institute of Medicine (IOM) in 2000. In its report, *Ending Neglect: The Elimination of Tuberculosis in the United States*, the IOM called for a renewed commitment to TB elimination. CDC and the Federal TB Task Force are outlining a

plan to accomplish this goal. Central to this plan are strategies to:

- Strengthen domestic TB control programs to ensure the prompt identification of persons with TB and offer appropriate treatment;
- Provide examination and treatment to persons who have latent TB infection and who are at high risk for developing infectious disease;
- Support the development of improved tools for TB prevention and control, such as a better vaccine, new diagnostic tests and improved drugs; and
- Work in partnership with the countries that contribute most to TB morbidity in the U.S.

#### **Program Performance Analysis**

Success in achieving TB elimination ultimately depends on treating infectious patients quickly and completely, treating them with drugs that work, treating their close contacts, treating persons with latent infection who are at high risk of developing the disease, and maintaining timely, complete local, state, and national TB information systems to monitor elimination efforts. Key performance measures include the following:

Percentage of infectious TB patients who complete treatment within 12 months: Because completion of TB treatment is the most effective way to reduce the spread of TB and prevent its complications, this objective is the highest priority for CDC's TB program. Its achievement is vital to the reduction of TB cases and the eventual elimination of this disease. By FY 2004, CDC anticipates that 88% of TB patients will complete therapy within 12 months. In 1999, 79.9% of patients were reported to complete therapy within 12 months, an increase from the 67.6% reported in 1994. Patients who do not complete therapy within 12 months are often difficult to treat and require numerous interventions. Significant new efforts must be made to achieve this objective. CDC supports outreach workers, hired from language, cultural, and ethnic groups with high TB incidence to help meet this objective. Outreach workers help patients complete treatment through directly observed therapy (DOT), incentives, and other adherence strategies. CDC and the CDC-funded Model TB Centers also design and implement training and educational aids for health department and healthcare provider staff to improve the skills needed to help achieve this objective.

Percentage of TB patients with initial positive cultures who also have drug susceptibility tests done: Healthcare providers must know if a newly diagnosed infectious patient is infected with drug-sensitive or drug-resistant organisms so that appropriate drug therapy can be initiated. If this information is not known, patients may receive inadequate treatment leading to spread of drug-resistant organisms, additional morbidity, and mortality. The performance for this measure in 2001 was 92.2%, up from 74.7% in 1994. With continued progress, CDC expects that programs will achieve the 95% target in FY 2004. Much of this progress is attributable to increased efforts of state and local health departments and hospital infection-control practitioners to address the resurgence of TB and to increased funding for health department laboratories to purchase state-of-the-art equipment needed to perform more accurate and rapid laboratory testing and confirmation for TB and multidrug resistant TB (MDR TB).

Percentage of contacts of smear-positive cases who are placed on treatment for latent TB infection and complete a treatment regimen: Completion of treatment for latent TB infection among contacts of infectious TB cases is a cornerstone of U.S. efforts to reduce TB and eliminate the disease. Contacts of smear-positive TB patients are at high risk of developing TB and therefore must be screened for infection and, if infected, offered and complete treatment. The 1998 rate for this measure was 74%, up from 68.4% in 1993. Because the methods and definitions of reporting were substantially revised, the results from 1999 and later years cannot be compared to those from 1998 and prior years. Interpretation of data from 1999 and later years needs to be interpreted with caution because of incomplete reporting from program areas.

Through cooperative agreements with state and local health departments, CDC supports a commitment to the identification and examination of contacts and the completion of treatment for contacts who have latent TB infection. CDC is designing training for health department TB staff to improve their skills in this area. CDC is also working with HRSA and other federally funded programs serving groups at high risk for TB to facilitate testing and completion of treatment in high-risk persons.

Recently, CDC and its partners have pursued the use of short-course regimens to improve adherence during treatment for latent TB infection. CDC is assessing implementation of these guidelines paying particular attention to the incidence of adverse events, and has recently issued additional guidance to help providers more safely treat persons who are latently infected. Further research in this area is critical.

Percentage of other high-risk persons who are placed on treatment for latent TB infection and complete a treatment regimen: Because the methods and definitions for this measure were substantially revised in 1999, data are not available to assess progress in this area. This measure is being phased out. The 1998 rate for this objective was 62.9%, up from 60.6% in 1997.

Percentage of TB case reports in which core data items are complete: To design and carry out community TB prevention and elimination efforts, public health officials and community leaders need to identify the unique and ever-changing characteristics of TB in their communities. Significant progress is being made on this front. Since 1993, when the national TB the case report was revised and expanded to include information on TB risk factors (such as HIV status), drug resistance, and treatment, the percentage of core variables that were at least 95% complete increased from 7 of 18 to 19 of 22 in 2001. Progress can be attributed to CDC funding for TB surveillance activities and frequent telephone, electronic, and on-site communication between CDC and health department surveillance staff. Two of the under-reported variables for this measure relate to information about the HIV status of TB patients. CDC is working with health department TB staff, state epidemiologists, HIV program staff, and others to resolve issues surrounding these items, many of which are related to HIV confidentiality issues.

<u>Note:</u> Because this measure is a process measurement for conducting national TB surveillance and not an outcome of the impact of surveillance and associated programmatic interventions, this measure will be phased out in 2004.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 510,506\* [\$620,506] Estimate

**FY 2003:** \$ 627,601\* [\$627,601] President's Budget

**FY 2002:** \$ 627,239\* [\$627,239] Enacted

#### II-I. Immunization

#### **Goal-by-Goal Performance Measurement**

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

Performance Measure	Target	Actual Performance	References
1. The number of indigenous	Paralytic Polio	Paralytic Polio	<b>B</b> - 116
cases of paralytic polio,	<b>FY 04:</b> 0	<b>FY 04:</b> 9/2005	1
rubella, measles, <i>Haemophilus</i>	<b>FY 03:</b> 0	<b>FY 03</b> : 9/2004	1
<i>influenzae</i> invasive disease (type	<b>FY 02:</b> 0	<b>FY 02:</b> 9/2003	
b and unknown) in children	<b>FY 01:</b> 0	<b>FY 01:</b> 0	
under 5 years, diphtheria,	<b>FY 00:</b> 0	<b>FY 00:</b> 0	
congenital rubella syndrome,	<b>FY 99:</b> 0	<b>FY 99:</b> 0	
and tetanus will remain at or	<b>FY 98:</b> 0	<b>FY 98:</b> 0	
be reduced to 0 by 2010.	<b>FY 97:</b> 0	<b>FY 97:</b> 0	
	Rubella	Rubella	
* To be in line with Healthy	<b>FY 04:</b> 15	<b>FY 04:</b> 9/2005	
People 2010, beginning in	<b>FY 03:</b> 15	<b>FY 03</b> : 9/2004	
2001, the diphtheria and	<b>FY 02:</b> 20	<b>FY 02:</b> 9/2003	
tetanus cases will be measured	<b>FY 01:</b> 0	<b>FY 01</b> : 2	
in persons < 35 years of age	<b>FY 00:</b> 0	<b>FY 00:</b> 176	
(previously < 25 years of age).	<b>FY 99:</b> 0	<b>FY 99:</b> 271	
	<b>FY 98:</b> 0	<b>FY 98:</b> 364	
† Provisional data	<b>FY 97</b> : 0	<b>FY 97</b> : 181	
	Measles	Measles	
	<b>FY 04:</b> 50	<b>FY 04:</b> 9/2005	
	<b>FY 03:</b> 50	<b>FY 03</b> : 9/2004	
	<b>FY 02:</b> 60	<b>FY 02:</b> 9/2003	
	<b>FY 01:</b> 60	<b>FY 01</b> : 26	
	<b>FY 00:</b> 0	<b>FY 00:</b> 63	
	<b>FY 99:</b> 0	<b>FY 99:</b> 66	
	<b>FY 98:</b> 0	<b>FY 98:</b> 74	
	<b>FY 97:</b> 0	<b>FY 97</b> : 81	

<sup>\*</sup>This funding level reflects a proposed law change in FY 2004 that will increase access points for underinsured children by transferring funds from the 317 program to the Vaccines for Children program. The proposed law also includes funding to lift the price cap on Tetanus/Diptheria vaccine purchase. Figures within the brackets represent funding under the current law.

Performance Measure	Target	Actual Performance	References
(continued)	Haemophilus influenzae FY 04: 150	Haemophilus influenzae FY 04: 9/2005	<b>B</b> - 116
	FY 03: 175	FY 03: 9/2004	
	FY 03: 175 FY 02: 175	FY 02: 9/2003	
	FY 01: 0	FY 01:	
	1101. 0	b + unknown 181	
	<b>FY 00</b> : 0	FY 00:	
	1100. 0	b + unknown 197	
	<b>FY 99:</b> 0	FY 99: 120	
	FY 98: 0	FY 98: 163	
	FY 97: 0	FY 97: 152	
	110%	110.	
	Diphtheria*	Diphtheria	
	<b>FY 04:</b> 5	<b>FY 04:</b> 9/2005	
	<b>FY 03:</b> 5	<b>FY 03:</b> 9/2004	
	<b>FY 02:</b> 5	<b>FY 02:</b> 9/2003	
	<b>FY 01</b> : 0	<b>FY 01</b> : 0	
	<b>FY 00</b> : 0	<b>FY 00</b> : 1	
	<b>FY 99</b> : 0	<b>FY 99</b> : 0	
	<b>FY 98</b> : 0	<b>FY 98</b> : 1	
	<b>FY 97:</b> 0	<b>FY 97:</b> 3	
	Congenital rubella syndrome	Congenital rubella syndrome	
	<b>FY 04</b> : 5	<b>FY 04</b> : 9/2005	
	<b>FY 03</b> : 5	<b>FY 03</b> : 9/2004	
	<b>FY 02:</b> 5	<b>FY 02:</b> 9/2003	
	<b>FY 01:</b> 0	<b>FY 01:</b> 3	
	<b>FY 00</b> : 0	<b>FY 00</b> : 9	
	<b>FY 99:</b> 0	<b>FY 99</b> : 6	
	<b>FY 98:</b> 0	<b>FY 98:</b> 7	
	<b>FY 97</b> : 0	<b>FY 97:</b> 5	
	Tetanus*	Tetanus	
	FY 04: 25	<b>FY 04:</b> 9/2005	
	FY 03: 25	<b>FY 03:</b> 9/2004	
	FY 02: 25	<b>FY 02:</b> 9/2003	
	<b>FY 01:</b> 0	<b>FY 01</b> : 1	
	<b>FY 00:</b> 0	<b>FY 00:</b> 35	
	<b>FY 99:</b> 0	<b>FY 99:</b> 40	
	<b>FY 98:</b> 0	<b>FY 98:</b> 41	
	<b>FY 97:</b> 0	<b>FY 97:</b> 50	

Performance Measure	Target	Actual Performance	References
2. The number of indigenous cases of mumps in persons of all ages will be reduced from 666 (1998 baseline) to 0 by 2010.	FY 04: 200 FY 03: 250 FY 02: 250 FY 01: 500 FY 00: 500 FY 99: 500	FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: 266 FY 00: Exceeded – 338 FY 99: Exceeded – 387 FY 98: 666 FY 97: 683 † Provisional data	<b>B</b> - 116 <b>1</b>
<b>3.</b> The number of cases of pertussis among children under 7 years of age will be reduced.	FY 04: 2,300 FY 03: 2,500 FY 02: 2,500 FY 01: 2,000 FY 00: 2,000 FY 99: 2,000	FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: 3,161 FY 00: 2,708 FY 99: 3,247 FY 98: 3,417 FY 97: 3,043	<b>B</b> - 116 <b>1</b>

<u>Verification/Validation of Performance Measures:</u> Data is obtained from a variety of sources, including the National Notifiable Disease Surveillance System (NNDSS), CDC, EPO; the National Congenital Rubella Syndrome Registry (NCRSR), CDC, NIP; the Active Bacterial Core Surveillance (ABCs), Emerging Infections Programs, CDC, NCID; and the National Health Interview Survey (NHIS), CDC, NCHS.

Performance Measure	Target	Actual Performa	nce References
Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for:  3 doses DTaP vaccine 3 doses Hib vaccine 1 dose MMR vaccine* 3 doses hepatitis B vaccine 1 dose varicella vaccine* 4 doses polio vaccine 1 dose varicella vaccine** * Includes any measles-containing vaccine. **Performance targets for newly recommended vaccines will begin 5 years after ACIP recommendation. Measures for varicella will begin in 2001and for pneumococcal conjugate measure in 2006, even though coverage will be reported earlier.	FY 04: 90% coverage FY 03: 90% coverage FY 01: 90% coverage FY 00: 90% coverage FY 99: 90% coverage FY 99: 90% coverage	FY 04: 8/20 FY 03: 8/20 FY 02: 8/20 FY 01: 8/2 FY 00: DTaP 94 Hib 93 MMR 91 Hepatitis B 89 Polio 89 Varicella 76  FY 99: DTaP 96 Hib 94 MMR 92 Hepatitis B 88 Polio 90 Varicella 58  FY 98: DTaP 96 Hib 94 MMR 92 Hepatitis B 88 Polio 90 Varicella 58	005 004 003 0002 % % % % % % % % % % % % % % % % %

Verification/Validation of Performance Measures: Data are collected through the National Immunization Survey (see Appendix B).

**<sup>3.</sup> Performance Goal:** Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease.

Performance Measure	Target		Actual Performance	References
1. Increase the rate of influenza and pneumococcal pneumonia vaccination in persons ≥65 years.	FY 04: Influenza Pneumococcal FY 03: Influenza Pneumococcal FY 02: Influenza Pneumococcal FY 01: Influenza* Pneumcoccal FY 00: Influenza Pneumococcal FY 99: Influenza Pneumococcal	76% 69% 76% 69% 74% 66% 72% 63% 70% 60% 54%	FY 04:       9/2005         FY 03:       9/2004         FY 02:       9/2003         FY 01:       Influenza 63% Pneumococcal 54% 68% Pneumococcal 53% Pneumococcal 53% FY 99:         FY 02:       Influenza 68% Pneumococcal 53% FY 99:         FY 03:       Influenza 66% Pneumococcal 50%	<b>B</b> - 116 <b>1</b>
2. Achieve a vaccination rate of 60% among noninstitutionalized high-risk adults aged 18 to 64 years for influenza and pneumococcal pneumonia by 2010.	FY 04: Influenza Pneumococcal FY 03: Influenza Pneumococcal	32% 22% 32% 22%	FY 04: 6/2005  FY 03: 6/2004  FY 02: 6/2003  FY 01: Influenza: 6/2003	<b>B</b> - 116 <b>1</b>

<sup>\*</sup>Beginning in FY 01, performance will be reported as in HP 2010 (age adjusted to the 2000 standard population).

<u>Verification/Validation of Performance Measures:</u> Data is collected through the National Health Interview Survey (NHIS), CDC, NCHS for non-institutionalized populations and National Nursing Home Survey (NNHS), CDC, NCHS for institutionalized populations.

**4. Performance Goal:** Assist domestic and international partners to help achieve WHO's goal of

global polio eradication.

Performance Measure	Target	Actual Performance	References
1. Purchase doses of oral polio vaccine for mass immunization campaigns in Asia, Africa, and Europe.	FY 03: 600 million doses FY 02: 558 million doses FY 01: 625 million doses FY 00: 750 million doses FY 99: 445 million doses	FY 03: 6/2004 FY 02: 694 million doses FY 01: 590 million doses FY 00: 700 million doses FY 99: 427 million doses FY 98: 390 million doses	<b>B</b> - 116 <b>1</b>
2. Achieve and sustain zero cases of polio by 2005.	FY 04: 0 FY 03: 200 FY 02: 500 FY 01: 1,500	FY 04: 6/2005 FY 03: 6/2004 FY 02: 6/2003 FY 01: 483 † FY 00: 2,979	<b>B</b> - 116 <b>1</b>

Verification/Validation of Performance Measures: UNICEF provides the number of doses of polio purchased with CDC funding via an annual report that is part of the CDC/WHO cooperative agreement. WHO provides the polio case data based on reports submitted by countries.

# **5. Performance Goal:** Work with global partners to reduce the cumulative global measles related mortality rate.

Performance Measure	Target	Actual Performance	References
1. By 2005, reduce by 50% the cumulative global measles-related mortality compared with 1999 estimates (Baseline: 875,000 deaths)	<b>FY 04</b> : 500,000 <b>FY 03</b> : 621,600	FY 04: 6/2006 FY 03: 6/2005 FY 02: 6/2004 FY 01: 6/2003 FY 00: 777,000	<b>B</b> - 116 <b>1</b>
2. Eliminate indigenous measles transmission in all 47 countries of the Americas.	FY 04: Less than 500 cases;* Elimination in 47/47 countries. FY 03: Less than 500 cases;* Elimination in 47/47 countries.  *Related to Importations	FY 04: 6/2005  FY 03: 6/2004  FY 02: 6/2003  FY 01: 537 cases Elimination in 46/47countries FY 00: Baseline: 1,754 cases	<b>B</b> - 116 <b>1</b>

<u>Verification/Validation of Performance Measures:</u> The global measles data source is WHO/Geneva and PAHO for the Americas. Data is obtained from each country through an established, systematic surveillance data/reporting mechanism similar to how CDC gets data from the States.

**6. Performance Goal:** Improve vaccine safety surveillance.

Performance Measure	Target	Actual Performance	References
Improve capacity to conduct vaccine safety studies by increasing the number of persons in the large linked databases to 13 million people by 2010.	<b>FY 04:</b> 10 million <b>FY 03:</b> 10 million	<b>FY 04:</b> 6/2005 <b>FY 03:</b> 6/2004 <b>FY 02:</b> Baseline: 7.5 million	<b>B</b> - 116

<u>Verification/Validation of Performance Measures:</u> Data collected from the National Notifiable Disease Surveillance System (NNDSS), CDC, EPO, as well as the Vaccine Adverse Event Reporting System (VAERS) and the Vaccine Safety Datalink (VSD), CDC, NIP.

## Measures Being Eliminated From the Plan

The following performance measure was submitted as a new measure for 2003 but is now being deleted from the Plan because there is no national surveillance system to count varicella cases. Without such a surveillance system, data cannot be collected to provide performance results.

Performance Measure	Target	Actual Performance	Reference
The number of indigenous cases of varicella in persons under 18 years will be reduced to 400,000 by 2010. (1996 Baseline: 4 million)	<b>FY 03</b> : 2.8M	FY 03: 9/2004 FY 02: 9/2003 FY 01 <sup>†</sup> : 13,413 † Provisional data	<b>B</b> - 116

The following performance measure was originally introduced with the intent that acellular pertussis vaccine could be used to reduce febrile seizures. However, since this vaccine is no longer available for use, it is not appropriate to continue measuring this goal.

Performance Measure	Target	Actu	al Perforn	nance	Reference
By 2010, reduce febrile seizures following pertussis vaccines by 50% of 1998 baseline (152 seizures).	FY 03: 122	FY 03: FY 02: FY 01:	6/2004 6/2003 DtaP DTP	53 0	<b>B</b> - 116
		FY 00:	DIL	U	
			DtaP DTP	192 4	
		FY 99:			
			DtaP DTP	183 21	

The following performance measures were replaced or omitted in favor of more outcome oriented measures. CDC will continue to report on these measures until 2002, as they were previously included in the FY 2002 Performance Plan.

Performance Measure	Target	Actual Performance	Reference
Expand the network of CDC and CDC-funded staff, virologists, epidemiologists, technical and scientific officers on long-term assignments in WHO country and regional offices.	FY 02: 100 FY 01: 90 FY 00: 82 FY 99: 67	FY 02: 250 FY 01: 150 FY 00: 120 FY 99: 75 FY 98: 60	<b>B</b> - 116
Expand a special program to prepare a cadre of trained public health professionals throughout CDC to complete short-term assignments with WHO.	FY 02: 124 FY 01: 100 FY 00: 60 FY 99: 50	FY 02: 99 FY 01: 199 FY 00: 128 FY 99: 100 FY 98: 23	<b>B</b> - 116
Use new data mining techniques to increase the number of detected true and false signals of adverse events associated with vaccination.	<b>FY 02:</b> 5	FY 02: 4 FY 01: 2 FY 00: 1	<b>B</b> - 116
Expand the Vaccine Safety Datalink (VSD) sites to increase the number of persons under active surveillance for vaccine safety.	FY 02: 12 million vaccine recipients.	FY 02: 7.5 million members FY 01: 8 million members FY 00: 6.5 million members enrolled in participating HMOs	<b>B</b> - 116
Improve the ability of health care providers to report vaccine adverse events, including those associated with influenza vaccine, by pilot testing electronic reporting to VAERS in managed care organizations.	<b>FY 02:</b> 3	FY 02: 72 FY 01: 1 FY 00: 0	<b>B</b> - 116

### **Program Description and Context**

CDC protects the health of American children and adults from disability and death associated with vaccine-preventable diseases by developing and implementing immunization programs and monitoring vaccine use.

Immunizations are among the greatest public health achievements of the 20th century. Vaccines

are responsible for the control of many infectious diseases, including diphtheria, measles, mumps, and pertussis, that were once common in this country. Vaccines are now available to protect children and adults against life-threatening or debilitating diseases. These interventions have reduced cases of all vaccine-preventable diseases by more than 97% from peak levels before vaccines were available, saving lives and

#### **Vaccines are Highly Cost-Effective**

For every \$1 spent: DTaP saves \$27.00 MMR saves \$23.00 Varicella saves \$5.40

treatment and hospitalization costs. Appropriate administration of safe and effective vaccines remains one of the most successful and cost-effective public health tools for preventing disease, disability, and death and reducing economic costs resulting from vaccine-preventable diseases.

Despite great success in lowering disease levels and raising immunization coverage rates, however, much remains to be done to protect children and adults worldwide. Approximately 1 million two-year-olds in the United States have not received one or more of the recommended vaccines. New vaccines, although greatly beneficial to public health, complicate an already complex immunization schedule and make it increasingly difficult to ensure complete vaccination. Immunizations are also subject to a higher standard of safety than other medical interventions because they are given to healthy people. Like all medical interventions, no vaccine is 100% safe or effective. Vaccine safety activities are needed to maintain public confidence in immunizations, preserve high coverage levels, prevent a resurgence of vaccine-preventable diseases, and detect adverse events quickly.

One of the greatest challenges is extending the success in childhood immunization to adults. The burden of vaccine-preventable diseases in adults in the United States is staggering. Over 20,000 U.S. adults die annually of influenza, pneumococcal infections, and hepatitis B; the cost to society exceeds \$10 billion each year. Pneumonia and influenza were the 5th leading cause of death in all persons aged 65 and older based on 1999 national mortality data.

Barriers also remain in achieving global polio eradication, and support is needed to expand global measles control efforts. Polio virus causes acute paralysis that can lead to permanent physical disability and even death. Before polio vaccine was available, 13,000 to 20,000 cases of paralytic polio were reported each year in the United States. These annual epidemics of polio often left thousands of victims – mostly children – in braces, crutches, wheelchairs, and iron lungs. Development of polio vaccines and implementation of polio immunization programs have eliminated paralytic polio caused by wild polio viruses in the U.S. and the entire Western Hemisphere. Before measles immunization was available, nearly everyone in the U.S. got

measles, resulting in approximately 3 - 4 million measles cases each year. An average of 450 measles-associated deaths were reported each year between 1953 and 1963. In industrialized countries, up to 20% of persons with measles are hospitalized, and 7% to 9% suffer from complications such as pneumonia, diarrhea, or ear infections. Although less common, some persons with measles develop encephalitis, resulting in brain damage. In the United States for the past ten years, roughly one of every 1,000 persons with reported measles died. However, in some developing countries, 250 people die for every 1,000 persons with measles.

Measles is one of the most infectious diseases in the world and is frequently imported into the U.S. In 2000, most cases were associated with international visitors or U.S. residents who were exposed to the measles virus while traveling abroad more than 90% of people who are not immune will get measles if they are exposed to the virus. According to the World Health Organization (WHO), nearly 770,000 deaths occurred among persons in developing countries in 2000. In populations that are not immune to measles, measles spreads rapidly. If vaccinations were stopped, 2.7 million measles deaths worldwide could be expected. Although the United States has greatly reduced its burden of disease through immunizations, our children are at risk due to the occurrence of these diseases in other countries.

#### Strategies, Activities, and Resources

CDC provides national leadership in the ongoing effort to protect America's children and adults from vaccine-preventable diseases and to ensure the safety of vaccines. Beginning in 1962, when the first national effort to improve the immunization status of children was proposed, 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, including childhood immunization, adult immunization, global polio eradication, and global measles control.

Although CDC is assisted by many partners, state and local health agencies play a primary role in helping NIP carry out its mission in the United States. CDC ensures quality immunization services by: 1) awarding grants to states and large local health departments; 2) providing technical, epidemiologic, and scientific assistance to states and localities; 3) monitoring immunization coverage; 4) ensuring an adequate supply of vaccine by overseeing purchases made through CDC contracts and managing the Vaccines for Children (VFC) program; 5) helping states develop immunization registries; and 6) conducting research to develop new and improved delivery strategies. CDC increases community participation, education, and partnerships through public information campaigns, education and training for providers, assistance to communities on building coalitions, and partnerships with community-based organizations, minority organizations, volunteer groups, vaccine companies, professional organizations, and federal agencies.

Global disease eradication and elimination programs are also collaborative efforts. CDC works with WHO, Rotary International, USAID, the Task Force for Child Survival and Development, UNICEF, other CDC components, and international agencies to bolster polio eradication efforts by providing scientific assistance and financial support. This collaboration is unique among public health initiatives for the unprecedented level of partnerships.

The United States remains at risk of importation of measles from countries that have not yet eliminated the disease. Therefore, CDC contributed more than \$4 million in FY 2002 to support the Pan American Health Organization (PAHO) initiative to eliminate measles from the Western Hemisphere. CDC provides epidemiologic and laboratory assistance for disease tracking, vaccine for outbreak control, and other supplementary immunization activities, and short- and long-term assignments of CDC scientific staff to priority countries.

CDC also plays a critical role in developing immunization policy by providing technical and scientific support to policy-making advisory groups. These groups include the Advisory Committee on Immunization Practices (ACIP), the Committee on Infectious Diseases of the American Academy of Pediatrics and the American Academy of Family Physicians, the National Vaccine Advisory Committee (NVAC) of the National Vaccine Program Office, and the Advisory Commission on Childhood Vaccines of the National Vaccine Injury Compensation Program, among others.

Although coverage for preschool immunization is high in almost all states, pockets of need – areas with substantial numbers of under-immunized children – continue to exist. These areas are of great concern because of the potential for outbreaks of vaccine-preventable diseases. CDC uses several strategies to improve immunization coverage in pockets of need. AFIX (Assessment, Feedback, Incentives, and Exchange) is a tool for assessing immunization coverage and providing feedback to providers – methods that have resulted in higher coverage rates. Linkages with the U.S. Department of Agriculture's Women, Infants, and Children (WIC) program have increased coverage among low-income preschool children. Reminder and recall systems (manually generated mail or telephone appointment reminders) consistently improve patient compliance for scheduled health visits.

As a result of all of these activities, cases of vaccine-preventable diseases are at or near all-time lows, and childhood immunization rates are at an all-time high. Infrastructure funds are essential to sustain the systems that have resulted in the highest immunization levels ever recorded. These funds are used to implement proven strategies to raise immunization coverage, conduct disease surveillance, implement outbreak control measures, ensure access to and appropriate administration of vaccines, perform outreach activities, develop immunization registry systems, educate providers and parents about the need for timely immunization, and 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.

## **Program Performance Analysis**

CDC uses two main sources to measure the attainment of U.S. performance goals: 1) the National Notifiable Diseases Surveillance System, and (2) the National Immunization Survey. 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 *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

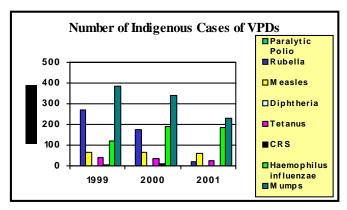
Immunization Survey (NIS). With these data, CDC can evaluate the impact of national, state, and local policies and programs and use the results to monitor progress toward the goals of the performance plan. The surveys measure vaccine-specific and series-complete coverage and include detailed analyses for race/ethnicity and poverty groups. Such surveys are necessary to monitor the maintenance or improvement of immunization coverage levels in the target populations of 78 state and major urban areas.

#### **Cases of Vaccine-Preventable Diseases**

By all counts, efforts to protect children in the U.S. from vaccine-preventable disease have been a success. Cases of most vaccine-preventable diseases of childhood are down more than 96% from the pre-vaccine era. No cases of paralytic polio due to indigenous transmission of wild polio virus have been reported in the U.S. since 1979. Coverage levels for preschool children are at an all-time high for all racial and ethnic groups. As in prior decades, these goals for zero cases of disease are very ambitious. Therefore, we have modified the goals to more specifically reflect the anticipated progress of the Program.

Only 26 reported cases of indigenous measles occurred in 2001. In March 2000, a panel of experts reviewed extensive information on measles epidemiology, imported cases, population immunity, and the quality of measles surveillance, and concluded that measles is no longer an endemic in the United States. The elimination of endemic measles from the United States is a historic public health achievement and the fulfillment of a goal expressed by public health experts even before the first vaccine was licensed in 1963. Keeping endemic measles out of the United States will require sustained efforts to maintain high vaccine coverage levels.

Conjugate vaccines for the prevention of *Haemophilus influenzae* type b (Hib) are highly effective and have led to near elimination of invasive Hib disease, the main cause of bacterial meningitis. However, the number of possible cases reported did increase from 120 cases in 1999 to 167 cases in 2000 to 181 cases in 2001. In accordance with the Healthy People 2010 goal, this measure was clarified to include both cases with type b and unknown serotype. As a portion of these cases were not serotyped, the number of unknown serotypes that are actually type b cannot be confirmed. Therefore, it is possible that, although the total number of cases increased in 2001, the number of type b cases (both serotyped and not) – for which the vaccine is effective – may have remained the same or decreased.



The reduction in the number of indigenous cases of mumps has exceeded our goal of 500 cases. In 2000, there were only 338 cases of mumps; in 2001, the incidence was further reduced to 266 cases. This reduction is linked to the effectiveness of the Measles-Mumps-Rubella vaccine and its coverage rate.

Although substantial progress has been made to reduce and/or eliminate the incidence of these vaccine-preventable diseases, total eradication, i.e., the number

of cases be reduced to zero, of some of these diseases is unlikely to occur except under exceptional circumstances. For example, smallpox has been eradicated and polio is virtually eradicated because 1) humans are the only reservoir, 2) there is no carrier state or vaccination eliminates carriage, and 3) efforts to eradicate the disease are global. Where an organism is found in the environment, such as tetanus, the only way to reduce cases to 0 is to assure complete protection – which implies both vaccination and immunological response to vaccine. Where vaccination does not significantly impact the transmission of an organism or where transmission occurs in a population that cannot be vaccinated, such as pertussis, significant numbers of cases will continue to occur. Additionally, where protection from vaccination occurs in the U.S. but not globally, such as rubella, cases will continue to be introduced by travelers or immigrants.

#### **Vaccine Coverage**

#### **Childhood Immunization Coverage**

The prior goal of four doses of Diptheria-Tetanus-acellular Pertussis (DTaP) vaccine has been changed to three doses of DTaP. This is primarily because of vaccine shortages which have resulted in many children not being able to get the fourth dose of DTaP. The ACIP has recommended that, if vaccine is in short supply or not available, the fourth dose of DTaP should be dropped. As a result, it is not appropriate to measure this dose. Also, the first three doses are considered the most critical to prevent disease.

The varicella vaccine was newly introduced to the Recommended Childhood Immunization Schedule in 1996. Coverage levels for varicella vaccine have reached almost 68% in 2000. Coverage for this vaccine has more than doubled from 26% in 1997 to 58% in 1999 with no racial or ethnic gaps in coverage. In 1999, attenuation of seasonality and declines in varicella cases and hospitalizations were documented in active surveillance systems. Between 1995 and 1999, varicella cases and hospitalizations declined 80% in the communities with active surveillance. The greatest decline in cases occurred among children 1 - 4 years, however, cases declined in all age groups, including infants and adults, indicating reduced disease transmission in these areas.

Following prevention of *Haemophilis influenzae* type B infections with an infant vaccine licensed in 1988, pneumococci took over as the leading cause of meningitis. Now pneumococcal meningitis is preventable. Pneumococci also are the leading cause of bacterial pneumonia, bloodstream infections, otitis media (ear infections), and sinusitis among children. Studies of PCV, pre-licensure, showed this vaccine to be more than 97% effective against invasive pneumococcal infections. Overall, this vaccine is projected to prevent over one million episodes of childhood illness and approximately 120 deaths among children annually. Preventing pneumococcal infections with PCV is becoming more important because of problems with treatment as a result of increasing antibiotic resistance. The Advisory Committee on Immunization Practices (ACIP) added pneumococcal conjugate vaccine (PCV) to the 2001 Recommended Childhood Immunization Schedule. As this is a newly recommended vaccine, accountability for performance targets will begin in 2006; however, NIP will begin tracking coverage rates this year to establish a baseline.

#### **Adult Immunization Coverage**

The growth rate of the elderly population has far exceeded the population of the country as a whole. In this century, the total population has tripled. The number of persons aged 65 and older has increased by a factor of eleven, from 3.1 million in 1900 to 35 million in 2000, and accounts for 12.4% of the population in the United States. According to the Census Bureau's middle series projection, the number of persons aged 65 years and older will more than double by the middle of the next century to 80 million. While the growth of the elderly will be steady from 1990 to 2010, there will be a substantial increase in the number of elderly persons during the 2010 to 2030 period when the "Baby Boom" generation reaches age 65.2

During the past decade, vaccination rates among older adults increased steadily as CDC implemented national strategies and promoted adult and adolescent immunization among health care providers and state and local governments. Influenza vaccine coverage rates have continually increased, from 30 percent in 1989 to 63 percent in 2001. An increasing proportion of older adults also reported receipt of pneumococcal vaccination, from 15 percent in 1989 to 54 percent in 2001. However, data suggests that influenza vaccination levels may have reached a plateau. Delays in distribution of influenza vaccine supplies during the 2000-01 season and to a lesser degree in the 2001-02 season pose additional challenges to increasing coverage levels. Therefore, in August, 2001, members of CDC and CMS met to discuss the feasibility of reducing performance targets for 2002 and 2003. Because no credible information is currently available which confirm that coverage rates are dropping or stabilizing, CDC decided to maintain a target of 74 percent for 2003 for influenza vaccination. In addition, since States use the performance targets to justify funding levels in support of immunization infrastructure, it was also felt that a reduction of the target levels at this point could harm their programs.

#### **Global Disease Eradication**

The global polio eradication initiative, in partnership with the World Health Organization, is on target for achieving polio eradication by 2005. Global polio incidence has declined by more than 99% from about 350,000 cases in 1988 to less than 1000 cases in 2001. About 250,000 lives have been saved and 4 million cases of childhood paralysis have been avoided, and the number of polio-endemic countries have dropped from 125 in 1988 to only 10 at the end of 2001. In 2001, the American Region of WHO completed its tenth year without a reported case of polio due to the wild virus. The Western Pacific Region (includes China, Vietnam, and Cambodia among its 35 countries) has achieved regional eradication of polio. More than 90 countries conducted mass immunization campaigns in 2001, vaccinating 575 million children.

As long as polio transmission occurs anywhere in the world, it remains a threat to American children. CDC will continue to fight against polio by collaborating with partners to increase the number and quality of National Immunization Days, as well as intensify implementation of the other components the strategy to interrupt transmission in the remaining 10 endemic countries.

<sup>2</sup> 

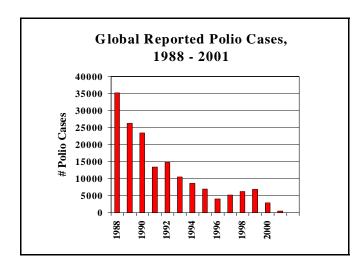
Source: U.S. Bureau of the Census, 65+ in the United States, Special Studies, Series P23-190, U.S. Government Printing Office, Washington, DC, 1996

It is necessary for CDC to provide scientific assistance to improve tracking to certify that polio eradication has occurred. In 2002, CDC purchased 694 million doses of polio vaccine for use in mass global immunization campaigns. In FY 2001, a 25% price hike by polio vaccine manufacturers of oral polio vaccine (OPV) from 7.2 cents per dose to 9.0 cents per dose decreased CDC's purchasing capacity (through UNICEF) from a projected 625 million doses in FY 2001 to an actual 590 million doses. For FY 2002, CDC has received increased funding for polio eradication which should allow us to meet the FY 2002 target. Additionally, CDC supported 150 experts in polio eradication programs throughout the world. Nearly 100 public health professionals throughout CDC and from other public health institutions were trained in 2001 to complete additional short-term assignments. CDC has provided epidemiologic, laboratory, and programmatic expertise to assist polio-endemic countries and the WHO with polio eradication activities. UNICEF has received grants from CDC to procure nearly 600 million doses of oral polio vaccine for mass immunization campaigns in 90 countries to help interrupt polio transmission or to protect from imported poliovirus. Additionally, a number of CDC staff are assigned to WHO and other international organizations to provide leadership and technical expertise.

To reflect CDC's participation in the global immunization arena, beyond that of polio immunization, CDC has included the global measles reduction goal in the FY 2004 Performance Plan. The subsequent performance measures reflect the goals and commitment of the WHO and Pan American Health Organization (PAHO) as well as CDC's participation in these efforts.

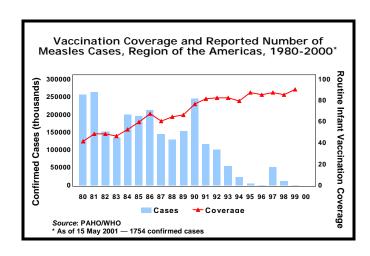
According to available surveillance information, measles transmission has been interrupted in all countries of the Western Hemisphere except Venezuela. An aggressive plan to eliminate measles has reduced cases in the Western Hemisphere by more than 99% from about 250,000 in 1990 to less than 600 cases in 2001 – the lowest annual total ever reported. Deaths from measles complications have virtually disappeared.

Globally, measles caused an estimated 770,000 deaths in 2000 and was the leading cause of



death among children under five years of age from a vaccine-preventable disease. Based on surveillance data for 2001, 46 of 47 countries and territories in the American region appear to have interrupted measles transmission. Nationwide measles immunization campaigns in seven southern African countries conducted in 1996-1998 have resulted in approximately a 95% reduction in reported cases. Zero deaths from measles were reported in these countries in 2000-2001.

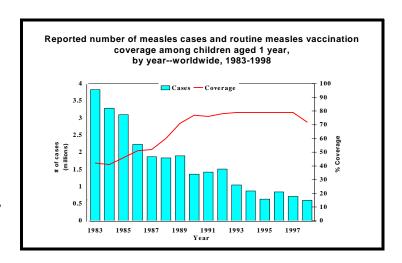
During 2001, CDC reviewed immunization programs in Guatemala and Venezuela and provided technical support for measles surveillance or for measles campaigns in Brazil, Columbia, Costa Rica, Benin, Burkina Faso, Cameroon, Ghana, Mali, Tanzania, and Uganda. In addition, CDC bought measles vaccine for outbreak response in Haiti. These efforts resulted in a curtailment of outbreaks in Haiti and the Dominican Republic.



The WHO, UNICEF, and CDC have prepared a 5-year strategic plan for

global measles control, mortality reduction, and regional elimination. The plan calls for a one-half reduction in measles mortality by 2005 compared with 1999 levels through introduction of a second opportunity for measles vaccination for all children. In addition, the plan recommends

that prevention of rubella and congenital rubella syndrome be integrated with measles vaccination and surveillance activities where appropriate. CDC is a major partner with the PAHO and WHO in eliminating measles and reducing measles mortality. CDC has developed new partnerships with the American Red Cross, the International Federation of Red **Cross and Red Crescent Societies.** and the UN Foundation to advocate for measles control. A global public-private sector coalition has been formed to



implement the 5-year Global Measles Strategic Plan to reduce measles mortality.

#### **Vaccine Safety**

Although infectious diseases continue to decline, concerns remain about the risks associated with vaccines. Immunizations are subject to a higher standard of safety than other medical interventions because they are given to healthy people. But, like all medical interventions, no vaccine is 100% safe or effective. Since vaccination is such a common and memorable event, any illness following immunization may be attributed to the vaccine. While some of these reactions may be caused by the vaccine, many of them are unrelated events that occur after vaccination by coincidence. Therefore, the scientific research that attempts to distinguish true

vaccine side effects from unrelated, chance occurrences is crucial. Vaccine safety activities are needed to maintain public confidence in immunizations, preserve high coverage levels, and prevent a resurgence of vaccine-preventable diseases. As science continues to advance, we are constantly striving to develop safer vaccines and improve delivery in order to better protect ourselves against disease.

CDC has a unique and vital role in striving for vaccine safety by monitoring harmful effects, conducting scientific research to evaluate the safety of vaccines, communicating to the public the benefits and risks of vaccines, and supporting development of new vaccine administration devices, combination vaccines, and potential candidate vaccines to prevent additional infectious diseases. Assessments of the risks and benefits of vaccines can also influence vaccine policy and recommendations.

As there was no incidence of paralytic polio in the United States in 2001, it follows that there were also no cases of vaccine-associated paralytic polio to report for the year.

#### **Education and Information Sharing**

CDC offers health care provider training through satellite, remote audio, Internet and land-based immunization courses, speaker presentations, and grand rounds. In addition, immunization modules are presented in medical residency programs as well as medical and nursing school curricula. In 2001, over 100,000 professionals participated in live-satellite, land-based, or self-study courses, and over one third of the participants (physicians and nurses) were awarded Continuing Medical Education (CME) or Continuing Nursing Education(CNE) credits.

Both the general public and health care professionals frequently request immunization information and referral services from the National Immunization Information Hotline (NIIH). This information is provided through a toll-free service and website in both English and Spanish. NIIH responded to 111,515 calls in 2001. To accommodate the deaf and hard of hearing, NIIH implemented both Tele-Typewriter (TTY) and American Sign Language (ASL) services.

Performance measures have not yet been developed to assess the effectiveness of these programs, however, CDC plans to do so in the future.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 331,640 Estimate

**FY 2003:** \$ 334,733 President's Budget

**FY 2002:** \$ 348,181 Enacted

#### **II-J. Infectious Diseases Control**

### **Goal-by-Goal Performance Measurement**

### **Epidemiology and Laboratory Capacity**

**1. Performance Goal:** Protect Americans from infectious diseases.

#### Hepatitis C, Chronic Liver Disease, and Viral Hepatitis

Performance Measure	Targets	Actual Performance	Reference
Provide support to up to 65 health departments for coordinators to initiate hepatitis prevention and control activities.	FY 04: 55 health departments FY 03: 49 health departments FY 02: 47 health departments FY 01: 25 health departments FY 00: 9 health departments	FY 04: 9/2004 FY 03: 9/2003 FY 02: Exceeded/48 FY 01: Exceeded/48 FY 00: Exceeded/15 FY 99: 0	<b>B</b> - 126 <b>HP</b> - 14-9

#### <u>Influenza</u>

Performance Measure	Targets	Actual Performance	Reference
Monitor influenza viruses in states (1 site/250,000 population domestically) and provide support to build capacity for influenza surveillance sites and networks internationally to enhance early detection of viruses with pandemic potential and improve vaccine decision-making.	FY 04: 800 sites/5 net FY 03: 700 sites/1 net FY 02: 600 sites/1 net FY 01: 514 sites/1 net FY 00: 510 sites	FY 04: 9/2004 FY 03: 9/2003 FY 02: 9/2002 - 1 net FY 01: 550/1 net FY 00: Exceeded/706 - 1 net FY 99: 410 FY 96: 0	<b>B</b> - 126 <b>HP</b> - 14-1 <b>1</b>

## Foodborne Illnesses

Performance Measure	Targets	Actual Performance	Reference
1. Increase the proportion of outbreak investigations in which the causative organism/toxin is identified.	FY 02: 57% FY 01: 55% FY 00: 50% FY 99: 45%	FY 02: Achieved/57% FY 01: Achieved/55% FY 00: Achieved/50% FY 99: Exceeded/48% FY 98: Baseline: 40%	<b>B</b> - 126 <b>HP</b> - 10-2 <b>5</b>
2. Expand the number of public health laboratories using PulseNet to build subtyping capacity and exchange foodborne illness data for early identification of and response to outbreaks (number of agents may increase as new pathogens are identified).	E. coli 0157:H7: FY 04: 50 labs FY 03: 45 labs FY 02: 45 labs FY 00: 40 labs FY 99: 29 labs  Salmonella Typhimurium: FY 04: 50 labs FY 02: 45 labs FY 02: 45 labs FY 00: 40 labs FY 01: 45 labs FY 00: 40 labs FY 01: 45 labs FY 00: 40 labs FY 02: 30 labs FY 03: 30 labs FY 04: 35 labs FY 05: 30 labs FY 06: 20 labs FY 07: 30 labs FY 08: 7 labs  Shigella sonnei: FY 04: 20 labs FY 03: 15 labs FY 02: 15 labs	E. coli 0157:H7: FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 01: Achieved FY 09: Achieved FY 99: Achieved FY 97: Baseline: 0  Salmonella Typhimurium: FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 00: Achieved FY 99: Achieved FY 97: Baseline: 0  Listeria monocytogenes: FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 01: Achieved FY 07: Baseline: 0  Listeria monocytogenes: FY 04: 9/2004 FY 05: Achieved FY 07: Baseline: 0  Shigella sonnei: FY 04: 9/2004 FY 07: Baseline: 0  Shigella sonnei: FY 04: 9/2004 FY 07: Achieved FY 07: 7	B - 126 HP - 10-2

## **Infectious Diseases Control**

Performance Measure	Targets	Actual Performance	Reference
2. (continued)	Clostridium-perfringens FY 04: 5 FY 03: 0  Campylobacter jejuni/C. coli FY 04: 5 FY 03: 0  Vibrio parahaemolyticus FY 04: 5 FY 03: 0  Vibrio Cholerae FY 04: 5 FY 03: 0	Clostridium-perfringens FY 04: 9/2004 FY 03: Baseline: 0  Campylobacter jejuni/C. coli FY 04: 9/2004 FY 03: Baseline: 0  Vibrio parahaemolyticus FY 04: 9/2004 FY 03: Baseline: 0  Vibrio Cholerae FY 04: 9/2004 FY 03: Baseline: 0	<b>B</b> - 126
<b>3.</b> Enhance FoodNet by increasing the number of pathogens and syndromes under active surveillance.	FY 04: 13 FY 03: 11 FY 02: 11 FY 01: 11 FY 00: 10 FY 99: 8	FY 04: 9/2004 FY 03: 9/2003 FY 02: Achieved FY 01: Achieved FY 00: Achieved FY 99: 8 FY 97: 7	<b>B</b> - 126 <b>HP</b> - 10-2

## **Group B Streptococcal Infections**

Performance Measure	Targets	Actual Performance	Reference
Reduce the incidence of perinatal group B streptococcal infections to 0.3 per 1,000 live births.	FY 03: 0.3 FY 02: 0.3 FY 01: 0.3 FY 00: 0.4 FY 99: 0.9	FY 03: 3/2004 FY 02: 3/2003 FY 01: 0.5 (final) FY 00: 0.5 (final) FY 99: Exceeded/0.4 FY 95: 1.3	<b>B</b> - 126

#### **HIV Variants**

Performance Measure	Targets	Actual Performance	Reference
Expand surveillance for unusual HIV variants.	FY 03: 7 countries FY 02: 8 countries FY 01: 6 countries FY 00: 6 countries	FY 04: 6/2005 FY 02: 6 FY 01: 6 FY 00: 6 FY 99: 2 FY 98: 0	<b>B</b> - 126

#### **Antimicrobial Resistance**

## **2. Performance Goal:** Reduce the spread of antimicrobial resistance.

Performance Measure	Targets	Actual Performance	Reference
1. Diminish the rapid rise in the proportion of enterococci resistant to vancomycin (VRE rate) among pathogens associated with nosocomial infections in ICU patients.	Increase in resistant strains: FY 04: 26.0% FY 03: 26.0% FY 02: 26.0% FY 01: 27.2% FY 00: 25.2% FY 99: 40.0%	FY 04: 3/2005 FY 03: 3/2004 FY 02: 3/2003 FY 01: 26.9% (corrected) FY 00: 25.0% FY 99: 40.9%; 5-year historical mean, 47%.	<b>B</b> - 126 <b>HP</b> - 14-21 <b>5</b>
2. Reduce the number of courses of antibiotics for ear infections for children < 5 years to 57 courses per 100 children.	FY 03: 54 courses FY 02: 54 courses FY 01: 54 courses FY 00: 106 courses	FY 03: 9/2004 FY 02: 9/2003 FY 01: 59 FY 00: 54 FY 97: 69 (corrected)	<b>B</b> - 126 <b>5</b>
3. Increase the proportion of U. S. laboratories that use acceptable methods to test for Staphylococcus aureus with reduced susceptibility to vancomycin.	FY 04: 95% FY 03: 90% FY 02: 85% FY 00: 76%	FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 00: 76% FY 98: Baseline: 56%	<b>B</b> - 126 <b>HP</b> - 14-18
4. Reduce the number of courses of antibiotics prescribed for a sole diagnosis of the common cold to 1,268 courses per 100,000 population.	FY 04: 1,917 courses FY 03: 2,017 courses FY 02: 2,144 courses FY 01: 2,281 courses FY 00: 2,408 courses	FY 04: 9/2005 FY 03: 9/2004 FY 02: 9/2003 FY 01: 2,000 FY 00: 1,999 (corrected) FY 97: Baseline: 2,535	<b>B</b> - 126 <b>HP</b> - 14-19 <b>5</b>

#### **Medical Errors and Healthcare-associated Infections**

**3. Performance Goal:** Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare.

Performance Measure	Targets	Actual Performance	Reference
1. Reduce the rate of central line-associated bloodstream infections in adult ICU patients to 3.80.	FY 04: 3.80 FY 03: 3.80 FY 02: 3.80 FY 01: 3.86 FY 00: 4.4 FY 99: 5.2	FY 04: 4/2005 FY 03: 4/2004 FY 02: 4/2003 FY 01: 4.6 FY 00: 4.5* FY 99: Exceeded/4.4 FY 98: 5.3	<b>B</b> - 126 <b>5</b>

<sup>\*</sup>Revised with later data.

#### **Program Description and Context**

CDC is charged with planning, directing, and coordinating a national program to improve the identification, investigation, diagnosis, prevention, and control of infectious diseases in the United States and throughout the world.

Infectious diseases can lurk anywhere – in undercooked hamburgers, on unwashed hands, or carried by blood, water, ticks, or mosquitoes. Some, like the pathogens that cause influenza or syphilis, are familiar foes that have preyed on humans for centuries. Others, like West Nile virus, are relatively new or emerging threats. Some old threats, like tuberculosis, have adapted to the drugs deployed against them, making them dangerous in new ways. These attributes make infectious diseases a constant threat. The emergence of a new strain of influenza somewhere in the world could have a severe effect on the United States, causing an estimated 89,000 to 207,000 deaths, 314,000 to 734,000 hospitalizations, and direct and indirect costs of \$71 billion to as much as \$167 billion. Antimicrobial resistance in six bacteria commonly found in hospitals adds approximately \$661 million per year in hospital charges. Hospital-acquired infections kill an estimated 88,000 Americans annually and cost more than \$4.5 billion. The estimated burden of illness from foodborne infections is up to 5,000 deaths and 76 million illnesses annually, with associated costs reaching several billion dollars annually. Chronic liver disease is the tenth leading cause of death among adults in the United States and approximately 40% of chronic liver disease is caused by hepatitis C virus (HCV). HCV is the most common blood borne viral infection in the United States.

In 1994, recognizing the serious and growing threat of infectious diseases, CDC and partners launched the first phase of a nationwide program to revitalize U.S. capacity to protect the public from infectious disease threats. The second phase of this effort began in 1998 and continues to build domestic and global capacity for recognizing and responding to infectious diseases through partnerships with federal, state, and local agencies, universities, private industry, foreign governments, WHO, and non-governmental agencies. CDC's efforts focus on four strategies:

- Surveillance and response to detect, investigate, and monitor emerging pathogens, the diseases they cause, and the factors influencing their emergence;
- Applied research to integrate laboratory science and epidemiology to optimize public health practice;
- Infrastructure and training to strengthen public health infrastructure to support surveillance and research and to implement prevention and control programs; and
- Prevention and control to ensure prompt implementation of prevention strategies and enhance communication of public health information about emerging infectious diseases.

Within this framework key priorities have emerged; addressing infectious diseases that contribute to high mortality, morbidity, and healthcare costs, such as hepatitis C, influenza, foodborne illnesses, Group B Streptococcal infections, and HIV; finding solutions to the problems posed by antimicrobial resistance; and reducing the burden of illness from infectious diseases among hospitalized patients and healthcare workers.

#### Infectious Diseases Control

**Infectious Diseases** - Periodically, the results of public health surveillance and applied research call for new actions to protect Americans from infectious diseases. Consequently, CDC has undertaken efforts to develop national strategies to address these areas.

Hepatitis C, chronic liver disease, and viral hepatitis - A program target is to lower the incidence of chronic hepatitis C in the United States and to reduce the burden of liver disease from chronic HCV infection. To this end, CDC is: 1) educating healthcare and public health professionals to improve identification of persons at risk for HCV infection and ensure appropriate counseling, diagnosis, management, and treatment; 2) educating the public and persons at risk about risk factors and the need for testing and evaluation; 3) promoting clinical and public health activities aimed at identifying, counseling, and testing persons at risk and evaluating or referring persons found to be infected; 4) developing outreach and community-based programs to address practices that put people at risk and identify persons who need testing; 5) strengthening surveillance to monitor disease trends and evaluate the effectiveness of prevention activities; and 6) conducting epidemiologic research to guide prevention efforts.

<u>Influenza</u> - CDC plays a key role in the prevention and control of influenza. Improved preparedness is essential to minimize the impact on Americans of a long-overdue influenza pandemic. To fulfill this role, CDC: 1) conducts world wide monitoring of influenza viruses to collect data to contribute to annual Northern and Southern hemisphere vaccine decisions; 2) builds capacity domestically and internationally to improve the early detection systems for new influenza viruses; 3) works closely with States to improve the infrastructure for delivery of influenza vaccines; 4) conducts research studies on influenza viruses to form the building blocks for better vaccines; and 5) participates on an interagency workgroup to develop an influenza pandemic preparedness plan for the United States.

<u>Foodborne Illnesses</u> - CDC has a prominent role in maintaining the safety of the nation's food supply. CDC is challenged to: 1) build a strong nationwide public health network for foodborne disease surveillance and response; 2) design and implement prevention strategies; 3) support, educate, and train the public health workforce; and 4) provide scientifically sound health information to the public. These efforts are essential for regulatory agencies that need and rely on CDC's epidemiologic data, laboratory science, environmental health capability, public health expertise, and links to state and local health and education departments.

Group B Streptococcal Infections - Perinatal group B streptococcal disease is the most common cause of severe infections in newborns. CDC worked with the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP) to develop guidelines and information for practitioners on the best methods for preventing group B streptococcal disease. Surveys have shown that the prevention recommendations have been widely adopted.

#### **Infectious Diseases Control**

<u>HIV Variants</u> - During the 1990s, two unusual HIV-1 strains (group O and group N) were identified among isolates obtained in Africa and in Brazil. These strains are important because they may not be consistently detected by the currently licensed tests used for routine HIV-1 diagnostic testing and blood screening in the United States. CDC is expanding surveillance for these viruses and for other immunosuppressive retroviruses that may be missed by current screening protocols. CDC shares the data obtained from these surveillance activities with appropriate federal agencies to allow for informed discussions on U.S. blood-screening practices so that appropriate recommendations for modifications or re-configurations of screening assays can be made if necessary.

**Antimicrobial Resistance** - In the United States and around the world, many infections are becoming resistant to the antimicrobial drugs used to treat them. In some areas of the United States, more than 30% of infections with pneumococci, the most common cause of bacterial pneumonia and meningitis, are no longer susceptible to penicillin. Nearly 30% of the bacteria that most frequently cause infections acquired in hospital intensive-care units are resistant to the preferred antibiotic. Drug-resistant *Staphylococcus aureus*, formerly seen almost exclusively in hospitals, is now being reported in the community.

An interagency task force, co-chaired by CDC, FDA, and NIH, released *A Public Health Action Plan to Combat Antimicrobial Resistance*, which calls for 1) a national antimicrobial resistance surveillance plan; 2) promotion of appropriate use of antimicrobial drugs and prevention of transmission of infections; (3) research into antimicrobial resistance and mechanisms of transmission; and (4) new product development to prevent, diagnose, and treat infections.

**Medical Errors and Healthcare-associated Infections** - Assuring the safety of patients receiving health care is a public health priority. The Institute of Medicine (IOM) has estimated that medical errors and preventable adverse events contribute to the deaths of 44,000 to 98,000 patients and add \$29 billion to the cost of direct healthcare expenditures in the U.S. annually.

The IOM has called for a 50% reduction in medical errors and adverse events within 5 years and that a national system for monitoring and reporting these events will be critical to achieving this goal. In addition, the IOM proposes that the wider adoption of new information technology can more effectively help healthcare facilities improve systems of care and ensure adherence to best practices for promoting patient safety. CDC's strategy for responding to the IOM recommendations will build on its core capacities in measuring and monitoring infections and other adverse health events. Significant enhancements in the measurement and intervention capacity to prevent medical errors and other adverse health events are needed both at the individual facility level and within local, state and national public health agencies. Our strategy is to build this capacity by updating and expanding existing patient safety capacities that are embedded in infection control programs. The core of this strategy is the National Healthcare Safety Network (NHSN), a national program which will not only measure, but can provide interactive capacity to intervene through health communications campaigns and targeted intervention programs.

#### **Program Performance Analysis**

#### Infectious Diseases -

Hepatitis C, Chronic Liver Disease, and Viral Hepatitis - CDC was able to exceed the expected number of HCV coordinators funded. The additional coordinator was funded through prudent management of hepatitis program funds to address the growing need for hepatitis C coordinators in state and local health departments. HCV coordinators serve as the "linking pin," coordinating hepatitis C activities among health department programs (e.g., STD, Immunization, and Epidemiology/Surveillance), and state agencies (e.g., Mental Health, Substance Abuse, and Corrections). They are also closely involved with media campaigns, provider education, and the development of educational materials.

<u>Influenza</u> - CDC has improved preparedness for both epidemics and a possible pandemic of influenza by expanding influenza surveillance. In 2002, we exceeded the number of targeted domestic sites through diligent recruitment for U.S. Sentinel Physicians and consistent follow-up by CDC staff. These domestic and international sites provide surveillance data that are critical to influenza vaccine decisions. In 9 of the last 10 years, influenza vaccines were well matched to the circulating influenza viruses. CDC will increase support to build capacity for influenza surveillance sites and networks internationally. These international sites/networks strengthen global surveillance capabilities to increase the likelihood of early detection of an influenza pandemic and effective tracking of its spread. In addition, the international surveillance sites will provide critical information needed to improve vaccine decision-making. Maintaining and improving the U.S. sentinel physician surveillance system is a priority because it is the primary U.S. system for measuring influenza morbidity and is a source of specimens necessary for monitoring circulating viruses in the U.S.. Data collected about circulating influenza viruses are used to form the basis for annual vaccine decisions. The U.S. Sentinel Physician surveillance system will be the primary system for measuring the impact of an influenza pandemic on morbidity in the U.S.

Foodborne illnesses - CDC has improved food safety through collaborations with federal, state, and local governments and other public- and private-sector partners. CDC led the development and implementation of FoodNet, a network of 10 sentinel sites. This network provides accurate trend information for important foodborne infections and improved methods for early detection of foodborne disease problems within and between states. These programs and other CDC efforts have: 1) strengthened and expanded the early warning system for foodborne illness; 2) improved and expanded pathogen-detection methods; 3) improved techniques to avoid, reduce, and eliminate pathogens; and 4) improved outbreak containment. In collaboration with FDA and USDA, CDC: 1) designed training and educational materials for public health and healthcare professionals; 2) collaborated with government, industry, and consumer partners to conduct a broad-based food safety education campaign (Fight BAC!<sup>TM</sup>); and 3) launched a national partnership for school-focused foodborne illness prevention. In FY 2001 and FY 2002, we met our target with eight common bacterial pathogens, two parasites, and one syndrome (Hemolytic Uremic Syndrome) under active surveillance.

CDC and its state partners also designed and implemented the PulseNet DNA fingerprinting network in public health laboratories. This network provides early detection and investigation of foodborne disease outbreaks within and between states. CDC has prioritized the expansion of PulseNet because of the increased demand from participating sites. As of FY 2002, the targets for each of the pathogens have been achieved as expected. Four additional pathogens (Clostridium perfringens, Campylobacter jejuni/C. coli, Vibrio parahaemolyticus, and Vibrio cholerae) have been added to the performance measure.

The FY 01 and FY 02 targets to increase the proportion of foodborne outbreaks in which the causative agent was identified were met at 55 and 57%, respectively. CDC has continually met or exceeded targets for this measure and, subsequently, will remove this measure from future Performance Plans.

In FY 2000, using FoodNet and other sources, CDC updated estimates of the burden of foodborne disease in the United States. New estimates indicate that 76 million cases of foodborne illnesses result in 325,000 hospitalizations and 5,000 deaths annually. A recent summary of FoodNet data from 1996-2001 showed significant declines in rates of infection with *Yersinia enterocolitica* (49% decline between 1996 and 2001), *Listeria* (35%), *Campylobacter* (27%), and *Salmonella* (15%), suggesting the current efforts to reduce these diseases are on tract towards the 2010 Health People Objectives. Recent declines in *E.coli* O157 and *Shigella* infections were also documented over this time period, but may reflect year to year variation, rather than sustained trends. New interagency efforts in research and surveillance to improve and document the effectiveness of food safety measures are under way.

Group B Streptococcal Infections - Final data for FY2001 show that the plateau in disease incidence has continued, with 0.5 cases per 1000 births in 2001, similar to 0.5 cases per 1000 births in 2000. To improve prevention efforts, CDC and staff from the Active Bacterial Core Surveillance (ABC) project completed a study comparing the two prevention strategies recommended in 1996. The study found that the strategy based on prenatal screening was significantly more effective at preventing perinatal group B streptococcal disease. CDC worked with partners to develop new prevention guidelines recommending universal prenatal screening; the new guidelines were released by CDC in August 2002 (MMWR RR series, aug 15).

<u>HIV Variants</u> - CDC targeted and expanded participation to 6 countries for surveillance of unusual HIV variants in both FY 00 and FY 01. For FY 02, efforts to expand participation to 2 additional countries were not successful. However, efforts to recruit 1 additional African country into this surveillance program in FY 03 will continue with a planned expansion in FY 04 into 2 countries in Asia.

**Antimicrobial Resistance** - The number of courses of antibiotics given for ear infections to children less than 5 years of age rose from 54 in 2000 to 59 in 2001. The difference is largely due to the survey design used to collect the data and is not statistically significant. Reductions in antibiotic prescriptions for otitis media may reflect an increased awareness of the public health problem of antimicrobial resistance, the effectiveness of a national efforts including the CDC's education campaigns targeted to physicians and the public on judicious use of antibiotics, or a decrease in the incidence of otitis media.

The common cold is caused by a virus and antibiotic therapy is ineffective in treating these infections. Reducing the use of antibiotics in the treatment of the common cold remains one of the prime targets of our antimicrobial resistance campaign. CDC has met this goal again in FY 01 and will continue to monitor future progress. Success in exceeding this measure may reflect efforts by CDC and partners to promote appropriate antibiotic use in the community.

**Medical Errors and Healthcare-associated Infections** - The FY 2001 goal for reduction of central line-associated bloodstream infections was not met. This failure to see reductions in the rate of bloodstream infections is consistent with the growing magnitude of the patient safety problem in the United States, especially with regard to healthcare-associated infections. There are several possible reasons for this reported increase:

- 1. Increasing severity of illness of patients in hospital intensive care units.
- 2. The national nursing shortage making it more difficult to hire and retain well-trained staff and maintain favorable nurse to patient ratios.
- 3. Continuing rise in the number of antimicrobial-resistant infections which are harder to treat.

These data reinforce the importance of implementing the National Healthcare Safety Network as part of the DHHS patient safety data system. It also underscores the need for aggressive programs to control and reduce antimicrobial resistance in hospitals and attack the broader problem of hospital-acquired infections in the context of the DHHS patient safety initiatives that are now under way.

CDC is actively engaged in a number of collaborative projects with both public and private sector partners to help bring about the changes that will lead to a redesigned, safer and more effective healthcare system.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 144,796 Estimate

**FY 2003:** \$ 145,026 President's Budget

**FY 2002:** \$ 149,502 Enacted

### **II-K. Injury Prevention and Control**

### **Goal-by-Goal Performance Measurement**

**1. Performance Goal:** Increase the capacity of injury prevention and control programs to address the prevention of injuries and violence.

Performance Measure	Targets	Actual Performance	Reference
Among the states receiving funding from CDC, reduce deaths from residential fire.	<b>FY 04:</b> 3.0 per 100,000 <b>FY 03:</b> 3.0 per 100,000 <b>FY 02:</b> 3.0 per 100,000 <b>FY 01:</b> 3.0 per 100,000 <b>FY 00:</b> 3.0 per 100,000	FY 04: 10/2006 FY 03: 10/2005 FY 02: 10/2004 FY 01: 10/2003 FY 00: 1.52 per 100,000	<b>B</b> - 134 <b>HP</b> - 15-25 <b>1</b>

#### **2. Performance Goal:** Monitor and detect fatal and non-fatal injuries.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of states receiving CDC funding for surveillance and to identify and track	TBI Surveillance FY 04: Disseminate TBI data at the State level.	<b>FY 04:</b> 12/2004	<b>B</b> - 134 <b>HP</b> - 15-1
injuries.	<b>FY 03:</b> Revise CNS surveillance guidelines to include protocols for collection of data on mild TBI.	<b>FY 03</b> : 12/2003	
	FY 02: Disseminate revised protocol for CNS TBI surveillance; conduct an expert conference to develop protocols for mild TBI.	FY 02: Achieved	

Performance Measure	Targets	Actual Performance	Reference
(continued)	NEISS All Injury Surveillance FY 04: Publish national statistics on nonfatal injuries treated in emergency departments by leading causes of injury.	FY 04: 12/2004	<b>B</b> - 134 <b>HP</b> - 15-14
	FY 03: Implement a National Electronic Injury Surveillance system - All Injury Program (NEISS AIP) special study on traumatic brain injury.	FY 03: Achieved	
	FY 02: Implement a National Electronic Injury Surveillance system - All Injury Program (NEISS AIP) special study on adverse reaction to therapeutic drugs.	FY 02: Achieved	
	National Violent Death Reporting System Surveillance FY 04: Maintain FY 03 state funding levels to continue with the implementation of National Violent Death Reporting System (NVDRS).	FY 04: 12/2004	
	<b>FY 03:</b> Increase the number of states implementing NVDRS from five to eight.	<b>FY 03:</b> 12/2003	
	<b>FY 02:</b> Fund states to begin implementing NVDRS.	<b>FY 02:</b> Baseline: Five states funded.	

# **3. Performance Goal:** Conduct a targeted program of research to reduce injury-related death and disability.

Performance Measure	Targets	Actual Performance	Reference
Develop new or improved approaches for preventing and controlling death and disability due to injuries.	FY 04: Maintain FY 03 funding level for research agenda targeted areas. Increase peer- review by 5%.	FY 04: 7/2004	<b>B</b> - 134
	FY 03: Fund 1 research project for injury research in targeted areas. Increase peer-review by 5%.	<b>FY 03:</b> 7/2003	
	FY 02: Complete a CDC injury Research Agenda for defining the scope and priorities for injury research at CDC. All research projects will be peer-reviewed.	FY 02: Achieved Baseline: 66% of research awards peer-reviewed; 134 projects funded.	

## Measures to be Eliminated

The following performances have been achieved.

Performance Measure	Targets	Actual Performance	Reference
<b>1.</b> In a CDC-funded youth violence project, reduce the number of students reporting incidents of fighting.	<b>FY 00:</b> Reduce by 30%	<b>FY 00:</b> Achieved <b>FY 96:</b> Reduced by 30% <b>FY 94:</b> 50% (baseline)	<b>B</b> - 134
2. Develop best practice protocols for implementation and evaluation of youth violence prevention programs.	FY 03: Increase materials and technical assistance provided via the Resource Center by 15 percent.	FY 03: Achieved	<b>B</b> - 134
	FY 02: Develop capacity for technical assistance through the National Youth Violence Prevention Resource Center.	FY 02: Bilingual/Technical staff such as writers, graphic artists, etc. have been hired.	
	<b>FY 01:</b> Provide technical assistance to at least 5 communities.	FY 01: Technical assistance provided via Academic Centers of Excellence.	
	<b>FY 00:</b> Disseminate to at least 1 target audience.	<b>FY 00:</b> Completed protocol development.	
	FY 99: Develop protocols.	<b>FY 99:</b> Compiled into <i>Best Practices</i> source book.	
<b>3.</b> Increase the number of regional best practices workshops, and disseminate workshop results.	FY 01: 8 workshops	FY 01: Achieved Best Practices training via other mechanisms.	<b>B</b> - 134
	FY 00: Develop/test dissemination mechanisms (e.g., website).	FY 00: Launched website	
		FY 97: 0 workshops	
<b>4.</b> Reduce the number of bicyclerelated emergency department visits by 5% per year from 123,475 in 1995.	FY 01: NA	FY 01: Funding for this program shifted to other injury program priorities.	<b>B</b> - 134
	<b>FY 00:</b> 5% reduction	<b>FY 00:</b> 127,500	
	<b>FY 99:</b> 5% reduction	FY 99: Data collection began in FY 2000.	
		<b>FY 95:</b> 123,475	

Performance Measure	Targets	Actual Performance	Reference
<b>5.</b> Increase the use of bicycle helmets by child and teen bicyclists in CDC-funded project areas.	FY 01: Funding ended in FY 00	FY 01: Partially Achieved funding ended in FY 00	<b>B</b> - 134
in 626 fundeu project ureus.	<b>FY 00:</b> Increase use by 25%.	FY 00: Percent above baseline.  CA + 15% CO + 6% FL + 40% OK + 616%	
	<b>FY 99:</b> Increase use by 30%.	RI 0%  FY 99: Percent above baseline.  CA. + 7%  CO + 3%  FL - 8%  OK 250%  RI 0%  FY 98: Percent above	
		baseline.  CA + 4%  CO + 16%  FL + 5%  OK 333%  RI + 325%  FY 97: Baseline: Proportion of children wearing helmets.	
		CA .54 CO .30 FL .62 OK .06 RI .08	

Performance Measure	Targets	Actual Performance	Reference
<b>6.</b> Implement CDC guidelines for design and use of TBI registries in 2 states by 2004; report outcomes	<b>FY 03:</b> Disseminate findings of feasibility study.	<b>FY 03:</b> 12/2003	<b>B</b> - 134
associated with TBI.	<b>FY 02:</b> Determine the feasibility of linking registry data to service provision for persons with TBI.	FY 02: Linkage feasibility projects in 2 states has been completed; one final report has been prepared and one linkage implementation project is in progress.	
	FY 01: Develop a questionnaire for TBI follow-up; collect, analyze and disseminate information on disability and other TBI-related outcomes.	FY 01: Questionnaire developed, data collected and presented at more than 10 conferences, a data book summary of TBI outcomes prepared and disseminated.	
	FY 00: Disseminate report on TBI and public health, with recommendations on use of registries; disseminate TBI brochure.	FY 00: Achieved; Guidelines for registries for collecting follow-up data completed (See FY 99 target).	
	<b>FY 99:</b> Develop guidelines for registries for collecting follow-up data by 2002.	FY 99: Guidelines under development; reviewed surveillance activities in 33 states; 12 states reported use of systems to identify TBI survivors and provide information on services.	
		FY 98: Guidelines under development.	
7. In CDC-funded projects within 14 states (our previous round of state projects), increase the proportion of homes with at least one smoke detector on each habitable floor.  *This data sources has changed from the 1-time CPSC Smoke Detector Survey to the annual National Health Interview Survey	FY 01: 65% FY 00: 60% FY 99: The proportion of homes with at least one smoke detector will be increased from 80% in 1993 to 88% in 1999.*	FY 01: 72% - Achieved FY 00: 69.4% FY 99: 87%*	<b>B</b> - 134

Performance Measure	Targets	Actual Performance	Reference
8. In CDC-funded projects within the 13 states, increase the number of homes with at least one smoke alarm on each habitable floor.	<b>FY 03:</b> 41,600 <b>FY 02:</b> 20,800	FY 03: 12/2003 FY 02: 12/2002 FY 01: Began installation of smoke alarms	<b>B</b> - 134
<b>9.</b> Publish recommendations for conducting and evaluating smoke alarm promotion programs.	FY 03: Publish and disseminate recommendations.	<b>FY 03:</b> 12/2003	<b>B</b> - 134
alarii promotion programs.	FY 02: Complete analysis and	FY 02: Achieved/Began	
	draft recommendations.	implementation.	
	FY 01: Receive data.	FY 01: Achieved	
	FY 00: Publish recommendations.	FY 00: Data analysis in progress.	
	<b>FY 99:</b> Develop recommendations for review.	FY 99: Achieved	
10. Establish demonstration projects to address prevention of violence against women.	FY 03: Modify curricula and research instruments as appropriate and continue interventions.	FY 03: 12/2003	<b>B</b> - 134
	<b>FY 02:</b> Develop a progress report based on pilot testing of research instruments.	<b>FY 02:</b> First year progress reports being analyzed.	
	<b>FY 01:</b> Finalize curricula and research instruments for CDC IRB review.	FY 01: Five (5) of 10 projects received CDC IRB protocol approval.	
	FY 00: Implement/begin evaluation of 2 innovative community-based programs.	<b>FY 00:</b> 10 projects funded <b>FY 99:</b> 0 evaluations	

Performance Measure	Targets	Actual Performance	Reference
11. Increase efficiency and effectiveness of research investments by employing competitive peer-review processes.	FY 03: Fund 1 research project for top-level injury research priority. FY 02: Complete a CDC injury research agenda for defining the scope and priorities for injury research at CDC. All research projects will be peer-reviewed. FY 01: Initiate an injury research agenda development process.	FY 03: 12/2003  FY 02: RFA published to begin FY03 awards.  FY 01: Injury research agenda drafted.  FY 00: Baseline: only investigator initiated extramural grants and Injury Control Research Center applications are peer-	<b>B</b> - 134
12. Develop case definitions for sexual assault.	<b>FY 02:</b> Publish and disseminate case definitions.	reviewed.  FY 02: Definitions currently being revised	<b>B</b> - 134
<b>13.</b> Conduct state training programs.	FY 03: Conduct at least 1 training session based on a needs assessment. FY 02: Assess training needs of sexual assault prevention program staff.	FY 03: 12/2003 FY 02: Conducted needs assessment.	<b>B</b> - 134
14. Establish a research program to address understudied aspects of violence against women (e.g., assess factors of perpetration of IPV that would inform development of interventions and treatment).	FY 03: Begin translating findings to communities.  FY 02: Define the conceptual basis for the study and operationalize study concepts.  FY 01: Address at least 2 understudied topics from the research plan, with a long-term goal of translating findings to communities.  FY 00: Develop a research plan; identify potential research	FY 03: 12/2003  FY 02: Injury research plan is being reviewed.  FY 01: Funds were awarded to support the VAW Prevention Research Center to conduct research.  FY 00: Identified priorities; developed	<b>B</b> - 134
	institutions.	RFP; reviewed applications; made funding decisions.  FY 99: No research plan	

Performance Measure	Targets	Actual Performance	Reference
15. Evaluate the effectiveness of communities with coordinated community responses.	<b>FY 03:</b> Provide technical assistance.	FY 03: 12/2003	<b>B</b> - 134
community responses.	<b>FY 02:</b> Fund additional community based projects.	<b>FY 02:</b> Received data from contractor which is now being analyzed.	
	<b>FY 01:</b> Provide technical assistance.	FY 01: Achieved	
	<b>FY 00:</b> Increase at least 1 measure.	FY 00: Analyzed first set of preliminary data. FY 99: Received data	
16. Establish the capability of state health departments to receive secure transmission of non-identifiable patient data from participating	FY 02: Expand beyond 2 states.	<b>FY 02:</b> Not met/E-government priority shifted.	<b>B</b> - 134
emergency departments.	FY 01: Fund at least one State to strengthen the capability of emergency departments to electronically report data to state health departments.	FY 01: Achieved. 2 states have been funded on a trial basis.	
	•	FY 00: Health departments can not receive secure data transmissions from hospital EDs (baseline).	

### **Program Description and Context**

CDC's injury research and prevention programs protect Americans from harm. Injuries are the leading cause of years of potential life loss before the age of 65. Each year, nearly 150,000 Americans die from injuries and hundreds of thousands are non-fatally injured; many suffer permanent disabilities. Although the greatest cost of injury is in human suffering and loss, the financial costs are staggering; more than \$224 billion a year for medical care and rehabilitation and in lost income.

Despite great progress in injury prevention and control during the past several years, injuries remain an enormous problem in the United States:

- Home fires and falls among older persons cause thousands of deaths and injuries each year and result in high medical costs and substantial property loss.
- An estimated 1.5 million Americans sustain a traumatic brain injury each year. Of these, about 230,000 are hospitalized annually and 50,000 die. An estimated 80,000 to 90,000 people survive a TBI and are disabled.
- Violence among intimate partners continues to result in large numbers of lives lost; each year over 30% of women murdered in the United States are killed by a spouse or ex-spouse.
- Over 1 million children each year are victims of abuse and neglect.

Preventing injuries cost far less than treating them. CDC's science-based approach encompasses: 1) surveillance to find out the extent of the problem, 2) research to determine risk factors, 3) development and implementation of prevention programs, 4) evaluation to find out which interventions work best, 5) support to states and local public health agencies, and 6) partnerships with public and private organizations.

CDC's injury prevention and control program includes three new performance goals which highlight the priority of injury prevention and our ongoing efforts to provide sound scientific information upon which the public and healthcare providers make informed decisions. The performance measures for injury prevention and control reflect CDC's mission to provide leadership in preventing and controlling injuries through surveillance, research, implementation of programs, and communication of prevention messages.

#### **Program Performance Analysis**

I. Building Strong Injury Prevention and Control Programs to increase the capacity of injury prevention and control programs to address the prevention of injuries and violence.

Core Injury Prevention Programs - Partnerships with state and local agencies are essential to CDC's injury prevention efforts. These agencies provide critical data about injuries, offer an important perspective on how injuries affect communities nationwide and help reach local communities. State injury prevention programs lead and coordinate injury prevention efforts or provide critical support for specific injury prevention activities. Injury prevention programs focus on five core areas: data collection and analysis; program design, implementation and analysis; coordination and collaboration; technical support and training, and public policy. CDC began building core injury programs in states in 1999 by funding health departments in 4 states. Since then, CDC has provided limited funding to 27 states for injury prevention activities, including basic surveillance functions. Monitoring and tracking injuries is one of the first and most basic elements of injury prevention and control. It assists program managers in determining the magnitude of injury problem and identifies the population groups and behaviors at greatest risk of injury.

<u>Fire Prevention</u> – The United States has the third highest death rate from fires of any industrialized country. Fires and burns are the sixth leading cause of unintentional injury death in this country. About 40% of home fires reported to U.S. fire departments and 52% of home fire deaths occurred in homes with no smoke alarms. House-fire death rates are highest for children under age 5 and for adults older than 65. Death rates for Blacks and Native Americans are more than twice the rate for whites. Working smoke alarms on every level give residents enough warning to escape nearly all types of fires. If a fire occurs in a home, a working smoke alarm can reduce the risk of death by about 50%.

Although alarms provide an early warning, they do not prevent fires. More education is needed about escape plans and fire prevention. Since 1996, CDC has collaborated with the National Fire Protection Association, the U.S. Consumer Product Safety Commission, United States Fire Administration and others to develop and test an educational program to reduce the incidence of fire- and fall-related injuries among older adults.

CDC funds 13 states to conduct smoke alarm installation programs coupled with fire safety education for home-fire deaths. The goal of this program is to increase the proportion of households, in state-funded projects, with functional smoke alarms, particularly those at highest risk for fire deaths and injuries. Project staff identify high-risk homes and target populations under age 5 and over 65. Health departments work with fire departments and community-based organizations. In 3 years, CDC's installation/education program has installed over 116,000 smoke alarms in program homes and over almost 350 lives have been saved by early warning from a smoke alarm.

Rape Prevention and Education - CDC estimates that more than 450,000 rapes occur each year. CDC addresses this problem by supporting every state and territory through the rape prevention and education grant program. CDC provides resources and assistance to states for rape prevention and education programs conducted by rape crisis centers, state sexual assault coalitions, and other public and private nonprofit entities. Resources are used for: 1) educational seminars, 2) operation of hotlines, 3) staff training, 4) informational materials, 5) education and training of students and campus personnel at colleges and universities, 6) education and training to increase awareness about drugs that facilitate rapes or sexual assaults, and 7) other efforts to increase awareness about or prevent sexual assault. CDC assists state and coalition staff through training opportunities, support for the National Sexual Violence Resource Center, and research to learn what works in preventing rape.

<u>Violence Against Women Prevention</u> - Each year, 2 million American women experience domestic or sexual violence; 75% of these women are assaulted by their intimate partners. Female victims of violence often have physical and mental health problems and use healthcare facilities more than non-victimized women. CDC's long-term goal of reducing the incidence of violence against women may take many years to achieve. In the interim, an ongoing system is needed to monitor the problem, improve the level and scope of prevention and intervention services, evaluate what works and communicate what we know to service providers, and gain a greater understanding of the social norms that allow violence against women. The short-term goal is to develop surveillance, communications, and evaluation/feedback systems that will speed reductions in the incidence of violence against women.

CDC has 10 projects that work in communities to improve coordination among social, legal, justice, public health, and other agencies to respond to violence against women. Because special interventions are needed to reach specific under served populations, CDC supports 10 innovative demonstration projects to implement and evaluate culturally appropriate approaches to prevent violence against women. CDC is also extending efforts to hard-to-reach groups. CDC funded California health workers to implement an award-winning training program to teach migrant women to address domestic violence. CDC is evaluating and replicating this program in Wisconsin and Texas.

#### II. Monitoring and Tracking Fatal and Non-Fatal Injuries

**Traumatic Brain Injury** - CDC data indicate that approximately 1 million Americans are treated for traumatic brain injury (TBI) in hospital emergency departments (ED) annually, with a rate of 390 TBI-related ED visits per 100,000 per year. An estimated 230,000 people are hospitalized with TBI and 50,000 die. Among children under 14 years of age, 3,000 die with TBI, 29,000 are hospitalized and another 400,000 receive treatment in the ED. Teens, young adults and people over age 75 are far more likely than others to die of TBI. Many of these deaths are preventable.

Since 1994, CDC has funded more than 15 state health departments to report the number of people who die or are hospitalized with a TBI. Surveillance data from 14 of these states documented hospitalization rates for TBI of about 90 per 100,000 population and death rates of about 18 per 100,000. Males represent two thirds of hospitalized cases. Roughly half of TBI hospitalized cases resulted from motor vehicle crashes, another 25% resulted from falls, and about 6% from non-firearm assaults.

CDC also funds a follow-up registry in one state to describe TBI-related disability and the need for and barriers to receiving services among older adolescents and adults. CDC is currently funding research to determine the best measures for a follow-up registry of children.

CDC and States will continue to use data from the surveillance system to guide the development of Traumatic Brain Injury (TBI) programs. CDC will continue TBI follow-up registries to understand better the longer term impact of TBI on and to explore ways to link people with TBI to services. CDC will improve public awareness of TBI by providing information on the treatment, outcomes, and resources available for persons with less severe TBI. The TBI surveillance system (12 states are being funded in FY 2003 at approximately \$118,000/state) will continue to have a substantial local impact -- State TBI data have been used to target prevention programs for falls, All Terrain Vehicles, snowmobiles, and suicide. In addition, data from state TBI surveillance systems have been used to increase resources available for persons with a TBI.

National Electronic Injury Surveillance System - The National Electronic Injury Surveillance System (NEISS), funded by CDC in collaboration with the U.S. Consumer Product Safety Commission (CPSC), provides injury data from inner city, urban, suburban, rural and children's hospitals. NEISS collects data on nonfatal injuries related to consumer products and recreational activities, and was expanded to include data about all nonfatal injuries treated in hospital emergency departments. CDC uses NEISS data to generate national estimates of nonfatal injuries in the U.S. and to guide decisions and policies about injury prevention and control.

National Violence Death Reporting System - CDC implemented the National Violent Death Reporting System (NVDRS) in FY 2002 with a funding level of \$2.25 million. Current surveillance systems tell us nothing about the circumstances leading up to suicides, nor do they give us a full picture of homicides: where they occurred, what specific weapon type was involved, and what multiple factors led to the killing. The NVDRS data will provide answers to questions such as:

- What proportion of women killed in domestic violence attacks had restraining orders against the offenders;
- How often do child-abuse fatalities occur;
- Where do youths obtain the weapons they use in acts of violence;
- How often do murder-suicides occur;
- What are the tree most common circumstances leading to accidental gun deaths among children and to overdose suicides among teenager;
- What proportion of suicide victims are intoxicated at the time they kill themselves; or
- What proportion of homicides are drug-related in any way?

<u>Child Maltreatment</u> - Over 1 million children each year are victims of maltreatment. CDC funds four state-based mortality surveillance projects (MI, CA, RI, MN) to compare alternative approaches to surveillance for fatal and nonfatal child maltreatment and three state-based morbidity surveillance projects (CA, MO, RI) to test methods that may be employed for the surveillance of violence at all ages.

The Child Maltreatment/Suicide/IPV/SV Data Collection Pilot continues a pilot test to collect epidemiologic information on child maltreatment, suicide, IPV and SV. Emergency Department visits include frequency of visits, injury details, multiple injury data, and social services referral information.

#### III. Prevention Research

Injury Prevention and Control Research - The CDC injury prevention and control research program funds and monitors extramural and intramural research in three phases of injury control: prevention, acute care, and rehabilitation. Research supported by the program focuses on the need to reduce morbidity, disability, death, and costs associated with injury. CDC's extramural research program supports individual, investigator-initiated research that is targeted to a specific studies; eleven research centers for broad-based injury control, ten centers for youth violence prevention, one center each for prevention of suicide and violence against women, and grants for small business innovative research. CDC also conducts evaluation research to ascertain the efficacy and effectiveness of interventions and other factors which put people at risk for injury. The extramural program supports a productive and relevant research portfolio and uses a peer review approach which is based on review by the Injury Research Grant Review Committee (IRGRC). The IRGRC is composed of experts in injury-related scientific disciplines or current research areas that enables their evaluation of the scientific and technical merits of grant applications. The value of CDC's injury prevention and control research is demonstrated in the long-term results of the research and educational activities it supports.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 246,329 Estimate

**FY 2003:** \$ 247,580 President's Budget

**FY 2002:** \$ 275,808 Enacted

#### II-L. Occupational Safety and Health

# Research Goal-by-Goal Performance Measurement

**Performance Goal:** Conduct a high quality research program in occupational safety and health that advances scientific knowledge and provides technically and economically utilizable results to workers, employers, other agencies, and the scientific community on occupational diseases, workplace hazards, risk factors, and effective methods of prevention.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the relevance of occupational safety and health research for future improvements in workplace protection.	FY 04: Increase relevance metric score by a percentage to be determined by '03 baseline study.	FY 04: Fall 2005 (biennial review)	B - 140 HHS - 4.1 HP - 20
	FY 03: Conduct baseline evaluation among safety and health professionals of NIOSH research relevance for practical workplace results	FY 03: Fall 2003	
2. Ensure the quality of occupational safety and health research as measured by peer review.	FY 04: 70% of new internal research programs and 80% of research grants and cooperative agreements result in peer reviewed publications within one year of project completion.  60% of new internal research projects and 90% of new research grants and	FY 04: Fall 2004	B - 140 HHS - 4.1 HP - 20
	cooperative agreements are reviewed by external peer review at project inception.		

## Research continued

Performance Measure	Targets	Actual Performance	Reference
(Continued)	FY 03: 60% of new internal research projects and 70% of research grants and cooperative agreements result in peer reviewed publications within one year of project completion.  40% of new internal research projects and 90% of new research grants and cooperative agreements are reviewed by external peer review at project inception.	<b>FY 03:</b> Fall 2003	
3. Increase intramural and extramural research in NORA priority areas, and ensure the quality and relevance of the research.	FY 02: Maintain large-scale intramural research programs in targeted NORA areas. Establish a measure of success for extramural activity.  Maintain FY 01 funding; maintain intramural research; evaluate intramural research through NIOSH Board of Scientific Counselors or other external mechanism.	FY 02: Maintained large-scale intramural research programs in targeted NORA areas.  Funded a total of 170 extramural NORA grants.  Funded 57 new NORA grants.  Exceeded FY '01 NORA funding: Extramural \$44.1 million; Intramural \$50.7 million  Funded 11 peer-reviewed new NORA projects totaling \$1 million	<b>B</b> - 140

## Research continued

Performance Measure	Targets	Actual Performance	Reference
3. Continued	FY 01: Increase FY 00 funding by 12%; establish 2 additional intramural research programs in targeted NORA areas.	FY 01: Extramural \$40.8 million; Intramural \$47.9 million. Exceeded target. Established 4 large-scale intramural NORA programs (Organizational Risk Factors for Depression and CVD, Occupational Traumatic Injury Prevention and Identifying Effective Hearing Loss Prevention Strategies, and Strategies to Prevent Injuries Among Health Care Workers (Nurses).	
	FY 00: \$32.7 million in extramural grants; \$42.8 million in intramural projects.	FY 00: Extramural: \$32.7million; Intramural \$42.8 million; 3 large-scale intramural programs.	
<b>4.</b> Expand involvement of other federal agencies in NORA-related research.	FY 02: Track funding of other federal agencies in NORA-related research;	FY 02: Federal funding of other agencies will be available 5/2003	<b>B</b> - 140
	seek funding partners for grants and cooperative agreements; co-sponsor 5 research and scientific conferences.	14 federal agencies partnering in NORA grant/cooperative agreement funding, a 79% increase since FY 1998.	
		Met target. Co-sponsored 5 research and scientific conferences	
	FY 01: Increase over FY 00; co-sponsor 3 research and scientific conferences with other federal agencies.	<b>FY 01:</b> Exceeded target, 9 research and scientific conferences	
	FY 00: Increase over FY99.	<b>FY 00:</b> \$51 mil. reported by other federal agencies for NORA-related funding	

### Research continued

Performance Measure	Targets	Actual Performance	Reference
4. Continued	FY 99: Determine current levels of CDC and other agencies' intramural and extramural research funding in NORA areas as a baseline, and calculate annual increases.	FY 99: In 1998, other federal agencies reported \$23.4 million for NORA- related funding.	
5. Increase the science base for occupational safety and health through publications, innovations, and research partnerships.	FY 02: Increase the number of peer-reviewed publications by NIOSH and NIOSH-sponsored researchers; increase the number of NIOSH innovations.  FY 01: Establish baseline of peer-reviewed publications of NIOSH-sponsored researchers; establish baseline for NIOSH innovations such as inventions and technology developments.	FY 02: Complete Peerreviewed publication data will be available 1/2003  Published 281 peer-reviewed journal articles  * FY '01 publications reflects the baseline number of bibliometric counts of publications across the federal government related to NORA's 21 Priority Areas  5 employee invention reports submitted to CDC; 5 U.S./foreign patents issued; 4 new MOUs, 5 MOUs renewed, 2 innovations  FY 01: 1) Baseline of 42,300 pubs. for '93-95 established. (2) Baseline for NIOSH innovations: 3 devices, 3 training videos, 9 new patents and 58 continuing patents.	B - 140

#### Research continued

Performance Measure	Targets	Actual Performance	Reference
<b>6.</b> Demonstrate impact of NORA on research activity through bibliometrics and other proxy measures, such as accomplishments of NORA partnership teams.	FY 02: Continue to track frequency of publications in NORA priority areas and NORA team products, including publications, scientific meetings, etc.	FY 02: (1) 43 NORA publications, (2) 55 NORA peer-reviewed articles, (3) 13 Team Products, (4) 23 NORA Team meetings.	B - 140
	FY 01: Begin to track frequency of peer-reviewed publications in selected NORA priority areas for 1996-2000; track NORA team products, including publications and scientific meetings.	FY 01: Specific NORA topic areas with increases greater than 30% between the baseline period and 1998-2000 included Asthma/Chronic Obstructive Pulmonary Diseases, Health Services Research, Intervention Effectiveness Research, and Risk Assessment Methods.	
	FY 00: Establish baseline bibliometrics/citation counts for all NORA areas.	FY 00: Achieved/baseline established for 9 remaining priority areas; early reviews for FY97-99 show a 26% increase in NORA-related publications.	
	<b>FY 99:</b> Establish protocol on the use of bibliometrics and other proxy measures.	FY 99: Established baseline protocol using NLM and Institute of Scientific.	

<u>Validation/Verification of Performance Measures:</u> Information will be reported through the Project Planning System of the CDC Integrated Resources Information System (IRIS). CDC senior scientists will review all data for accuracy. Baseline data and data for subsequent years are collected in the same format to ensure accurate comparisons. Partnering efforts have increased the ability to track resources outside the organization.

## Tracking Work Injuries, Illnesses, and Hazards Goal-by-Goal Performance Measurement

**Performance Goal:** Increase the capacity for the collection and use of information on the occurrence and frequency of work injuries, illnesses, and hazards in order to access the actual burden of occupational injuries and illnesses.

Performance Measure	Targets	Actual Performance	Reference
1. Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; and measuring the success of implemented intervention strategies.	FY 04: Evaluate the role that tracking information had in designing research and intervention projects, as well as the role that follow-up tracking information can have in assessing the success of interventions.	FY 04: Fall 2004	B - 140 HHS - 1.6 HP - 20.7
	Heightened utilization of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 4%		
	FY 03: Establish a baseline by identifying those research and intervention projects that were based upon tracking information.	<b>FY 03:</b> Fall 2003	
	Identify NIOSH intervention programs that have used tracking information to demonstrate success of the intervention strategy.		
	Heightened utilization of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by establishing a baseline of the number of persons per 100,000 employed with elevated blood lead levels of 25 mcd/dL or greater.		

## Tracking continued

Performance Measure	Targets	Actual Performance	Reference
2. Implement the strategic plan, and seek opportunities for enhancement via stakeholder interaction.	FY 02: Increase stakeholder activities.  FY 01: Establish baseline	FY 02: Best Practices in Workplace Surveillance Conference held in November 2001.  Launched a new internet site Work-Related Injury Statistics Query System http://www2.cdc.gov/riqs/to expand access to surveillance data for public health action through partnership with the Consumer Product Safety Commission and the National Electronic Injury Surveillance System (NEISS)  Extramurally funded Occupational Health Surveillance of Low Income, Minority Populations through Community Health Centers to evaluate feasibility of collecting occupational health data and to promote occupational prevention measures through community health centers.  FY 01: Established baseline	B - 140
	for stakeholder activities.		

### Tracking continued

Performance Measure	Targets	Actual Performance	Reference
3. Collect, analyze, and disseminate tracking data on occupational illnesses, injuries, and hazards.	FY 02: Publish tracking reports on 2 topics annually; target 1 national activity annually; prepare/distribute public use data sets.	FY 02: Published Soluciones Simples: Ergonomia Para Tabajadores Agricolas that provides guidelines and tip sheets for Spanish-speaking farm workers, employers, and safety professionals; Surveillance and Prevention of Occupational Injuries in Alaska: A Decade of Progress, 1990- 1999; Administered a \$11.8 million contract to compile medical findings from workers and volunteers who participated in rescue and recovery efforts at the World Trade Center. Published 5 Worker Health Chartbooks that provide comprehensive data and summaries on the nature and prevalence of specific work-related illnesses, injuries, and deaths. Traumatic Occupational Injuries Topic Page released. This electronic 'Topic Page' includes pages on construction, confined spaces, etc. as well as data sets.  Workshops/Conferences: Identify and Assess Priorities, Strategies and Methods for Surveillance of Health and Safety Hazards in the Health Services Industry. Best Practices in Workplace Surveillance: Identification and Tracking of Workplace Injury, Illness,	B - 140 HP- 20.1, 20.2
	(Continued)	Exposures, and Hazards workshop cd available.	

#### Tracking continued

Performance Measure	Targets	Actual Performance	Reference
3. Continued	FY 01: Initiate web-based data dissemination; pilot improved data collection methods; initiate hazard surveys, by workforce sector.	FY 01: Achieved, websites created: Farm Family Health and Hazard Survey (http://www2.cdc.gov/ffhhs//) National Electronic Injury Surveillance System (February 2002 launch date) National Surveillance System for Pneumoconiosis Mortality (http://mtn.niosh.cdc.gov/drds/sb/nsspmhlp.htm) Access to data from the Mine Safety and Health Administration. (future launch date)	
	FY 00: Collect, analyze, and disseminate data.	FY 00: Achieved. <i>Injury, Illness and Hazard Exposures in Mining Industry 1986-1995</i> was released in Summer 2000. MMWR article collected through the Toxic Exposure Surveillance System (TESS) published 6/9/00, Vol 29.	

<u>Validation/Verification of Performance Measures</u>: Information will be reported through the Project Planning System of CDC's Integrated Resources Information System (IRIS) and CDC-NIOSH's Adult Blood Epidemiology Surveillance Program (ABLES) database. CDC senior scientists and epidemiologists will review all data for accuracy.

# Information, Training, and Capacity Building Goal-by-Goal Performance Measurement

**Performance Goal:** Ensure safer and healthier work environments for all Americans through information dissemination, knowledge transfer, and training.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the quality, relevancy, and usefulness of NIOSH information and recommendations to occupational safety and health professionals, workers, employers, government, the scientific community, and the public.	FY 04: Increase use of NIOSH information and recommendations by occupational safety and health professionals, workers, employers, government, the scientific community, and the public (by percentage to be determined by '03 baseline study.)  FY 03: Establish baseline.	<b>FY 04:</b> Fall 2004 <b>FY 03:</b> Fall 2003	B - 140 HHS - 4.4, 8.5
2. Increase the percentage of	FY 04: Increase by 3% the	FY 04: Fall 2004	<b>B</b> - 140
people with safety and health responsibilities who have academic or continuing education training	number with training  FY 03: Establish baseline	FY 03: Fall 2003	HHS - 4.3
3. Transfer scientific and technical information to employers, workers, the public, and the occupational safety and health community.	FY 02: Seek improvement. In addition to seeking improvement, create baseline measure for the # of requests for information via the web, telephone, and mail in Spanish.	FY 02: 10,704 requests for information via web, 117,500 requests via telephone and 4,587 requests via mail.  Established baseline for Spanish website: 253 requests for information the web, 157 requests via telephone and 2 requests via mail.	B - 140
	FY 01: Baseline level of information transferred via web-, telephone-, and print-based requests; quarterly review of NIOSH website.	<b>FY 01:</b> 11,000 requests for information via web, 20,000 requests via telephone and 5,000 requests via mail.	

### Capacity Building continued

Performance Measure	Targets	Actual Performance	Reference
<b>4.</b> Conduct, arrange, and sponsor technology transfer and training sessions.	FY 02: Set target.	FY 02: 77 technology transfer/training sessions given, 3 training videos released.	<b>B</b> - 140
	FY 01: Establish baseline	<b>FY 01:</b> 28 training sessions given, 3 training videos released.	
<b>5.</b> Support capacity-building activities.	FY 02: Increase through establishment of NPPTL and OCAS.	FY 02: Increased capacity-building activities with 16 new partnerships through NPPTL and OCAS. Continued capacity building with NORA partners.	<b>B</b> - 140
	<b>FY 01:</b> Establish baseline.	FY 01: Baseline of 500 Partners supporting NORA efforts.	
<b>6.</b> Support training for occupational safety and health professionals.	FY 02: Continue support.	FY 02: 16 ERC's in 15 states, totaling \$15.4 million; 42 TPGs in 28 states and Puerto Rico totaling \$3.1 million, and continued to fund 10 Ag Centers totaling \$7.3 million.	<b>B</b> - 140
	<b>FY 01:</b> Continue support.  (Continued)	FY 01: 16 ERC's in 15 states, totaling \$14.7 million,\$2.9 million with 35 TPG's in 24 states plus Puerto Rico.	

### Capacity Building continued

Performance Measure	Targets	Actual Performance	Reference
6. Continued	FY 00: Continue support.	FY 00: 1 new ERC for a total of 16 in 15 states, totaling \$11.9 million; established Heartland Center for Occupational Health and Safety at the University of Iowa for Training Program Grants \$2.3 million with 35 TPGs in 22 states plus Puerto Rico.	
		FY 99: \$10.3 million to 15 ERCs in 14 states; \$2.6 million to 41 training program grants in 26 states/territories.	
7. Review a sample of documents, training materials, and communication efforts, and begin implementation of findings.	FY 02: Continue to review and implement findings.	FY 02: Disseminated 3,206 videos or DVDs on TB related training, 1,100 videos on various training topics. Expanded and improved access to NIOSH bibliographic information on website through NIOSHHTC-2 database. Added 2,000 pages to the NIOSH website, made 64 topics on various occupational safety and health readily available on the web. Developed web pages to disseminate data from Best Practices in Workplace Surveillance http://www.cdc.gov/niosh/sbw. Communicated NIOSH findings at 101 major OSH presentations. Disseminated 1 new training package for respirators "Care and Maintenance of the SR-	<b>B</b> - 140
	(Continued)	and Maintenance of the SR-100 SCSR.	

#### Capacity Building continued

Performance Measure	Targets	Actual Performance	Reference
7. Continued	FY 01: Continue implementation of findings.	FY 01: Over 20,000 copies distributed of The NIOSH Pocket Guide to Chemical Hazards - CD-ROM version was the most requested NIOSH publication.	<b>B</b> - 140
	FY 00: Continue to review a sample of documents, training materials, and communication efforts, and begin implementation of findings.	FY 00: Distributed >34,000 copies of Preventing Needlestick Injuries in Health Care Settings, produced a video for healthcare workers, Respirators: Your TB Defense.	
	FY 99: Review the most widely distributed training materials to ensure readability, clarity, and usefulness for intended user	FY 99: Analyzed data and reported preliminary results of an evaluation of the NIOSH latex allergy alert; updated 30 analytical methods, based on a survey of 347 laboratories.	

Validation/Verification of Performance Measures: CDC will obtain data from internal reviews and will use Efficiency and Effectiveness Ratio Evaluations to compare actual to planned results.

# Prevention Activities through Evaluation, Safety and Health Interventions and Recommendations Goal-by-Goal Performance Measurement

**Performance Goal:** Increase safety and health in the workplace by demonstrating, communicating, and promoting technically and utilizable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities.

Performance Measure	Targets	Actual Performance	Reference
1. Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors.	FY 04: 3% reduction of non-fatal injuries among youth ages 15-17; 5% reduction of work-related fatalities among youth ages 15-17; and 5% reduction in the annual number of silicosis deaths among U.S. residents age 15 and older.	<b>FY 04:</b> Fall 2004	<b>B</b> - 140 <b>HHS</b> - 1.6 <b>HP</b> 20.1, 20.2, 20.4
	FY 03: Establish baseline incidence rates of nonfatal injuries and work-related fatalities among youth ages 15-17; establish baseline for the annual number of silicosis deaths among U.S. residents age 15 and older.	<b>FY 03</b> : Fall 2003	
2. Increase workplace utilization of control and personal protective technologies in targeted sectors.	FY 04: Increase the number of professional firefighters equipped with CBRN certified respirators to 15%; increase the percentage of U.S. pavers with installed engineering controls by 7% over the '03 level.	<b>FY 04:</b> Fall 2004	<b>B</b> - 140 <b>HHS</b> - 2.2
	FY 03: Increase the number of professional firefighters equipped with CBRN certified respirators to 5%; establish baseline percentage of U.S. pavers with installed engineering controls.	FY 03: Fall 2003	

Performance Measure	Targets	Actual Performance	Reference
3. Respond to requests for workplace evaluations from employers, workers, and others while providing practical advice to address problems.	FY 02: Conduct site visits for at least 30% of HHE requests; provide consultation for the rest; conduct follow-up assessments via the HHE Effectiveness Evaluation Program with periodic data analysis/reports.	FY 02: Received 445 HHE requests and completed 389* (87%) of submitted requests. Conducted site visits for 15% (N=67) of HHE requests* and distributed 299 technical assistance letter reports conveying appropriate documents, guidelines, and recommendations. Distributed 422 follow-up surveys to past program consumers via the HHE Effectiveness Evaluation Program.  * See performance summary for decrease in number of completed HHEs and site visits.	<b>B</b> - 140 <b>HHS</b> - 1.6 <b>HP</b> - 20.2, 20.3, 20.7, 20.8, 20.10, 20.11
	FY 01: Report on results from the HHE Effectiveness Evaluation Program.	<b>FY 01:</b> Responses received reflected positive feedback (see performance summary).	
4. Provide scientific support for policy development, testimony, and non-regulatory initiatives.	FY 02: Seek improvement.  (Continued)	FY 02: Published 31 documents that provided support for policy development, testimony, and non-regulatory initiatives. Published 2 final rules related to Dose Reconstruction, 1 Congressional progress report on residual Radioactive and Beryllium Contamination, notice of proposed rulemaking related to the implementation of the Special Exposure Cohort (SEC).	<b>B</b> - 140

Performance Measure	Targets	Actual Performance	Reference
4. Provide scientific support for policy development, testimony, and non-regulatory initiatives.	FY 01: Establish baselines for number of international collaboration on occupational safety and health documents and criteria documents.	FY 01: Helped publish Concise International Chemical Assessment documents (CICADS), International Safety Cards (ICSC), and a criteria document on Occupational Exposure to Asphalt Fumes.	<b>B</b> - 140
5. Evaluate the extent to which recommendations are being implemented.	FY 01: Complete reports and analysis.	FY 01: The NIOSH FFIP report describes fire fighting activities in a vacant building and the subsequent outcome, and provides prevention recommendations which may be applicable to all fire departments in the U.S. Six Career Fire Fighters Killed in Cold-Storage and Warehouse Building Fire - Massachusetts. published.	<b>B</b> - 140
	FY 00: Begin evaluation.	FY 00: Conducted FFIP investigations; published prevention and intervention activities on website.	
	FY 99: Design and implement 2 model information dissemination and training programs for target hazards/populations; with partners, develop a system to assess/determine a baseline and increase the use of CDC-recommended exposure limits.	FY 99: Developed and implemented training curricula on electrical safety for vocational and technical education; developed and implemented training program to prevent hearing loss in miners; initiated evaluation of use of CDC-recommended exposure limits.	

<u>Validation/Verification of Performance Measures:</u> NIOSH will obtain data from surveys of a representative sample from the occupational safety and health community and will develop evaluation reports for targeted intervention programs.

#### **Overarching Program Description and Context**

In an effort to create a more results-oriented and "user friendly" report, NIOSH has phased out its FY 2002 output-based performance measures and developed new outcome-focused performance measures that provide clear linkages to the NIOSH strategic plan, HHS goals, Healthy People 2010, and the President's Management Agenda. With a new set of performance measures supporting these federal agendas, NIOSH will continue leading the nation in occupational safety and health research and prevention.

Congress charges CDC with developing ways to improve and protect the health and safety of the American workforce. CDC's National Institute for Occupational Safety and Health (NIOSH) is the federal entity responsible for conducting research on and making recommendations for the prevention of work-related illness and injury. As the government's primary scientific organization that focuses on occupational safety and health, NIOSH succeeds in reaching its goal of reducing workplace injury, illness, and death only through the efforts of its partners. While proud of its own proven contribution to reducing injuries and illnesses, credit must be shared with NIOSH's public, private, and non-profit partners.

Americans are working more hours than ever before in environments that profoundly affect their health and safety. Despite improvements over the last several decades, numerous occupational injuries, illnesses, and deaths continue to occur on a daily basis. On average, 9,000 workers suffer disabling injuries on the job every day. Out of these 9,000 injured workers, 16 will die daily. In addition, occupational related diseases take the lives of 137 American workers every day. The economic burden of occupational injuries, illnesses, and violence is costly - the annual costs of occupational injuries alone are estimated to be \$240 billion (*The Liberty Mutual 2002 Workplace Safety Index*)

NIOSH strives to reduce the incidence of occupational injuries and illnesses with an integrated national program that includes: tracking, research, workplace interventions, information dissemination, training, and capacity building. Through its tracking component, NIOSH identifies and monitors high risk workplace situations/environments and worker populations. NIOSH research focuses on developing new products and knowledge aimed at reducing occupational injury, illness, and death. Through its capacity building, NIOSH helps develop the capabilities of those individuals and agencies on the frontlines within the field of occupational safety and health through training and disseminating current and applicable occupational safety and health information to state and local health agencies, industrial hygienists, colleges/universities, and other safety and health professionals. Within the area of workplace interventions, NIOSH brings tools, techniques, information, and procedures into the workplace that are intended to improve the health and safety of workers. Thus reducing occupational injuries and illnesses, and ultimately saving lives.

#### **Program-Specific Performance Analyses**

# Research Program Performance Analysis

NIOSH is responsible for conducting research on the full scope of occupational disease and injury, from basic research on mechanisms and etiology of occupational diseases, to applied research on specific ways to prevent disease and injury in the workplace. The goal is to provide high quality, relevant research that advances scientific knowledge and provides results that are technically and economically useful to workers, employers, governmental agencies, and the scientific community. These research results can then be applied to improve workplace safety and diminish health hazards, thereby helping to prevent injuries, death, and disability. While maintaining the high quality of research is in itself a priority, it is also recognized that research results are not useful unless they are translated into practice in the workplace, and ultimately result in improved worker safety and health.

NIOSH has traditionally ensured relevance of its research program through broad stakeholder and customer involvement in priority setting activities. For example, approximately 500 groups and individuals were involved in the development of the National Occupational Research Agenda (NORA). This broad-based initiative focuses on 21 priority areas in three categories: disease and injury, work environment and workforce, and research tools and approaches. To date, 17 scientific organizations have replicated aspects of the NORA process. To extend the research and impact of NORA and to leverage federal research dollars, CDC developed joint funding opportunities with other federal agencies. These government partnerships grew from 3 in 1998 to 14 in FY 2002. The success of the NORA partnership was highlighted by its selection as a semi-finalist in the 1998 Innovations in American Government Award and continues to be a model program for innovative research practices. Both Maine and California have modeled the NORA process to develop occupational research agendas at the state level. NORA is also being replicated within academic settings as exemplified by the University of Washington's Pacific Northwest Agriculture Safety and Health Center's multi-disciplinary research agenda.

NIOSH has a strong record of evaluating the quality of its research through external peer review. Currently over 90% of all grants and cooperative agreements are awarded by scientific merit based peer review, and a significant and increasing percentage of internal NIOSH research projects are reviewed at inception by external scientific experts.

While the current efforts for ensuring quality and relevance are a good start, the new performance measures for FY 2003 and FY 2004 will greatly expand these activities in a systematic and measurable way. The quality and relevance of NIOSH research will be measured using (1) retrospective evaluation of translation of research finding to occupational safety and health practice, (2) retrospective evaluation of research for relevance to workers and employers, and (3) metrics of peer review for research projects at inception and at dissemination stages.

#### Tracking Injuries, Illnesses, and Hazards Program Performance Analysis

Note: In FY 2004, NIOSH will be shifting from using the term "surveillance" to "tracking." For the purposes of this report, both terms will be used, reflecting current and future efforts in tracking work injuries, illnesses, and hazards through surveillance.

Occupational safety and health surveillance provides information on the occurrence and frequency of work injuries, illnesses, and hazards to safety and health organizations and professionals, researchers, employers and workers. The goal for tracking work injuries, illnesses and hazards at NIOSH is to accurately and thoroughly identify workplace illness and injury. To help meet this goal, CDC supports several state-based surveillance activities and maintains national databases of occupational injuries and fatalities. Linked to this health information is the identification of exposures to hazards that can lead to illness and injury. With this health and hazard surveillance information, specific research initiatives can be undertaken to understand the relationships between exposures and health outcomes. In turn, intervention strategies are then developed and implemented to reduce illness and injury.

During FY 2002, NIOSH was able to show the connection between surveillance and intervention by publishing several key documents. After a decade of surveillance activity in Alaska, NIOSH published *Surveillance and Prevention of Occupational Injuries in Alaska: A Decade of Progress, 1990-1999*, which highlights the Institute's collaborative efforts to reduce work-related fatalities in the state of Alaska. To educate the rising Hispanic worker population, NIOSH also provided Spanish speaking agriculture workers with intervention strategies based on surveillance findings through *Soluciones Simples: Ergonomia Para Tabajadores Agricolas.* 

In FY 2002, as part of its post September 11<sup>th</sup> terrorism response and preparedness efforts, NIOSH administered a \$11.8 million contract with the Mt. Sinai School of Medicine to identify and assess symptoms, injuries, or conditions that may indicate long-ter, physical and/or mental illnesses in workers and volunteers who participated in rescue and recovery efforts at the World Trade Center site. A database was also established to compile medical findings, allowing researchers to assess potential occupational illness and injury patterns among World Trade Center rescue workers and volunteers through surveillance data.

#### Information, Training, and Capacity Building Program Performance Analysis

NIOSH is charged with maintaining the national cadre of occupational safety and health professionals. To this end, NIOSH maintains a program that trains professionals through extramural funding of Education and Research Centers (ERCs) and Training Project Grants (TPGs). Each year, over 500 students graduate from these programs, with training in nursing, industrial hygiene, and safety engineering. Within the ERCs, CDC funds more than 1,000 continuing education courses in occupational safety and health each year. Along with its ERCs, NIOSH also focuses on developing training materials for particular groups - specifically miners and young and new workers. In conjunction with its capacity building efforts, NIOSH has evaluated this effort and the nation's capacity most recently through the funding of the Institute of Medicine review and report, *Safe Work in the 21st Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel.* This report will also serve to focus future efforts in NIOSH's capacity building efforts.

Additionally, NIOSH engages in capacity building activities by means of information dissemination. CDC distributes >1 million paper copies of documents annually and also makes information available through the NIOSH website. In FY 2002, NIOSH received 10,704 requests for information via the web, 117,500 requests via telephone, and 4,587 requests via mail. To increase its information dissemination efforts to the growing number of Hispanic laborers within the U.S. workforce, NIOSH launched a Spanish version of its website in FY 2002. After its launch in December 2001, the website received 253 requests for information via the web and 157 requests via telephone during FY 2002.

# Prevention Activities through Evaluation, Safety and Health Interventions and Recommendations Program Performance Analysis

NIOSH conducts and participates in a variety of activities directed to achieve reductions in work-related injuries and illnesses. Work-related injuries, illnesses, and impairment comprise a substantial component of the total burden of injury and illness in the United States, including injuries and fatalities among children and youth, adult injuries and fatalities (including violence, chronic diseases among adults and elderly), and impairment and disability among the elderly. The principal intervention activities targeting reductions in this burden include the following: (1) health communications; (2) control technology assessment and technology transfer (patents, CRADAs, intervention demonstration projects); (3) educational outreach through partner organizations; (4) participation in national and international voluntary standard-setting groups; and (5) the provision of scientific information and science-based recommendations to safety and health regulatory agencies and programs of the U.S. Department of Labor, the U.S. EPA, the Department of Transportation, and other federal organizations.

The principal goal of intervention activities is the use of technically and economically utilizable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities. This goal can best be achieved through close integration with NIOSH surveillance and research activities. Using surveillance data, for example, NIOSH conducts intervention studies that target high-risk industries and occupations with the highest incidence of workplace injuries and illnesses.

Currently, NIOSH has several programs that specifically address workplace safety and health interventions. Each year, CDC's NIOSH Health Hazard Evaluation Program (HHE) conducts an estimated 300 investigations of occupational health problems at work sites in response to requests from employers, employees, and other government agencies. As a result of HHE staff's heavy and continuous involvement in post September 11th terrorism response and preparedness efforts, the HHE program experienced a decrease in completed HHEs and site visits. In FY 2002, the HHE program completed 389 HHE requests, a 7% decrease since last FY, and conducted 67 site visits, a 26% decrease since FY 2001. Fatality Assessment Control and Evaluation (FACE): The FACE program determines factors that contribute to fatal worksite events, identifies emerging hazards, and develops safety recommendations. In FY 2002, the FACE Program played an important role in working with OSHA and the National Association of Tower Erectors (NATE) to effectively communicate strategies for the prevention of injuries and fatalities among telecommunication tower workers. FACE findings from the investigations of tower-related deaths also played a pivotal role in developing a train-the-trainer course for OSHA compliance officers, contractors, tower erectors, tower owners, wireless service carriers, and tower component manufacturers. This program identifies causes of death among firefighters and provides recommendations for prevention and improved safety. Findings from FFIP investigations are used by fire departments throughout the country to modify standard operating procedures, justify and support equipment needs, and improving training.

Beginning in FY 2003, NIOSH will continue to provide various prevention activities within the workplace via safety and health interventions, evaluations, and recommendations. For the purposes of GPRA, NIOSH will highlight a few of its prevention activities within several targeted sectors, which represent the breadth of NIOSH's commitment to diverse sectors within the workforce needing effective interventions, evaluations, and recommendations targeted at reducing occupationally related injuries, illnesses, and fatalities. In addition, as post-September 11<sup>th</sup> terrorism preparedness and response efforts continue, NIOSH will play a pivotal role in protecting emergency responders through respirator development and certification as identified in the CDC's Terrorism GPRA section.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 134.966 Estimate

**FY 2003:** \$ 134,966 President's Budget

**FY 2002:** \$ 134,958 Enacted

#### II-M. Preventive Health and Health Services Block Grant

#### **Goal-by-Goal Performance Measurement**

**Performance Goal:** Provide interim dynamic support for high-priority state and local disease prevention and health promotion programs.

Performance Measure	Targets	Actual Performance	Reference
<b>1.</b> Increase the number of grantees who submit as part of their annual report 1 health outcome impact success story.	<b>FY 02:</b> 25 grantees	<b>FY 02:</b> 3/2003	<b>B</b> - 149
2. Increase the number of grantees who submit both an annual application and annual report using the standardized electronic grant application and reporting system (GARS).	FY 02: 45 grantees	FY 02: 3/2003	B - 149
3. At least 85% of total required data from all programs funded by the Preventive Health and Health Services Block grant will be reported to CDC annually.	FY 01: At least 85% FY 00: At least 85% FY 99: At least 80%	FY 01: 73% FY 00: 73% FY 99: 82% FY 98: 82% FY 97: 77%	<b>B</b> - 149

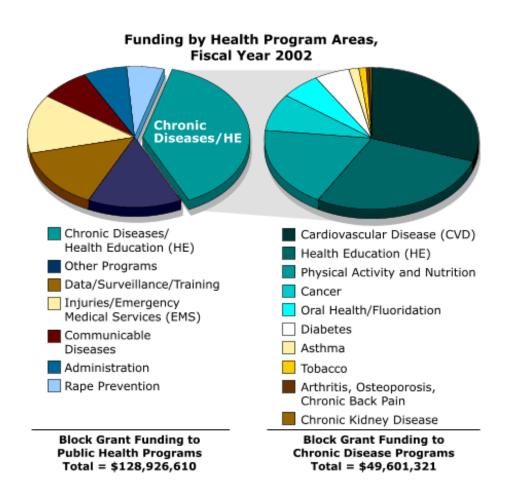
#### **Program Description and Context**

Authorized in Title XIX of the Public Health Services Act, the Preventive Health and Health Services (PHHS) Block Grant provides funding to state health departments to implement preventive health services that reduce illness, premature deaths and disabilities to improve the quality of life for their citizens. Congress recognizes that state health departments and the other grantees do not have adequate funding to combat all their leading causes of illness, death, disability, and injury. Block grant funding gives states the capacity to complement categorical and state funding when needed, or be used when no other sources of dollars exist to address the health concern. Through the PHHS Block Grant, CDC funds all 50 states, the District of Columbia, 8 Pacific Island territories, and 2 Native American Indian tribes.

The PHHS Block Grant is the primary source of funding which provides states the latitude to

choose and fund 265 of the national health objectives available in the nation's Healthy People 2010 health improvement plan. The PHHS Block Grant funds increase states abilities to respond and confront immediate, new, and emerging threats to the public's health within their communities. States use the Preventive Health Block Grant dollars to fund a variety of essential public health services including preventive screening, monitoring health status through data surveillance and analysis, outbreak control, workforce training, public education through various media, laboratory testing and support, establishing partnerships, developing policies and plans, enforcing existing regulations and laws, and evaluating programs. These essential services target such leading health problems as cardiovascular disease, cancers, diabetes, emergency medical services, injury and violence prevention, infectious diseases, environmental health, community fluoridation, and sex offenses. Because of the variance in the allowable uses of the funds, no two states allocate their Block Grant resources in the same way, and no two states provide similar amounts of funding to the same program or activities.

The pie chart below reflects how the grantees chose to use their PHHS block grant dollars in FY 2002:



In FY 2001-2002, the Preventive Health and Health Services Block Grant supported and improved the public's health by:

- Rapidly Responding to Unexpected Health Threat to the Public. In September 2001, there was an outbreak of Dengue Fever in Hawaii. Preventive Health Block Grant funds were the sole source of funding to provide the statewide public education and communication effort through press releases and conferences, print media, television, and radio messages to alert the public. This allowed for the rapid containment of the virus, by reducing public exposure to potentially infectious mosquitoes.
- Start-up Dollars for Health Care Programs. In Washington, only 9% of the population know the recommendations for physical activity and health. To increase the number of people who engage in regular and sustained physical activity, an initial \$25,000 investment of Preventive Health Block Grant dollars was used to support a county-wide physical activity program in Skagit County. The accomplishments and effective interventions of this county program attracted and received a \$600,000 four-year grant by the Regence Northwest Health Management Organization to extend the physical activity interventions into three neighboring counties.
- Supplemental Support for Categorical Funding. In 2000, there were an estimated 382,562 persons in New Jersey with diagnosed diabetes and 11.7% of the state's hospitalization rates in 1999 were related to diabetes. New Jersey receives 61% of its Diabetes Program dollars from categorical funding, 28% from Preventive Health Block Grant funds, and an additional 11% from the state. The recently implemented South Jersey Diabetes Outreach and Education System (DOES) is funded 85% by Preventive Health Block Grant dollars. Without these vital Preventive Health Block Grant dollars, New Jersey would not have been able to provide DOES in these 5 counties until additional categorical funding became available.

CDC continues to help states obtain the optimum benefit from block grant dollars through technical assistance, an annual training workshop, and modifications to the electronic grant application and reporting system. In 2001 major modifications were made to the Block Grant's electronic grant and reporting system (GARS). The goal of the new GARS design is to provide States with an accountability tool to enhance their ability to do priority setting and program planning. The evaluation component in the annual report includes detailed reporting on program activities funded with block grant dollars and their successful impact on the health problem they address. In addition, modifications were made to link all Block Grant funded activities with the National Healthy People 2010 goals and objectives and the 10 Essential Service Areas as outlined by The Future of Public Health 1988 report by the Institute of Medicine.

In 2002, CDC established a website www.cdc.gov/nccdphp/prevbloc.htm to enable the states

to directly access the various online data resources now available to track the Healthy People 2010 goals and objectives. CDC feels this efficient and direct data tracking capability will be less burdensome to the states and provide them with more up-to-date and reliable data. Also, CDC created a web-board to provide a forum that will give CDC and the 61 PHHS Block Grantees a method of electronically sharing information pertinent to the challenges and successes of developing and implementing public health programs that utilize CDC PHHS Block Grant funds.

#### **Program Performance Analysis**

States vary widely in the programs they support and the funding allocated to each program. No single indicator or group of indicators can appropriately capture the activities of the grantees.

In FY 2001, states reported 73% of the data required from programs funded by the Block Grant, thus not meeting the goal of 85%. The reason for not meeting the goal was attributable to the inability to collect data items established in 1995 which had been changed and/or were no longer collected by federal data sources. This measure was eliminated FY 2001.

In FY 2002, states are required to submit annual reports reflecting progress on activities. Uniform data sets will not be required due to the transition into the Healthy People 2010 format. In FY 2002, two new measures were addressed. The goal of the new measures are to capture more program specific information on the impact of how and where PHHS block grant dollars are being invested by states. FY 2002 actual performance will be reported March, 2003. In an effort to eliminate process oriented measures, CDC will eliminate these 2 measures effective 2003. CDC will continue to include information on the PHHS block grant in the CDC Performance Plan.

Verification/Validation of Performance Measures: To verify and validate performance, CDC collects and reviews annual progress and impact reports from each funded program for the prior fiscal year's performance.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$113,677 Estimate

**FY 2003:** \$117,081 President's Budget

**FY 2002:** \$148,306 Enacted

#### II-N. Public Health Improvement

#### Goal-by-Goal Performance Measurement Public Health Practice

**Performance Goal:** Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.

Performance Measure	Targets	Actual Performance	Reference
1. Evaluate the impact on	FY 04:	FY 04:	<b>B</b> - 152
the performance/	a) Evaluate impact in 30% of states	a) 12/2004	<b>HP</b> - 23
preparedness of frontline public health practitioners resulting from education and training programs implemented or supported	b) 10% of local health depts. (LHDs) achieve certification under "Project Public Health Ready."	b) 10/2004	
by CDC, including the Centers for Public Health Preparedness (CPHP)	c) 80% of states are served by a CPHP.	c) 10/2004	
system.	d) 50% of LHDs deploy distributed learning technology in public health education and training.	d) 9/2004	
	e) 20% increase in certified Distance Learning Centers (DLCs).	e) 9/2004	
	FY 03:	FY 03:	
	a) Initiate evaluation in 10% of states.	a) 9/2003	
	b) Begin demonstration phase of "Project Public Health Ready."	b) 9/2003	
	c) 50% of states served by a CPHP.	c) 10/2003	
	d) 30% of LHDs deploy distributed learning technology in public heath and education and training.	d) 9/2003	
	e) 10% increase in certified DLCs.	e) 9/2003	

Performance Measure	Targets	Actual Performance	Reference
1. (continued)	FY 02: Establish national evaluation framework.	FY 02: Evaluation framework developed; network of public health evaluators established in CPHPs to develop implementation strategies.	
	a) (revised): Establish % of states/territories that have working relationships w/1 or more CPHP.	a) (rev. Baseline): 30% of states.	
	b) (revised): Establish baseline % of local health departments; determine number of DLCs.	b) (revised): 3/2003	
2. Evaluate the impact on laboratory practice of training programs conducted by the National Laboratory Training Network.	FY 04:  a) Evaluate effect of training on newborn genetic testing. b) 8 states implementing the NLS.	FY 04: a) 8/2004 b) 4/2003	<b>B</b> - 152 <b>HP</b> - 23
	FY 03: a) Evaluate distance learning "workshop-in-a-box" programs to assess changes in practices & improve inspections. b) 4 states implementing the NLS.	FY 03: a) 8/2003 b) 4/2003	
	FY 02: a) Lab training in BT response to increase labs participating in the laboratory response network; and increase adoption of protocols to identify agents of BT by State labs.	FY 02: a) NLTN conducted 116 courses on BT, reaching 2040 participants.	
	b) 4 states implementing the NLS	b) MI; MN; WA and NE implemented the NLS.	
		FY 01: Continuous evaluation of NLTN programs.	

The Centers for Public Health Preparedness Program is a collaboration between CDC's Terrorism and

Public Health Improvement Programs.

Targets	Actual Performance	Reference
FY 04: Begin implementation of Knowledge Management and Media Asset Management systems.	FY 04: 10/2004	B - 152 HP - 23 4, 5 #4
FY 03: 1) Expand the Public Health Image Library (PHIL). 2) Develop Knowledge Management System for public health practice information.	<b>FY 03:</b> 10/2003	
FY 02: Continue implementation of plan.	FY 02: Developed capability to web-stream and archive live CDC/Public Health Training Network (PHTN) broadcasts.	
	FY 00: Plan developed for continuos enhancement of online information resources.	
<b>FY 04:</b> 95% coverage	<b>FY 04:</b> 12/2005	<b>B</b> - 152 <b>HP</b> - 23
<b>FY 03:</b> Extend HAN to local PH agencies to cover 90% of the US population.	FY 03: 12/2004	#4
	FY 02: Baseline: 86% of local health counties/jurisdictions have high speed internet	
	FY 04: Begin implementation of Knowledge Management and Media Asset Management systems.  FY 03: 1) Expand the Public Health Image Library (PHIL). 2) Develop Knowledge Management System for public health practice information.  FY 02: Continue implementation of plan.  FY 04: 95% coverage  FY 03: Extend HAN to local PH agencies to cover	FY 04: Begin implementation of Knowledge Management and Media Asset Management systems.  FY 03: 1) Expand the Public Health Image Library (PHIL). 2) Develop Knowledge Management System for public health practice information.  FY 02: Continue implementation of plan.  FY 02: Developed capability to web-stream and archive live CDC/Public Health Training Network (PHTN) broadcasts.  FY 00: Plan developed for continuos enhancement of online information resources.  FY 04: 95% coverage  FY 04: 12/2005  FY 03: 12/2004  FY 02: Baseline: 86% of local health counties/jurisdictions have

The Health Alert Network is a collaboration between CDC's Terrorism and Public Health Improvement Programs.

# **Public Health Improvement Program Description and Context**

Public Health Improvement promotes critical enhancements of the public health infrastructure through broad-based investments in the practice of public health, as well as targeted approaches to address specific areas of need. A sound public health infrastructure is essential for protecting community health. The three components of the basic public health infrastructure are:

- Workforce Capacity and Competency: the expertise of the approximately 500,000 professionals who work in Federal, State, and local public health agencies to protect the public's health.
- Information and Data Systems: up-to-date guidelines, recommendations, and health alerts and modern, standards-based information and communication systems that monitor disease and enable efficient communication among public and private health organizations, the media, and the public.
- Organizational Capacity: the consortium of local and State public health departments and laboratories, working side-by-side with private partners, to provide the essential services of public health.

These components are interrelated. Deficiencies in one area-or in one jurisdiction-have a ripple effect throughout the entire public health system. Therefore, the goal of strengthening public health's infrastructure is to achieve improvements in all three of these areas, in every part of the country.

CDC's approach to strengthening public health infrastructure has four components - a combination of broad-based efforts to build core public health capacities and targeted programs to address special needs:

- Strengthen public health practice by strengthening the components of the public health infrastructure that undergird public health - public health workforce, health departments and laboratories, and information, communications, and knowledge management systems.
- Stimulate extramural prevention research to discover how to apply the latest biomedical research at the local level and how to supply frontline public health workers with evidence of what works.
- Eliminate racial and ethnic health disparities in health status by developing targeted public health interventions and testing their effectiveness in racial and ethnic minority communities.
- Build the National Electronic Disease Surveillance System (NEDSS) to integrate disease

detection and monitoring and ensure rapid reporting and follow up.

Note: Immediately following this section is a summary of the activities and initiatives of Public Health Practice and Prevention Research, the broad-based components of the Public Health Improvement line that relate to the preceding performance measures. The performance measures and summary of REACH and NEDSS, which comprise the targeted elements of the Public Health Improvement line, follow after that.

#### Public Health Workforce Program Description and Context

The health of America's communities hinges on the Nation's public health workforce-500,000 physicians, nurses, environmental health scientists, health educators, laboratorians, managers and other health professionals who practice on the front lines of public health. The ratio of public health workers to the U.S. population has declined significantly in the past decades, indicating continued erosion of the public health infrastructure. For over two decades, national reports have expressed concern about the preparedness of the public health workforce to address current and emerging health threats. Only 44% have any formal training in public health; only 22% of local public health officials have graduate degrees in public health; only 40% of public health nurses-the largest profession in public health-have received education on community health nursing; as of 1999 less than 6% of all workers had received any bioterrorism training. CDC has developed a National Strategic Plan for Public Health Workforce development and a complementary implementation plan to address these issues in collaboration with state, local and academic partners.

Building workforce capacity and competency to improve public health practice is a major goal of several CDC programs. For example:

- **Public Health Training Network (PHTN)** provides access to high quality, competency-based continuing education via a national distance learning system which reaches both public health and health care professionals.
- National Laboratory Training Network (NLTN) provides classroom, wet-lab, self-instruction and distance learning opportunities for laboratorians in the public and private sector.
- Sustainable Management Development Program (SMDP) is an award-winning, international program targeting current and future public health leaders assuring competency to effectively lead and manage in today's rapidly changing environment.
- Public Health Leadership Programs to address leadership and management training
  needs of public health professionals. Programs include the National Public Health
  Leadership Institute (PHLI), state and regional public health leadership institutes, the
  CDC Leadership Management Institute, and the Management Academy for Public
  Health (MAPH).

In September 2000, CDC established a national network of Centers for Public Health Preparedness to strengthen bioterrorism and emergency preparedness at the front lines by linking academic expertise and assets to state and local health agency needs. They are the key operational component of a national training plan for bioterrorism and public health emergency preparedness. There are currently 31 centers which includes 19 comprehensive academic centers, 7 specialty centers and 5 exemplar sites for advanced public health practice. Academic centers meet broad national/regional needs while specialty centers focus on specific disciplines (e.g. physicians, nurses, environmental health, etc.), content (law), technology applications (advanced distance learning) or emerging issues.

CDC, in partnership with the Association of American Medical Colleges (AAMC), is also implementing projects aimed at linking the disciplines of public health and medicine. The objectives of this collaboration include: promoting the teaching of prevention and public health in academic centers and promoting the training of public health and prevention researchers within academic medical centers. Examples of joint efforts include integrating genetics in medical school curricula and initiating the design of regional public health – medicine education centers.

#### Public Health Workforce Program Performance Analysis

Since completion of the National Strategic Plan for Public Health Workforce Development in 1999, CDC has focused on critical elements of implementation, including:

- Establishing the national system of Centers for Public Health Preparedness;
- Expanding distributed learning capacity at the state/local level;
- Developing and implementing the National Bioterrorism Training Plan;
- Developing a national evaluation framework aimed at ascertaining the outcome of education and training at the learner level and describing the linkages among workforce competency, organizational effectiveness, and health outcomes; and
- Providing technical assistance to states in implementing Focus Area F and G of the 2002 Supplemental Funds for Public Health Preparedness and Response for Bioterrorism.

Over the past two years, the Centers for Public Health Preparedness (CPHPs) have closely collaborated and shared resources in the development and delivery of their programs and services for bioterrorism preparedness and response. Using a common framework developed in partnership with national public health organizations, the CPHPs focus on such topics as: critical bioterrorism agents, surveillance and epidemiology, incident command, health/risk communication, and legal authorities. Since inception, the CPHPs, in collaboration with their state and local partners, have prepared more than 180 educational products; trained more than 200,000 public health and health care professionals; and developed an inventory of faculty

expertise and assets available for local, regional, and national emergencies. Following the events of September 11<sup>th</sup> and the anthrax exposures, the CPHPs more than doubled their goals for outreach.

The Centers are an integral part of CDC's evaluation framework for ascertaining the outcome of education and training at the learner level and describing the linkages among workforce competency, organizational effectiveness, and health outcomes. The Centers are provided a national network of public health evaluators that will be working with us to develop strategies for implementing the evaluation framework. The Centers are also aiding in the implementation of "Project Public Health Ready," a training and certification program aimed at certification of all local health departments that have in place a public health emergency response plan and demonstrate that 80% of their staff have received certified training in emergency and bioterrorism preparedness and actively participate in the implementation of the local health department's plan.

The National Collaborative Training Plan for Bioterrorism Preparedness is a critical building block of CDC's strategic plan for Bioterrorism Preparedness and Response. The plan originally outlined training required by CDC personnel to implement the agency's event response operational plan (Phase 1) and strategies for training public health and medical facility personnel in collaboration with partners (Phase 2). In addition, the need to incorporate bioterrorism preparedness, response and recovery competencies into an overall national workforce development initiative for frontline public health professionals in state and local agencies was addressed (Phase 3). The events of 9/11 and the anthrax outbreaks last fall have greatly accelerated the original time line and influenced the content and focus on target audiences. Now, rather than a phased approach, CDC is simultaneously working on training for both internal staff and frontline public health. Following September 11<sup>th</sup>, CDC staff who would be deployed to the field were trained as Emergency Response teams; state, local, federal partners, and CDC staff have also received training on smallpox guidelines and response planning through the Public Health Training Network (PHTN). Moreover, in concordance with the plan, CDC and PHTN developed and disseminated the weekly CDC Responds series last fall, which has reached nearly 2 million public and private health practitioners, including members of the American Medical Association, National Medical Association, and the American Hospital Association. This satellite broadcast series encompasses a broad range of topics on aspects of bioterrorism preparedness and response.

In FY 2002, the National Laboratory Training Network (NLTN) conducted 267 courses, and trained over 7,500 laboratorians. These courses were developed on documented training needs and delivered in collaboration with State Public Health Laboratories. Courses were presented on topics ranging from bioterrorism, safety, HIV/AIDS and tuberculosis. Selected courses from the previous year were followed by impact studies to determine outcome. As a result of NLTN training on collection of bloodspot specimens for newborn screening presented in the state of Georgia, there was a decrease in specimens rejected from 13.9% in March of 2001 to 5.7% in October of 2001 to 3.9% in December of 2001. These results represent over 3,874 babies in a single state who did not have to be recalled and re-stuck during the first quarter of 2002. In addition to inconvenience and added pain, the delays resulting from rejected

specimens can result in death or mental retardation in certain genetic disorders. These results were so impressive, the NLTN will conduct training nationwide on this topic during 2003 followed by an impact study.

#### Health Departments and Laboratories Program Description and Context

As with the public health workforce, the nation's state and local public health systems are not adequately prepared for rapidly evolving health threats. Independent studies have found that only one-third of the U.S. population is effectively served by public health agencies. A CDC study in 2000 - the first-ever assessment of the performance of state public health systems - yielded average performance scores of 40% to 56% for three state public health systems. Other studies have shown that local health departments provide somewhere between 50% and 70% of the services deemed essential for protecting the public's health. These data document the deficiencies in organizational capacity that constrain health departments in their efforts to serve and protect Americans.

CDC conducts public health systems research, develops tools for improving organizational effectiveness, and provides leadership and fosters collaborations with public health and clinical laboratories to ensure excellence in laboratory practice. Major initiatives include:

National Public Health Performance Standards Program, which enhances the performance of essential public health services through voluntary performance measurement, improvement planning, and systems development. The program, started in 1998, is a CDC partnership with various public health agencies. Partners have established model national public health performance standards and are facilitating their use by state and local public health systems and governing bodies. Instruments to assess state, local, and governance capacity to meet performance standards have been field tested in states and localities, preparing the way for voluntary adoption nationally. In addition, CDC and DOJ have assessed the capacity of local public health systems nationally to respond to bioterrorism and other community health emergencies.

**National Laboratory System (NLS)**, which, upon full nationwide implementation, will assure the availability of consistent laboratory testing capacity for public health practice across the nation by connecting private laboratories to the public health system. The NLS vision is a strong system of integrated public health, hospital, and independent laboratories, working in concert to protect the health of the Nation's citizens. The core strategy to build the NLS is the integration of the work of the 170,000 clinical laboratories with public health to assure preparedness for bioterrorism (BT) and other public health threats through assessment, policy development, planning, and assurance of quality public health testing practice in clinical laboratories. At present, CDC is guiding four demonstration sites for the NLS in Washington, Nebraska, Minnesota and Michigan.

**Model Performance Evaluation Program (MPEP)** was implemented in 1986 to evaluate laboratories performing tests to detect human immunodeficiency virus type 1 antibody. MPEP

develops methods for evaluating quality in laboratory testing systems, develops strategies for identifying and correcting testing quality failures, and evaluates the effect of testing quality on public health.

#### Health Departments and Laboratories Program Performance Analysis

As part of the CDC-led National Public Health Performance Standards Program, model performance standards for essential public health services are already influencing changes in states where the tool was field tested. In Florida, performance assessment has been incorporated into the state's management and quality improvement program. In Mississippi, performance standards have been used in the legislature's review of public health agency responsibilities, and the Texas legislature has adopted the essential public health services as the basis for public health activity. CDC will continue working with American Indian/Alaskan Native governments to help them assess the preparedness and capacity of their public health systems. This is a continuation of the successful project we completed in FY 2001 regarding the National Public Health Performance Standards program and its use by tribal nations.

Because performance measures must link to the goals of states and communities, CDC and the National Association of County and City Health Officials are implementing a new tool - Mobilizing for Action through Planning and Partnerships - to help communities, health professionals, and their partners identify health priorities, mobilize to address them, and evaluate impact. These initiatives are laying the foundation for implementation of Sections 319 A-C of the Public Health Improvement Act of 2000. On the international front, CDC consults with WHO, PAHO, and the World Bank to assist in the adoption of public heath performance standards globally.

In addition to the broader NPHPSP, CDC also works on Public Health Practice programs in areas such as laboratory standards and improving laboratory practice.

In FY 2002, CDC conducted six courses on rapid detection methods for the agents of bioterrorism. These courses were attended by 59 laboratorians from 47 states and one territory, the FBI, the FDA, and the military. The participants learned rapid molecular and antigen detection techniques that enabled them to quickly identify suspected bioterrorism microbiological and chemical agents. In FY 2002, CDC analyzed the results of a six month follow-up impact study of the 60 participants from state and large city and county public health laboratories who attended a course on the confirmatory microbiological identification (Level B) procedures for the agents of bioterrorism in FY 2001. The participants indicated that as a result of the course they made the following changes to their procedures related to testing bioterrorism agents: 81% added special stains to laboratory identification procedures, 67% added procedures for testing environmental samples, 64% improved their laboratory's safety program, 64% developed or revised chain of custody procedures for the agents of bioterrorism. In FY 2002, The National Laboratory Training Network (NLTN) conducted 116 courses on bioterrorism preparedness and response that were attended by 2,040 participants.

In FY 2003, CDC will continue to collect and analyze findings from four demonstration projects to test elements of the envisioned National Laboratory System in conjunction with APHL. The projects will increase public-private laboratory interaction and improve testing practices for specific diseases. CDC will also continue to promote the core functions and capabilities of state laboratories articulated in a recent APHL consensus guideline and is

developing performance standards for state and local public health laboratories. Internationally, CDC will continue to improve laboratory infrastructure in less-developed countries through the Global AIDS Program, with a focus on quality assurance, policy development, and training in Africa and India. International projects include: creation of laboratory training programs in the Carribean; creation of guidelines and models for national laboratory quality programs with an emphasis on HIV and TB; and promotion of multi-organizational cooperation through laboratory training.

# Information, Communication, and Knowledge Management Systems Program Description and Context

As with the workforce, demands on our Nation's public health information infrastructure have never been greater. Today, global travel, immigration, and commerce can move microbes and disease vectors around the world at jet speed, yet our public health surveillance systems still rely, in many cases, on a time-consuming, resource-intensive "Pony Express" system of paper-based reporting and telephone calls.

In our day-to-day world of pagers, cell phones, and frequent e-mail communication between everyone from kindergartners to grandparents, it is sobering to consider the current status of public health's data and information systems. In 1999, CDC and the National Association of County and City Health Officers conducted an e-mail test to see how quickly local health departments could be contacted in the event of a health alert or bioterrorism emergency. In this test, only 35 percent of CDC's e-mails were delivered successfully, for a variety of reasons. Some public health laboratories - often the first to detect a new pathogen - still report their results by surface mail, with lag times up to 10 to 14 days.

In a February 1999 survey of local health departments, CDC found that only 45 percent had the capacity to send broadcast facsimile alerts (i.e., multiple "faxes" sent simultaneously to labs, physicians, State health agencies, CDC, or others). Similarly, fewer than half had high-speed continuous access to the Internet, and 20 percent lacked e-mail capabilities. Lack of access to communication networks is not the only issue of concern. In response to a 1998 survey about infrastructure problems, a local health department confessed to not reporting diseases because doing so would have meant a long-distance phone call. These gaps in the basic information infrastructure are troubling because not only do they prevent public health agencies from communicating with each other in a timely manner, but they also hinder communication between public health staff, private clinicians, or other sources of information about emerging health problems.

These basic communication gaps also exacerbate other problems, particularly the existing

fragmentation of surveillance systems and the variability between various jurisdictions in terms of their communication infrastructure. A strong and responsive communication and surveillance system cannot realize its full public health potential if some jurisdictions lack the skills and/or technology to detect and report emerging problems. The public health surveillance system is a network that simply cannot perform its protective function if its detection and reporting capacity is uneven.

# Information, Communication, and Knowledge Management Systems Program Performance Analysis

Several current projects are addressing the need to disseminate scientific findings to the practice community and educate the general public. One of these systems is *CDC Recommends*, an online repository of CDC recommendations on a wide range of public health topics, available through CDC's Internet web site. *CDC Recommends* is updated weekly with new publications, and user inquiries are being answered on a continuing basis. The maintenance and usability of the system are being reviewed and improved to enhance scientific readiness and ease of use.

Another project is testing the introduction of CDC recommendations into physician workstations at the point of practice. Pilot testing has concentrated on clinical recommendations for tuberculosis management, in partnership with a managed care organization. Detailed algorithms have been jointly developed by partners to indicate the stream of decision-making and the points at which recommendations should be made and which recommendations are appropriate. Preliminary indications reveal this type of infrastructure can increase the efficiency of patient interactions and renders quality assurance processes that enhance the effectiveness of clinical care.

Complimenting our knowledge management system is the Public Health Image Library, a unique online gallery of scientific photographs, electronic images, stored video, and other objects representing significant public health visual information. This gallery is currently being expanded with images from a wide range of CDC and public health partners, including additional smallpox images.

A third system, the Health Alert Network, is a major component of CDC's Terrorism Initiative, and is serving the "dual use" of providing a platform for rapid electronic communications for terrorism events as well as for other health threats. An important aspect of HAN is technical advice and knowledge for public health practice that facilitates a compatible interface of best practices and information technology. When fully deployed, the network will link local health departments to each other, with other local agencies critical to emergency response, to State health departments, to CDC, and to other federal agencies. Functionally, the network will support an "early warning and response" system, rapid communication and response coordination, rapid communication of laboratory disease test results, distance-based training delivered to public health workers' desktops, as well as the National Electronic Disease Surveillance System application described below.

In addition to funding all states and several territories and large cities, CDC supports 5 local health departments as Centers for Advanced Practice to develop progressive public health

applications for sister agencies to replicate nationwide. The Network is being jointly developed by local, State, and Federal partners.

# **Eliminating Racial and Ethnic Disparities Goal-by-Goal Performance Measurement**

1. **Performance Goal:** Improve the lives of racial and ethnic populations who suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.

Performance Measure	Targets	Actual Performance	Reference
1. Fund selected communities to implement REACH 2010 interventions based on community planning activities.	FY 02: Provide continuation funding to Phase II grantees;	FY 02: 10/2003	<b>B</b> - 152
panang warnass	FY 01: Provide continuation funding to Phase II grantees; announce the availability of funds for new Phase II coalitions.	<b>FY 01:</b> Six new Phase II projects funded based on objective competition.	
	FY 00: Fund selected communities to implement Phase II interventions; fund 4-6 more Phase I grantees.	FY 00: Funded 14 Phase I coalitions and 24 Phase II coalitions.	
	<b>FY 99:</b> Develop a community planning RFA; fund 1 Phase I grantee.	<b>FY 99:</b> Funded 32 Phase I coalitions.	

Performance Measure	Targets	Actual Performance	Reference
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2. Develop national strategies (recommendations) for eliminating gaps in each of the six health priority areas based on the interventions and disseminate findings from the REACH 2010 Projects.	FY 04: Develop recommendations to enhance the ability of community-based coalitions to contribute to the elimination of health disparities at the local level.  FY 03: Convene panel of experts to review strategies developed to date. Convene annual meeting of grantees to review and describe strategies developed to date.	FY 04: 10/2005  FY 03: 10/2004	<b>B</b> - 152
	FY 02: Convene annual meeting of grantees to review and describe strategies developed to date. Receive guidance from a group of evaluation experts supported by CDC to evaluate community-driven strategies to eliminate health disparities. Establish database of strategies developed by grantees. Assist DHHS with the implementation of a National Leadership Summit on Health Disparities highlighting effective strategies with input of REACH 2010 grantees.	FY 02: Strategies were reviewed at annual meeting of grantees - 8/2002.  Guidance received from expert consultants-10/2002.  Database is currently being developed with assistance of contractor.  CDC contributed both inkind staff time and financially to the planning and implementation of the National Leadership Summit.	
	FY 01: Complete strategies not expected until FY 2005. Interim measures include: abstracts, presentations and publications on grantee planning and implementation strategies.	FY 01: Published article and abstract in peer-reviewed journals on strategies to eliminate racial and ethnic health disparities.	

2. **Performance Goal:** Improve the lives of American Indian and Alaska Native populations who

suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.

Performance Measure	Targets	Actual Performance	Reference
CDC will support AI/AN organizations to address health priorities, prevention gaps, and service delivery interventions for	FY 02: 5 organizations	FY 02: Continuation funding for five organizations was awarded.	<b>B</b> - 152
their communities.	FY 01: 5 organizations	FY 01: Five AI/AN organizations were awarded funding 9/2001 FY 99: 0 (baseline)	

#### Eliminating Racial and Ethnic Disparities Program Description and Context

There are continuing disparities in the burden of illness and death experienced by African-Americans, Hispanics, American Indians, Alaska Natives, Asian-Americans, and Pacific Islanders compared to the U.S. population as a whole. For example, rates of death from stroke are 40% higher among African-Americans than among whites. The prevalence of diabetes is about 1.7 times higher among African Americans, 1.9 times higher among Hispanics than among non-Hispanic white Americans of similar age. Although African-American and Hispanic persons represent 25% of the country's population, more than half the AIDS cases reported to CDC have been among these minority populations; for children, the contrasts are even more dramatic, with African-American and Hispanic children representing 82% of pediatric AIDS cases.

Healthy People 2000 progress reviews of the specific health needs of American Indians and Alaska natives identified disparities between these groups and the general population in several priority areas. For example, infant mortality is 1.5 times higher for Native Americans compared to whites. Native Americans suffer nearly three times the average rate of diabetes, and one tribe, the Pimas of Arizona, has the highest known prevalence of diabetes of any population in the world. Alaska Native men and women suffer disproportionately higher rates of cancers of the colon and rectum compared to whites; American Indian/Alaska Native women also have low rates of screening and treatment for breast and cervical cancers. Age-adjusted death rates from homicides, suicides, and unintentional injuries for American Indians and Alaska Natives are also higher than for the total population.

The demographic changes that are anticipated over the next decade amplify 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 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 changes unfold in the delivery and financing of health care.

Launched in 1999, Racial and Ethnic Approaches to Community Health 2010 (REACH 2010) is a demonstration project to support community-based coalitions that have a high potential to develop, implement, and evaluate innovative strategies to eliminate racial and ethnic disparities in health. The program's six target areas are: infant mortality, breast and cervical cancer screening and management, cardiovascular disease, diabetes, HIV/AIDS, and immunizations. Target populations are African-Americans, American Indians, Hispanic Americans, Asian Americans, Pacific Islanders, and Alaska Natives. The 5-year demonstration project is being implemented in two phases. During a 12 month planning phase, REACH 2010 grantees use local data to develop a community action plan that addresses one or more of the six priority areas and targets one or more of the racial and ethnic minority groups. During the 4-year implementation phase, community coalitions carry out activities outlined in their community action plans and evaluate program activities.

The evaluation of the REACH 2010 program is of critical importance in determining the program's effectiveness in reducing health disparities. Working with its grantees and partners, CDC has developed an evaluation model to guide the collection of national data. This model evaluates programs on the effectiveness in the following areas: building community capacity, developing targeted actions, improving health systems and agents of change, decreasing risk behaviors and increasing protective behaviors, and reducing disparity-related illness and death. In addition, CDC has selected the University of South Carolina to manage a special interest project to develop evaluation guidance for REACH 2010 and other projects aimed at eliminating health disparities.

#### **Program Performance Analysis**

In FY 2002, the REACH 2010 Program is in the third year of the five year demonstration period. Currently, 31 projects are funded. Twenty four grantees are in the third year of implementation. Seven grantees are in the second year of implementation. In addition to the demonstration program, CDC provides funds to 5 AI/AN organizations to address health priorities, prevention gaps, and service delivery interventions for their communities.

As grantees move through the continuum of the evaluation logic model (see program description above), not only do the requirements vary by health priority areas, but also by race ethnicity and cultural/community norms. For instance, the factors involved in creating systems change among an American Indian tribe in North Carolina with a focus on diabetes are very different than those among African-American women in New Orleans also focusing on diabetes.

As expected, the community partners, strategies developed and processes undertaken are

unique. What was not anticipated was the pace at which some changes would occur. For example, grantees have reported substantial changes concerning capacity building, targeted action plans and changes among systems and change agents. The following is an excellent example of actual reductions in health disparities by one grantee:

• In South Carolina, in two communities disparities in care were identified by one REACH 2010 project for about 12,000 African-Americans. These differences were documented through annual chart audits of care. In the planning year, disparities were noted in most recommendations for care except for flu and pneumonia vaccines. Multiple approaches used to decrease the disparities include community development, empowerment, and education for diabetes, health systems change related to access, care, and education, and coalition advocacy. Following 12 months of implementation, disparities in A1c testing have decreased from 15% to 2%, and disparities in lipid testing from 28% to 11%. Although lower initially, after one year, overall testing is higher than percentages nationally for Medicare and Medicaid patients with diabetes and also for those enrolled in community plans. Current and future efforts are focused on eliminating the disparities in care and improving health outcomes through continuation of community-driven interventions.

For most REACH 2010 projects, changes in behavior are being documented through evaluation processes and mechanisms. Findings are not anticipated for at least another 12 months.

CDC will continue to provide continuation funding to REACH 2010 demonstration projects and to the five AI/AN organizations. Effective FY 03, CDC proposes to eliminate the related performance measures for these activities in that they are process measures. CDC will continue to report on the status of these activities in the program performance analysis section.

CDC continues to work towards the development of national strategies (recommendations) for eliminating gaps in each of the six health priority areas based on the interventions and findings from the REACH 2010 Projects. The dissemination of the most promising strategies and of lessons learned is critical to the overall effectiveness of this demonstration project. Preliminary measures have been taken to assess the dissemination strategies used by other programs at CDC. Some initial recommendations have been drafted. A CDC task force has been created and will be expanded to include external consultants and grantees to develop a comprehensive process for disseminating findings from the REACH 2010 projects. Additional partners that are critical in developing the dissemination plan include: the funded communities, evaluation experts, external consultants, private partners, and other Federal agencies such as the Office of the Assistant Secretary for Planning and Evaluation, and the Office of Minority Health.

In FY 03, CDC will convene a panel of experts to review strategies developed to date. During FY 04, CDC will develop recommendations to enhance the ability of community-based coalitions to contribute to the elimination of health disparities at the local level. This target speaks directly to defining CDC's role in supporting communities in the elimination of health disparities. The communities make the changes - CDC is the conduit through which this happens. The processes and strategies utilized by CDC will be documented for replication at

the Federal level and with private partners such as the California Endowment. Partnerships established with the private sector and evaluation experts are critical components of this demonstration program.

Verification/Validation of Performance Measures: Grantees will report on the development of implementation and evaluation plans, which will be reviewed by CDC staff. Site visits and data acquired by the CDC grant reporting system are also used. No data lags are expected.

Verification/Validation of Performance Measures (American Indian): The measure will be verified by the CDC grant reporting system.

# National Electronic Disease Surveillance System (NEDSS) Goal-by-Goal Presentation of Performance

**1. Performance Goal:** Develop a national, integrated, standards-based public health surveillance infrastructure that is securely linked to healthcare practice.

Performance Measure	Targets	Actual Performance	Reference
1. Conduct pilot projects to develop and test electronic linkages between public health agencies and the healthcare sector.	FY 03: Fund 10 states FY 02: Fund 10 states FY 01: Fund 5 states FY 00: Fund 1 state	FY 03: 12/2003 FY 02: Funded 19 states FY 01: Funded 19 states FY 00: Funded 14 states to build capacity for linkages. FY 99: 0	<b>B</b> - 152 <b>HP</b> - 23
2. Increase the number of states using electronic laboratory reporting.	FY 03: 40 states FY 02: 30 states FY 01: 15 states FY 00: 10 states	FY 03: 12/2003 FY 02: 34 states FY 01: 15 states FY 00: 10 (baseline)	<b>B</b> - 152 <b>HP</b> - 23

# National Electronic Disease Surveillance System (NEDSS) Program Description and Context

Public health surveillance - the ongoing, systematic collection, analysis, and interpretation of health-related data - is the foundation of CDC's programs to protect the health of Americans. Public health surveillance is essential to program planning, implementation, and evaluation. Public health surveillance is needed to detect outbreaks, epidemics, and bioterrorism events. Current systems are neither complete nor efficient, but CDC is using advances in information technology to improve public health surveillance.

CDC has been instrumental in developing a public health conceptual data model and guidelines that recommend a minimum set of demographic data that should be collected as part of routine public health surveillance. As a result of this effort, in FY 2000, CDC created the National Electronic Disease Surveillance System (NEDSS) with \$20 million made available for this purpose. Approximately \$10 million was used to set up the necessary CDC infrastructure, such as training, hardware, and software for the system. The remainder was awarded to states to begin development. In FY 2000, CDC funded 14 states for NEDSS development and 32 states and 3 large metropolitan areas for assessment of current health department information systems and ways to implement NEDSS specifications and standards. In FY 2001 and 2002, a total of 36 health jurisdictions (35 states, 1 city) were awarded funds for NEDSS development activities, including 20 who will receive the NEDSS Base System.

NEDSS is planned as a national, integrated, standards-based public health surveillance infrastructure that will: (1) allow rapid reporting of disease trends to control outbreaks; (2) create public and private healthcare sector linkages to increase the volume, accuracy, completeness, and timeliness of the data available for disease monitoring; and (3) provide local health departments with Internet access to permit rapid sharing of information on infectious disease outbreaks, bioterrorism incidents, and other health threats. NEDSS will result in solutions that can be generalized, whether in systems developed by states or CDC. NEDSS standards are also consistent with relevant software industry standards to facilitate use of commercial software products when appropriate.

To implement NEDSS, CDC is: (1) developing and implementing national data standards for public health surveillance and reporting; (2) providing technical infrastructure support for state and local communities; (3) establishing local, state, and regional demonstration projects that create linkages between the public health and healthcare data systems; and (4) providing standards and technical assistance to maintain stringent security standards to protect confidentiality.

#### **Program Performance Analysis**

CDC met goals for FY 2001 and FY 2002 in all areas, and anticipates awarding new funding to states in FY 2003 to meet NEDSS' goals. A total of 35 states and one large city (Philadelphia) were awarded funds in FY 2001 and FY 2002 for the development of NEDSS surveillance systems, including 20 jurisdictions awarded the NEDSS Base System. With some of the FY 2002 funds, CDC has continued work to develop the NEDSS Base System which will be available to some states that request it during this funding cycle. Version 1.0 of the NEDSS Base System has been delivered and is undergoing integration testing in Tennessee and Nebraska and Louisiana. In addition, CDC continued to support electronic message development, membership in public health standards organizations, and integration of disease-specific systems into the NEDSS architecture. NEDSS compatible Program Area Modules for Hepatitis, Vaccine Preventable Diseases, and Bacterial Meningitis and Invasive Respiratory Diseases are included in the current version of the NEDSS Base System.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 114,000 Estimate

**FY 2003:** \$ 184,000 President's Budget

**FY 2002:** \$ 296,000 Enacted

## II-O. Buildings and Facilities

# **Goal-by-Goal Performance Measurement Revised Presentation for FY 03 and FY 04 Measures**

**Performance Goal:** Implement scheduled improvements, construction, security, and maintenance consistent with available resources and priorities identified in CDC's master facilities planning process.

Performance Measure	Targets	Actual Performance	Reference
1. Design CDC East Campus Consolidated Lab Facility buildings.	Clifton Road Campus Roybal East Campus Consolidated Lab Project FY 03: Begin Design.	Roybal East <b>FY 03:</b> 10/2003	<b>B</b> - 166
2. Construct CDC buildings.	Clifton Road campus New Headquarters, Building 21 FY 04: Begin construction.	Clifton Road campus Building 21 FY 04: 10/2004	<b>B</b> - 166
	Security Buffer Zone FY 04: Complete construction FY 03: Continue infrastructure hardening	Security Buffer Zone FY 04: 10/2004 FY 03: On schedule	
	Scientific Communications Center FY 03: Begin construction	Scientific Communications Center FY 03: On schedule	
	New Emerging Infectious Disease Laboratory, Building 18	Building 18	
	<b>FY 03:</b> Continue construction	FY 03: Construction on schedule	

<u>Verification/Validation of Performance Measures:</u> CDC will collect data through contractor reports and onsite verification.

Performance Measure	Targets	Actual Performance	Reference
Construct buildings (continued)	Chamblee Campus Infectious disease laboratory, Building 109 FY 03: Complete	Chamblee Campus Building 109  FY 03: On schedule	<b>B</b> - 166
	construction of Phase II  Environmental Toxicology  Laboratory, Building 110	Building 110	
	FY 04: Complete construction FY 03: Continue construction.	FY 04: 10/2004 FY 03: Continue construction	

### Presentation of measures for FY 2001-2003

Performance Measure	Targets	Actual Performance	Reference
1. Construct Phase II of Building 17 (Infectious Disease Research Laboratory) at the Clifton Road campus.	FY 02: Occupy Phase II.  FY 01: Complete construction of Phase II.  FY 00: Construct Phase II.	FY 02: Occupy Phase II (Complete). FY 01: Projected occupancy Sept 01 (Complete). FY 00: Construction on schedule and on budget; structure up to 3 <sup>rd</sup> floor. FY 99: Construction on schedule and on budget; structure up to 3 <sup>rd</sup> floor. FY 98: Planning stage.	<b>B</b> - 166
2. Design and construct a new Emerging Infectious Disease Laboratory, Building 18, Clifton Road campus, to vacate and modernize Building 1 South, house bioterrorism activities, and provide additional BSL-4 capacity.	FY 02: Continue construction. FY 01: Complete design. FY 00: Begin design.	FY 02: Construction on schedule. FY 01: On schedule construction contract award estimated by September 01. FY 00: Acquisition of A/E contract underway; task order award anticipated. FY 99: Acquisition of A/E contract underway; task order award anticipated. FY 98: Planning stage.	<b>B</b> - 166

# **Buildings & Facilities**

Performance Measure	Targets	Actual Performance	Reference
3. Begin design of a Scientific Communications Center to replace Building 2 and vacate and modernize Building 3, Clifton Road campus.	FY 02: Complete design. FY 01: Begin design. FY 00: Complete A/E and CMC contract acquisition.	FY 02: On schedule. FY 01: On schedule – Design at SD stage. FY 00: Achieved. FY 99: POR to develop program, location, budget, and implementation strategies completed. FY 98: Planning stage.	В - 166
4. Complete construction of infectious disease laboratory, Building 109, to replace Buildings 4, 6,7,8, and 9, Chamblee campus.	FY 02: Complete construction.  FY 01: Complete construction.	FY 02: Construction completed.  FY 01: Complete – Occupancy estimated for January 2002.	<b>B</b> - 166
	<b>FY 00:</b> Begin construction.	FY 00: Acquisition of construction contract underway; task order award anticipated in 2000. FY 99: Design underway; expected to be completed on schedule/within budget. FY 98: Planning stage.	
5. Complete construction of infrastructure project in Security Buffer Zone, Clifton Road campus.	FY 02: Design hardened campus perimeter.  FY 01: Complete construction. FY 00: Complete construction.	FY 02: Completed fencing; Begin installation of enhanced alarm, communication and camera system. FY 01: Complete.  FY 00: Construction temporarily delayed. FY 99: Property acquisition and demolition 99% complete; initial work ahead of schedule. FY 98: Planning stage.	<b>B</b> - 166
6. Design and construct an Environmental Toxicology Laboratory, Building 110, to replace Buildings 17, 25, 31, and 32, Chamblee campus.	FY 02: Complete design; begin construction. FY 01: Begin design.	FY 02: Begin construction.  FY 01: On schedule. Design at SD stage. FY 98: Planning stage.	<b>B</b> - 166

Performance Measure	Targets	Actual Performance	Reference
7. Begin design of New Headquarters Building 21, Clifton	FY 02: Complete design.	FY 02: Construction start delayed.	<b>B</b> - 166
Road campus, for lease consolidation project.	FY 01: Begin design.	FY 01: Construction start delayed. FY 98: Planning stage.	

Verification/Validation of Performance Measures: CDC will collect data through contractor reports and onsite verification.

#### **Program Description and Context**

CDC's management has responsibility for ensuring that: 1) CDC facilities and equipment are adequate for carrying out the agency's public health mission; 2) all facilities, particularly laboratories, are safe for both workers and the community; 3) taxpayers' investment in these facilities is protected through effective maintenance and operations; 4) facilities meet applicable fire and safety codes; and 5) facilities are operated in a responsible manner to reduce energy consumption.

Although CDC has expanded its workforce and responsibilities considerably since its post-World War II origins, the agency's buildings and laboratories have not kept pace. The majority of CDC's infectious disease and environmental laboratories are so crowded and outdated that they could create safety hazards for employees testing organisms and hazardous substances. As public health challenges have become more serious and complex, CDC's laboratory- and non-laboratory-based programs have also expanded to meet changing needs. Because of this growth, CDC-owned buildings cannot house current staff. Approximately half of CDC's Atlanta workforce is scattered in 23 leased office spaces that cost more than \$20 million to rent each year.

Beginning in 1993, CDC undertook a master facilities planning effort to identify and systematically address severely inadequate conditions at CDC's Clifton Road and Chamblee campuses in Atlanta, Georgia. In this process, CDC has assessed the work needed to consolidate Atlanta operations into two secure campuses and to properly maintain existing facilities. CDC continues to update this assessment to ensure that the appropriate needs receive the highest priority.

CDC uses the assessments from the facilities planning effort and its annual Repair and Improvements (R&I) Plan to determine the need for and to schedule major and minor renovation, construction, and other facilities projects. CDC's goal is to provide safe, modern, efficient, and physically secure laboratories and support facilities in the most economical manner possible.

#### **Program Performance Analysis**

As of December 2002, implementation of approved projects was proceeding according to schedule, with adjustments to reflect actual authorization and appropriations. Organizational and structural changes to CDC's facilities continue to be implemented. For example, all facilities offices (planning, leasing, design construction, engineering, operations and maintenance) have been consolidated under one office, the Facilities Planning and Management Office. CDC conducted a nationwide search and recruited an outstanding Director with a PhD. in Civil Engineering to lead this office.

CDC has implemented the first part of an innovative new contracting structure to speed the procurement of major capital projects. CDC will use a highly competitive process to "prequalify" architecture and construction firms to form a pool of resources readily available for use on a task order basis for design and construction. To date, CDC has successfully procured design services for six major new construction projects in approximately one-third to one-quarter the time normally needed for traditional procurements. Another feature of the contract is to bring the architect and builder together from inception of a project rather than after the design is complete. This feature will ensure a better final product, reduce change orders, and allow better adherence to budget and schedule. These features combine to provide much greater control of risk for the owner, CDC. CDC will monitor projects currently entering the design and construction cycle to obtain quantitative data on performance objectives.

#### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$ 59,707 Estimate

**FY 2003:** \$ 50,652 President's Budget

**FY 2002:** \$ 49,077 Enacted

#### II-P. Office of the Director

The Office of the Director (OD) manages and directs CDC's programs. Goals and performance measures are displayed under 5 categories: (1) science policy and technology transfer; (2) minority health; (3) program planning and evaluation; and (4) health communication.

# Office of Science Policy and Technology Transfer Goal-by-Goal Performance Measurement

1. **Performance Goal:** Identify, evaluate, and protect novel technologies.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the number of employee invention reports (EIRs) filed per year.	FY 03: 50 EIRs FY 02: 50 EIRs FY 01: 50 EIRs FY 00: 35 EIRs	FY 03: 12/2003 FY 02: 37 FY 01: 42 FY 00: 45 FY 99: 31	<b>B</b> - 171
2. Review and manage CDC's patent portfolio to maximize return for public health benefit.	FY 02: See Change Chart  FY 01: <30% of unlicensed patents maintained beyond 4 years of issue date.	FY 02: See Change Chart  FY 01: 64% of unlicensed patents maintained beyond 4 years of issue.	<b>B</b> - 171
	FY 00: <30% of unlicensed patents maintained beyond 4 years of issue date.	FY 00: New evaluation needed due to transfer of mining patent files to CDC from the former Bureau of Mines; early estimate is 70% of unlicensed patents maintained beyond 4 years of issue.  FY 99: 38% of unlicenced patents maintained beyond 4 years of issue.	

#### Science Policy and Technology Transfer Continued

**2. Performance Goal:** Promote private-sector participation and investment in applications of novel research discoveries.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of patent license agreements (PLAs),	FY 04: 5% increase from previous year	<b>FY 04:</b> 12/2004	<b>B</b> - 171
CRADAs, Material Transfer Agreements, Clinical Trial	FY 03: 5% increase from previous year	<b>FY 03:</b> 12/2003	
Agreements, and other CDC- private sector research cooperation	FY 02: 5% increase from previous year	FY 02: 27 Agreements	
mechanisms.	<b>FY 01:</b> 5% increase from previous year	<b>FY 01:</b> 11 CRADAs	
	FY 00: 5% increase from previous year	<b>FY 00:</b> 10 CRADAs	
	i J	<b>FY 99:</b> 6 CRADAs	

# Office of Science Policy and Technology Transfer Program Description and Context

The Office of the Associate Director for Science (ADS) provides direction and training on matters of scientific integrity and human subjects protection. The ADS also manages CDC's intellectual property (e.g., patents, trademarks, copyrights) and promotes the transfer of new technology from CDC research to the private sector to facilitate and enhance the development of diagnostic products, new research methods, vaccines, and other products, and methods to improve occupational safety.

### **Program Performance Analysis**

In FY 2002, the Office of the ADS provided training and technical assistance for CDC staff on scientific integrity, protection of human subjects, and technology-transfer policies and procedures.

#### **Technology Transfer**

Federal technology transfer is generally defined as an active partnership between the Government and its scientists/engineers with members of the commercial enterprise to bring Federally developed technologies into practical application more rapidly than is likely to be achieved by passive sharing of information. Success in technology transfer requires effective activity at both ends of that partnership.

The number of employee invention reports increased from 29 in FY 1998 to 34 in FY 1999 to 45 in FY 2000, with slight reductions in FY 2001 and FY 2002 that we believe reflect the need in 2001to redirect a substantial portion of CDC's research effort to focus more on terrorism prevention and control. The number of patent applications filed and issued tend to follow invention reports by one or more years, and reflect the patentability and marketability of the inventions. They are a reflection of the strength and breadth of the Agency's portfolio of technologies available for practical application by the private sector.

Largely as a result of the Agency's increasing marketing efforts, companies continue to recognize the value of CDC research and intellectual property rights. CDC has executed 15 new patent license agreements, 4 other intellectual property (trademark/copyright) licenses, and 8 new CRADAs, reflecting a continuing increase in licensing and partnership activities.

Overall, we continue to have increasing success in making our researchers aware of the opportunities available through the technology transfer program, and in recruiting private sector involvement in developing, manufacturing, and marketing new CDC technologies to the benefit of the American economy and the public welfare.

# Office of Minority Health Goal-by-Goal Performance Measurement

**1. Performance Goal:** Prepare minority medical, veterinary, pharmacy, and graduate students for careers in public health.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of minority students participating in the Hispanic Health Professions Internship Program, Ferguson Emerging Infectious Disease Fellowship Program, Public Health Summer Fellowship Program, and Project IMHOTEP.	<b>FY 03:</b> 65 students <b>FY 02:</b> 65 students <b>FY 01:</b> 59 students <b>FY 00:</b> 57 students	FY 03: 9/2003 FY 02: 100 FY 01: 64 FY 00: Exceeded/2 FY 99: 55 (baseline)	<b>B</b> - 171

#### Minority Health Continued

# **2. Performance Goal:** Support Historically Black Colleges and Institutions, Hispanic Serving Institutions, and Tribal Colleges and Institutions.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of funding mechanisms and the number of minority-serving institutions receiving support.	FY 04: 4 cooperatives and 67 schools FY 03: 4 cooperative agreements and 67 schools FY 02: 4 cooperative agreements and 67 schools FY 01: 4 cooperative agreements and 37 schools	FY 04: 1/2005  FY 03: 1/2004  FY 02: 4 cooperative agreements, 67 schools  FY 01: 4 cooperative agreements, Exceeded number of schools/30	<b>B</b> - 171

#### **3. Performance Goal:** Foster a stronger collective departmental perspective on AI/AN issues.

Performance Measure	Targets	Actual Performance	Reference
Working in conjunction with IHS, identify and pursue areas of mutual interest and benefit.	FY 03: Clarify/ quantify CDC resources targeting AI/AN populations FY 02: Create a Senior Policy Group comprising Executive-level staff from CDC and IHS who will identify areas for collaboration.	FY 03: 1/2004  FY 02: IHS and CDC Senior Policy Group held one strategic planning.	<b>B</b> - 171

# Office of Minority Health Program Description and Context

The Office of Minority Health provides leadership, coordination, assessment and evaluation for minority health initiatives, policy initiatives targeting improving the health of ethnic populations and Executive Branch activities. The Office also supports cooperative agreements with academic institutions and national non-governmental organizations to conduct prevention research, program development and analysis and evaluation to improve the health status of minorities and reduce health disparities.

# Office of Minority Health Program Performance Analysis

The FY 2002 performance goal to support Historically Black Colleges and Institutions, Hispanic-Serving Institutions, and Tribal Colleges and Institutions was achieved through the award of cooperative agreements. In FY 2002, a total of 67 schools were reached through four cooperative agreements. CDC has continued to strengthen its efforts to expand and diversify partnerships with academic institutions and to increase the competence and diversity of the public health workforce. Data for FY 2003 will not be available until January 2004.

CDC surpassed the FY 2002 target to enroll 65 students in four summer training programs designed to encourage minority students to pursue graduate careers in public health and to diversify the public health workforce. Demographic data are compiled for all student training programs annually. FY 2003 data will be available in September 2003.

In FY 2003, CDC will continue to strengthen existing partnerships with Historically Black Colleges and Institutions, Hispanic-Serving Institutions, and Tribal Colleges and Institutions. These partnerships will expand training opportunities, foster development of minority health research capabilities at colleges and universities, and enhance recruitment opportunities.

# Office of Equal Employment Opportunity Goal-by-Goal Performance Measurement

**1. Performance Goal:** Enhance agency recruitment efforts to ensure the availability of applicant pools that include qualified minorities, women, and persons with disabilities.

Performance Measure	Targets	Actual Performance	Reference
Increase our participation in the Agency's recruitment activities with HBCUs, HACUs, Tribal Colleges &	FY 03: Increase participation by 30%	<b>FY 03</b> : 10 sessions	<b>B</b> - 171
Universities, Persons with Disabilities and build and expand other partnerships.	FY 02: Increase participation by 30%	FY 02: 8 sessions	
	FY 01: Increase participation by 20%	FY 01: 7 sessions	
	P P	FY 00: 6 sessions	

# **Equal Employment Opportunity Continued**

**2. Performance Goal:** Provide continuing EEO and diversity training to managers, supervisors, and employees.

Performance Measure	Targets	Actual Performance	Reference
Increase the opportunities for EEO Training for CDC/ATSDR workforce.	0 3	<b>FY 02:</b> 97 Sessions <b>FY 01:</b> 81 Sessions	<b>B</b> - 171
	20%	<b>FY 00:</b> 16 Sessions	

**3. Performance Goal:** Through early intervention and Alternative Dispute Resolution (ADR), reduce the number of EEO complaints.

Performance Measure	Targets	Actual Performance	Reference
Reduce the number of complaints in the inventory.	FY 02: 10% Reduction of complaints	<b>FY 02:</b> 46	<b>B</b> - 171
	FY 01: 10% Reduction in complaints	<b>FY 01:</b> 51	
		<b>FY 00:</b> 75	

**4. Performance Goal:** To provide a tool to measure CIO performance and management accountability under the EEO Program.

Performance Measure	Targets	Actual Performance	Reference
Develop and disseminate an EEO report to each CIO quarterly.	FY 01: Quarterly dissemination	FY 01: Achieved	<b>B</b> - 171
Toposodo and ord quantity.		<b>FY 00:</b> NA	

## Office of Equal Employment Opportunity Program Description and Context

The Office of Equal Employment Opportunity (OEEO) is responsible for advising management on EEO program requirements and providing technical advice to agency employees, union officials, employee organizations, and applicants on the EEO program and complaint process: conducting a continuing campaign to eradicate every form of prejudice or discrimination; managing an accountability system for achieving the agency's EEO objectives of a diverse workforce; and establishing a system for periodically evaluating the effectiveness of the agency's overall equal employment opportunity effort. Our civil rights responsibilities, mandated by Federal legislation (29 CFR 1614, Equal Employment Opportunity Commission (EEOC) Management Directives 710, 713, and 714), require that we develop and issue internal policy guidance on the implementation of nondiscrimination statues in the agency programs and/or activities.

In FY 2002, the OEEO provided developmental opportunities for 1 student from the Hispanic Association of Colleges and Universities (HACU), Tribal Colleges and Universities, and Historically Black Colleges and Universities (HBCU). This is in keeping with our performance goal to enhance minority recruitment and a commitment to the process.

#### **Program Performance Analysis**

#### After FY 2002, OEEO will discontinue the below listed Performance Goals:

Goal 2. Provide continuing EEO and diversity training to managers, supervisors, and employees. We have provided training to the CDC/ATSDR workforce in these areas, thereby reaching our measurable goal. OEEO will continue to provide refresher training on an annual basis.

Goal 3. Through early intervention and Alternative Dispute Resolution (ADR), reduce the number of EEO complaints. The target for FY 03 for the performance measure "reduce the number of complaints in the inventory" has been eliminated because of the number of variables which can not be controlled. Significantly, the EEO requirement for inclusion of complaints on appeal as a part of the pending inventory has resulted in this determination.

<u>Goal 4.</u> To Provide a tool to measure CIO performance and management accountability under the EEO Program. The Human Resource Management Office (HRMO) has automated data on workforce statistics and provided management this information through the intranet.

# Office of Program Planning and Evaluation Goal-by-Goal Performance Measurement

1. **Performance Goal:** Provide leadership and coordination for support activities across CDC.

Performance Measure	Targets	Actual Performance	Reference
1. Develop and provide technical assistance and consultation for CDC staff.	FY 02: Conduct 2 training sessions for GPRA staff; disseminate training materials on OMB clearance via website; provide technical assistance to all recipients of 1% evaluation funds.	FY 02: Achieved	<b>B</b> - 171
	FY 01: Conduct 2 training sessions for GPRA staff; disseminate training materials on OMB clearance via website; provide technical assistance to all recipients of 1% evaluation funds.	FY 01: Achieved	
		FY 99: 1 training session; clearance materials/guidance for statements of work available electronically by request.	
2. Coordinate the development and timely submission of correspondence, reports, and OMB clearance packages.	FY 02: Meet 90% of suspense deadlines for controlled correspondence; reduce review time for clearance packages to 10 days.	FY 02: Achieved	<b>B</b> - 171
	FY 01: Reduce outstanding Reports to Congress by 10%; reduce review time for clearance packages to 10 days.	FY 01: Achieved.	
		FY 99: 15-day review time for clearance packages; inventory of outstanding Reports to Congress.	

# Program Planning and Evaluation Continued

Performance Measure	Targets	Actual Performance	Reference
3. Enhance the capacity of CDC policy staff to perform their official duties through training, team building, and sharing best practices, and promote better collaboration among policy teams.	FY 02: Conduct a major conference that provides training for and enhances collaboration among policy staff; develop Intranet website providing information on OPPE's roles and responsibilities in relation to CDC policy staff.	FY 02: Achieved	<b>B</b> - 171

#### **2. Performance Goal:** Improve the quality of CDC's Performance Plan.

Performance Measure	Targets	Actual Performance	Reference
1. Develop and implement a formal process for evaluating performance goals and measures	FY 02: Begin a cross-CIO review process utilizing specific review criteria to enhance performance stories.	FY 02: Achieved	<b>B</b> - 171
2. Develop and implement a process to ensure narrative goals and measures are more effectively linked to CDC's budget	FY 02: Begin disseminating to CIOs joint instructions for budget and Performance Plan.	FY 02: Achieved	<b>B</b> - 171

### Office of Program Planning and Evaluation Program Description and Context

The Office of Program Planning and Evaluation (OPPE) provides leadership, liaison, and service to CDC/ATSDR Centers, Institute, and Offices. OPPE is part of the CDC Office of the Director. OPPE's mission is to provide leadership to CDC in strategically anticipating future needs; guiding policy-making, planning, and evaluation; and establishing priorities, programs, and partnerships to address public health needs. OPPE serves the agency and its partners by facilitating and evaluating CDC program activities and by coordinating efforts, both internal and external, that cross-cut the agency.

## Office of Program Planning and Evaluation Program Performance Analysis

In FY 2002, OPPE met and/or exceeded all of its targets. One-on-one training sessions for each of the CIOs were conducted on GPRA, with particular emphasis on CIO-specific measurement issues and technical assistance was provided to all recipients of 1% evaluation funds. An intranet website providing information on OPPE's roles and responsibilities in relation to CDC policy staff was launched in FY 2002. Among its resources, new training materials on OMB clearance and an OMB clearance tracking database can be accessed from the site. The first-ever major CDC policy conference was convened in December 2002. The purpose of this conference was to (1) provide training on legislation, policy, performance, and evaluation issues; and (2) enhance collaboration among CDC policy and program staff.

# Office of Health Communication Goal-by-Goal Performance Measurement

1. **Performance Goal:** Increase awareness of public health issues.

Performance Measure	Targets	Actual Performance	Reference
1. Build strong partnerships with national, international public health agencies, non-governmental agencies, and relevant private sector partners.	FY 02: Establish at least two <i>new</i> partnerships. FY 01: Maintained one strategic partnership (NPHIC).	FY 02: Achieved FY 01: Achieved	<b>B</b> - 171
<b>2.</b> Develop a multi-tiered strategy for working with the private sector on communication initiatives.	FY 02: Establish guidance document for facilitating public-private sector partnerships.	FY 02: Achieved	<b>B</b> - 171
3. Develop a strategy for working with the news media on communicating about biological and chemical terrorist events.	<b>FY 02:</b> Establish a proactive mechanism to brief journalists about BT issues.	FY 02: Achieved	<b>B</b> - 171

### Health Communication Continued

# **2. Performance Goal:** Strengthen the science and practice of health, risk, and crisis communication through *research* and *capacity building.*

Performance Measure	Targets	Actual Performance	Reference
1. Increase the amount of funds allocated for communication research and evaluation among CDC's programs and CDC's public health partners (through	Among CDC programs:  FY 02: 25 programs will allocate a total of \$4,500,000.	FY 02: Achieved with 81 programs allocated a total over \$21 million.	<b>B</b> - 171
cooperative agreements, fellowships, or competitive grants processes).	<b>FY 01:</b> 22 programs allocated a total of \$4,365,000.	FY 01: Achieved, 22 programs allocated \$10,230,000	
		FY 00: 24 programs allocated a total of \$4,095,000.	
		FY 99: 12 programs allocated a total of \$1,905,000.	
	Among CDC's partners: FY 02: Fund 2 external research projects totaling \$55,000.	FY 02: Achieved FY 01: None funded	
2. Conduct research that advances the science and practice of risk and crisis communication in a Bioterrorism response.	<b>FY 02:</b> Conduct formative research.	FY 02: Achieved	<b>B</b> - 171
<b>3.</b> Increase the number of publications authored by CDC communication professionals.	<b>FY 02:</b> To collect baseline data so that goals can be established.	FY 02: Achieved and sponsored a special issue of the Journal of Health Communication addressing the lessons learned from anthrax.	<b>B</b> - 171
4. Enhance the capacity of CDC's public health partners to rapidly and accurately communicate critical information about biological and chemical terrorist events.	FY 03: Develop CD-ROM based job-aid to respond effectively FY 02: Conduct risk communication training.	<b>FY 03:</b> 12/2003 <b>FY 02:</b> Achieved	<b>B</b> - 171

Performance Measure	Targets	Actual Performance	Reference
5. Recruit, train, and retain health communication interns, fellows, and professionals.	FY 02: Recruit between 4-6 health communication interns.	FY 02: Achieved using various mechanisms in hiring 3 health communication interns, 1 ATPM fellow, 3 health communication fellows, and 8 ORISE fellows with some converting to permanent CDC positions.  FY 01: Established the health communication internship program.	<b>B</b> - 171

# Office of Health Communication **Program Description and Context**

The Office of Communication (OC) provides leadership in the development of CDC principles, strategies, and practices for effective communication and functions as a CDC-wide forum for the discussion, development, and adoption of health communications policies and procedures. The Office also coordinates intramural and extramural communication research, provides communication infrastructure, and provides reactive communication to the public. The federal policy to make information readily available to the public, the importance of providing information to healthcare providers and the public to make 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.

### **Program Performance Analysis**

In 2002, OC met and/or exceeded all of its targets. OC has worked with CIO counterparts to: put programs and partnerships in place to increase public health awareness; provide assistance and facilitation for CDC conducted and sponsored research on crisis and emergency risk communication; and develop training opportunities on crisis and emergency risk communication for CDC staff and public health partners.

### **Total Funding**

(Dollars in Thousands)

**FY 2004:** \$1,116,156\* Estimate

**FY 2003:** \$1,116,740\* President's Budget

**FY 2002:** \$1,102,419\* Enacted

## II-Q. Terrorism

# **Goal-by-Goal Performance Measurement**

#### **Deterrence/Prevention**

**1. Performance Goal:** Continue efforts to protect public health by ensuring the safety and security of laboratorians regarding the handling and processing of dangerous biological agents and toxins.

Performance Measure	Targets	Actual Performance	Reference
Inspect public health laboratories in accordance with the Select Agent Rule.	FY 04: 300 laboratories FY 03: 200 laboratories FY 02: 90 laboratories FY 01: 65 laboratories FY 00: 50 laboratories	FY 04: 12/2004 FY 03: 12/2003 FY 02: Exceeded/103 FY 01: Achieved/60 (correction) FY 00: 36 FY 99: 14	<b>B</b> - 177

<sup>\*</sup>This figure does not include funding for small pox activities or the Strategic National Stockpile.

## **Preparedness and Response Capacity**

**2. Performance Goal:** Enhance the capacity of CDC and state and local health departments to prepare for and respond to biological, chemical, radiological, and mass trauma hazards related to terrorism.

**Note:** The former performance goal was achieved and new performance goals have been inserted to better reflect current understanding of homeland security and public health needs. *Former Performance Goal: Enhance the capacity of CDC and state and local health departments to prepare for and respond to a biological or chemical terrorism event.* 

Performance Measure	Targets	Actual Performance	Reference
1. Enhance preparedness by assuring state, territorial, and local jurisdiction projects have written plans to respond to biological, chemical, radiological and mass trauma hazards related to terrorism, the plans address all seven focus areas of the CDC cooperative agreement.	FY 04: 50% of the 62 state, territorial and local jurisdictions funded by CDC have these written plans.	FY 04: 12/2004	<b>B</b> - 177
2. Enhance preparedness by ensuring that projects have demonstrated proficiency in responding to threats in the four key areas of: biological, chemical, radiological and mass trauma hazards related to terrorism.	FY 04: 30% of the 62 state, territorial and local jurisdictions funded by CDC have met this target.	FY 04: 12/2004	<b>B</b> - 177
3. Enhance preparedness by assuring written plans for multistate/multi-jurisdiction public health preparedness coordination are in place for all grantees and these plans include signed agreements between jurisdictions and conform to standard ICM structures and terminology.	FY 04: 40% of the 62 state, territorial and local jurisdictions funded by CDC have met this target.	FY 04: 12/2004	<b>B</b> - 177

# Preparedness and Response Capacity Continued

Performance Measure	Targets	Actual Performance	Reference
4. Assure that all clinicians in the U.S. have access to training and information resources that prepare them to diagnose, treat and/or refer for treatment persons exposed to biological, radiological, chemical or mass trauma events related to terrorism.	FY 04: 80% of clinicians involved in triage, general practice, and emergency medicine have access to these resources.	FY 04: 12/2004	<b>B</b> - 177
5. Establish state and local bioterrorism preparedness and response planning activities.	FY 03: 62 states or localities FY 02: 62 states or localities FY 01: 11 states or localities FY 00: 11 states or localities FY 99: 5 states or localities	FY 03: Achieved FY 02: Achieved/62 FY 01: Achieved/11 FY 00: Achieved FY 99: Exceeded/11	<b>B</b> - 177

# **Surveillance and Epidemiology Capacity**

**3. Performance Goal:** Enhance the capacity of CDC and state/local health departments to rapidly detect and investigate potential biological events.

Performance Measure	Targets	Actual Performance	Reference
Increase the number of state and major city health departments and other sentinel sites with expanded epidemiology and surveillance capacity to detect, investigate and mitigate health threats by bioterrorism.	FY 04: 62 sites FY 03: 62 sites FY 02: 62 sites FY 01: 55 sites FY 00: 40 sites FY 99: 40 sites	FY 04: 12/2004 FY 03: 12/2003 FY 02: Achieved/62 FY 01: Achieved/55 FY 00: Exceeded/55 FY 99: 34 FY 98: 0	<b>B</b> - 177

**4. Performance Goal:** Assure that CDC has the capacity to lead a nation-wide public health response to a radiological or chemical terrorist attack, addressing the unique and complex public health threats that these types of events would present.

Performance Measure	Targets	Actual Performance	Reference
Conduct at least 1 internal and 1 external response exercise or training for both radiological and chemical terrorist events.  Prepare comprehensive annexes to the CDC Emergency Response Plan for radiological and chemical terrorist attacks.	FY 04: 2 FY 03: 2	FY 04: 12/2004 FY 03: 12/2003	<b>B</b> - 147

# **Laboratory Capacity**

**5. Performance Goal:** Enhance the laboratory capacity of CDC and state and local health departments to rapidly and accurately identify biological and chemical agents that can pose a terrorist threat.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the number of laboratories in the Laboratory Response Network.	FY 04: 235 laboratories FY 03: 140 laboratories FY 02: 120 laboratories FY 01: 100 laboratories FY 00: 43 laboratories	FY 04: 12/2004 FY 03: 12/2003 FY 02: Achieved/120 FY 01: Achieved/100 FY 00: Achieved FY 99: 43	<b>B</b> - 177
2. Increase the capacity of state and major city laboratories to provide or gain access to rapid testing for potential bioterrorism agents.	FY 04: 100 laboratories FY 03: 60 laboratories FY 02: 54 laboratories FY 01: 54 laboratories FY 00: 40 laboratories FY 99: 2 laboratories	FY 04: 12/2004 FY 03: 12/2003 FY 02: Achieved/54 FY 01: Achieved/54 FY 00: Exceeded/43 FY 99: Exceeded/43 FY 98: 0	<b>B</b> - 177
<b>3.</b> Increase the number of rapid diagnostic tests to be developed for potential bioterrorism agents.	FY 04: 20 tests FY 03: 15 tests FY 02: 10 tests FY 01: 6 tests	FY 04: 12/2004 FY 03: 12/2003 FY 02: Achieved/10 FY 01: Exceeded/7	<b>B</b> - 147
<b>4.</b> Number of laboratories qualified to provide surge capacity for analysis of chemical agents.	FY 03: 5 laboratories FY 02: 5 laboratories FY 01: 5 laboratories FY 00: 4 laboratories	<b>FY 02:</b> Maintained/5 <b>FY 01:</b> Achieved/5 <b>FY 00:</b> Exceeded/5 <b>FY 99:</b> 4	<b>B</b> - 177
5. Increase the number of toxic substances likely to be used in chemical terrorism that can be rapidly measured in blood and urine.	FY 03: 150 substances FY 02: 150 substances FY 01: 120 substances FY 00: 100 substances FY 99: 50 substances	FY 03: 12/2003 FY 02: Achieved/150 FY 01: Achieved/120 FY 00: 90 FY 99: Achieved/50 FY 98: 0	<b>B</b> - 177
6. Enhance laboratory capacity for testing and submission of biological agents that could be used in identification is available for all U.S. jurisdictions.	FY 04: →100% of state labs will have the ability to accept, package and submit for transport all Category A and B biological agents.	FY 04: 12/2004	В - 177
	→100% of state labs will have the ability to test for agents on the Category A list and to refer hemorrhagic fever agents to CDC for analysis.		

# **Strategic National Stockpile**

**6. Performance Goal:** Procure, maintain and upgrade the materials and supplies in the Strategic National Stockpile as necessary to augment federal, state and local response to a bioterrorist event.

It is important to note that according to the "Homeland Security Act of 2002 (Title V, Section 502(6))," formal authority of "the Strategic National Stockpile of the Department of Health and Human Services" is transferred to the Department of Homeland Security. However, the Stockpile is still administered within the CDC/ATSDR and therefore the following performance measures are provided.

Performance Measure	Targets	Actual Performance	Reference
1. Maintain a Strategic National Stockpile for deployment in response to terrorist use of biological or chemical agents against the U.S. civilian population.	FY 03: Maintain a stockpile as per the FY 03 DHHS Bioterrorism Strategic Plan.  FY 02: Maintain a stockpile, as per the FY02 DHHS Bioterrorism Strategic Plan.	FY 03: 12/2003  FY 02: The stockpile met and exceeded all of the performance measures in the FY 02 Bioterriorism Strategic Plan, including increasing the number of Push Packages from 8-12.	<b>B</b> - 177
	FY 01: Maintain a Strategic National Stockpile for deployment to respond to terrorist use of biological or chemical agents, including the ability to medically treat civilians for biological and chemical agents as delineated in the Draft HHS Bioterrorism Strategic Plan.	FY 01: The stockpile continued to develop throughout the year. Several 12-hour Push Packages became the initial response; Vendor Managed Inventory became the follow-on response. Together, these two stockpile response components built the capacity to fully treat or give full prophylaxis for selected threat agents to citizens to an extent beyond the FY01 targets listed in the Draft HHS Bioterrorism Strategic Plan.	

Performance Measure	Targets	Actual Performance	Reference
(continued)	FY 00: Maintain a Strategic National Stockpile for deployment to respond to terrorist use of biological or chemical agents, including the ability to medically treat civilians for biological and chemical agents as delineated in the Draft HHS Bioterrorism Strategic Plan.	FY 00: Exceeded/12-hour Push Package and VMI components provided capacity beyond targets.	
	FY 99: Create a stockpile, including the ability to protect 1 million - 4 million civilians from anthrax attacks.	FY 99: Achieved	
2. Increase the number of state and local health departments to be funded to create guidance for the receipt, breakdown and distribution of the Strategic National Stockpile.	FY 03: 62 FY 02: 62	<b>FY 03:</b> 12/2003 <b>FY 02:</b> Achieved/62	<b>B</b> - 177
3. The number of 12-Hour Push Packages.	FY 03: Maintain 12 FY 02: 12 FY 01: 8	FY 03: 12/2003 FY 02: 12/2002 FY 01: Achieved/8	<b>B</b> - 177
4. Create training, education and demonstration packages that can be used during exercises as a tool to help understand the concept of a Push Package.	<b>FY 03:</b> Maintain 2 <b>FY 02:</b> 2	<b>FY 03:</b> 12/2003 <b>FY 02:</b> Achieved/2	<b>B</b> - 177

# **Information and Communication Systems**

**Performance Goal:** Enhance the capacity of CDC and state and local health departments to rapidly and accurately communicate critical information about biological and chemical terrorism events.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the number of state and local public health professionals who use $Epi-X$ to share intelligence regarding outbreaks and other emerging health events including those suggestive of bioterrorism.	<b>FY 03:</b> 1,300 <b>FY 02:</b> 750 <b>FY 01:</b> 230	FY 03: 12/2003 FY 02: Exceeded/1,000 FY 01: Exceeded/650	<b>B</b> - 177
2. Number of reports of disease outbreaks and other emerging health events posted on Epi-X	<b>FY 03</b> : 800	<b>FY 03:</b> 12/2003 <b>FY 02:</b> 599 (baseline)	<b>B</b> - 177
<b>3.</b> Increase the number of states, major metropolitan areas with access to the national secure public health communications network, <i>Epi-X</i> .	FY 03: 75 jurisdictions	<b>FY 03:</b> 12/2003 <b>FY 02:</b> 56 (baseline)	<b>B</b> - 177

# Worker Safety Goal-by-Goal Performance Measurement

**8. Performance Goal:** Continue efforts to protect the health and safety of first responders during chemical, biological, radiological, and nuclear (CBRN) terrorism events.

Performance Measure	Targets	Actual Performance	Reference
1. Increase the availability of CBRN certified respirators for use during a CBRN event by professional firefighters.	FY 04: Increase the availability of CBRN certified respirators for use during a CBRN event to 10% of the professional firefighters.	FY 04: 11/2004	<b>B</b> - 177
	FY 03: Increase the availability of CBRN certified respirators for use during a CBRN event to 3% of the professional firefighters.	FY 03: 11/2003	
	FY 02: Revised Target*: Establish the baseline availability of CBRN certified respirators for use during a CBRN event by professional firefighters.  * Target modified to more accurately reflect respirator certification outcomes	FY 02: Baseline established at 1. May 2002: issued first approval of self-contained breathing apparatus (SCBA) respirators for occupational use by emergency responders against CBRN agents. Additional approvals are expected early in 2003.	
	Previous Target: Establish baseline of CBRN trained professional firefighters equipped with CBRN certified respirators.		

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Performance Measure	Targets	Actual Performance	Reference
2. Increase the number of certification standards and user guidelines for respirators to protect emergency responders in a CBRN event.	FY 04: Increase the number of CBRN respirator standards to 5 classes of respirators.	FY 04: Fall 2004	<b>B</b> - 177
o renu	FY 03: Increase the number of CBRN respirator standards to 3 classes of respirators: SCBA's, APR's, and Escape APR's.	<b>FY 03</b> : Fall 2003	
	FY 02: Establish baseline of CBRN respirator standards.	FY 02: Baseline: Established at 1. A NIOSH CBRN SCBA standard was implemented in January 02. Approval applications from five manufacturers have been processed. More than 10 approval applications have been received and are being completed. Cautions, limitations and restriction of use statements have been incorporated into CBRN SCBA labels and user instruction manuals.	
3. Develop certification standards and user guidelines for respirators to protect workers and emergency responders.	FY 02: Establish certification standards for self-contained breathing apparatus for protection against weapons of terrorism. Process applications for certification. Produce user guides for proper use of self-contained breathing apparatus against weapons of terrorism.  (Continued)	FY 02: SCBA approved 12/2001.  Processing of applications began 1/2002.	<b>B</b> - 177

Performance Measure	Targets	Actual Performance	Reference
3. Develop certification standards and user guidelines for respirators to protect workers and emergency responders.	FY 01: Issue a report reviewing industrial chemicals that are potential weapons of terrorism. Issue a report reviewing national and international standards applicable to the performance of respiratory protection.	FY 01: Vulnerability Assessment Report and Terrorism Hazards Report issued 3/2002.	<b>B</b> - 177

<u>Verification/Validation of Performance Measures:</u> Performance will be verified in partnership with manufacturers and fire departments through surveillance of professional fire departments to determine the availability of CBRN respirators. The number of standards for certification of respirators can be verified through Laboratory approval records, and user guidelines through inspection of CBRN respirator approval labels, user instruction manuals, and other documents.

### **Overarching Program Description and Context**

#### **Terrorism**

Advancing public health readiness has always been part of the CDC/ATSDR mission. However, since the events of September 11, 2001, public health readiness has become even more critical, demanding that CDC/ATSDR increase its efforts to rapidly improve the capacity of public health to prepare for and respond to events of terrorism, including chemical, biological, radiological, nuclear and mass trauma events.

To increase the visibility and coordination of terrorism readiness activities across the agency, CDC/ATSDR formed the Office of Terrorism Preparedness and Response (OTPR). OTPR, formed in August 2002, sits within the Office of the Director and the OTPR Director reports to the CDC Director. As one of its first actions, OTPR initiated a process to develop a GPRA-compliant strategy and performance plan to articulate the role, direction and progress of the various terrorism preparedness and response efforts executed across the various centers, institutes and offices of CDC/ATSDR. This planning, begun in October 2002, continues today and is expected to provide both the strategy and performance plan in early 2003.

The strategy and performance plans are expected to challenge and improve significantly the performance of the CDC/ATSDR terrorism effort. These challenges and improvements will be reflected in new performance measures that will be provided in the agency's update to the performance plan in June 2003. This significant planning effort will help the program establish strong links between strategy, budget and performance.

CDC is responsible for leading national efforts to detect, respond to, and prevent illnesses/injuries that result from the deliberate release of biological agents. In addition CDC has a key role in dealing with health-related issues from release of chemical, and radiological agents, as well as the mass trauma issues that can occur from bio/chem/rad terrorism or "conventional" weapons (explosives, use of vehicles for terrorism, explosives combined with bio/chem/rad agents etc.).

Terrorism preparedness continues to be a priority for the U.S. public health community. Scientific and technological advances are increasing the ease with which persons are able to obtain and weaponize biological chemical, and radiological agents. In addition, there is significant potential for mass trauma from more conventional weapons or from technology not traditionally thought of as weapons in the past (such as aircraft). These factors have been identified by the Office of Homeland Security and the Department of Justice as increasing the potential for terrorism to threaten the health of the U.S. public. Taken together, they represent an expanded "all hazards" framework that CDC must respond to our public health preparedness activities. The potentially catastrophic impact from each of these avenues demonstrates the critical need for local, state, tribal and federal public health capacity to rapidly detect, identify, and respond to a widespread infectious disease outbreak, chemical or radiological assault and/or mass trauma event.

Preparing the nation to address the dangers of terrorism is a major challenge to public health and healthcare systems. The tools and expertise - surveillance, epidemiology, laboratory capacity, and coordinated control measures - that will be most valuable in the event of a CBRN attack will also aid public health in the investigation and control of other infectious disease outbreaks. However, these tools must be enhanced to ensure implementation of the rapid response necessary to minimize the impact of a bioterrorism agent, such as smallpox or plague. Additional resources and enhanced expertise in chemical, radiological and mass trauma response is needed by CDC and by our partners at the federal, state and local levels to ensure a timely and sufficient response.

Early detection of biological and chemical terrorism requires increased awareness among members of the medical community, who are often in the best position to report suspicious illnesses and injuries, and improved linkages between the healthcare and public health communities. State and local health agencies require enhanced capacity to detect and investigate unusual events and unexplained illnesses, and diagnostic laboratories need to be equipped to rapidly identify biological and chemical agents that are rarely seen in the United States. All facets of the public health and healthcare systems require extensive training in planning for and responding to not only biological, but chemical, radiological and other mass trauma events related to terrorism. The private sector also requires technical assistance in responding to bio/chem/rad/mass trauma events. State and local entities must also be trained to receive and distribute the contents of the Strategic National Stockpile. Fundamental to these efforts is comprehensive, integrated planning and training to ensure core competency in the primary elements of public health preparedness and a high degree of scientific expertise among all partners.

The Federal Response Plan (FRP) outlines the mechanism and structure by which the Federal Government mobilizes resources and activities to address the consequences of any major disaster; except for a chemical or oil spill (National Contingency Plan [NCP]) or a radiological event (Federal Radiological Emergency Response Plan [FRERP]). The various plans identify a relatively consistent set of responsibilities and functions for CDC/ATSDR following a disaster, regardless of the nature of the event. This set of responsibilities includes:

- Radiological, Chemical, Biological Hazards Consultation (FRP ESF-8; CDC is lead HHS agency);
- Assessment of Health/Medical needs;
- Health Surveillance (CDC is lead HHS agency);
- Deploy the Strategic National Stockpile and other supplies as needed;
- Mass immunization/prophylaxis;
- Food, Drug, Medical Device Safety;
- Worker Health and Safety (CDC is lead HHS agency);
- Public Health Information (CDC is lead HHS agency);
- Vector Control (CDC is lead HHS agency);
- Potable Water/Waste Water and Solid Waste Disposal;
- Advise states in the development, implementation and maintenance of emergency response plans; and
- Conduct and participate in emergency response exercises.

Advances have been made at the State and local level to strengthen national capacity for terrorism response. The CDC cooperative agreement program, Public Health Preparedness and Response for Bioterrorism, currently provides funding to 50 states, 4 localities and 8 U.S. territories to enhance some or all of the primary components of terrorism preparedness. CDC's Bioterrorism Preparedness and Response activities are a cross-cutting effort which integrate the activities of various offices at CDC, the Agency for Toxic Substances and Disease Registry, and other federal entities such as the FBI, the Federal Emergency Management Agency, and the Department of Justice Programs. CDC provides leadership and coordination for this national capacity-building effort, with emphasis on interdependent focus areas as outlined in the cooperative agreements:

- A) Preparedness Planning and Readiness Assessment;
- B) Surveillance and Epidemiology Capacity;
- C) Laboratory Capacity-Biologic Agents;
- D) Laboratory Capacity-Chemical Agents;
- E) Health Alert Network/Communications and Information Technology;
- F) Communicating Health Risks and Health Information Dissemination; and
- G) Education and Training.

By implementing and coordinating terrorism preparedness activities at the federal level, CDC will be better able to support State and local partners in their efforts to establish comprehensive terrorism preparedness and response programs. Activities being implemented at the CDC/ATSDR complement efforts being made around the country. Some of these activities will also support work related to chemical, radiological and mass trauma response.

### **Overarching Program Performance Analysis**

#### **Terrorism**

As a result of the achievement of the performance measures listed above, local, state, and federal preparedness for biological and chemical terrorism has been strengthened. Additional resources for preparedness for biological, chemical and radiological terrorism in FY 2004 will further enhance our strength.

In light of the possibility of additional terrorist attacks against Americans domestically, it is critical that CDC be able to help public health agencies and professionals in all states and territories, as well as many other major cities, achieve the same level of planning, preparedness, and training that exist in New York and Washington. With supplemental funds provided in FY 2002, CDC will continue to address existing deficiencies by creating a nationwide comprehensive, coordinated emergency public health preparedness planning and training program. The supplemental funding will accelerate training opportunities, CDC field staff assignments, and CDC-led emergency response exercises would be made available to every state and territory, as well as the major cities deemed to be most at risk from a terrorist attack. CDC will continue its efforts to strengthen national preparedness for terrorism by: (1) further developing and maintaining activities such as improving preparedness and response capabilities; (2) improving capacity for laboratory diagnosis of biologic and chemical agents; (3) strengthening surveillance systems and epidemiologic tools for detection of bioterrorism; (4) strengthening the public health workforce capacity; (5) establishing communications and training networks to improve terrorism readiness and response; (6) maintaining and expanding the Strategic National Stockpile; and (7) building partnerships to ensure coordinated, comprehensive plans for response to terrorism. All of these activities will continue to be conducted at federal, state, tribal and local levels.

#### **Program Descriptions, Context, and Analyses**

# Deterrence/Prevention Program Description and Context

DHHS, through its CDC regulation (i.e. Select Agent Rule), as mandated by the Antiterrorism and Effective Death Penalty Act of 1996, has oversight of the national Laboratory Registration/Select Agent Transfer (LR/SAT) program. This rule requires the monitoring of approximately 40 biological agents and toxins ("select agents") that pose a severe threat to public health and safety. To administer the Select Agent Rule, CDC requires the registration of specific facilities that transfer or receive these agents. This is to ensure that they are equipped and capable of safely working with them. CDC may also perform inspections on these facilities during the 3 year registration period. The Select Agent Rule also requires CDC to maintains data on shipments of select agents between registered facilities and works with law enforcement agencies when violations of the regulation occur or are suspected of having occurred.

On June 12, 2002, the President signed Public Law 107-188, Public Health Safety and Bioterrorism Preparedness and Response Act of 2002. The new law gives HHS authority to regulate possession and use, as well as transfer of such select agents. Regulations must require persons to register in order to possess, transfer, or use select agents and are to include security requirements. CDC and HHS will be working with the United States Department of Agriculture (USDA), who will be initiating similar regulations for their agents that USDA determines have the potential to pose a severe threat to animal or plant health or to animal or plant products, on developing these new regulations.

#### **Program Performance Analysis**

To assist with national deterrence efforts, CDC continues to register and inspect laboratories that transfer or receive select agents. In FY 2002, 106 new registrations were issued under the LR/SAT program, resulting in a total of 355 laboratories currently registered and certified with CDC to transfer select agents.

CDC executed two task orders during FY 2002 to bolster the ability to conduct facility registrations and facility inspections. With the additional assistance from these contracts a total of 43 inspections were performed under the Select Agent Rule, for a cumulative total of 103 laboratories inspected under the program. In FY 02, CDC documented a total of 1,352 transfers of select agents between government agencies, universities, research institutions, and commercial entities.

During FY 03, CDC will initiate efforts to incorporate both security and technological upgrades to the select agent data base. This will expand our capabilities of providing assistance to law enforcement authorities. CDC will also initiate efforts to expand programmatic infrastructure to increase timeliness of facility registrations and inspections.

# Preparedness and Response Capacity Program Description and Context

The prospect of terrorists unleashing biological, chemical, radiological or conventional weapons is a terrifying one, in part because of a fear of the unknown. It is expected that an act of terrorism will occur with no warning. In order to protect the health of Americans, CDC assists state and local health departments as they prepare to respond to deliberate acts of terrorism. A well planned, rapid and effective response will be critical in minimizing illnesses and deaths associated with such an event. Across the country, state health department officials are reconsidering the capabilities of their departments to respond to a biological, chemical, radiological and conventional weapons terrorism incident. Any of these events may also involve the need for mass trauma response. Traditionally, the responsibilities of the state health departments have been disease surveillance and management. Health departments now are defining their roles to respond effectively to an intentional release of a terrorist agent into an unsuspecting population.

#### **Program Performance Analysis**

CDC initiated a cooperative agreement program for state and major local health departments to help improve their preparedness and response capabilities for terrorism. State and local grantees are completing comprehensive assessments of their capacity for CBRN terrorism preparedness and response. Analysis of these assessments will allow grantees to prioritize their resources and efforts. All the states and some territories will have initiated some preparedness and response activities in FY 2002. By the end of FY 2002 at least 48 of the states and territories receiving funding will have completed their vulnerability assessments and 42 will have completed their draft public health emergency response plans. In addition, state, territorial, and local health departments will have begun to build critical communication links with other assets in the health-care and emergency response community (e.g., hospitals, emergency departments, acute-care centers, police, fire, EMS, local emergency management agencies and other first response organizations) to assess local capacities and coordinate responses. Finally, a community emergency response demonstration program will be established to develop methodology to assure integrated state and local public health emergency response capabilities. As described earlier, these plans must be expanded to an "all-hazards" approach that considers not just biological and chemical but also radiological events, and events caused by these or conventional weapons resulting in mass trauma.

Three exemplar centers for public health preparedness have been established and are implementing model information technology projects that will provide assistance for states and localities developing public health information systems. CDC has also collaborated with the Department of Justice in development of an assessment of public health capacity for terrorism preparedness and response. CDC expects to work closely with HHS, other federal agencies and the proposed Department of Homeland Security in the development, deployment and coordination of these efforts.

# Surveillance and Epidemiology Capacity Program Description/Context

Because a covert biological or chemical attack will most likely be detected locally, disease tracking systems at state and local health agencies must be ready to detect unusual patterns of disease and injury, and epidemiologists at these agencies must have expertise and resources for responding to reports of rare, unusual, or unexplained illnesses. CDC is working to integrate surveillance for illness resulting from biological and chemical terrorism into the U.S. disease surveillance systems. CDC is also developing new methods for rapidly detecting, evaluating, and reporting suspicious health events that might indicate covert terrorist acts. CDC has provided funding for terrorism surveillance and epidemiology coordination to all state health departments and selected major metropolitan cities and territories.

#### **Program Performance Analysis**

Funding for this component includes awards for building core capacity, as well as special projects. In FY 2000 all 50 states, 4 localities, and 8 U.S. territories were funded for the core capacity component of the cooperative agreement. Additionally, eight projects were identified to develop special surveillance and epidemiology activities. States and localities have used their cooperative agreement funds to enhance their capacity to detect, investigate and mitigate health threats posed by bioterrorism agents. In addition, expansion of *Epi-X*, the *Epidemic Information Exchange*, an Internet-based, secure communication system promotes easier, more accurate, and real-time reporting of suspect outbreaks or other emerging health threats, including those related to bioterrorism. Increased funding for upgrading state and local capacity allowed for funding 14 additional sites and expansion of *Epi-X* to a larger number of public health professionals. *Epi-X* is also supporting the development of secure communications systems at three jurisdictions (Florida, Kansas, and Chicago).

A variety of technical assistance has been completed, including: provision of epidemiologic assistance in the investigation of an outbreak of West Nile virus in New York, enhanced surveillance support for the World Trade Organization Ministerial Conference in Seattle, Democratic and Republican National Conventions, and 2001 Super Bowl.

# Laboratory Capacity Program Description and Context

**Laboratory capacity for biologic agents:** Because most bioterrorist agents have little public health impact on a day-to-day basis, the ability for rapid laboratory diagnosis of these infections is limited, both at the national level and in state and local public health laboratories. CDC is responsible for providing the nation with an accurate and timely determination of any etiologic agent causing a public health threat, including both naturally occurring diseases and bioengineered organisms used in a biological terrorism attack. CDC also ensures that state and large city public health laboratories are prepared to rapidly and accurately diagnose agents causing public health problems. To meet these needs, CDC, in collaboration with APHL established the Laboratory Response Network (LRN). This multilevel network of public health laboratories provides essential diagnostic capabilities in state and large metropolitan areas and centralized, state-of-the-art national reference capacity at CDC. CDC under a unified operational structure using standardized protocols, reagents, and secure communications. The LRN is a collaborative partnership to establish front line lab-based biodetection for rapid agent identification and communications needed to support sentinel surveillance, epidemic response, and population based public health decision making. CDC's Rapid Response and Advanced Technology Laboratory provides molecular approaches to rapid identification of biological agents that are rarely seen in the United States. Other disease-specific laboratories at CDC provide additional research and surge capacity for diagnostic testing in response to any incident. CDC and partners have identified the biological agents most likely to be involved in a terrorist attack and continue to develop rapid assays to assist in detecting these agents at the state and local levels.

<u>Laboratory capacity for chemical agents</u>: Chemical attacks by terrorists, such as the release of the deadly gas sarin in a Tokyo subway, underscore the need to quickly and reliably determine the identity of the chemical agent, find out who has and has not been exposed, and determine the extent of exposure. Public health laboratories currently do not have the infrastructure to test human samples for chemical agents. In the event of a chemical terrorist incident, not only would there be a need to analyze samples from persons who were actually exposed to an agent, but there also could be extensive demand for services for persons who think they were exposed. To address these deficiencies, CDC has developed a rapid toxic screen that can identify up to 150 different chemical agents in blood and urine samples.

## Laboratory Capacity Program Performance Analysis

Laboratory capacity for biological agents. Laboratory Response Network (LRN) laboratorians from all 50 states have been trained in the handling and testing of critical biologic agents. The public health infrastructure has been strengthened as evidenced by the many public health laboratories across the country that have been renovated and upgraded to allow adequate safety for improved diagnosis of potential bioterrorism agents and the addition of new, trained laboratorians. Currently, 55 laboratories in 53 states and localities receive funds to enhance their capacity for identification of biologic agents. All of these laboratories are also members of the Laboratory Response Network (LRN). New rapid assays are being developed for utilizing real-time PCR and antigen detection for potential bioterrorism agents.

<u>Laboratory capacity for chemical agents</u>: CDC has funded 5 regional laboratories to address chemical agents and has worked with grantees to accomplish the purchase, installation, and training associated with new state-of-the-art laboratory equipment required to carry out this highly measurement of nerve agents in human samples and successfully completed a round of proficiency testing to demonstrate their understanding of the method. Additionally, states are also receiving training on measurement of sulphur mustards in human samples.

<u>CDC capacity:</u> CDC has organized teams of laboratory professionals whose sole responsibility is to provide the laboratory services needed to rapidly and accurately triage and analyze specimens that are suspected to be potential bioterrorism threat agents. CDC's Rapid Response and Advanced Technology Laboratory (RRAT) for bioterrorism was established to receive suspect clinical and environmental samples for rapid identification. Since the World Trade Center attack on September 11, 2001 until the report of the first confirmed case of anthrax on October 4, 2001, an estimated 7,500 laboratory samples were processed at CDC's RRAT and specialty laboratories. In addition, agent-specific laboratories at CDC have been established or strengthened to perform confirmatory testing and strain characterization of critical biologic agents and provide surge capacity during an event.

CDC has developed testing methods for nerve agents, nitrogen mustards, sulfur mustards, lewisite, hydrogen cyanide, cyanogen chloride, BZ, tricothecene mycotoxins, ricin, heavy metals, selected toxic industrial chemicals, and incapacitating agents.

#### Strategic National Stockpile Program Description and Context

It is important to note that according to the "Homeland Security Act of 2002 (Title V, Section 502(6))," formal authority of "the Strategic National Stockpile of the Department of Health and Human Services" is transferred to the Department of Homeland Security. However, the Stockpile is still administered within the CDC/ATSDR, therefore the following Program Description and Program Performance Analysis are provided.

Congress gave CDC the mission to manage and oversee the Strategic National Stockpile (SNS) in January 1999. CDC was expected by January 1, 2000 to be capable of meeting an expected terrorist threat and met this mandate on time, declaring that it had drugs and medical material ready to deploy and an air cargo service ready to deliver it. One of two SNS Program components are the "12-hour Push Packages." A 12-hour Push Package can reach a site within 12 hours of a federal order to deploy. There are twelve 12-hour Push Packages located throughout the country for security reasons and in case of multiple attacks. In a terrorist event, CDC staff will meet the arriving SNS, transfer custody to state officials, and offer technical assistance on SNS organization, repackaging, and distribution to medication dispensing sites.

The second SNS Program component is "vendor-managed inventory" (VMI), or a stockpile of drugs and material made and stored for CDC by firms that produce or distribute them. VMI is meant to help treat many casualties over time. During FY 2000 the 12-hour Push Package became fully operational and ready for deployment. During FY 2001 VMI contracts were awarded and the material they represent came on-line ready for deployment. Maintaining and upgrading the materials and supplies (purchase of additional antidotes, antibiotics, medical supplies, equipment, etc) in both the12-hour Push Package and VMI will continue to be a priority activity of the SNS Program and replace stock that is used during a response.

In FY 2002, the SNS program will achieve and maintain a capacity to provide post-exposure prophylaxis to 12 million persons for possible exposure to anthrax, and an equal or greater number of persons who may be exposed to plague or tularemia. Each of the 50 states, 8 U.S. Territories, 3 cities, and the District of Columbia will continue to have the opportunity to put a process in place to effectively manage and use the SNS should a deployment occur in a terrorist or other catastrophic event. In FY 2003 the SNS program will conduct preparedness planning, training, and exercises; sustain anthrax prophylaxis capability; sustain non-anthrax vendor managed inventory with 12 hour push-package capability; and cover routine operational expenses such as personnel, storage, and transport. SNS will develop a series of strategic vaccines repositories and make arrangements for rapid vaccine deployment.

#### Strategic National Stockpile Program Performance Analysis

The Strategic National Stockpile (SNS) was deployed for the first time in response to the September 11, 2001 terrorist attacks in New York City and Washington, DC. CDC mobilized a SNS "push package" to NYC within 7 hours of an approved deployment as well as a push package to Washington, DC in the days following the attack on the Pentagon. The initial push package consisted of over 50 pallets of medical material. In addition, the SNS program, already on 24-hour, fully-staffed alert from the September 11<sup>th</sup> event, arranged CDC's immediate response to the first case of anthrax in Florida. At the request of the state of Florida and local officials, CDC arranged through the SNS program for the transportation of CDC epidemiologists and its Technical Advisory Response Unit (TARU) to Florida and North Carolina to investigate the anthrax exposures. In October and November, CDC used the SNS program to deliver almost 3.75 million tablets of three different antibiotics (amoxicillin, ciprofloxacin, and doxycycline) for post-exposure prophylaxis of employees in affected buildings, postal workers, mail handlers, and postal patrons.

#### **Information and Communication Systems - Program Description/ Context**

Most health departments lack the modern, secure electronic systems needed to detect disease outbreaks rapidly, respond to outbreaks, and communicate with CDC, other government agencies, and the public during public health emergencies. Through the Health Alert Network, CDC is aiding state and local health departments to raise their capacity and preparedness to deal with public health threats – including not only bioterrorism but also emerging infectious diseases, chronic diseases, and environmental hazards. This means that the nation reaps the benefits of these investments every day, not just in the event of a chemical attack. Key elements are modern information and communication systems, a fully trained workforce, and robust organizational capacity to address the full spectrum of public health issues. The network allows high-speed Internet communications, including early-warning broadcast alerts, among CDC and state and local health departments.

The need for rapid communication, research, and response has become an essential element of public health. Local outbreaks can develop rapidly into pandemics, previously unidentified diseases emerge, contaminated food or defective products are disseminated, and the threat of terrorism preparedness is increasing. The availability of a secure Web-based communications network for public health investigation and response would simplify and expedite the exchange of routine and emergency public health information between CDC and state and local health departments. In the absence of such a network, reports and discussions are extremely difficult and timely investigative and prevention efforts are delayed.

To help public health officials share information on outbreaks, CDC officially launched the Epidemic Information Exchange (*Epi-X*). *Epi-X* is the secure, web-based communications system that simplifies and enables "real time" sharing of routine and emergency public health information about disease outbreaks and other acute health events including those related to bioterrorism among public health officials at the local, state, and federal levels. *Epi-X* was designed with input from a range of public health officials and organizations. Examples of *Epi-X* reports include infectious disease outbreaks; newly recognized environmental, product, occupational and recreational hazards; recommendations regarding availability and use of vaccines; and bioterrorism threats and acts.

## **Information and Communication Systems Program Performance Analysis**

Within four hours of the attack on the World Trade Center, the Health Alert Network was activated and began transmitting emergency messages to the top 250 public health officials in 50 States, 7 large cities and Guam. In the months that followed, over 67 health alerts, advisories and updates were transmitted reaching an estimated 1 million frontline public and private physicians, nurses, laboratorians, and State and local health officers. Using in-state systems built with CDC funds, States were able to augment and tailor the HAN alerts to their unique situations. CDC and its HAN grantees also established and maintained Internet websites to provide information to the public. Since September 11<sup>th</sup> there have been 73 million hits, 5 million visits, and 12 million requests for information on the CDC bioterrorism website.

A second national conference, focused on Health Alert efforts (such as internet connectivity, broadcast alert, and distance learning), was held in August 2001 in Columbus, Ohio. A variety of communication and program management tools have been developed including LIST SERVs, E-mail group codes, websites, and an ACCESS database. Site visits are continuing at all of the HAN project areas and technical assistance has been provided. In FY 2001 additional HAN funding became available which increased the number of funded states/areas to 55.

To address the public health problem of being able to share information delays in reporting outbreaks, CDC, with the input of over 300 health officials, developed the *Epidemic Information Exchange (Epi-X)*. *EPI-X* was launched in December 2000. As of September 30, 2001, 650 public health officials, including all state epidemiologists or their designees, local health officials, and members of the military, participate on *Epi-X*. *Epi-X*, which has medical editorial staff available 24 hours/day, 7 days/week, is moderated for quality by CDC staff. Responding to ideas from public health officials, *Epi-X* plans to provides secure communications for multistate outbreak response teams, and plans to develop links between disease surveillance programs and local health alert systems and improved software to automate the recognition of similar disease outbreaks across jurisdictions.

## Worker Safety Program Description and Context

Since local responders will be the first on scene of a biological or chemical terrorism event, the quality of protective equipment and clothing used against biological and chemical weapons is critical to the response effort. Mechanisms for ensuring that respirators and protective clothing adequately protect against chemical and biological terrorism must be evaluated.

#### **Program Performance Analysis**

CDC's National Institute for Occupational Safety and Health (NIOSH) is developing guidelines and certification standards for various classes of respiratory protective equipment. Laboratory and staff capabilities will be acquired to process certification applications. User guidelines specifying cautions and limitations of use will be developed and disseminated. A National Personal Protective Technologies Laboratory to study and develop improved personal protective equipment for first responders and other workers has been established.

Currently, emergency responders to chemical, biological, radiological, and nuclear terrorist events are not equipped with ample personal protective respirators tested and certified for use with the many hazards possible in acts of terrorism. Similarly, non emergency workers in areas identified as high terrorist threat locations are not provided escape respirators tested and certified to address possible terrorist hazards. The reason for the lack of certified respirators is that criteria for identifying the required protection and respirator performance have not existed in the past. In 1998 CDC identified this glaring gap in personal protective equipment and has since been working with the U.S. Military and other stakeholders to develop respirator standards, implement respirator certification programs, provide guidance on respirator use and direct research focused on deficiencies in scientific information in the area of respirator performance.

In May 2002, CDC issued its first approval of self-contained breathing apparatus (SCBA) respirators for occupational use by emergency responders against chemical, biological, radiological, and nuclear agents. It is anticipated that beginning in 2003, CDC will develop similar criteria for approving other types of respirators, such as air-purifying devices, for use by emergency responders.

In addition to developing respirator certification standards and user guidelines, CDC is committed to assuring that CBRN protective respirators are available to professional firefighters. Beginning in FY 2002, CDC began efforts to increase the availability of CBRN certified respirators for use during a CBRN event by professional firefighters.

Program Management is not a budget line item activity; however, it represents cross-cutting activities at CDC.

#### II-R. Program Management and Support

#### Program Management Goal-by-Goal Performance Measurement

**Performance Goal:** Fully achieve the President's Management Agenda in all five areas of Strategic Management of Human Capital; Competitive Sourcing; Improved Financial Performance; Expanded Electronic Government; and Budget and Performance Integration.

Performance Measure	Targets	Actual Performance	Reference
President's Management Agenda stoplight ratings as issued by HHS	FY 04: 4 greens, 1 yellow FY 03: 3 greens, 2 yellows	<b>FY 04:</b> 12/2004 <b>FY 03:</b> 12/2003	<b>B</b> - 206
or OMB.			#1, 2, 3, 4, 5

#### **Program Management - Overarching Program Description and Context**

CDC's program management goals, performance measures, and initiatives are directly supportive of all five areas of the President's Management Agenda (PMA) and additional initiative of the HHS Secretary's Management Objectives including results oriented management, program and administrative efficiencies, and improved management of grants, acquisition, information technology, facilities, and security.

In order to achieve the President's Management Agenda and the HHS Secretary's management objectives, CDC must develop and successfully implement plans and strategies to reach the goals in all five management areas. For example, CDC's Restructuring and Delayering Plan delineates specific goals and time lines. In brief, these goals are:

- Improve supervisory ratio;
- Increase span of control/organizational control;
- Reduce the number of organizational units;
- Increase delegations of authority;
- Eliminate duplicative administrative functions;
- Eliminate 8 sections in the Procurement and Grants Office and balance the workload;
- Out source the Vessel Sanitation Program;
- Out source the Tuskegee Medical Voucher Program;
- Consolidate or out source specialized travel; and
- Re-engineer/restructure to support the centralization of HR and Financial Systems.

Additional discussion on CDC's efforts to fulfill the five PMA goals is offered in Appendix E.

#### Program Support Goal-by-Goal Performance Measurement

#### Information Access, Security, and Reliability

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

Performance Measure	Targets	Actual Performance	Reference
Enhance CDC's information content and technology infrastructure to increase public access to CDC information resources through the CDC website and CDC's Voice/Fax Information Service (VIS).	FY 04: 20% increase FY 03: 20% increase FY 02: 20% increase	FY 04: 12/2005 FY 03: 12/2004 FY 02: 5.49M website visitor/month; 41K VIS calls/month, combined (51.5% increase)	B - 206
	<b>FY 01:</b> 25% increase	FY 01: 3.6M website visitors/month; 54,000 VIS calls/month (combined 29% increase)	
	<b>FY 00:</b> 25% increase	FY 00: 2.8M website visitors/month; 46,000 VIS calls/ month (combined 47% increase)	
	<b>FY 99:</b> 25% increase	FY 99: 1.9M website visitors/month;  51K  VIS calls/month (combined 171% increase)  FY 98: 0.7M website visitors/month;  45K  VIS calls/month	

# Information Access, Security, and Reliability, Competitive Sourcing, Financial Assistance, and Performance-Based Contracting Measures to be Phased Out After FY 03

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

Performance Measure	Targets	Actual Performance	Reference
Protect CDC's information system from serious losses, alterations, or releases of data or information that	FY 03: No serious losses, alterations, or releases.	<b>FY 03:</b> 11/2004	B - 206
are critical, highly sensitive, or covered by privacy or confidentiality requirements.	FY 02: No serious losses, alterations, or releases.	FY 02: No serious losses, alterations, or releases.	
J	FY 01: No serious losses, alterations, or releases.	FY 01: No serious losses, alterations, or releases, one limited and contained system compromise.	
	FY 00: No serious losses, alterations, or releases.	FY 00: No serious losses, alterations, or releases.	
	FY 99: No serious losses, alterations, or releases.	FY 99: No serious losses, alterations, or releases security measures.	
	FY 98: No serious losses, alterations, or releases.	FY 98: No serious losses, alterations, or releases.	

#### **3. Performance Goal:** Ensure that critical information systems and infrastructure operate reliably.

Performance Measure	Targets	Actual Performance	Reference
Ensure the reliable and continuous operation of CDC's critical information systems and information technology infrastructure (data center, wide	FY 03: 99.5% continuous availability FY 02: 99.5% continuous availability	FY 03: 11/2003  FY 02: 99.89% continuous availability (78% better than goal)	B - 206
area network, e-mail, Internet/web services, and telecommunications).	FY 01: 99% continuous availability	FY 01: 99.94% continuous availability (89% reduction in service unavailability)	
	FY 00: 98% continuous availability	FY 00: 99.46% continuous availability	

# Competitive Sourcing, Financial Assistance, and Performance-Based Contracting Goal-by-Goal Performance Measurement

**1. Performance Goal:** Implement competitive sourcing for analyzing and conducting program activities that are commercial in nature.

Performance Measure	Targets	Actual Performance	Reference
Directly convert to contract and/or conduct cost comparison studies of CDC staff performing commercial functions listed in the CDC FAIR Act inventory.	<b>FY 03:</b> 423 FTEs <b>FY 02:</b> 217 FTEs	FY 03: 11/2004 FY 02: All 217 FTEs were directly converted in FY 2002	<b>B</b> - 206 #2

2. **Performance Goal:** Establish performance measures for grants and cooperative agreements.

Performance Measure	Targets	Actual Performance	Reference
Document grantee performance relevant to the purpose of Program Announcements, Healthy People 2010 Goals and appropriate Programmatic GPRA goals by incorporating performance measures into Program Announcements.	FY 03: 100% compliance of new competitive announcements FY 02: 100% compliance of new competitive announcements after January 11, 2002.	<b>FY 03:</b> 11/2004 <b>FY 02:</b> Fully achieved	B - 206 #2

#### Financial Assistance/Performance-Based Contracting Continued

**3. Performance Goal:** Streamline financial assistance programs (grants and cooperative agreements) through consolidation.

Performance Measure	Targets	Actual Performance	Reference
Consolidate competitive grant and cooperative agreements through the use of umbrella Program Announcements.	FY 03: 50% of all competitive Program Announcements will be reviewed and considered for consolidation.	<b>FY 03:</b> 11/2004	<b>B</b> - 206
	FY 02: 20% of all competitive Program Announcements will be reviewed and considered for consolidation with a focus on chronic diseases.	FY 02: 22% of competitive program announcements reviewed resultin in 72% consolidation in the chronic diseases area.	

**4. Performance Goal:** Enhance the effectiveness of service contracts through performance-based contracting.

Performance Measure	Targets	Actual Performance	Reference
Increase the use of performance-based contracting.	FY 03: 20% of eligible service contracting dollars are awarded as performance-based contracts. FY 02: 20% of eligible service contracting dollars are awarded as performance-based contracts.	FY 03: 11/2004  FY 02: 29% of new service contracting awards were made as performance-based.	<b>B</b> - 206

## Information Access, Security, and Reliability, Competitive Sourcing, Financial Assistance, and Performance-Based Contracting

#### **Overarching Program Description and Context**

CDC's program support goals, performance measures, and initiatives are directly supportive of the President's Management Agenda and the HHS Secretary's Management Objectives including human capital, competitive sourcing, financial performance, E-Government, budget-performance integration, results oriented management, program and administrative efficiencies, and improved management of grants, acquisition, information technology, facilities and security.

CDC has played a significant contributing role to the Secretary's five-year Enterprise Information Technology Plan resource commitments, program management, and technical expertise. CDC has also ensured that our efforts in all these areas directly align with the "One HHS" theme embodied in the HHS enterprise architecture business model.

CDC awarded approximately \$3 billion in extramural funds in FY 2001 through grants, approximately 70% of which went to states and the extramural funding is expected to reach \$5 billion in FY 2002. CDC is actively consolidating and streamlining its grants programs particularly in the area of chronic diseases in FY 2002.

Other CDC activities which reinforce the Administration's emphasis on E-Government and citizen-centered services include:

- Re-engineering the CDC web site to serve as a public health portal for information;
- Meeting the Government Paperwork Elimination Act goals and deadlines; and
- Conducting E-Commerce business through E-Procurement and E-Grants.

Information access, security, and reliability: CDC is an information-intensive organization. CDC's mission largely revolves around the collection, analysis, and dissemination of data and information on health events, vital statistics, and other health determinants. Access to authorized data and information assets is vital to personal and public health decision making, research, policy development, and program management. Protecting the confidentiality, privacy, and integrity of sensitive data and information is of utmost importance to CDC, the agency's data-provider partners, and the persons and organizations that entrust public health agencies with these data. Ensuring the reliable and continuous operation of critical systems is also vital as programs and business processes are dependent on information technology and systems.

<u>Competitive Sourcing:</u> CDC has developed and is implementing a Competitive Sourcing Plan that aligns with the competitive sourcing goals in the President's Management Agenda. The activities described in this Plan have been, and will continue to be, undertaken in tandem with analytical improvements and refinements in the development of the FAIR Act inventory that is the foundation for competitive sourcing. These improvements are designed to ensure the completeness and accuracy of the CDC FAIR Act inventory, as well as the Competitive Sourcing Plans that are derived from it.

<u>Financial Assistance</u>: CDC is establishing a higher degree of accountability in its financial assistance programs through the development of performance measures for all programs and streamlining programs through appropriate consolidations.

<u>Service Contracting</u>: CDC is improving service contracting effectiveness by increasing use of performance-based contracting for service contracts in alignment with Administration and HHS goals.

#### **Overarching Program Performance Analysis**

<u>Information access</u>: CDC's success in developing and providing useful data and information for a wide range of uses such as personal health choices, medical practice, public policy, health research, etc., can be measured in part by tracking the number of people who seek and access such information. CDC has two primary methods for providing information related to CDC's many public health programs to the public, health professionals, and others. These are the CDC Voice/FAX Information Service (VIS) and CDC's website. This performance measure is based on the number of people who request CDC's information rather than a measure of documents, pages, website hits, or other possible measures.

CDC's VIS provides callers with immediate access to automated prerecorded voice information on public health topics over the phone or automated faxed information, data, and graphics to any fax machine upon request at any time. While the web has become extremely popular for accessing information, the CDC VIS remains an important method to ensure access by persons without Internet access or convenient access at the time of need. The CDC VIS is toll-free, multilingual, and serves persons with hearing disabilities. CDC's website is one of the most popular government websites of all types and is especially important in providing trusted health information to consumers and health professionals.

<u>Information security</u>: CDC has a comprehensive security program for establishing and operating a secure technology and information environment through controls, systems, processes, expertise, awareness, and other means. While the risks and vulnerabilities from the complexity of computer software and world-wide exposure to the Internet continue to increase, CDC has concomitantly increased its focus on prevention, detection, and response capabilities.

<u>Information systems reliability</u>: Information systems that are critical to the CDC mission and the underlying information technology infrastructure that supports those systems need to be reliable, available, and operational round-the-clock every day. This is especially important given the global access to CDC's information products as well as the global locations of CDC staff. Consequently, critical systems and infrastructure must be engineered, managed, and monitored such that any unscheduled loss of service is minimized.

Competitive Sourcing: The CDC Competitive Sourcing Plan for FY 2002 specified completion of public-private competitions or direct conversions (as permitted under OMB Circular A-76) on not less than 5% of the CDC FTE listed in its FAIR Act inventory as performing commercial type work. The 5% goal for FY 2002 required public-private competitions or direct conversions of approximately 217 FTE listed in the CDC FAIR Act inventory. For FY 2003, CDC will complete public-private competitions and/or direct conversions (as permitted under OMB Circular A-76) of not less than an additional 10% (approximately 423) of the CDC FTE listed in its FAIR Act inventory as performing commercial work. Goals beyond FY 2003 have not yet been established.

#### Financial Management Processes and Internal Controls Goal-by-Goal Performance Measurement

**1. Performance Goal:** Ensure the proper preparation and presentation of CDC's financial statements.

Performance Measure	Targets	Actual Performance	Reference
Achieve 100% audited financial statements with no qualifications.	FY 03: 100% with no qualifications.	<b>FY 03:</b> 1/2004	<b>B</b> - 206
statements with no quantications.	FY 02: 100% with no qualifications.	FY 02: Achieved	#3
	FY 01: 100% with no qualifications.	FY 01: Achieved	
	<b>FY 00:</b> 100% with no qualifications.	FY 00: Achieved	
		<b>FY 99:</b> 100% with no qualifications.	
		<b>FY 98:</b> 100% with no qualifications.	

<u>Verification/Validation of Performance Measures</u>: Audited financial statements are published annually in the Chief Financial Officer's Report for CDC and ATSDR. The measure and goal will be validated and verified by the published report of an independent audit firm.

#### **Program Description and Context**

The Chief Financial Officers' Act requires federal agencies to have audits of their financial statements. An audit consists of a review of the agency's financial statements and an assessment of the accounting principles used and significant estimates made by management. To receive an "unqualified" opinion from an auditor, the agency's financial statements must be determined to present fairly, in all material respects, the financial position of the agency in conformity with generally accepted accounting principles.

#### **Program Performance Analysis**

CDC's first financial statement audit was performed in FY 1997, and CDC received a qualified opinion. Since then, CDC has received four consecutive unqualified opinions for FY 1998, FY 1999, FY 2000, and FY 2001. Although CDC is pleased with the success of the financial audits, CDC is devoting significant resources to upgrading the accounting system, improving management controls over budget execution, and increasing training opportunities for financial staff members.

## Recruitment Timeliness Goal-by-Goal Performance Measurement

**1. Performance Goal:** Decrease the time needed to classify positions and refer candidates for vacancies.

Performance Measure	Targets	Actual Performance	Reference
Decrease the time needed to refer candidates to fill positions.	FY 03: < 55 days to refer FY 02: < 60 days to refer FY 01: < 60 days to refer FY 00: 25% time reduction.	FY 03: 12/31/03 FY 02: 13.4 days to classify; 61.1 days to refer FY 01: 14.1 days to classify; 64.3 days to refer FY 00: Achieved/13.9 days to classify; 59.3 days to refer FY 98: 15 days to classify; 80 days to refer	<b>B</b> - 206  ■ #1

<u>Verification and Validation of Performance Measures:</u> Data are 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.

#### **Program Description and Context**

CDC's workforce is a critical strength of the agency. A top priority is the recruitment of highly qualified staff who represent the public.

#### **Program Performance Analysis**

CDC slightly missed the goal of reducing time for referral of candidates. The time to classify positions decreased from 14.1 days in FY 01 to 13.4 days in FY 02 and the time to refer candidates increased from 64.3 days to 61.1 days during this same time period. However, this still falls just short of the goal of 60 days to referral. Classification and referral of candidates are integrally linked when filling any position. A contributing factor was the added complexity of the hiring controls that were placed on CDC in January 2001 and continued into FY 2002. These hiring controls affected a number of job series across CDC and all supervisory positions. Due to the uncertainty of when the hiring controls may be lifted, many selecting officials preferred not to receive certificates (which expire in 30 days) for positions they may not be authorized to fill for many months. Frequently, they opted to receive certificates only after the hiring controls for those specific occupational series were lifted. This practice resulted in the delays reflected in the data.

# **Workforce Planning: Restructuring and Delayering Initiatives Goal-by-Goal Performance Measurement**

#### **1. Performance Goal:** Enhance workforce planning efforts at CDC.

Performance Measure	Targets	Actual Performance	Reference
1. Improvement of supervisory ratio	FY 04: Increase supervisory ratio to 1:9 FY 03: Increase supervisory ratio to 1:8 FY 02: Increase supervisory ratio to 1:7	FY 04: 10/31/04 FY 03: 12/31/03 FY 02: Supervisory ratio is 1:6.8 FY 01: Supervisory ratio is 1:5.5 (baseline)	B - 206
2. Increase in the span of control and organizational size.	FY 03: Increase the minimum number of FTEs required to 11 FTEs per branch and 6 FTEs per section.	<b>FY 03:</b> 12/31/03	<b>B</b> - 206
	FY 02: Increase the minimum number of FTEs required to 10 FTEs per branch and 5 FTEs per section.	FY 02: The current CDC guidance requires a minimum of 10 FTEs per branch and a minimum of 5 FTEs per section.	
		FY 01: The current CDC guidance requires a minimum of 9 FTEs per branch and a minimum of 5 FTEs per section. (Baseline)	
<b>3.</b> Reduction in the number of organizational units.	<b>FY 03:</b> Reduce the number of organizational units to 499.	<b>FY 03:</b> 12/31/03	B - 206
	<b>FY 02:</b> Reduce the number of organizational units to 527.	FY 02: There are currently 520 organizational units in CDC/ATSDR.	
		<b>FY 01:</b> There are currently 555 organizational units in CDC/ATSDR. (Baseline)	

#### Workforce Planing: Restructuring and Delayering Program Description and Context

The CDC Restructuring and Delayering Plan delineated specific goals and time lines for achievement of those goals. Additional detail about the plan is provided within the plan, submitted in tandem with this budget. In brief, some of the goals of the CDC Restructuring and Delayering Plan are to:

- ✓ Improve supervisory ratio;
- ✓ Increase span of control/organizational control;
- ✓ Reduce the number of organizational units;
- ✓ Increase delegations of authority;
- ✓ Eliminate duplicative administrative functions; and
- ✓ Re-engineer/restructure to support the centralization of HR and Financial Systems.

#### **Program Performance Analysis**

The supervisory ratio of the organization increased from 1:5.5 in FY 2001 to 1:6.8 in FY 2002 and falls just short of the goal of 1:7. However at this rate of progress, we believe that this objective will be accomplished in the near future. The goal for increasing span of control was fully met by changing CDC guidance to require a minimum of 9 FTEs per branch and a minimum of 5 FTEs per section. The goal of reducing the number of organizational units was exceeded (520 actual vs. 527 target). Progress in all of these areas is attributable to our aggressive workforce restructuring efforts, which includes delayering and consolidation.

## SES Performance Contracts Goal-by-Goal Performance Measurement

1. **Performance Goal:** Develop and implement SES Performance Contracts.

Performance Measure	Targets	Actual Performance	Reference
Develop and implement use of SES Performance Contracts.	FY 03: SES Performance Contracts will continue to be used for appraisal and pay increase decisions. Changes will be made to contracts as needed to better enhance accountability.	<b>FY 03:</b> 12/31/03	B - 206 #1
	FY 02: Develop and implement SES Performance Contracts for 26 SES members.	FY 02: Goal was fully met – SES performance contracts were put in place for all 26 SES members.	

#### **Program Description and Context**

As part of the President's Management Agenda, agencies have been asked to develop and implement Senior Executive Series (SES) Performance Contract for all SES members. SES Performance Contracts will measure specific program outputs and focus on results. CDC/ATSDR plans to use the SES Performance Contracts for appraisals, pay increase decisions, and to enhance managerial accountability.

#### **Program Performance Analysis**

The FY 2002 goal of implementing performance contracts for all 26 SES staff members was fully met and continued progress is expected in this area.

#### Recruitment and Retention Strategies Goal-by-Goal Performance Measurement

#### **1. Performance Goal:** Increase Hispanic/Latino representation at CDC.

Performance Measure	Targets	Actual Performance	Reference
Increase percentage of Hispanic/Latino representation in the workforce.	<b>FY 02:</b> 5.07%	<b>FY 02:</b> 3.2% (baseline)	<b>B</b> - 206

#### **2. Performance Goal:** Recruitment and retention of a highly qualified workforce.

Performance Measure	Targets	Actual Performance	Reference
<b>1.</b> Use of above the minimum appointments to attract superior candidates.	FY 03: 87 FY 02: 81	FY 03: 12/31/03 FY 02: 40 FY 01: 78	<b>B</b> - 206
2. Use of recruitment bonuses for hard-to-fill positions.	FY 03: 32 FY 02: 29	FY 03: 12/31/03 FY 02: 22 FY 01: 25	B - 206
<b>3.</b> Use of retention allowances to retain essential employees.	<b>FY 03:</b> 12 <b>FY 02:</b> 9	<b>FY 03:</b> 12/31/03 <b>FY 02:</b> 3 <b>FY 01:</b> 9	B - 206

#### **Program Description and Context**

CDC/ATSDR utilizes several recruitment strategies to attain a high-quality, diverse workforce. The Human Resources Management Office, Outreach and Marketing Branch, in coordination with each Center, Institute, or Office (CIO) prepares a recruitment plan. This plan addresses the gains, losses, predicted retirements, and racial breakdown of the workforce. It allows planning for new initiatives and projected retirements. CDC/ATSDR is also placing more emphasis on utilizing non-competitive authorities in the recruitment process. Some of these include the Persons with Disabilities program, Veteran Readjustment Program, Outstanding Scholar, Bilingual/Bicultural Program, Presidential Management Intern (PMI) Program, Student Career Experience Program, Hispanic Association of Colleges and Universities (HACU) National Internship Program, other student programs and the various hiring flexibilities offered by Title 42.

#### **Program Support**

CDC/ATSDR also utilizes current human resource compensation authorities to assist in recruitment and retention, such as "above the minimum" appointments, recruitment bonuses, and retention allowances. Current law and regulations permit the appointment of a candidate at a rate above the minimum rate of the appropriate grade because of the candidate's superior qualifications or a special need of the government for the candidate's services. Recruitment bonuses may be used to pay a newly appointed employee up to 25% of the annual basic rate of pay when there is difficulty in filling the position. When the unusually high or unique qualifications of an employee or a special need of the agency for the employee's services makes it essential to retain an employee and the agency determines that the employee would be likely to leave the Federal service, an agency may authorize a retention allowance of up to 25% of the employee's basic pay.

# Part III. Performance Plan Appendices

# Appendix A Linkage to HHS Strategic Plan

CDC has adopted key parts of the DHHS strategic plan, which was recently revised, to move the agency forward into the 21<sup>st</sup> century. The DHHS strategic plan has eight broad goals that are supported by multiple objectives. CDC's programs support multiple goals and objectives of the plan. A crosswalk delineating the relationship between CDC's programs and the DHHS Strategic Plan is located at Appendix A.1.

DHHS' strategic goals set the stage for actions that, on a daily basis, improve the quality of people's lives throughout the world. When it comes to action, CDC focuses its expertise and other resources in three principal areas:

<u>Protecting the health and safety of Americans</u> – CDC addresses DHHS Goals 1 and 4 through actions generated from science-based programs. Serious threats to the nation's health come from many sources: diseases, organisms, injuries, behaviors, emerging risks. Meeting these complex health problems head-on requires CDC to be both nimble and flexible – that is, to adapt resources and balance priorities as needed, to use diverse tactics, and to forge effective partnerships.

Dramatic gains in life expectancy have resulted largely from improvements in sanitation and the prevention of diseases through vaccines. A century ago, pneumonia and TB were the two leading causes of death in the United States. Then, in the 1940s, a critical focus of the nation's health priorities was the control of malaria among military personnel during World War II. From these programs came the genesis of the Centers for Disease Control and Prevention, and since that time CDC has been at the forefront of the nation's efforts to improve the health and well-being of Americans.

As we move into a new century, many of CDC's resources are dedicated to solving complex, cross-cutting health problems that require a broad array of skills, abilities, and experience. For example, since the 1960s and 1970s, community-based programs have helped to produce more recent reductions in tobacco use, increases in blood pressure control, healthier diets, increased use of seat belts, and effective injury control. These improvements and others have contributed in turn to declines in deaths from stroke and heart disease and declines in overall death rates for children. Yet, despite these successes, heart disease and cancer have remained the leading causes of death through the latter part of the 20th century.

Today, CDC and partners confront challenging, complex issues that reinforce, reshape, and expand the traditional roles of public health. Responding to those challenges involves such activities as:

- Investigating disease outbreaks in the United States and around the world;
- Probing the realms of viruses, bacteria, and parasites to uncover ways to control both emerging and re-emerging pathogens;
- Protecting the food and water supplies from both inadvertent and deliberate contamination;
- Curbing the toll of death and disability from preventable injuries;
- Stemming the epidemic of obesity in the United States;
- Convincing the public that altering certain behaviors will yield long-term health dividends;
- Educating youth about the risks of HIV, unintended pregnancy, tobacco use, physical inactivity, and poor nutrition;

# Appendix A Linkage to HHS Strategic Plan

- Translating biomedical research findings into practice in communities; and
- Eliminating disparities in the health of all Americans.

Protecting health and safety has its basis in science. CDC staff use the applied techniques of epidemiology, laboratory, behavioral, and social sciences as the primary tools 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 among 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 protecting health and safety.

<u>Providing credible information to enhance health decisions</u> – CDC addresses DHHS Goal 5 by providing credible, timely health information to help policy makers, providers, and consumers make informed decisions about personal and public health. The general public and health practitioners at all levels require up-to-date, credible information about health and safety to make rational decisions. To help support this crucial decision making, CDC continues to increase and apply its preeminent expertise in the disciplines of public health surveillance, epidemiology, statistical analysis, laboratory investigation and analysis, health communications and social marketing, behavioral risk reduction, technology transfer, and prevention research. CDC applies the science that underpins those disciplines to develop and disseminate credible and practical health information to meet the diverse needs of its primary clients, the people of the United States. Such information affects health and well-being across all stages of life when the best possible health decisions must be made by consumers, providers, and policy makers.

CDC makes this crucial health information available through many channels, including books, periodicals, and monographs; Internet websites; health and safety guidelines; reports from investigations and emergency responses; public health monitoring and statistics; travel advisories; and answers to public inquiries.

In addition to serving the public, CDC delivers health information that enables providers to make critical decisions. For example, the practicing medical and dental communities and the nation's healthcare providers are target audiences for numerous official CDC recommendations on the diagnosis and treatment of disease, immunization schedules, infection control, and clinical prevention practices. CDC also offers technical assistance and training to health professionals.

CDC is positioned in vanguard efforts to inform people about the benefits of having children wear bicycle helmets, teaching young women about preventing birth defects by taking folic acid, quitting smoking, eating sensibly and exercising regularly, reducing health hazards during food preparation in the home, making sure children and adults are vaccinated, and alerting the public to environmental hazards. CDC recognizes that many other public health messages either need to be heard for the first time or should be reinforced.

#### Appendix A Linkage to HHS Strategic Plan

<u>Promoting health through strong partnerships</u> – CDC addresses DHHS Goal 2 through strong working relationships with key public health partners. CDC has a long history of developing and sustaining vital partnerships with various public and private entities that improve service to the American people. CDC's partners in conducting effective prevention and control activities include:

- Public health associations:
- State and local public health agencies;
- Other DHHS agencies and agencies in other federal departments;
- Practicing health professionals, including physicians, dentists, nurses, and veterinarians;
- Public safety and security officials;
- Schools and universities;
- Communities of faith;
- Community, professional, and philanthropic organizations;
- Nonprofit and voluntary organizations;
- Business, labor, and industry;
- CDC Foundation and other foundations;
- International health organizations; and
- State and local departments of education.

CDC's partners implement most of the agency's extramural programs. These programs are tailored to reflect local and community needs. In addition, partners strengthen CDC by serving as consultants to CDC program staff, by participating in CDC advisory committees, and by attending CDC-sponsored seminars and conferences. The wide-ranging perspectives that CDC's partners bring to common interests and goals generate new opportunities for collaborations, help shape key strategies, and provide another means for staying focused on the needs of the American public. Sustaining these partnerships involves coordination and communication.

# Appendix A.1 CDC Budget Activities and Related HHS Strategic Goals

CDC budget activities which correspond to goals outlined in the HHS Strategic Plan are indicated by a check mark. As a whole, CDC is working towards Goal 8, achieving excellence in management practices. The remaining seven goals and their specific objectives are listed for programs where appropriate; detailed goals and objectives are provided following the table.

Budget Activity/ HHS Goal	Goal 1 Reduce major threats to health	Goal 2 Enhance public health response	Goal 3 Increase access to care	Goal 4 Enhance health sciences research	Goal 5 Improve quality of health care	Goal 6 Improve economic and social well-being	Goal 7 Improve stability, developme nt of youth	HHS Objectives
Birth Defects/Dev. Disabilities & Health			V	V	√	√	√	3.4, 3.5, 4.1, 4.4, 5.2, 6.3, 7.2
Chronic Disease Prevention and Health Promotion	<b>√</b>		<b>√</b>	<b>√</b>	√	√		1.1, 1.2, 1.5, 2.1, 3.4, 3.5, 3.6, 4.1, 4.3, 4.4, 5.2, 6.2, 6.5
Environmental Health	V	V	V	V			V	1.1, 2.1, 3.4, 4.1, 4.4, 5.1, 5.5, 7.2, 7.4
Epidemic Services & Response		V		<b>√</b>	√			1.1, 1.2, 1.5, 1.6, 2.1,2.2, 4.1, 4.3, 4.4, 5.3, 5.4, 5.5
Health Statistics				√	√			1.1, 1.2, 1.3, 1.5, 1.6, 2.1, 3.1, 3.2, 3.4, 3.5, 4.1, 4.4, 4.5, 5.1, 5.2, 5.3, 5.5, 6.2, 6.3, 7.1, 7.2, 7.4
HIV, STD, & TB Prevention	v		V	V	V	V		1.1, 1.2, 2.1, 3.4, 3.5, 3.6, 4.1, 4.4, 5.2, 5.3, 5.4, 6.3
Immunization	V		√	<b>√</b>	√			1.3, 2.1, 2.2, 3.4, 3.5, 3.6, 4.1, 4.3, 4.4, 4.5, 5.5, 5.2, 5.3, 6.2, 6.3, 6.5, 7.2, 7.4,
Infectious Diseases Control		V		V	V			2.1, 2.2, 4.1, 4.4, 5.1, 5.2, 5.3
Injury Prevention and Control	V	V	V	V	V	V		1.6, 2.2, 3.4, 3.6, 4.1, 4.4, 5.2, 5.3, 6.2, 6.3
Occupational Safety and Health	V		V	V	V			1.6, 3.5, 4.1, 4.3, 4.4, 4.5, 5.3, 5.4
Preventive Health and Health Services Block Grant	V	√	√		√	√	√	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 3.4, 3.5, 3.6, 5.2, 5.5, 6.2, 6.3, 6.5, 7.2
Public Health Improvement		V		V	V			1.1, 1.3, 2.1,3.4, 3.5, 3.6, 4.3, 4.4, 5.2, 5.3, 5.5, 6.2, 6.5
Buildings and Facilities		V		_				2.1
Office of the Director		V		V	√			2.1, 4.1, 4.3, 4.4, 4.5, 5.5, 8.1, 8.2, 8.4, 8.5, 8.6, 8.7
Terrorism								2.1, 2.2, 4.1, 4.2, 4.4, 5.5

# Appendix A.1 HHS Strategic Plan Goals

#### 1. Reduce the major threats to the health and well-being of Americans

- 1.1 Reduce risky behaviors and other factors that contribute to the development of chronic diseases, especially diabetes and asthma
- 1.2 Reduce the proportion of adolescents engaged in sexual activity, the proportion of persons engaged in unsafe sexual behaviors, and unintended pregnancies
- 1.3 Increase immunization rates among adults and children
- 1.4 Reduce substance abuse by expanding and improving communities' substance abuse prevention and treatment programs.
- 1.5 Reduce tobacco use, especially among youth
- 1.6 Reduce the incidence and consequences of injuries and violence

### 2. Enhance the ability of the Nation's public health system to effectively respond to bioterrorism and other public health challenges

- 2.1 Build the capacity of the health care system to respond to public health threats in a more timely and effective manner, especially bioterrorism threats
- 2.2 Improve the safety of food, drugs, biological products, and medical devices

### 3. Increase the percentage of the Nation's children and adults who have access to regular health care and expand consumer choices

- 3.1 Create new, affordable health insurance options
- 3.2 Expand the health care safety net
- 3.3 Strengthen and improve Medicare
- 3.4 Eliminate racial and ethnic health disparities
- 3.5 Expand access to health care services for populations with special needs
- 3.6 Increase access to health care services for American Indians and Alaska Native (AI/AN)

### 4. Enhance the capacity and productivity of the Nations health science research enterprise

- 4.1 Advance the understanding of basic biomedical and behavioral science and how to prevent, diagnose, and treat disease and disability
- 4.2 Accelerate private sector development of new drugs, biologic therapies, and medical technology
- 4.3 Strengthen and diversify the base of qualified health and behavioral science researchers
- 4.4 Improve the coordination, communication, and application of health research results
- 4.5 Strengthen the mechanisms for ensuring the protection of human subjects and the integrity of the research process

# Appendix A.1 HHS Strategic Plan Goals

#### 5. Improve the quality of health care services

- 5.1 Reduce medical errors
- 5.2 Increase the appropriate use of effective health care services
- 5.3 Increase consumer and patient use of health care quality information
- 5.4 Improve consumer and patient protections
- 5.5 Accelerate the development and use of an electronic health information infrastructure

### 6. Improve the economic and social well-being of individuals, families, and communities, especially those most in need

- 6.1 Increase the economic independence and workforce participation of low income families and persons receiving welfare
- 6.2 Increase the proportion of older Americans who stay active and healthy
- 6.3 Increase the independence and quality of life of persons with long-term care needs
- 6.4 Improve the economic and social development of distressed communities
- 6.5 Expand community and faith-based partnerships

#### 7. Improve the stability and development of our Nation's children and youth

- 7.1 Promote family formation and healthy marriages
- 7.2 Improve the development and learning readiness of preschool children
- 7.3 Increase the involvement and financial support of non-custodial parents in the lives of their children
- 7.4 Increase the percentage of children and youth living in a permanent, safe environment

#### 8. Achieve excellence in management practices

- 8.1 Create a unified HHS committed to functioning as One Department
- 8.2 Improve the strategic management of human capital
- 8.3 Enhance the efficiency and effectiveness of competition between public and private service providers
- 8.4 Improve financial management
- 8.5 Enhance the use of electronic commerce in service delivery and record keeping
- 8.6 Achieve integration of budget and performance information
- 8.7 Reduce regulatory burden on providers and consumers of HHS services

#### Review of FY 2004 HHS Performance Plans Areas of Consistency between CDC and Other Plans

At the request of the Department, CDC reviewed the goals and performance measures of each OPDIV and StaffDiv to ascertain whether there were inconsistencies among the measures and targets. No inconsistencies were found. However, some similar goals and measures were identified during this process. This appendix documents those areas.

	easures in Other DIV Plans	CDC Measures/Targets	Comments
CMS			
	FY 04: 72.5% FY 03: 72.5% FY 02: 72% FY 01: 72% FY 00: NA	Increase the rate of influenza and pneumococcal pneumonia vaccination in persons ≥65 years.  FY 04: Influenza 72.5% Pneumococcal 69% FY 03: Influenza 76% Pneumococcal 69% FY 02: Influenza 74%	Goals are complementary. CDC and CMS have collaborated on this activity for several years. Collaborative efforts include conference calls at the policy and programmatic levels of each organization, as well as mutual data sharing and mutual target setting.
- Pneumococca	FY 04: 69% FY 03: 69% FY 02: 66% FY 01: 63% FY 00: NA	Pneumococcal 66% FY 01: Influenza: *72% Pneumcoccal 63% FY 00: Influenza 70% Pneumococcal 60% FY 99: Influenza 60% Pneumococcal 54%	

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
CMS (continued)		
Increase the Percentage of Medicaid Two-Year Old Children Who are Fully Immunized (Developmental)  Group I  FY 04: 3-year reporting period complete FY 03: Measure State-specific immunization rate- Achieve State target FY 02: Measure State-specific immunization rates FY 01: Measure State-specific immunization rates FY 00: Complete development of State-specific methodologies and baselines  Group II  FY 04: Measure State-specific immunization rate FY 03: Measure State-specific immunization rate FY 01: Establish State-specific immunization rate FY 01: Establish State-specific baselines and targets FY 00: Identify; begin developing State-specific methodologies and baselines  - Group III  FY 04: Measure State-specific immunization rate. FY 03: Measure State-specific immunization rate. FY 04: Measure State-specific immunization rate. FY 05: Measure State-specific immunization rate. FY 06: Measure State-specific immunization rate. FY 07: Identify; begin developing State-specific methodologies and baselines FY 01: Identify; begin developing State-specific methodologies and baselines FY 01: Identify; begin developing State-specific methodologies and baselines FY 00: N/A	Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for:  3 doses DTaP vaccine 3 doses Hib vaccine* 1 dose MMR vaccine* 3 doses polio vaccine 1 dose varicella vaccine** 4 doses pneumococcal conjugate vaccine** * Includes any measles- containing vaccine. **Performance targets for newly recommended vaccines will begin 5 years after ACIP recommendation. Measures for varicella will begin in 2001and for pneumococcal conjugate measure in 2006, even though coverage will be reported earlier.  FY 04: 90% coverage FY 03: 90% coverage FY 01: 90% coverage FY 01: 90% coverage FY 01: 90% coverage FY 00: 90% coverage	Complementary goals. CMS partners with states and collaborates with CDC to ensure that "at risk" children are immunized, thereby contributing to CDC's over-all goal of increasing immunization rates among children 19- to 35-months of age.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
CMS (continued)		
Increase biennial mammography rates (NHIS)  FY 01: Switched to new data source (see below) FY 00: 60% FY 99: 59%  Increase biennial mammography rates (National Claims History File)  FY 04: TBD FY 03: 53% FY 02: 52% FY 01: 51% FY 00: NA	Increase the number of women screened  Breast: Mammogram or CBE  FY 04: 255,000 breast	Complementary activities. CDC's NBCCEDP target population is low-income women who are uninsured or under-insured. CDC works closely with CMS to ensure that women are appropriately screened and treated. Although the NBCCEDP does not provide funding for treatment services, the Breast and Cervical Cancer Prevention and Treatment Act of 2000 ensures Medicaid services for women screened through the NBCCEDP if they are a U.S. citizen or qualified alien.
Improve the rate of biennial diabetic eye exams  FY 04: TBD FY 03: 68.9% FY 02: 68.6% FY 01: 68.3% (69% recalculated)	For states receiving comprehensive CDC funding for diabetes control programs (DCPs), increase the percentage of persons with diabetes who receive annual eye and foot exams.  FY04: Eye/72%; foot/62% (Increase baseline by 10%) FY 03: Eye/72%; foot/62% (Increase baseline by 10%) FY 02: Eye/72%; foot/62% (Increase baseline by 10%) FY 01: Eye/72%; foot/62% (Increase baseline by 10%) FY 00: Eye/72%; foot/62% (Increase baseline by 10%) FY 00: Eye/72%; foot/62% (Increase baseline by 10%)	Goals are complementary. CMS' population includes Medicare eligible individuals, whereas CDC's population is limited to those states funded for comprehensive Diabetes Control Programs. CMS' data source is the National Claims History File; CDC's data source for this measure is the BRFSS. Also, CMS' goal is biennial, whereas CDC's goal is annual.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
HRSA		
Increase percent of users with diabetes who have had an annual dilated eye exam.  HP BPHC 2010: 70% FY 04: 90% FY 03: 90% 2000: 70% FY 02: 90% FY 01: 90%	For states receiving comprehensive CDC funding for diabetes control programs (DCPs), increase the percentage of persons with diabetes who receive annual eye and foot exams.  FY 03: Eye/72%; foot/62% (Increase baseline by 10%) FY 02: Eye/72%; foot/62% (Increase baseline by 10%) FY 01: Eye/72%; foot/62% (Increase baseline by 10%) FY 00: Eye/72%; foot/62% (Increase baseline by 10%)	Goals are complementary. HRSA's population includes individuals treated through its Community Health Centers, whereas CDC's population is limited to those states funded for comprehensive Diabetes Control Programs.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
HRSA (continued)		
Increase percent of health center women receiving age-appropriate screening for cervical and breast cancer.  A) Up-to-date PAP tests  HP BPHC 2010: 90% FY 04: 96%	Increase the number of women screened  Breast: mammogram or CBE Cervical: Pap Smear  FY 04: 255,000 breast/275,000 cervical  Increase the percentage of newly enrolled women who have not received a Pap test within the past five years  FY 04: 22.5% cervical	Complementary goals. HRSA population served is in Community Health Centers, whereas CDC's target population is low- income women who are uninsured or underinsured. Services are carried out in states funded as part of the NBCCEDP.
With CDC, decrease by 5% annually the number of newly reported AIDS cases in children as a result of perinatal transmission.  FY 04: 144 children FY 03: 152 children FY 02: 160 children FY 01: 151 children FY 09: 214 children	Decrease the number of perinatally acquired AIDS cases, from the 1998 base of 235 cases.  FY 04: 139 cases FY 03: 139 cases FY 02: 141 cases FY 01: 151 cases FY 00: 203 cases FY 99: 214 cases	Complementary goals. Populations served vary – HRSA's population is in Community Health Centers, whereas CDC's work is carried out in funded state and local health departments and CBOs.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
HRSA (continued)		
Provide grants to target communities to significantly reduce the number of new cases of asthma, diabetes, and obesity, and increase the number of adults and children at a healthy weight. (Developmental - more detailed measures to be established in conjunction with the working group established as goal 1 above.)	Reduce hospitalizations due to asthma for states that have implemented a comprehensive asthma control program.  FY 04: 10% reduction FY 02: baseline  Increase the number of DCPs that promote health system approaches to identifying persons who are at high risk for developing diabetes (e.g. obese and / or impaired glucose metabolism).  FY 04: 5  By 2010, decrease by 20% the number of people with pre-diabetes who advance to diabetes among states with pre-diabetes programs.  FY 04: Establish baseline  Increase the number of state or community policies and environmental supports that are initiated, modified, or planned for the primary prevention of obesity and chronic disease in funded states.  FY 04: 12 policies, environmental supports  Increase the number of pilot interventions for nutrition and physical activity that are scientifically tested in funded states.  FY 04: 12 interventions	Complementary goals and activities. CDC and HRSA have worked closely on activities and performance measures as part of the 04 Prevention Initiative.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
IHS		
Increase the proportion of women who receive Pap screening.  Pap Screening FY 04: maintain FY 03 level FY 03: maintain FY 02 level FY 02: +2% over FY 01 level FY 01: +3% over FY 00 level FY 00: +3% over FY 99 level	Increase the number of women screened  Breast: mammogram or CBE Cervical: Pap Smear  FY 04: 255,000 breast/ 275,000 cervical  Increase the percentage of newly enrolled women who have not	Complementary goals, with screening occurring in different clinic sites/practice settings.
Cervical Cancer FY 99: determine incidence of cervical cancer	received a Pap test within the past five years  FY 04: 22.5% cervical	
Increase proportion of the AI/AN female population over 40 years of age who receive screening mammography.  FY 04: maintain FY 03 level FY 03: maintain FY 02 level FY 02: +2% over FY 01 level FY 01: +2% over FY 00 level FY 00: +3% over FY 99 baseline  FY 99: establish baseline	Increase the number of women screened  Breast: mammogram or CBE Cervical: Pap Smear  FY 04: 255,000 breast/ 275,000 cervical	Complementary goals, with screening occurring in different clinic sites/practice settings.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
IHS (continued)		
Increase the proportion of AI/AN children who have completed all recommended immunizations by the age two.  FY 04: FY 03: at FY 02 level FY 02: +1% over FY 01 level FY 01: +1% over FY 00 level FY 00: +2% over FY 99 level FY 99: 91%	Achieve or sustain immunization coverage of at least 90% in children 19- to 35-months of age for:  3 doses DTaP vaccine 3 doses Hib vaccine 1 dose MMR vaccine* 3 doses hepatitis B vaccine 1 dose varicella vaccine** 4 doses polio vaccine 1 dose varicella vaccine** * Includes any measles- containing vaccine. **Performance targets for newly recommended vaccines will begin 5 years after ACIP recommendation. Measures for varicella will begin in 2001and for pneumococcal conjugate measure in 2006, even though coverage will be reported earlier.  FY 04: 90% coverage FY 03: 90% coverage FY 01: 90% coverage FY 01: 90% coverage FY 01: 90% coverage FY 01: 90% coverage	Complementary goals, with IHS measure supporting CDC's over-all goal of increasing immunization rates among 2-year-olds.
Increase overall pneumococcal vaccination levels among AI/AN diabetics and elderly.  FY 04: FY 03: no indicator FY 02: no indicator FY 01: secure electronic baseline FY 00: 65%	Increase the rate of influenza and pneumococcal pneumonia vaccination in persons ≥ 65 years.  FY 04: Influenza 76% Pneumococcal 69% FY 03: Influenza 76% Pneumococcal 69% FY 02: Influenza 74% Pneumococcal 66% FY 01: Influenza: *72% Pneumococcal 63% FY 00: Influenza 70% Pneumococcal 60% FY 99: Influenza 60% Pneumococcal 54%	Complementary goal with IHS' measure supporting CDC's over-all measure of increasing vaccination levels among those ≥65.

Similar Measures in Other OPDIV Plans	CDC Measures/Targets	Comments
NIH		
NIH Communication of Results  Goal c - Increase awareness of NIH- sponsored research results among the general public.  Target - Extend the impact of the "Know Stroke: Know the Signs. Act on Time" campaign.	Reduce the proportion of heart disease and stroke deaths that occur before transport to emergency services.  FY 04: Heart Disease Deaths 45% Stroke Deaths 45% Data Source: US Vital Statistics	Complementary goals, with CDC implementing NIH research findings into practice at the state level.

As of December 2002, CDC has achieved or exceeded targets set for 173 of the 217 performance measures in CDC's FY 2001 Performance Report. Only 35 targets were not met, and data is outstanding for 9 of the performance measures contained in the plan. Measures with outstanding data will be reported on as soon as results become available. We anticipate that we will have data available for 7 measures in CY 03 and two measures will not be available until CY 04. However, at this point, CDC has achieved or exceeded 80% of its targets for which data is available.

Numbers tell only part of CDC's performance story. In an on-going effort to improve our performance plan and report, we have recently extensively revised our plan. In fiscal year 2004, CDC plans to address key priorities in prevention and preparedness, while capitalizing on 21<sup>st</sup> century science and technology to achieve public health goals. In our prevention activities, we will continue our keen focus on closing the gap in health status among racial and ethnic minorities.

In FY 2002, CDC achieved or exceeded a variety of goals in each of the identity theme areas.

### Protecting the health and safety of Americans:

- CDC continues to show progress in addressing threats from infectious diseases which remain a leading cause of death worldwide. Coordinators were placed in 48 health departments nationwide to coordinate hepatitis C activities among health department programs. Surveillance for influenza was enhanced nationally to increase the likelihood of early detection of an influenza pandemic and effective tracking of its spread. Significant declines in rates of some foodborne pathogens from 1996 to 2001 have been shown.
- The US has seen dramatic reductions in perinatal AIDS rates in the past decade. In 2001, approximately 100 children were diagnosed with AIDS, down from 954 in 1992. These declines reflect the success of widespread implementation of PHS recommendations for routine counseling and voluntary HIV testing of pregnant women and the use of zidovudine (AZT) by infected women during pregnancy and delivery and for treatment of the infant after birth. Declines may also reflect advances in treatment for those children who have been infected, forestalling progression to AIDS. Revised guidelines were published in 2001.
- The diabetes control programs (DCP) funded in all 50 states, the District of Columbia, and eight territories identify high-risk populations, improve the quality of care, involve communities in controlling diabetes, and increase access to care with measurable success. For example of a 2-year period the New York DCP reduced hospitalization rates by 35% and decreased lower extremity amputations rates by 39%. In Michigan a long-standing DCP has produced a 45% lower rate of hospitalizations, a 31% lower rate of lower-extremity amputations, and a 27% lower death rate for participants.

- The prevalence of current smoking among youth (grades 9-12) decreased from 36.4% in 1997 to 28.5% in 2001. Success in reducing the youth smoking rate is attributed to restrictions on the tobacco industry, increased state funding for tobacco control programs, technical assistance from the federal government to determine effective tobacco-control strategies, and coordination of tobacco-control efforts among public agencies and non-governmental organizations.
- Through September 2001, the National Breast and Cervical Cancer Early Detection Program
  (NBCCEDP) has provided 3.6 million screening tests to over 1.4 million women. The program has
  diagnosed 12,000 breast cancers, 48,170 precancerous lesions, and over 800 cases of invasive cervical
  cancer.
- Because most fire-related deaths and injuries occur while residents are asleep effective detection and alerting systems are essential. Indeed a working smoke alarm can reduce the risk of death by about 50%. In nearly three years CDC's 16-state smoke alarm installation/education program has installed over 116,000 smoke alarms in homes. This program has been credited with saving potentially 346 lives.

### Providing credible information to enhance health decisions:

- In FY 2002 CDC continued to expand the information on the amount and types of environmental chemicals that affect people's health. CDC can now measure the presence of approximately 200 such substances including metals, pesticides, dioxins, and others in blood and urine. To communicate these findings to the public, CDC issued the first a *National Report on Human Exposure to Environmental Chemicals* in FY 2001. This report provides the public an assessment of the US population's exposure to environmental chemicals that may cause cancer, birth defects, and respiratory diseases, and other illnesses. Information from this report will also aid in monitoring the effectiveness of programs designed to reduce exposures. The second edition of the *Report* will be released in January 2003.
- The National Program of Cancer Registries includes 45 states, the District of Columbia and 3 territories representing 96% of the U.S. population. CDC helps states and organizations use cancer surveillance data to describe the disease burden, evaluate cancer control activities, and identify populations at high risk for certain cancers. From 1988 through 1999, the California Cancer Registry studied the incidence of cancer among members of the United Farmworkers of America (UFW), a largely Hispanic farmworker labor union. Results showed that the risk of leukemia, stomach, cervical, and uterine cancers was elevated in California farmworkers. UFW members also experienced later stage of disease at diagnosis than other California Hispanics for most major cancer sites, but not for breast cancer. Additional research into the potential causes of this increased risk for certain cancers is planned, including a study of farmworkers' exposure to pesticides.

- CDC translates occupational research finding into various media for workers, employers, policy makers, and practitioners. CDC distributes >1 million paper copies of documents annually and also makes information available through the NIOSH website. In FY 2002, NIOSH received 10,704 requests for information via the web, 117,500 requests via telephone, and 4,587 requests via mail. To increase its information dissemination efforts to the growing number of Hispanic laborers within the U.S. workforce, NIOSH launched a Spanish version of its website in FY 2002. After its launch in December 2001, the website received 253 requests for information via the web and 157 requests via telephone during FY 2002.
- In FY 2002, CDC documented a 31% reduction in the rate of birth defects of the spine and a 16% reduction in the rate of birth defects of the brain following fortification of the U.S. food supply with the B vitamin folic acid. CDC provided further evidence of the dramatic prevention impact of the vitamin, including a 62% reduction in a common birth defect of the abdominal wall for women who used multivitamins containing folic acid before and during early pregnancy, as well as a 50% decrease in the rate of imperforate anus from a folic acid intervention in China. To make sure that we maximize the prevention impact of folic acid, CDC is also studying whether taking it can reduce risk for women with diabetes, who are known to be at increased risk of having a child with certain birth defects.
- CDC established the Autism Information Center to educate researchers, public health practitioners, parents, policymakers, and the general public about autism and related disorders. The Web-based resource also includes information on autism-related activities conducted or sponsored by CDC and other federal agencies, resources for families and researchers, and activities to help children use the Internet to learn about autism.

#### Promoting health through strong partnerships:

• Through the Global AIDS Program, CDC is working with experts from US and international agencies such as HRSA, NIH, USAID, CAREC, UNAIDS, WHO, and UNICEF to help ministries of health in Africa, Asia, and Latin America address the devastating impact of HIV/AIDS. In FY 2003, CDC continues to develop programs in 25 countries in Africa, Asia, Latin America and the Caribbean. In addition, CDC will play a key role in implementing the President's International Mother and Child HIV Prevention Initiative. With funds requested in 2003 and 2004, CDC and USAID will work in 14 countries to prevent mother to child transmission of HIV and provide care and treatment to infected mothers to prolong their health and improve family life.

- As long as polio transmission occurs anywhere in the world, it remains a threat to American children. CDC continues to collaborate with many partners including WHO, Rotary International, USAID, the Task Force for Child Survival and Development, UNICEF, and other international agencies to bolster polio eradication efforts by providing scientific assistance and financial support. This collaboration is unique among public health initiatives for the unprecedented level of partnership. This global initiative is on target for certification of polio eradication by 2005. Global polio incidence has declined more than 99% from 1988 to 2001, about 250,000 lives have been saved and 4 million cases of childhood paralysis have been avoided, and the number of polio-endemic countries dropped from 125 to only 10 at the end of 2001. In FY 2001, a 25% price hike by polio vaccine manufacturers of oral polio vaccine (OPV) from 7.2 cents per dose to 9.0 cents per dose decreased CDC's purchasing capacity (through UNICEF) from a projected 625 million doses in FY 2001 to an actual 590 million doses. For FY 2002, CDC has received increased funding for polio eradication which should allow us to meet the FY 2002 target.
- CDC is partnering with the Christopher and Dana Reeve Paralysis Resource Center to provide a
  library and Web site with educational materials, referral services, and self-help guidance to those
  living with paralysis. In its first year of receiving funding from CDC, the center funded more than 60
  community programs to improve quality of life for people living with paralysis.
- Through the Special Olympics Healthy Athletes initiative, CDC is partnering with Special Olympics to address health challenges and disparities faced by Special Olympics athletes and other people with mental retardation. The initiative provides quality health services in the areas of oral health, secondary conditions, mental health, nutrition, physical activity, vision, and hearing to address disparities and improve health and well-being among people with mental retardation.
- CDC is partnering with local Muscular Dystrophy Association clinics, Parent Project Muscular
  Dystrophy and other parent advocacy groups, neurologists, orthopedic surgeons, and others to
  develop the infrastructure for determining the incidence of muscular dystrophy and evaluating the
  impact of various treatment options on the health and well-being of people living with the condition.

### High Priority Initiatives in the FY 2004 Plan

Several high-priority, critical initiatives are included in CDC's 2004 Annual Performance Plan. These initiatives include support for the President's Management Agenda, the Secretary's Budget Priorities, and CDC's Workforce Restructuring and Delayering Plan.

CDC's work in support of the Secretary's Budget Priorities includes:

#### Improved Financial Management

The Program Support section of CDC's Performance Plan represents management activities that cross-cut the entire organization. Activities and priorities of the Human Resources, Information Technology, and Financial Management Offices are all captured in the Program Support section of CDC's Performance Plan.

#### Preventing disease, illness, and injury with a focus on Healthy Communities

CDC's highest prevention priority is to respond forcefully to the twin epidemics of obesity and diabetes. 2001 saw the release of two landmark, gold standard studies on the prevention of type 2 diabetes in high-risk adults. Both studies show—for the first time—that type 2 diabetes *can be prevented* in very high-risk adults—those defined as "pre-diabetic."

### Ensuring our homeland is prepared to respond to acts of bioterrorism and other health emergencies

CDC will improve its own ability to respond, while also working through its cooperative agreement program to bolster the ability of state and local public health agencies to respond to all terrorism hazards. Research will build our knowledge base.

### Realizing the possibilities of 21st century health care

CDC is committed to advancing public health through science and technology. In FY 2004, CDC priorities in this area include building the Public Health Information Network and supporting improved health statistics and geographic information systems.

### **Promoting Health through Strong Partnerships**

The everyday world provides a series of obstacles to continued good health: emerging infectious diseases and the threat of terrorism (biological, chemical, radiological or through more conventional weaponry); pollution in the air we breathe and water we drink; unsafe conditions in our workplaces; personal habits that damage our health; intentional and unintentional injuries; and limited access to health services, especially for disadvantaged populations. CDC works collaboratively with global, national, state, and local organizations to promote health and protect people from disease, injury, and disability. CDC alone cannot protect the health of the American people. However, by collaborating with others – from state and local health departments to private corporations, from county-sponsored clinics to managed-care organizations, from media outlets to the general public – CDC can leverage its vision of a better world of Safer • Healthier • People.

CDC has a broad mandate to promote health and quality of life by preventing and controlling disease, injury, and disability. The people of CDC contribute significantly to Americans' ability to lead longer, more productive, healthier lives. As illustrated in this report, CDC's unique approach to health improvement achieves results and cost savings. Safer • Healthier • People is a desirable and achievable goal made possible by CDC.

### Setting the Nation's Health Promotion and Disease Prevention Agenda

CDC has been an active participant in setting and working toward national health promotion and disease prevention goals and objectives since the Healthy People (HP) initiative began in 1979. Beginning in 1996, more than 600 national and state organizations and more than 11,000 persons and organizations participated in the development of HP 2010 objectives. Key participants included representatives of state and local health departments. The extensive participation by representatives of state and local governments, academic institutions, business and labor, and community and professional organizations at each step in the process helped to establish the broad network needed for successful implementation of programs. CDC actively participated in this process, accepting the lead in overseeing the coordination, collaboration, and implementation of many health promotion and disease, injury, and disability prevention objectives.

The HP 2010 initiative was launched in early 2000. CDC shares lead coordination of HP 2010 objectives with other federal organizations. Many of the performance objectives in CDC's Annual Performance Plan are directly linked to HP objectives, and HP 2010 goals and objectives serve as a foundation for a number of CDC's performance measures. Although CDC has lead responsibility for many of the objectives in HP 2010, achievement of these objectives represents a national effort in which CDC works closely with other federal, state, local, and community entities. Performance measures in CDC's plan have been crafted to reflect the collaborative nature of CDC's program activities.

### Supporting State and Local Health Departments

In FY 2000 about 71% of CDC's budget (\$3.07 billion) – provided through extramural grants, cooperative agreements, and program contracts – was spent on public health work performed by CDC's partners. Most of those funds were provided to state and local health departments as grants and cooperative agreements to support public health programs aimed at disease prevention and control.

### Supporting Extramural Research

CDC funds extramural research through such programs as the Prevention Research Centers, which support a prevention research agenda at 23 schools of public health throughout the country, and through the community-based, participatory Extramural Prevention Research Initiative, which engages communities in the formulation of research questions and encourages localized application of research findings to prevent disease and promote healthy behavior.

### **Expanding Partnerships and Coordination**

Just as the development of national health objectives is dependent on the work of many, CDC works with its many partners throughout the United States and the world to accomplish the long-term and annual goals in the CDC Performance Plan and the DHHS Strategic Plan. State and local health departments provide the infrastructure on which the public's health is built. Other traditional partners include persons and institutions that educate and promote the health of Americans of all ages, such as school systems, local community groups, businesses, 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 continues to work with its partners to develop effective outcomes-based control and prevention services.

### **CDC Partnership Activities at the Program Level**

### Birth Defects, Developmental Disabilities Prevention, and Disabilities and Health

CDC works in partnership with state health departments, health care professional organizations, academic institutions, and many non-profit organizations. Specific examples are given below.

Programs for monitoring birth defects, developmental disabilities, and the health of people with disabilities are usually done in partnership with state health departments or with a university or other non-profit organization acting as agent for the state health department. Non-profit organizations such as the March of Dimes will sometimes conduct special surveys on risk factors such as folic acid consumption to assist CDC in monitoring effectiveness of health promotion campaigns. The Early Hearing Detection and Intervention programs are implemented by state health departments but a partner organization, the Directors of Speech and Hearing Programs in State Health and Welfare Agencies, collect and make available the data. Fetal alcohol syndrome (FAS) monitoring is done by state health departments but programs to develop interventions for children with FAS are usually done by universities or other non-profit research organizations. A variety of partners are involved with developing and implementing educational materials about FAS.

Several organization such as the Amputee Coalition of America, the Christopher Reeve Paralysis Foundation, Children and Adults with Attention Deficit Disorder, and National Information Center for People with Disability help CDC provide information to improve the lives of people living with disability.

#### **Chronic Disease Prevention and Health Promotion**

Chronic diseases are a community-wide burden. CDC works with state and local health and education agencies, healthcare organizations, academic institutions, national organizations, nonprofit agencies, business, and philanthropies to reduce the burden of chronic diseases.

In fiscal year 2003, CDC will consolidate state funding into six categories of grant programs in fiscal year 2003. These six most closely align with the way programs are organized and implemented in state health departments, and the clustering of state partner organizations that co-fund and implement the programs: (1) Heart Disease and Stroke, (2) Cancer Prevention and Control (breast and cervical cancer registries, and other cancer grant awards); (3) Diabetes, (4) Health Promotion (Behavioral Risk Factor Surveillance System (BRFSS), tobacco, nutrition/physical activity/obesity, oral health, arthritis, Safe Motherhood and infancy including Pregnancy Risk Assessment Monitoring System (PRAMS), WISEWOMAN, and any other cooperative agreements not specified above that provide grants for state prevention programs). In addition to the state awards above, consolidated awards will be made to department of education and university partners in the following two areas: (1) School Health (Youth Risk Behavior Surveillance System (YRBSS), school-based HIV prevention, and school health programs); and (2) Prevention Centers. Over the past year, CDC has consulted with the State Chronic Disease Directors, the Association of State and Territorial Health Officials and the Association of State and Territorial Directors of Health Promotion and Health Education regarding consolidating and streamlining the cooperative agreement process.

**Breast and Cervical Cancer:** Recognizing the value of screening and early detection, Congress passed the Breast and Cervical Cancer Mortality Prevention Act of 1990, which established CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP). CDC provides funding to all 50 states as well as 20 U.S. territories and tribal organizations to implement the NBCCEDP. The NBCCEDP provides screening services, including clinical breast examinations, mammograms, pelvic examinations, and Pap tests, to underserved women. The NBCCEDP also funds other program components to ensure a comprehensive approach to screening. These include tracking, follow-up and case management; quality assurance; public and professional education; evaluation and surveillance; and partnership development.

Partnerships are critical to the NBCCEDP cancer control efforts. A successful national program to control breast and cervical cancers depends on the involvement of a variety of committed partners and national organizations. The Division of Cancer Control and Prevention at CDC collaborates with state, tribal, and territorial health agencies; health care professionals and organizations; human service and voluntary organizations; and academia.

An example of an important partner to the NBCCEDP is the National Indian Women's Health Resource Center (NIWHRC). The NIWHRC is a national organization whose mission is "to assist American Indian and Alaska Native women achieve optimal health and well being throughout their lives." In October 2000, the Resource Center entered into a cooperative agreement with the CDC's NBCCEDP to provide technical assistance to tribes, tribal programs, and states with substantial Indian populations. The NIWHRC has been a critical partner to supporting screening efforts with Indian populations and building the capacity of funded tribal organizations to implement the NBCCEDP.

**Tobacco:** It is important to note that while CDC serves as a focal point for DHHS tobacco prevention activities, prevention or reduction of tobacco use is a shared effort. Multiple agencies in DHHS, in addition to CDC, address tobacco use. NIH conducts biomedical and applied research, surveillance, and public health interventions. SAMHSA conducts surveillance and implements regulations on minors' access to tobacco. Other agencies with roles in tobacco policy are the Federal Trade Commission (with oversight of the testing protocol for tar and nicotine yields in cigarettes and the monitoring and regulation of advertising practices), USDA (through their work with tobacco farming communities), Department of Commerce (regarding-the manufacturing sector and related businesses), Treasury Department (with customs and taxation issues), and EPA (regarding issues related to secondhand smoke). State and local governments, non-governmental organizations (e.g., American Cancer Society, Robert Wood Johnson Foundation), and healthcare providers also play important roles in efforts to reduce tobacco use. CDC works with community-based programs, health communication campaigns, and schools to prevent and reduce smoking among youth. It is important to note that marketing and other factors (e.g., tobacco advertising, industry pricing patterns, glamorization of tobacco use in the popular media) can counteract efforts to reduce tobacco use.

**Community-Based Prevention Research:** The PRCs work through established partnerships among state and local health departments, community-based organizations, and other stakeholders to conduct research on a particular theme. For example, CDC is working with NIH's Office of Extramural Research on NIH's Women's Health Initiative, mentioned previously. The PRC program's mission is "connecting science and practice through a network of academic, public health, and community partnerships for scholarly, community-based prevention research, research translation, and education."

*Diabetes:* CDC and NIH provide federal leadership for the development, coordination, and implementation of the National Diabetes Education Program (NDEP). CDC has primary responsibility for: coordinating the NDEP Partnership Network of more than 200 organizations, coordinating several of the 10 NDEP planning workgroups, and administering the NDEP community interventions component. CDC collaborates with IHS and other organizations to conduct the research and training activities of the National Diabetes Prevention Center (NDPC). The NDPC was established to address the serious diabetes epidemic in American Indians. CDC's state-based diabetes control programs partner with community health centers to improve the health status of persons with diabetes who receive care at these sites. CDC also collaborates with state health departments, American Diabetes Association, American Public Health Association, Juvenile Diabetes Research Foundation, American Association of Diabetes Educators, and managed-care organizations in the control of diabetes and its complications.

**Arthritis:** CDC and its principal partners, Arthritis Programs in state health departments and the Arthritis Foundation, are working to increase awareness of arthritis and its impact, and to increase appropriate self management behaviors which have been shown to be effective in reducing pain and improving function. CDC also works with the Arthritis Council of the Chronic Disease Directors Association, and the State and Territorial Directors for Health Promotion and Public Health Education to achieve these program goals.

Cancer Registries: CDC works in conjunction with the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) registry program on several cancer related topics. This collaboration, established through a formal Memorandum of Understanding, allows a more coordinated national cancer surveillance effort that builds upon and strengthens the existing infrastructure, improves the availability of high quality data for measuring the nation's cancer burden, and advances the capacity for surveillance research. The CDC also collaborates with the American Cancer Society (ACS), American College of Surgeons (ACoS), North American Association of Central Cancer Registries (NAACCR), and National Cancer Registrars Association. These groups have formed a consortium, the National Coordinating Council for Cancer Surveillance, that encourages and facilitates voluntary reporting of cancer cases from federally supported facilities to state registries. CDC helps states and organizations use cancer surveillance data to describe the disease burden, evaluate cancer control activities, and identify populations at high risk for certain cancers.

Heart Disease & Stroke: CDC has a signed memorandum of understanding with the American Heart Association (AHA), Centers for Medicare and Medicaid Services (CMS), Office of Disease Prevention and Health Promotion (ODPHP), National Institute of Neurological Disorders and Stroke (NINDS), and the National Heart, Lung, and Blood Institute (NHLBI). The purpose of the Partnership formed by this Memorandum is "to catalyze progress toward the goals and targets set forth in the Healthy People 2010 Heart Disease and Stroke focus area, and improve the health of our communities and our nation...". CDC also partners with the National Stroke Association to increase the awareness of stroke, disabilities and to enhance national stroke surveillance activities. CDC also collaborates with the Health Resources and Services Administration (HRSA) to improve cardiovascular performance measures through improved care delivery systems, increased access, and decreased health disparities among the medically under served populations in federally qualified health centers. Additionally, CDC partners with the Veteran's Administration to develop and institute a system of enhanced computerized clinical reminders, which provides feedback on risk factor

control and suggests treatment changes to encourage compliance with cardiovascular clinical guidelines. Also, the CDC partners with the American College of Cardiologists (ACC) and the Association of Black Cardiologists (ABC) to enhance provider compliance with guidelines an encourage collaboration with state health departments.

**Nutrition, Physical Activity and Obesity:** CDC focuses on several strategies to decrease obesity and chronic disease rates by increasing physical activity and good nutrition, mainly through partnerships. Major partnerships on physical activity include the Robert Wood Johnson Foundation's initiative on environmental and policy influences on physical activity, American College of Sports Medicine, U.S. Department of Transportation, National Parks Service, President's Council on Physical Fitness and Sports, and the National Association for Sports and Physical Education. Key nutrition and obesity partnerships include the U.S. Development of Agriculture, National Institutes of Health, American Cancer Society, Produce for Better Health Foundation, American Academy of Pediatrics, and CDC Prevention Research Centers.

#### **Health Statistics**

CDC collaborates with the DHHS Data Council, the National Committee on Vital and Health Statistics, representatives from the states, users of CDC data in the public and private sectors, and other federal agencies. Close cooperation with state vital statistics offices ensure timely reporting of data.

#### HIV, STD, & TB Prevention

HIV/AIDS: CDC works closely with other HHS agencies, including HRSA, SAMHSA, and NIH, to coordinate efforts to address HIV. CDC works with HRSA to evaluate access to care and the extent to which states have been effective in reducing perinatal HIV transmission and provides data necessary for HRSA's care and treatment programs. CDC collaborates with SAMHSA and NIDA on issues related to transmission of HIV in the injecting drug use population. A working group has been established to address healthcare issues in correctional institutions. Development and implementation of the plan to eliminate racial and ethnic health disparities is an interagency effort within DHHS. CDC will expand partnerships with USAID, UNAIDS cooperating agencies (WHO, UNICEF, UNDP, UNFPA), sister agencies in DHHS, other federal agencies, and an anticipated 15 U.S.-based non-governmental organizations working in HIV prevention in Global AIDS countries and regions.

**Sexually Transmitted Diseases:** CDC works with partners to educate health professionals and the public about the importance of STD prevention, the importance of protective healthcare-seeking and personal sexual behaviors, and the impact of STDs on the health of Americans, particularly women and infants, adolescents, and minority populations. Two major foci of national STD efforts are prevention of STD-related infertility and syphilis elimination.

**Infertility Prevention Program:** CDC and the Office of Population Affairs (OPA), Indian Health Service (IHS), and Association of Public Health Labs (APHL) work collaboratively with family planning, STD, and primary-care programs to provide surveillance, screening, treatment, laboratory, and program-relevant research activities to inform and help in the implementation of infertility prevention activities for uninsured and under-insured women.

Syphilis elimination: At least 30% of federal grant funds are provided to non-governmental agencies and organizations that represent and serve affected populations. Among the many national and local partners working to implement syphilis elimination efforts are NIH, HRSA, SAMHSA, NIJ, APHL, and the American Social Health Association (ASHA). Collaborative efforts include: providing technical guidance on clinical services, implementing research and demonstration projects, and promoting collaboration among local affiliates/constituents on elimination efforts. One such example is the Community Health Outreach Education Services (CHORES) collaboration led by HRSA to develop a comprehensive health promotion, health education, and disease prevention program to be integrated into primary care. Five sites selected from CDC-designated high-morbidity areas will focus on implementing prevention into primary care programs and community involvement.

**Tuberculosis:** CDC works with state, large city, and territorial health departments to deliver TB prevention and intervention activities designed to reduce the incidence of TB and eventually eliminate the disease. CDC works with the HHS Advisory Council for the Elimination of Tuberculosis (ACET), the National TB Controllers Association, American Lung Association, American Thoracic Society (ATS), and Infectious Diseases Society of America to set guidelines, recommendations, and policies related to TB prevention, control, and elimination. CDC is working with the Federal TB Task Force to develop a federal action plan in response to the Institute of Medicine (IOM) report, *Ending Neglect: The Elimination of Tuberculosis in the United States.* CDC works with NIH and FDA to develop new diagnostic and treatment tools and better vaccines. Through contracts with academic institutions and public health departments and interagency agreements (with the Veterans Health Administration), CDC formed a consortium for clinical trials research (currently evaluating the new TB drug, rifapentine) and a consortium for epidemiological and operational research. Internationally, CDC collaborates with USAID, World Health Organization (WHO), and others through efforts such as the Stop TB Initiative and through assistance to specific countries.

#### **Immunization**

CDC collaborates with HRSA, CMS, FDA, NIH, and others in achieving immunization objectives.

#### **Infectious Diseases**

To accomplish its mission of protecting the public from infectious disease threats, CDC collaborates with a number of agencies and organizations. Examples of partners and some selected activities include: CSTE (assist states with pandemic influenza planning activities); APHL (enhance state laboratory capacity by providing long-term laboratory training); National Institutes of Health (NIH); Food and Drug Administration (FDA) (food safety programs), USDA (food safety programs), Department of Interior (U.S. Fish and Wildlife), Department of Justice (U.S. Immigrations and Naturalization Service), Department of State, and Department of Treasury (U.S. Customs). To accomplish HCV prevention objectives, CDC collaborates with the National Association of State AIDS Directors (NASAD), National Minority AIDS Council (NMAC), American Social Health Association (ASHA), Pacific Islands Health Officers Association (PIHOA), American Liver Foundation (ALF), Hepatitis Foundation International (HFI), and Indian Health Service (IHS).

### **Occupational Safety & Health**

Through NORA, partnerships have continued between CDC and over 500 organizations to ensure the NORA agenda is implemented. With stakeholder and partnership input, CDC is better positioned to address the toll of workplace injury, illness and death and is assured of having an appropriate research agenda. CDC continues to recruit new partners in occupational safety and health to further engage new stakeholders and increase the knowledge base.

### **Public Health Improvement**

**Eliminating Disparities:** Development and implementation of the plan to eliminate racial and ethnic health disparities is an interagency effort in DHHS. CDC collaborates with the Office of Public Health and Science, Office of Minority Health, Assistant Secretary of Planning and Evaluation, Agency for Health Care Research and Quality, HRSA, and others in implementing REACH 2010. CDC will also collaborate with federal agencies (to be determined) to implement the component addressing American Indians and Alaska Natives. Specific objectives will be determined through a collaborative interagency process.

**Public Health Practice:** Since 1997, the Public Health Practice Program Office (PHPPO) has established an ongoing partnership between Centers for Disease Control and Prevention (CDC) and several national public health (PH) organizations to support special projects that translate the 10 essential PH services into practice. In 2001, the focus of this partnership changed to improve the nation's public health infrastructure. These partner national public health organizations include: American Public Health Association (APHA); Association of State and Territorial Health Officials (ASTHO); National Association of County and City Health Officials (NACCHO); National Association of Local Boards of Health (NALBOH); National Network of Public Health Institutes; and Public Health Foundation (PHF).

These organizations collaborate with various Centers/Institute/Program Offices in a wide area of special projects and activities, including:

- Core activities to improve each partner's infrastructure;
- Refine, field-test, and encourage the use of public health system performance standards;

- Improve the competency of the public health workforce;
- Improve public health communications and information technology systems;
- Ensure the availability of leadership development programs;
- Review/modify priorities for improving the performance of public health organizations, the workforce, and/or communications and information technology systems;
- Improve the nation's community public health assessment and planning systems;
- Conduct and/or publish research to strengthen the science base of public health practice;
- Translate advances in human genetics into public health practice;
- Improve the capacity of public health agencies to develop and strengthen infectious disease prevention and control programs;
- Improve the development of environmental and occupational public health policy, improve the competency of environmental and occupational public health workers, and broaden and improve the practice of environmental and occupational public health;
- Improve the capacity of public health agencies to effectively respond to chemical and/or biological terrorism:
- Improve the practice of chronic disease prevention and control;
- Improve the capacity of public health agencies to develop and strengthen tobacco prevention and control policies and programs;
- Improve the capacity of public health agencies to implement and/or expand injury prevention and control efforts; and
- Improve the understanding and use of law by public health systems as a tool for effective practice.

In addition to accomplishing the objectives of individual special projects, these cooperative agreements have fostered closer collaboration among organizations that represent the Nation's public health decision makers and practitioners.

CDC facilitates workforce development and targeted training for the public health workforce in conjunction with a variety of public health partners. In collaboration with the Association of Schools of Public Health, CDC has initiated a national network of Centers for Public Health Preparedness (CPHPs) to strengthen emergency preparedness at the front lines by linking academic expertise and assets to state and local health agency needs. Since inception in 2000, the CPHPs, in collaboration with state and local partners, have prepared more than 180 educational products; trained more than 200,000 public health and healthcare professionals; and developed an inventory of faculty expertise and assets available for local, regional, and national emergencies. In addition to the CPHP initiative, CDC partners with the Association of American Medical Colleges (AAMC) to implement projects aimed at linking the disciplines of public health and medicine. Examples of joint efforts include integrating genetics in medical school curricula and initiating the design of regional public health-medicine education centers. CDC's Public Health Training Network (PHTN) is a collaboration of CDC, HRSA, VA, FDA, Department of Agriculture, the Association of Schools of Public Health, and recent partners such as AHA and AMA. PHTN is a distance learning system that takes training to the learner. PHTN uses a variety of instructional media ranging from print-based to videotape, satellite, Internet-based, and multimedia to meet the training needs of the public health workforce nationwide.

#### **Terrorism**

CDC's primary partners in developing national capacity for terrorism preparedness and response are state and local health departments. In addition, CDC works with a variety of federal agencies, academic institutions, and non-governmental organizations, such as Association of Public Health Laboratories (APHL), Food and Drug Administration (FDA), U.S. Army Medical Research Institute for Infectious Diseases (USAMRIID), National Association of County and City Health Officials (NACCHO), National Governors Association (NGA), National Emergency Management Association (NEMA), Infectious Disease Society of America (IDSA) and the Department of Veteran's Affairs (VA). Examples of some of CDC's collaborative activities include: 1) interagency agreement with the Department of Veterans Affairs for procurement of pharmaceuticals and medical supplies that comprise the National Pharmaceutical Stockpile; 2) cooperative agreement with APHL for coordination of the Laboratory Response Network; 3) contract with Acambis, Inc. for development of a new smallpox vaccine; and 4) cooperative agreements with the National Institute for Standards and Technology, the U.S. Army Soldiers Biological and Chemical Command, and the Occupational Safety and Health Administration for the development of respiratory protection standards. Additionally, the National Protective and Personal Technology Laboratory was established, under the National Institute for Occupational Safety and Health. This lab will develop standards and approval processes for respirators to protect against hazardous agents, including chemical and biological weapons of terrorism.

CDC is also partnering with business groups to insure that the private sector is also prepared to deal with public health emergencies.

Data verification and validation help to ensure that the data CDC uses to assess performance is of sufficient quality. The following data systems have been referenced in the CDC Performance Plan as sources for data used in assessing program implementation and effectiveness.

### Behavioral Risk Factor Surveillance System

In 1984, CDC initiated the Behavioral Risk Factor Surveillance System (BRFSS), a unique, state-based surveillance system designed to collect prevalence data on behavioral risks and conditions that affect health. States conduct monthly telephone surveys using a standardized questionnaire to determine the distribution of behavioral risk factors. Survey responses are forwarded to CDC, where the data are aggregated and published at year's end. The BRFSS provides flexible, timely, and ongoing data collection that allows for state-to-state and state-to-nation comparisons. Participating states use data derived from the BRFSS to identify demographic variations in health-related behaviors, target services, address emerging and critical health issues, propose legislation for health initiatives, and measure progress toward state and national health objectives. The system's broad network of information gathering also enables states to evaluate their disease prevention and health promotion efforts.

The BRFSS survey instrument is a three-part questionnaire developed jointly by CDC and the states:

- 1. <u>Core component</u>: The *fixed core* is a standard set of questions asked by all states on demographic characteristics and behaviors that affect health (e.g., tobacco use, alcohol consumption). The *rotating core* includes two sets of questions, each asked in alternating years by all states, that address different topics. The *emerging core* consists of up to five questions that typically focus on late-breaking issues. These questions are added to the core for one year and evaluated at year's end to determine their potential value in future surveys.
- 2. Optional CDC modules: These are sets of questions on specific topics (e.g., smokeless tobacco use, arthritis) that states can opt to include in their questionnaires.
- 3. <u>State-added questions</u>: These questions are developed or acquired by participating states and added to their questionnaires.

Each year, states and CDC agree on the content of the core components and optional modules. For ease of comparability and use, many of the questions are taken from established national surveys. More than 30 validity and reliability studies attest to the quality and validity of data derived from the BRFSS.

### Clinical Laboratory Improvements Act of 1988 (CLIA)

The Clinical Laboratory Improvements Act of 1988 (CLIA) is designed to ensure the sound and scientific development of new laboratory methods. CLIA includes standards that must be met before certification of a laboratory method. These standards include an exacting series of internal and external evaluations. Among the internal checks is the development of a detailed procedures manual for each method. Manuals must be verified and approved by senior laboratory personnel who were not directly involved in the development of the method. CLIA also provides detailed specifications for quality control and calibration of laboratory equipment. Further internal control is provided through regular review from a designated Quality Assurance Officer tasked with ensuring that generally accepted international scientific standards are being followed in the development of the method. External evaluation and control are provided through regular on-site inspections by statutorily approved, independent inspection teams. Inspectors review the internal procedures established by the organization to ensure compliance with CLIA standards. To date, CDC has passed all on-site CLIA inspections.

### Group B Streptococcal Disease Surveillance, part of the Active Bacterial Core Surveillance (ABCs)

In 1989, CDC initiated active surveillance for group B streptococcal (GBS) disease as part of the Active Bacterial Core Surveillance (ABCs) system, an active surveillance system for several pathogens that cause invasive disease. Surveillance was conducted in five geographic areas that were awarded contracts after a competitive request for proposals. In 1994, active surveillance for GBS disease was included as a core activity of the newly established Emerging Infections Program (EIP) network, a cooperative agreement program that addresses important public health issues related to infectious diseases. In 1999, the EIP network comprised eight states; all participated in ABCs and conducted active surveillance for invasive GBS disease.

Specific objectives for GBS disease surveillance are to: 1) assess the impact of CDC prevention guidelines published in May 1996, 2) determine the extent to which continuing cases of early-onset GBS disease are preventable through current prevention strategies, 3) identify serotypes responsible for disease to guide vaccine development, 4) evaluate progress in the elimination of serotype b disease, 5) detect possible emergence of disease due to other capsular types, and 6) determine possible preventable reservoirs of the bacteria. Data collection focuses on disease occurrence. State surveillance officers contact personnel in all microbiology laboratories that process bacterial cultures from sterile sites to find cases of GBS. Laboratory audits are also conducted semi-annually to detect possible underreporting. Data are transmitted electronically from the EIPs to CDC's ABCs team on a monthly basis. Annual surveillance reports are made available on the Internet at the ABCs website. Laboratory testing of isolates collected as part of surveillance is performed in reference laboratories. Electronic files containing results of laboratory testing of each state's isolates are fed back to that state on a monthly basis.

Routine laboratory audits to ensure the completeness of data collection represent a tremendous strength of the system. Each month, CDC staff review data and transmit potential errors to state personnel for evaluation. Performance standards for active surveillance have been established in each site to permit aggregation of data collected via somewhat different approaches. Detailed instructions for completion of case report forms ensure consistency across sites. State surveillance officers and CDC's ABCs team hold monthly conference calls to address logistical and technical aspects of the system and meet annually to review and update protocols, present special studies, and discuss innovations. Site visits are currently conducted on an as-needed basis, but annual site visits are planned.

Easy access to the data is provided through a website that includes the basic protocol and one-page yearly surveillance reports for each pathogen. Additional information on GBS is available on a website focused on that infection, with many materials targeted to pregnant women or healthcare providers and public health workers concerned with pregnant women.

The principal limitation of GBS disease surveillance through the ABCs is that it is not conducted throughout the United States. Substantial geographic variation in the incidence of invasive GBS disease has been noted, and it is unclear whether states outside ABCs areas have experienced changes in the incidence of GBS disease that are comparable to those noted in the surveillance areas. One way of addressing this limitation is to increase the availability of ABCs methods and tools. Through the website and frequent publications, CDC is attempting to provide other state health departments with information that can help them assess whether the efforts involved in conducting invasive GBS disease surveillance, particularly for early-onset disease in infants <7 days, are feasible in their locales.

#### **Integrated Resources Information System**

CDC's Integrated Resources Information System (IRIS) is a collection of applications to assist management in budget, staffing, and project planning, tracking, and reporting. The IRIS budget application provides detailed budget information by CDC component. It allows managers to view budget reports grouped by a variety of options. IRIS staffing is a view-only application designed to allow users to quickly access personnel data reports and project employee salaries for a specified time period. The projects application allows managers to plan, track, and manage various types of projects. This application provides access to project data, resources, and administrative functions. All information for a project must be maintained in the IRIS projects component to ensure consistency and reliability of data. The IRIS reports application is the data retrieval and reporting component.

### National Health and Nutrition Examination Survey

The National Health and Nutrition Examination Survey (NHANES) is a program of studies to assess the health and nutritional status of adults and children in the United States. Started in the early 1960s, NHANES is the only national source of objectively measured health data capable of providing accurate estimates of both diagnosed and undiagnosed medical conditions in the population. Findings from the survey are essential for determining rates of major diseases and health conditions and for developing public health policies and prevention interventions. The survey screens 15,000 households per year and selects 3,500. From this sample, 5,000 persons are interviewed and examined annually. Samples are recruited from 15 counties or clusters of counties each year. Samples comprise sufficient numbers to provide reliable estimates by gender and age group for non-Hispanic whites, Mexican Americans, and African Americans.

Data are collected via health interview, physical examination, and clinical and laboratory tests. Interviews are conducted in respondents' homes. Physical examinations are performed in specially designed mobile examination centers that travel to survey locations throughout the country. These centers allow for the collection of data on chronic conditions, nutritional status, medical risk factors, dental health, vision, illicit drug use, blood lead levels, food safety, and other factors that are not possible to assess by use of interviews alone. The medical team consists of a physician, dentist, medical and health technicians, and dietary and health interviewers; trained bilingual staff conduct the household interviews.

An advanced computer system using high-end servers, desktop PCs, and wide-area networking is used to collect and process all NHANES data, nearly eliminating the need for paper forms and manual coding operations. Household interviewers use notebook computers with electronic pens for data collection in the field. Data collected in the mobile examination centers are automatically transmitted via a frame relay network into central databases. Survey information is available to CDC within 24 hours of collection.

Information from NHANES is disseminated through an extensive series of publications and articles in scientific and technical journals. Survey data are also available on CD-ROM and computer diskettes. In previous years, data were available for analysis approximately 31 months after collection. A goal is to improve the timeliness of data dissemination. The computerized system has already substantially improved access to the data from the field.

A comprehensive quality assurance program is instituted before data collection begins, with appropriate training that requires significant practice time for the health examiners and interviewers. Training focuses on hands-on experience rather than didactic methods. During data collection, health examiners and survey staff meet regularly to discuss operations, updates, and problems. Staff are retrained as needed.

NHANES relies on both passive and active monitoring systems for operational and content-related quality control. Passive quality control uses automated computer procedures for detecting data anomalies. After careful analysis, appropriate activities can be undertaken to resolve any data collection issues. Active quality control relies on examiner feedback to identify and evaluate problems and select remedies. NHANES primarily relies on physical measurements from well-established biomedical procedures. In most instances, these measurements represent the gold standard data against which self-reported data might be validated for other subjective data collection modalities. New technologies under consideration are evaluated to determine if they provide valid estimates of the condition, risk factor, or measurement for which they are being used. The evaluation might include a scientific literature review, expert workshop, or validity study.

### **National Health Interview Survey**

The National Health Interview Survey (NHIS) is the principal source of information on the health of the civilian, non-institutionalized population of the United States. The purpose of the NHIS is to monitor the health of the U.S. population through the collection and analysis of data on a broad range of health topics. A strength of the survey is the ability to display these health characteristics by many demographic and socioeconomic factors. NHIS data are used widely throughout 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.

The NHIS is a cross-sectional household interview survey. Sampling and interviewing are continuous throughout each year. Households chosen for interviews are a probability sample representative of the target population. NHIS data are collected annually from approximately 43,000 households including about 106,000 persons. Survey participation is voluntary, and the confidentiality of responses is ensured. The annual response rate is >90% of eligible households in the sample.

#### The NHIS has three modules:

- The basic module remains largely unchanged from year to year and allows for trend analysis. Data from more than one year can also be pooled to increase the sample size for analytic purposes. The basic module contains a family core, a sample adult core, and a child core through which data are collected on the family unit and from one randomly selected adult and child.
- <u>Periodic modules</u> collect more detailed information on some of the topics included in the basic module.
- <u>Topical modules</u> respond to new data needs as they arise.

Data are collected through a personal household interview conducted by staff employed and trained by the U.S. Bureau of the Census according to procedures delineated by CDC. Data are reviewed and analyzed extensively to ensure their validity and reliability. The survey sample is designed to yield estimates that are representative and that have acceptably small variations.

Before the actual survey, cognitive testing is performed by CDC's Questionnaire Design Research laboratory, and pretests are conducted in the field. Once collected, data are carefully edited, checked, and compared to data from earlier surveys and/or independent sources. Staff members calculate descriptive statistics and perform in-depth analyses, which result in feedback on the analytic usefulness of the data.

In the past, it has taken approximately 26 months for the survey data to be released for a given year. Improving the timeliness of NHIS data is a GPRA performance measure.

### **National Hospital Discharge Survey**

The National Hospital Discharge Survey (NHDS), conducted annually since 1965, is a national probability survey designed to meet the need for information on characteristics of inpatients discharged from non-federal, short-stay hospitals in the United States. The NHDS collects data from a sample of approximately 300,000 inpatient records acquired from a national sample of about 500 hospitals. The NHDS provides national and regional estimates of U.S. inpatient hospital utilization by the demographic characteristics of patients discharged, conditions diagnosed, and surgical and non-surgical procedures performed. Approximately 95% of eligible sample hospitals respond to the survey.

The NHDS uses two data collection methods: 1) a manual system in which hospital staff or staff of the U.S. Bureau of the Census abstract data from medical records, and 2) an automated system in which CDC purchases machine-readable medical record data from commercial organizations, state data systems, hospitals, or hospital associations. Approximately 40% of hospitals provide data through the automated system. Data are generally available about 17 months after collection. Timeliness is being addressed as part of the GPRA effort.

An ongoing quality control program helps to ensure the accuracy of NHDS data. NHDS data have been found to be a good reflection of information found in medical records. What is not known is the degree to which medical record information reflects actual performance.

### National Immunization Survey

The Childhood Immunization Initiative (CII) is one of many federal, state, and local programs mounted to raise vaccination levels in young children. The CII established a 1996 goal of increasing vaccination levels for 2-year-old children to at least 90% for measles-mumps-rubella, diphtheria and tetanus toxoids and pertussis vaccine, oral poliovirus vaccine, and *Haemophilus influenzae* type b vaccine. In addition, the CII established a goal for 1996 to increase vaccination levels for 2-year-old children to at least 70% for three or more doses of hepatitis B vaccine.

The National Immunization Survey (NIS) is used to assess progress towards these goals. NIS data provide current, population-based, state and local estimates of vaccination coverage produced by a standard methodology. Quarterly data are collected via household interviews in 50 states, the District of Columbia, and 27 urban areas. Interviews are conducted by telephone with randomly selected households. Each quarter, CDC calculates estimates of vaccination coverage levels and makes valid comparisons of state efforts to deliver vaccination services. CDC uses NIS data to evaluate progress towards national vaccination goals and to identify states with the highest and lowest immunization rates.

To ensure the accuracy and precision of coverage estimates, immunization data for surveyed children are also collected through a mail survey of their pediatricians, family physicians, and other healthcare providers. The parents and guardians of NIS-eligible children are asked during the telephone interview for consent to contact childrens' medical providers. Types of immunizations, dates of administration, and additional data about facility characteristics are requested from immunization providers identified during the telephone survey of households. NIS estimates of vaccination coverage therefore reflect a comparison of information provided by both immunization providers and households.

#### **National Vital Statistics System**

Vital statistics are often the most complete and continuous information available to public health officials at the national, state, and local levels. The National Vital Statistics System is responsible for the nation's official vital statistics. The registration of vital events – births, deaths, marriages, divorces, fetal deaths – is a state function, and vital statistics are provided through state-based registration systems. Since 1902, the federal government has obtained use of the records for statistical purposes through cooperative arrangements with the responsible agencies in each state. Standard forms for the collection of data and model procedures for the uniform registration of events are developed and recommended for state use through cooperative activities of the states and CDC. CDC also provides training and instructional materials to the states as part of ongoing technical assistance.

The purpose of collecting the data is to monitor trends over time through vital life events. Vital records and reports originate with private citizens, such as the family affected by the events, physicians, or funeral directors. By law, birth registration is the direct responsibility of the hospital of birth or the attendant at the birth. In the absence of an attendant, the parents of the child are responsible for registering the birth. Although procedures vary from hospital to hospital, personal information is usually obtained from the mother; medical information may be obtained from the chart or from a worksheet completed by the birth attendant. Reporting requirements vary from state to state; in general, the completed certificate must be filed with the state or local registrar within 10 days of birth. Published data represent all counties and places of 10,000 or more population. Electronic files include data for states, counties, large cities (population of 100,000 or more), and metropolitan statistical areas.

By law, death registration is the direct responsibility of the funeral director or person acting as such. The funeral director obtains the data required, other than the cause of death, from the decedent's family or other informant. The attending physician provides a best medical opinion about the cause and manner of death; later this information is coded by the state or CDC according to uniform codes. Demographic information is also recorded. If no physician was in attendance or if the death was due to other than natural causes, the medical examiner or coroner investigates the death and provides the cause and manner. Reporting requirements for death vary, but in general the completed certificate must be filed within 3 to 5 days of the death. Published data include all counties and places of 10,000 or more population. Electronic files include data for states, counties, large cities (population of 100,000 or more), and metropolitan statistical areas.

Fetal deaths are also reported through the National Vital Statistics System. All fetal deaths of 20 weeks or more gestation that occur in the United States are recorded. A linked birth/infant death file allows for the analysis of demographic and health characteristics from certificates of live births in combination with causes of death and other data from death certificates of infants who died before their first year of life. The linked file set includes information on all the infants who died in the United States each year, as well as information on all live births. An additional file includes information on death records not linked to birth certificates. The match rate is about 97%-98%. Data are organized by calendar year.

Provisional and final estimates of the number of marriages and divorces are obtained from each state able to provide these figures. Since data are not available from all states, national divorce rates are not produced. Detailed characteristics of marriages and divorces have not been available since 1996.

Vital statistics data are collected using uniform procedures and are accurate and consistent. The data are reported as soon as they are analyzed by CDC staff. Monthly provisional numbers and rates are published in the National Vital Statistics Reports. These figures are based on approximate counts of the number of events that occurred in a given state; an estimation procedure is used to convert these occurrence estimates into state-specific estimates of the number and rate of resident events. Preliminary data collected through the National Vital Statistics System are made available to the public approximately 10 months after the end of the collection year. Data are presented for a 12-month period and are published semi-annually in the National Vital Statistics Reports. Final data are released about 18 months after collection via National Vital Statistics Reports, public use data tapes, CD-ROM, Series Reports, the Internet, and journal articles. Use of electronic products have greatly increased the accessibility of the data and reduced the costs to researchers and other users.

The data collected through the National Vital Statistics System represent all registered vital events in the United States and adequately represent the true rates of events. To more accurately record birth and death information, new birth and death certificates are being designed through a collaborative effort with states, researchers, and other interested parties. The revised certificates reflect changing data needs and emerging public health applications; they will be implemented in 2003.

### Sentinel Surveillance for Chronic Hepatitis C

Although a large number of persons in the United States are chronically infected with HCV and many will develop chronic liver disease, the burden of disease has not been well characterized. There is no ongoing surveillance, and few population-based studies have been conducted from which to determine the incidence and prevalence of chronic liver disease and the relative proportion of cases attributable to viral hepatitis and other etiologies. To begin to collect this information, CDC established a pilot surveillance system for chronic liver disease in 1998. The data-collection system has three components:

- A <u>standard interview questionnaire</u>, developed by CDC, is used by all sites to ensure comparability of
  data and facilitate aggregation of data as appropriate. The instrument includes questions from other
  established surveillance systems and from previous studies of chronic liver disease. Questions focus
  on demographic characteristics, clinical information, quality of life issues, and exposures and risk
  factors.
- A <u>standard form</u> is used to abstract clinical and laboratory information from the patient's clinical chart. This information, collected consistently across sites, includes data needed to determine disease etiology, treatment history, medication use, and other relevant clinical information.
- A <u>serum sample</u> is collected and sent to CDC to identify serologic markers for viral hepatitis.

An important characteristic of the pilot is its comprehensiveness. For the first time, all patients with chronic liver disease in several geographic areas are being identified using a common methodology, with consistent information collected in all sites. The goal is to expand the use of the methodology and data collection instruments to other sites throughout the United States to develop a comprehensive picture of the occurrence and characteristics of chronic liver disease and to monitor trends.

Although quality assurance and quality control instruments are still under development, several validation studies have been conducted. To assess the completeness of reporting, CDC conducted a survey of primary care practitioners and a review of all first-time liver biopsies. These studies indicated that overall surveillance was comprehensive and was successful in identifying the vast majority of patients in the target population. A review of a randomly selected subset of charts failed to reveal any significant errors in chart abstraction. To assess the overall validity of the study, early preliminary results have been compared to the few existing relevant data. This evaluation, demonstrating that the incidence of newly diagnosed chronic liver disease has increased in recent years, is already contributing to CDC's efforts to more accurately estimate the burden of illness from chronic liver disease.

### U.S. Sentinel Physician Surveillance for Influenza

Established in 1982, the U.S. Sentinel Physician Surveillance for Influenza is one of four primary sources of influenza surveillance data. The sentinel physician surveillance system is an active system of surveillance conducted from October through May. Each week during that period, several hundred volunteer physicians around the country report the total number of patients seen and the number of those patients with influenzalike illness by age group.

During the 1997-98 influenza season, 27 states and the District of Columbia elected to participate in a pilot program to upgrade the sentinel physician surveillance system. The pilot merged CDC's national sentinel surveillance system and state-based systems into one integrated system based on common methodologies and standards. During the 1998-99 influenza season, the enhanced sentinel physician surveillance system was expanded to include 40 states and the District of Columbia, and an Internet reporting system was developed. States are responsible for establishing, recruiting, and maintaining state-based sentinel physician groups and for ensuring that data are collected and transmitted regularly to a central data repository at CDC, which is updated daily. CDC is responsible for coordinating the system nationally, maintaining the reporting systems, processing and analyzing the data, and maintaining the Internet site. Efforts to improve the system are continuous.

Sentinel physicians can report data via any of three methods: 1) Internet reporting, 2) touchtone phone reporting, or 3) facsimile transmission with manual entry of data. A program developed by CDC integrates the three sources of data and uploads the data to the Internet site. Data are available daily to each state coordinator. A summary of influenza activity is available to the general public each week.

CDC has undertaken a continuous process to simplify use of the system, clarify case definitions, and offer multiple options for input and access. With daily updates and weekly summaries, the information is extremely timely and pertinent for decision making. CDC epidemiologists analyze the data for outlying information and perform routine checks for coherence. State coordinators routinely check the timeliness of reporting and troubleshoot problems at the local level. Guidelines are provided to sentinel physicians for optimal timing of specimen collection for virologic testing on certain patients. There is no way to ascertain that the data on influenza-like illness is free of error, but, as the number of participating sentinel physicians increases, the potential consequences of errors decrease. Given that sentinel surveillance provides an index of current influenza activity, consistent reporting by a stable group of physicians is imperative for data reliability. Increasing sentinel physician sites and sentinel physician participation in each state would greatly increase the validity of the data.

### Youth Risk Behavior Surveillance System

CDC established the Youth Risk Behavior Surveillance System (YRBSS) in 1990. One of the components is a national school-based survey that was first conducted in 1990 and has been repeated biennially since 1991. The national Youth Risk Behavior Survey (YRBS) measures six categories of priority health risk behaviors that contribute to the leading causes of mortality and morbidity among youth and adults in the United States: 1) behaviors that may lead to violence and unintentional and intentional injuries; 2) tobacco use; 3) alcohol and other drug use; 4) sexual behaviors that contribute to HIV infection, other sexually transmitted diseases and unintended pregnancy; 5) unhealthy dietary behaviors; and 6) inadequate physical activity.

The YRBS is administered in the spring to nationally representative samples of students in grades 9-12 attending both public and private schools. Professional data collectors, trained specifically for the YRBS, are used as field staff to ensure standard administration procedures. The YRBSS uses a three-stage cluster sample to select schools and classes of students within schools. African-American and Hispanic students are oversampled to provide accurate estimates for these subgroups in each survey cycle. By combining data from multiple survey cycles it is also possible to obtain accurate estimates for Asian and Native American youth. The sample size totals approximately 14,000 students per survey. School response rates average 76%; student response rates average 88%.

The YRBS questionnaire is designed for self-administration by use of a computer-scannable booklet. The questionnaire has been modified as needed to address emerging public health problems. A reliability study of the questionnaire conducted in 1993 demonstrated that students reported health risk behaviors reliably over time. Psychometric work has demonstrated that the questionnaire yields accurate and high-quality data. Standardized data editing and cleaning procedures improve data accuracy and consistency. Data are released within 12 months of data collection and are made available to the public via the Internet.

### CDC Program-Specific Data Verification and Validation

#### Birth Defects, Developmental Disabilities Prevention, and Disabilities and Health

For the goal to prevent birth defects and developmental disabilities, the performance measures use data from CDC's Behavioral Risk Factor Surveillance System, the National Birth Defects Prevention Network, the number of maternal interviews entered into the National Birth Defects Prevention Study, the Alliance for Research in Child Health Epidemiology, and the count of specific types of studies funded by CDC.

For the goal to improve the health and quality of life of Americans with disabilities, the performance measures are simple counts of programs, publications, and data from a database maintained by the Directors of Speech and Hearing Programs for State Health and Welfare Agencies.

#### Chronic Disease Prevention and Health Promotion

Early Detection of Breast and Cervical Cancer: CDC uses the Minimum Data Elements (MDEs) to report on all GPRA measures. States, territories, and tribal organizations (NBCCEDP grantees) submit MDEs electronically twice a year (January 15 and July 15) to a data management contractor, who analyzes the data and submits a data file to CDC. These files are made available in April and October. CDC will use the January 15 submission to report performance for the new GPRA measures. Data provided in the performance report include only screening exams through March 31 of the previous year to allow adequate time to gather the data and present a complete program report. NBCCEDP grantees are provided 9½ months after the initial screening date (March 31) to gather diagnostic and treatment information and prepare the data submission by January 15. The data management contractor analyzes the data by March and sends the report to CDC. All data collected and submitted by NBCCEDP grantees have indicators to assess completeness. Data are also assessed against established clinical standards.

**Tobacco:** CDC monitors cigarette use among youth and reports performance on a biennial basis using the Youth Risk Behavior Survey (YRBS), which is a component of the YRBSS (see Appendix A.2). Three additional surveys, the National Household Survey on Drug Abuse (NHSDA) the Monitoring The Future (MTF) Survey, and the National Youth Tobacco Survey (NYTS), provide complementary data for examining trends and understanding youth-related tobacco issues. The NHSDA is conducted annually by SAMHSA; the MTF is conducted annually by the University of Michigan's Institute for Social Research; and the NYTS is currently conducted by the American Legacy Foundation, but will transfer to CDC in 2004.

**Community-Based Prevention Research:** Data are available from grantee progress reports and will be verified through site visits and publications. CDC program consultants validate information received through site visits and telephone consultations. No data lags are expected.

**Heart Disease & Stroke:** CDC will evaluate stroke registry capacity via annual state reports, deaths from heart disease and stroke via death certificate data from states, and uncontrolled high blood pressure data from HRSA..

**Diabetes:** CDC verifies performance through quarterly state reports and periodic site visits. For efforts in American Indian/Alaskan Native populations, data are verified via program reports and documentation of support. The BRFSS collects data on receipt of annual eye and foot exams in persons with diabetes.

**Arthritis:** CDC collects and evaluates data on state-based arthritis programs via annual state program reports and site visits.

National Cancer Registries: Participating states are expected to collect information on at least 95% of cancer cases diagnosed or treated in their state each year. NPCR funded states are required to incorporate NAACCR standards for data quality and format. States report de-identified cancer case data annually to a CDC contractor. In addition, CDC receives regular reports from each state which summarize progress of completeness, timeliness, and quality of registry data. NPCR staff also prepare annual internal evaluations of program progress.

Variations in states' capacities (planning or enhancement status) and initial funding year result in differences across reference years used for calculating registry data completeness. NAACCR has established a process by which states can apply for certification to ensure that member registries are collecting useful and high-quality data. Member registries are evaluated yearly and provided confidential feedback. Data for FY 2001 will be available in June 2002 for reporting.

HIV Prevention among School-aged Youth: Data are collected on a biennial basis (during odd-numbered years) through CDC's YRBSS, a system designed to focus attention on priority behaviors among youth that are associated with the most important health problems (see Appendix B). The YRBSS was developed in partnership with 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 provides evidence that this adolescent survey has good reliability in measuring health behavior. Baseline data from the 1995 YRBSS are used because: 1) they were the most recent data available when the original measures were created, and 2) they will allow a more accurate illustration of trends in sexual behaviors over time.

**Nutrition/Physical Activity and Obesity:** CDC plans to collect and evaluate state data on nutrition and physical activity programs via annual state program reports, site visit reports, and a program evaluation database.

### Environmental Health

**Environmental Health Laboratory/Biomonitoring:** All analytical methods developed must be certified under the Clinical Laboratory Improvements Act of 1988 (CLIA).

Data systems at CDC's Environmental Health Laboratory monitor laboratory performance under CLIA. CDC also conducts quality assurance activities internally to confirm results and ensure their validity. CLIA-approved methods are used to analyze levels of environmental chemicals published in the *National Report on Human Exposure to Environmental Chemicals* that are measured in specimens obtained from the National Health and Nutrition Examination Survey (NHANES). The use of CLIA-approved methods is verified by senior staff as well as by internal quality assurance officers. The sample size and control mechanisms for the *Report* have been established as part of NHANES.

**Asthma:** Data verification is based on required reporting by grantees. CDC project officers will verify that states are fulfilling the requirements of cooperative agreements through routine monitoring of the grants process. CDC epidemiologists will review all statistical and surveillance data to ensure appropriate application of statistical and epidemiologic methods.

#### Health Statistics

CDC will verify performance via contractor reports, pretest reports, meeting proceedings, publications, and website records.

#### HIV, STD, and TB Prevention

HIV/AIDS Data Collection Systems: CDC uses multiple data collection systems to monitor HIV trends and prevention programs. The HIV/AIDS Reporting System (HARS) collects case reports of HIV-infected persons in state and local health departments. AIDS case data are available from all states and territories using uniform name-based collection methods (–no names or personal identifiers are sent to CDC; these are maintained only at the local level). Although completeness of reporting of diagnosed AIDS cases varies by area and patient population, studies indicate that reporting in most areas is more than 85% complete. Reporting of AIDS deaths is estimated to be more than 90% complete. In contrast, HIV data collection systems vary between areas (e.g.,name-based code, coded identifier, name-to-code, etc. data collection systems). CDC is conducting validation and evaluation studies of these systems to determine the quality of data generated by them. Currently, trends in HIV diagnoses for adults and adolescents are available only from 25 states which have implemented name-based HIV case reporting (using methods similar to those for AIDS case reporting) since at least 1994.

The period of time between a diagnosis of HIV or AIDS and the arrival of a case report at CDC is called the "reporting delay" (40% of AIDS cases are reported to CDC within 3 months of diagnosis, 80% within 1 year). In order to provide the best estimates of trends in incidence, HIV and AIDS surveillance data are analyzed by the date of diagnosis and are mathematically adjusted in more recent periods to adjust for reporting delays and incomplete information on some cases. CDC requires a minimum of 18 months after the end of a calendar year to provide accurate estimates of trends for through that year. For example, calendar year 2000 data will be available in the summer of 2002.

In addition to the HARS data, CDC has supplemental surveillance systems to collect in depth information on HIV/AIDS cases and prevention programs. The Supplement to HIV/AIDS Surveillance (SHAS) project collects interview information from recently reported HIV/AIDS cases ≥18 years of age in 16 state/local health department jurisdictions on their sex and drug using behaviors, access to and adherence to care, and utilization of prevention interventions. The Adult and Adolescent Spectrum of HIV Disease (ASD) study collects longitudinal medical record review data on antiretroviral therapy, clinical care, and outcomes from HIV-infected persons receiving care in selected medical facilities in 9 areas; most of these facilities are publicly-funded. The HIV Counseling and Testing System (CTS) collects the number of tests performed, demographic and characteristics, test results, and utilization of post test counseling services in publicly-funded sites in all states.

Surveillance reports and in depth analyses of data from these systems are available upon request from CDC.

Sexually Transmitted Diseases: TD incidence and prevalence data (hardcopy and electronic) undergo ongoing verification and validation procedures including quarterly reports back to project areas comparing reporting across all data sources, trend information, percent unknowns for clinical fields, edit checks and updates, as well as constant communication via fax, phone, and email with project staff. PID hospitalization data is collected through the National Hospital Discharge Survey conducted by the National Center for Health Statistics, and PID initial visits to physicians is collected through the National Diagnostic and Therapeutic Index by IMS America, Ltd. Additional feedback is provided to project areas via annual publications and reports.

Prevention of STD-Related Infertility: Data on the prevalence of chlamydial infection in defined populations have been useful in monitoring disease burden and guiding screening programs. In particular, CDC monitors trends in prevalence among women enrolled in the U.S. Department of Labor National Job Training Program and among women screened for chlamydia attending family planning clinics. These programs provide crucial information on the prevalence of chlamydia in high-risk populations, i.e., young sexually active women. Data from these programs indicate that: 1) chlamydia is geographically widespread (in nearly all states, chlamydia positivity exceeded the Healthy People 2010 objective of 3%), and 2) younger women (<24 years of age) consistently have higher chlamydia positivity than older women. Chlamydia screening is not as widespread for men. Chlamydia prevalence was 4.7% among men aged 17-37 years who were screened at entry in the U.S. Army in 1999-2000. Although these prevalence data are not entirely comparable because of differences in the performance characteristics of screening tests and variations in screening criteria, they provide important information on the continuing high burden of disease. The data also allows monitoring of chlamydia in multiple venues and populations which is critical to understanding the true burden of disease.

In efforts to reduce the prevalence of chlamydia among high-risk women under age 25, CDC does not have activities targeted specifically to Job Training Program participants. However, CDC includes data provided by the U. S. Department of Labor because the data are an important component of assessing burden of disease. National Job Training Program participants, who are required to be screened for chlamydia at program entry, represent an important high-risk population CDC is trying to reach, young sexually active women. Continued expansion of chlamydia screening should lead to a continued reduction of the burden of disease among women, including National Job Training Program participants. For economically

disadvantaged women aged 16 to 24 years who entered the National Job Training Program from 27 states, and Puerto Rico, in 2001, the overall prevalence was 10.6 %. Given that there has been little or no change in the prevalence of chlamydia among the National Job Training Program participants, and given that CDC does not have activities specifically targeting the National Job Training Program, the target has been adjusted to 10% for 2002 and 9% for 2003 and 2004.

In 2001, CDC achieved the goal of reducing chlamydia prevalence among women attending family planning clinics. Unlike the measure that utilizes data from the U.S. Department of Labor's National Job Training Program, this measure reflects the performance of long-standing, widespread CDC-supported screening programs. The median state-specific positivity was 5.6% for women aged 15 to 24 years screened at selected family planning clinics in all states and outlying areas. In selected prenatal clinics in 22 states and Puerto Rico, the chlamydia prevalence was 7.4%. After adjusting trends in chlamydia positivity to account for changes in laboratory methods and associated increases in test sensitivity, chlamydia test positivity among women decreased in five of 10 DHHS regions from 2000 to 2001, increased in four regions, and remained the same in one region. Although chlamydia positivity has declined in the past year in some regions, continued expansion of screening programs to populations with higher prevalence of disease may have contributed to the increases in positivity seen in other regions.

As CDC continues to expand its efforts, data from the family planning clinics is crucial not only in measuring performance but also in guiding future efforts. Effective interventions have been demonstrated, but they are not reaching all those in need. Achieving future declines in chlamydia prevalence hinges upon efforts to: 1) expand chlamydia screening and treatment services so they are easily available to both men and women; 2) increase awareness about chlamydia testing and treatment services at private clinics and doctors' offices; and 3) expand health promotion activities.

**Gonorrhea:** The U.S. experienced a 73.9% decline in the reported rate of gonorrhea in the U.S. from 1975 to 1997. The rate increased in 1998, but the rates of reported gonococcal infections have since been steady (128.5 in 2001, 129.0 in 2000, 132.3 in 1999, and 131.9 in 1998). The 2001 rate exceeds the Healthy People 2010 objective of 19 cases per 100,000 persons.

Although reported rates of gonorrhea were once substantially higher among men than women, that gap has narrowed. This is most likely due to increased screening in women. Because women are more likely to be asymptomatic than men, cases in women are less likely to be identified and reported. The overall gonorrhea rate in U.S. females in 2001 was similar to the rate in 2000 (128.2 and 126.7, respectively). The gonorrhea rate in men was similar with 130.9 and 128.4 cases per 100,000 males in 2000 and 2001, respectively. Among women aged 15-44, the 2001 rate was 286 per 100,000, exceeding the target rate of 250. In 2001, 15- to 19-year-olds had the highest rate (703.2 cases per 100,000 females) of gonorrhea among women. Among men, rates (563.8 cases/100,000 males) were highest among 20- to 24-year-olds. Profound racial disparities persist for gonorrhea, with 2001 reported rates among non-Hispanic blacks about 27 times higher than among whites and Hispanic rates almost 3 times higher than rates among whites. This disparity most likely reflects differences in access to prevention and treatment services.

Although increased screening, use of more sensitive diagnostic tests, and improved reporting may account for a portion of increase in the recent past, true increases in disease in some populations and geographic areas also appear to have occurred. The southern states continue to have the highest gonorrhea rates of any region. Reasons may include poverty levels and access to quality healthcare and preventive services. Future declines in gonorrhea prevalence will require efforts to 1) increase public and provider awareness of the problem, 2) increase screening and treatment in high-risk populations, and 3) expand health promotion and prevention.

**Pelvic Inflammatory Disease (PID):** The decrease in the incidence of PID is possible evidence of intensified nationwide screening and treatment efforts for chlamydia, a principal cause of PID. The incidence of hospitalization for PID among women aged 15-44 decreased from 127 per 100,000 women in 1999 to120 per 100,000 women in 2000, achieving the 2000 target of 125 per 100,000 women. These decreases in hospitalizations may also be attributable to an increasing trend of outpatient management for PID and increased use of oral treatments.

The reported number of initial visits to physicians' offices for PID through the National Disease and Therapeutic Index (NDTI) has generally declined from 1993 through 2001 but is still higher than the 2001 target of <225,000 visits.

Accurate estimates of PID and tubal factor infertility from gonococcal and chlamydia infections are difficult to obtain. Definitive diagnosis of these conditions often requires complex surgical or other diagnostic tests. Most cases of PID are treated on the basis of interpretations of clinical findings, which vary among practitioners. In addition, the settings in which care is provided can vary considerably over time. For example, women with PID who would have been hospitalized in the 1980s may be treated in outpatient facilities today. Future declines in the incidence PID will hinge in part upon expansion of screening and treatment programs for chlamydia and gonorrhea as well as expansion of health promotion efforts that increase both public and provider awareness.

**Syphilis Elimination:** Syphilis is extremely concentrated geographically. Approximately 80% of U.S. counties have already eliminated syphilis, and 94% have a syphilis rate of ≤4 per 100,000. Over 50% of syphilis cases in 2001 were reported from 21 counties. Syphilis remains an important problem in the South and in some urban areas in other regions of the country.

Although provisional data from 2001 indicates continued progress, syphilis elimination efforts are challenged by increases among MSM in areas throughout the country. For example, a gradual increase in syphilis among men who have sex with men (MSM) has been reported from several U.S. cities, including Los Angeles, Seattle, Chicago, Miami, and New York City, possibly reflecting an increase in risk behavior in this population associated with increased wellness and well-being afforded by the availability of new, highly-effective antiretroviral therapy for HIV infection. From 1998 to 2001, outbreaks of early syphilis (including P&S and early latent) have been reported from these cities.

The outbreaks in these five cities have been characterized by high rates of HIV co-infection. Although the total number of cases identified so far among MSM is relatively small, these outbreaks present a new challenge to attaining the national syphilis elimination objective of reducing the number of reported P&S syphilis cases to fewer than one thousand Syphilis remains one of the most glaring examples of racial disparities in health, with 2001 rates among African Americans 16 times those among white Americans, down from a 64-fold differential at the beginning of the last decade. This racial disparity (16:1) is extreme compared to most other health outcomes including AIDS (9:1), infant mortality (2.5:1), and deaths attributable to heart disease (1.5:1). Rates for Hispanics increased by 31.2% from 1997 to 2001. Communities burdened by poverty, racism, unemployment, low rates of health insurance, and inadequate access to health care are often disproportionately affected by syphilis. CDC aims to continue reducing this racial disparity in 2004.

Reduce the incidence of congenital syphilis: The lack of syphilis serologic testing and treatment during pregnancy remains the major reason that congenital syphilis persists in the U.S. Each positive test in a child is considered a medical emergency with immediate health services follow-up. The absence of testing is often related to complete lack of, or late initiation of, prenatal care. In 2001, 441 cases of congenital syphilis were reported to CDC, a rate of 11.1 cases per 100,000 live births. Now below the 2001 target of 12/100,000, this rate reflects a 59% decline in the number of cases since 1997 (1078 to 441 cases).

#### Tuberculosis (all):

Information on the percentage of TB patients reported in 2004 who complete TB treatment within 12 months will be available in June 2006. The last TB cases reported on December 31, 2004 will not have their 12-month treatment period completed until December 31, 2005. Then, 6-9 months are needed to tabulate, complete, verify, and report the data. This information is obtained from the national TB Surveillance System.

Information on the percentage of TB cases reported in 2004 with initial positive cultures and drug susceptibility results will be available by June 2005. This information is obtained from the national TB Surveillance System.

CDC recently revised the national reports for the data that addressed the following two measures: (1) Increase the percentage of contacts of infectious cases who are placed on treatment for latent TB infection and complete a treatment regimen; and (2) Increase the percentage of other high-risk infected persons who are placed on treatment for latent TB infection and complete a treatment regimen. For the first measure, the definition for contacts changed from contacts of "infectious cases" to "sputum smear-positive cases". The new system came on-line in CY 2000; the data for 1999 will not be representative because of the transition that occurred. The data for 2000 will not be submitted by the states until August 2002. Because the methods and definitions of reporting are substantially revised in the new system, data analysis will not yield results for these measures until after August 2003. Because of the change in definitions, program performance will appear to drop between 1998 to 1999, but the data are not comparable.

Information on the completion of treatment for latent TB infection for contacts of smear-positive cases who are started on treatment in 2004 will be available in mid-2006. Depending on the regimen used, it takes 2-9

months to complete treatment. Therefore, some patients will not complete treatment until December 31, 2005. Approximately 6-9 months are allowed to tabulate, complete, verify, and report the data. This information is obtained from the national Aggregate Reports for TB Program Evaluation.

Information on the percentage of complete reporting of surveillance data items for TB cases reported in 2004 will be available by June 2005. This information is obtained from the national TB Surveillance System.

TB morbidity data and related information submitted via the national TB Surveillance System are entered locally or at the state level into CDC-developed software. The software contains numerous data validation checks. Data received at CDC are reviewed to confirm their integrity and evaluate completeness. Routine data quality reports are generated to assess data completeness and identify inconsistencies. These reports are shared with the reporting areas and discussed during site visits.

Data submitted via the national Aggregate Reports for TB Program Evaluation are checked for accuracy and inconsistencies. Problems are resolved by CDC staff working with state and local TB program staff. During regular visits to state, local, and territorial health departments, CDC staff review TB registers and other records and data systems and compare records for verification and accuracy. At the end of each year, data are again reviewed before data and counts are finalized and published.

#### **Immunization**

Data is obtained from a variety of sources, including the National Notifiable Disease Surveillance System (NNDSS), CDC, EPO; the National Congenital Rubella Syndrome Registry (NCRSR), CDC, NIP; the Active Bacterial Core Surveillance (ABCs), Emerging Infections Programs, CDC, NCID; and the National Health Interview Survey (NHIS), CDC, NCHS.

#### Public Health Improvement

**REACH:** Grantees will report on the development of implementation and evaluation plans, which will be reviewed by CDC staff. Site visits and data acquired by the CDC grant reporting system are also used. No data lags are expected.

The measure will be verified by the CDC grant reporting system.

### Appendix E Performance Measurement Linkages

### **Approach to Performance Measurement**

CDC and partners are concerned with a spectrum of health issues, including infectious diseases, chronic conditions, adverse reproductive outcomes, environmentally related conditions, occupationally related health events, and injuries. This array of health conditions and outcomes requires a variety of intervention strategies for populations, in addition to clinical preventive services for individuals. CDC engages in extensive dialogue with partners, communities, and the public to identify and implement intervention strategies that address the specific needs of diverse populations. Examples include the provision of prophylactic measures (e.g., vaccination, post-exposure prophylaxis), educational services (e.g., dissemination of public health messages, counseling), inspection of food establishments, and control of disease outbreaks. For these activities, the rational development of public health policy depends on public health information.

A variety of CDC data systems provide the science base for identifying health problems, designing interventions, and monitoring program performance (See Appendix D). 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. Challenges in obtaining data to monitor performance under GPRA include the following:

- 1. As GPRA measures are refined over time, data systems to produce data with a frequency that corresponds to the periods during which performance is measured.
- 2. As health system changes, historical data series may not continue to produce needed data. For example, the move toward managed care may make medical information increasingly proprietary and impede access to data for research and statistical purposes. Similarly, changes in relationships among healthcare providers and laboratories may make public health surveillance based on case reports more difficult. At the same time, these changes present opportunities for new data-system partnerships.
- 3. Data systems will need to produce information of sufficient quality and precision to detect relatively small changes in performance indicators. This may require investments in larger sample sizes for surveys and new technologies for improving data quality. Continuing research will be required to establish the data systems and underlying evaluation approaches to assess causes (program interventions) and effects (outcomes) for performance monitoring.
- 4. Many national data systems are the source of GPRA measures for CDC and other health programs. These systems must be assessed and upgraded to remain current with the public health infrastructure. Resources to ensure the maintenance and strengthening of these data systems are included in the FY 2002 CDC budget request and need to be continued.
- 5. Because many CDC and DHHS programs are implemented at state and local levels, it will be increasingly important to obtain reliable, systematic data at these levels for monitoring of program implementation, performance, and outcomes.

### Appendix E Performance Measurement Linkages

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. CDC and partners use at least seven categories of information to understand and address disease, injury, and disability using the public health model. These categories of information include:

- Reports of health events affecting individuals;
- Vital statistics on the entire population;
- Information on the health status, risk behaviors, and experiences of populations;
- Information on potential exposures to environmental agents;
- Information on public health programs;
- Information useful to public health but obtained by organizations not directly involved in public health practice; and
- Information on the healthcare system and its impact on health.

Reports of health events: Reports of cases of diseases of public health importance form the basis for many CDC programs. The National Notifiable Disease Surveillance System (NNDSS) seeks reports on all cases of >40 conditions in the United States. To minimize the burden placed on those who report the data, CDC limits the amount of information collected for each case. NNDSS data are used to monitor disease trends, evaluate public health programs, and identify unusual occurrences of conditions that may require further epidemiologic investigation at the local level.

For some public health purposes, effective action requires additional details on each case. Supplemental data collection systems have therefore been developed for some of the diseases reported to NNDSS. These systems may be less comprehensive in terms of populations 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 risk factors for different types of viral hepatitis in selected geographic areas. These data have been used to document the importance of behaviors associated with sexual activity and drug use as risk factors for transmitting hepatitis B virus and to target education and vaccination programs.

Control of some conditions requires more detailed information than can be obtained feasiblely from a large group of clinicians or institutions. Networks of selected healthcare providers have therefore been organized to meet these targeted information needs. For example, CDC's Sentinel Event Notification System for Occupational Risks (SENSOR) targets groups of healthcare providers as a component of a comprehensive approach for obtaining data on which to base 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 recommendations for the appropriate use of antibiotics.

<u>Vital statistics</u>: 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 among the staples of public health information 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. 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 and data preparation and processing procedures and also provides partial financial support for state systems.

Health status, risk factors, and experiences of populations: Since the determinants of many health problems are behavioral, environmental, or genetic, 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 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 levels. Surveys provide information on: 1) baseline health status, 2) morbidity, 3) prevalence of behavioral risk factors, 4) use of healthcare services and identification of underserved populations, and 5) potential for exposure to toxic agents. Information generated from the surveys is used in developing prevention and control programs and in ensuring adequate delivery of health services.

<u>Potential exposure to environmental agents</u>: Information on exposures to environmental agents can be used in evaluating the risks to health from noninfectious diseases, injuries, and certain infectious diseases. For example, measurement of airborne particulates is useful in assessing risks related to pulmonary disorders such as asthma and lung cancer. Information on vectors that may carry agents of infectious disease is important in evaluating the risk for acquiring such infections.

<u>Program information</u>: Data needed to operate public health programs include the number of clients served and the costs of services rendered. These data are useful to public health officials in assessing the effectiveness of public health programs, comparing 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 organizations whose functions may not be related to those of CDC and state and local health departments. Data from the Bureau of the Census, for example, are needed for both the reliable computation of rates and 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 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. The Department of Transportation operates the Fatal Accident Reporting System, used in public health to assess risk factors for motor-vehicle-related injuries and deaths. Crime statistics gathered by the Federal Bureau of Investigation (FBI) assist in evaluating the public health impact of intentional injuries, and the Consumer Product Safety Commission collects data on injuries related to consumer products.

<u>Information on the healthcare system</u>: Information is also needed on the healthcare system and the health impact resulting from changes in the system. CDC provides a great deal of information to monitor the capacity of the healthcare system, utilization of the system, and access to health insurance and services by the American people. These data include: inventories of healthcare providers; patterns of utilization of health services such as hospitalization rates and uptake of new technologies; and access to health care and barriers (both financial and non-financial) to access.

# Linkages with Budget, Cost Accounting, Information Technology Planning, Capital Planning, and Program Evaluation

#### **Clinger-Cohen Act**

CDC has implemented the requirements under the Clinger-Cohen Act of 1996 (CCA) for information technology (IT) capital investment planning, monitoring, and performance measurement. The Information Technology Investment Review Board (ITIRB) process has been established and was released CDC-wide on January 5, 1999, via the CDC Intranet. CCA compliance became a component of the CDC budget planning process for the FY 2001 budget. Major IT investments associated with budget initiatives required the development of a Capital Asset Plan and Business Case (Exhibit 300) as part of the submission.

Also in compliance with CCA, CDC has developed several components of the agency's information technology architecture, such as certain health data standards, networking and telecommunications architecture, information security, and the majority of the agency's administrative procedures. More extensive work on other core business processes, information flows, process and data models is ongoing.

In addition to efforts in the implementation of CCA, CDC has a well-integrated GPRA and IRM Strategic Plan that aligns IT products and services with CDC's ever-changing mission needs and directions. The IRM strategic goals, strategies and performance measures support the mission, mission goals, and CDC's GPRA performance plan.

#### Linkages with the President's Management Agenda

CDC has been actively pursing goals and improvements related to the President's Management Agenda (PMA) for some time. For example, from 1997 to 2001, CDC decreased its proportion of administrative positions by 6 percent. CDC has historically focused on keeping the agency market-based and efficient by having over 3,000 service contractor staff engaged to conduct commercially-oriented responsibilities. In addition, in 2000, CDC established its Fiscal Management Excellence Initiative, which has further enhanced its efforts to improve fiscal performance. In FY 2002, CDC had a less than one percent variance between allotted agency FTE levels and actual FTE usage, thus, effectively integrating strategic workforce planning with budget and program execution. CDC is also organized to effectively address and lead PMA issues in several ways. For example, CDC has established an Executive Steering Committee to help concentrate management attention on the PMA, and has appointed a full-time, executive leader to coordinate activities and articulate the interdependence among the initiatives.

CDC has received its FY 2002 PMA, "Progress", Scorecard results. HHS provided CDC three "Green" lights and two "Yellow" lights. The "Green" lights included the Competitive Sourcing, Improved Financial Management, and Expanded E-Government Initiatives. The "Yellow" lights included Strategic Management of Human Capital and Enhanced Budget and Performance Integration Initiatives. These scores reflect the continuing leadership and hard work that CDC management and staff are focusing on the PMA.

#### Strategic Management of Human Capital

Strategic Management of Human Capital is a priority for CDC. The agency received a "Yellow" Scorecard on this Initiative, indicating achievement of some, but no all, goals. CDC has established a number of specific and measurable goals to address Strategic Management of Human Capital issues. For example, by 2004, CDC's supervisory ratio will increase to 1:9. Between July 2001 and January 2003, CDC's supervisory ratio increased by 57 percent, as an indication of the continuing success in flattening and delayering the agency. Another PMA Human Capital goal is to increase the span of control/organizational size to 12 FTE's in each Branch by 2004. CDC's Human Resources Management Office (HRMO) continues to work with each CIO to help assure that Human Capital goals are met.

CDC is continuing to work to further address Workforce Restructuring issues. For example, as of January 2003, CDC had already abolished 85 percent of the 125 administrative and management positions required to be abolished by September 2003. In addition, CDC continues to search for ways to further delayer the agency. As part of this effort, CDC has recently abolished a net of about 40 organizational units.

#### **Increased Competitive Sourcing**

CDC received a "Green" Scorecard result from HHS, documenting that all goals for the period had been achieved. CDC has developed competitive sourcing plans for FY 2002, 2003, and 2004, and is carrying out these plans. The plans set forth the strategy to conduct studies or directly convert 5 percent of the agency's commercial-type positions in FY 2002, 10 percent in 2003, and 10 percent in 2004. CDC fully achieved the FY 2002 goal. In 2003, CDC is conducting public-private competitions and/or direct conversions for not less than the additional 10 percent of the CDC FTEs listed in its FAIR Act Inventory as performing commercial work. CDC has also delivered its FAIR Act Inventory on time and in full conformance with HHS' guidance. Finally, CDC has acquired outside contractor support to provide assistance for these continuing competitions.

#### **Improved Financial Management**

CDC received a "Green" Scorecard result from HHS on this Initiative, documenting that CDC continues to make great strides in this area. For the past five years, CDC has received an unqualified opinion on the financial statements performed by independent auditors. A new HHS-wide financial management system, the Unified Financial Management System (UFMS), will be implemented to replace five legacy accounting systems currently used across CDC. The current accounting system is based on software that is 16 years old and requires substantial, labor-intensive effort. CDC and HHS kicked off the implementation of the CDC segment of the UFMS development in October 2002. CDC also employs a comprehensive method to allocate indirect costs that fund internal operations. This method, developed with the assistance of Ernst and Young, LLP, correlates work performed and centrally mandated services, thus, directly linking users of services with the actual cost of performing these services. CDC also has been graduating staff from its Financial Management Certificate Program and currently has over 200 staff enrolled. CDC has continued its success in minimizing erroneous payments. In FY 2002, the agency issued 99.96 percent accurate payments. In addition, CDC leads in the area of prompt payment with a 97 percent compliance rate.

#### **Expanded E-Government**

CDC continues to be a leader in E-Government initiatives, as reflected by the "Green" Scorecard provided by HHS. Some CDC leadership efforts include:

- Actively engaging in seven government-wide E-Gov initiatives, such as e-Vitals, consolidated health informatics (CHI), e-Travel, e-Grants, and Geospacial Information One Stop, with an initial 16 CDC programs, representing \$4.4 billion.
- Contributing to HHS initiatives, such as leading the HHS large agency IT infrastructure consolidation initiative, serving as Program Manager for the Security Team, and engaging in the HHS Enterprise IT Strategic Plan, UFMS, Enterprise Human Resources and Payroll, and HHS enterprise information security.
- Progressing towards compliance with the Government Paperwork Elimination Act (GPEA) by the October 2003 deadline by making data collections and disseminations enabled electronically.
- On-going enhancement of the CDC web presence as the authoritative and trusted source of public health information for healthcare providers, public health officials, the media, and the public. Over 5 million different visitors per month make CDC's website one of the most frequently visited government websites. The events of 9/11 and the anthrax infections drew over 9 million visitors to the CDC website in October 2001 alone.

#### **Enhanced Budget and Performance Integration**

CDC continues to work diligently on improving budget and performance integration. This work has spanned the organization, and has included staff from planning and budget offices, the procurement and grants office, and virtually every program across CDC. Accomplishments this year include:

#### Annual Plan/Report Submission

CDC's annual performance plan and report was substantially revised in the spring and early summer. Submitted on June 7, the plan complied with the Department's Detailed Instructions. Significant changes and improvements to the plan included:

- Inclusion of an executive summary that reinforces the link between the performance plan and the budget request while highlighting past, present, and future performance;
- Creation of a "performance road map" that clearly shows the relationship between CDC major budget activities and performance goals undergirding them;
- Provision of a more meaningful referencing system wherein performance measures are related to the budget request, Healthy People 2010, HHS Strategic Plan Goals, and the President's Management Agenda; and
- Improvement in the quality and comprehensiveness of appendices. These improvements included a more coherent discussion of our partnership and coordination activities, as well as enhancements to our data verification and validation section of the plan.

#### Program Outcomes

CDC's Fiscal Year 2003 Performance Plan contained 228 performance measures, 57 (25%) of which were outcome measures. We made significant strides in reducing our over-all number of measures while increasing outcomes. Our FY 2004 plan submitted to HHS in June contained 188 performance measures, 61 (32%) of which were outcome measures. This submission reflects yet a further refinement of measures, containing only 100 measures, 39 (39%) of which are outcome measures.

#### Program Effectiveness

OMB identified five CDC programs for the Program Assessments. These programs included immunization, breast and cervical cancer, diabetes, domestic HIV/AIDS, and Health Alert Network. However, prior to OMB's identification of the programs, CDC formed a cross-agency working group to discuss ways in which to effectively capture program performance data. This working group served as a springboard for the five programs who were ultimately selected to participate in the assessment activities, and OMB's assessment tool (the PART) contained many of the components that the working group had previously discussed.

Thorough reviews of the five programs were carried out at CDC. Smaller, program-specific working groups were formed to develop responses to the PARTs. Consistency across the workgroups was provided by staff in CDC's Office of Program Planning and Evaluation. In addition, the Financial Management Office and Procurement and Grants Office provided critical input into questions that involved financial and procurement policies and procedures.

In June 2002, the five assessment tools and supporting documentation were sent to HHS on time and with complete responses. In the months that followed, HHS and CDC conducted conference calls with OMB to discuss the assessment tools, and CDC provided an array of information requested of us by OMB to help inform their assessments of our five programs. Each of the five programs has successfully completed the assessment process and received its final rating in December 2002. We are currently working on improvements identified as a result of the PART process.

#### Performance Measurement Linkages

#### Public Health Grant Initiative (OMB Management Agreement)

One of the key components of the OMB/DHHS management agreement involved creation of a pilot program at CDC to streamline several grants programs. Asthma, diabetes, and obesity grant programs were selected as the candidate programs. Multiple offices and programs across CDC worked on this cross-cutting activity with DHHS. CDC offices included: planning offices in the Office of the Director, the National Center for Chronic Disease Prevention and Health Promotion, and the National Center for Environmental Health, as well as the CDC Procurement and Grants Office. Programs involved included two in the National Center for Chronic Disease Prevention and Health Promotion (diabetes and obesity), and the asthma program in the National Center for Environmental Health.

This project is on-going; a brief time line and list of deliverables depicting the process are provided below:

3/25/02:	Initial Envision meeting between DHHS and CDC to describe the project.
4/3/02:	Project time line developed.
4/19/02:	CDC submits initial information to DHHS. This information includes (by program):
	program descriptions, list of administrative burdens, logic models, and program outcomes.
4/30/02:	DHHS meets with OMB.
5/1/02:	Conference call between DHHS and CDC to debrief on OMB meeting.
5/22/02:	CDC receives Excel spreadsheet from DHHS containing recommended items to be
	addressed by each program.
6/11/02:	CDC submits completed spreadsheets to DHHS.
8/15/02:	CDC internal workgroup reconvenes to discuss next steps.
8/29/02:	Teleconference between OMB, DHHS, and OMB held.
9/9/02:	CDC submits revised pilot project proposal to DHHS.

Over the course of this project, CDC has provided a variety of information including:

- 1. A list of administrative burdens associated with each grant program;
- 2. Draft outcome measures for each of the grant programs;
- 3. Reduction in the over-all number of grant announcements within each programmatic area;
- 4. Streamlined processes for the application review process;
- 5. Streamlined progress reporting processes; and
- 6. Projections of savings in cost, burden hours, and progress reporting for CDC and the states once proposed streamlined processes are implemented.

Based upon OMB's response to the materials submitted in June, CDC staff who worked on this project reconvened in August, 2002. OMB's comments were reviewed and the team identified key issues regarding this project. A revised proposal was developed, vetted through HHS policy and procurement offices, and submitted to OMB on September 26, 2002.

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

#### **FY 2002/03 Change Chart for Goals and Performance Measures**

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Birth Defects/Dev. Disabilities and Health	Improve the health status of Americans with disabilities. Originally worded: Monitor, characterize, and improve the health status of Americans with disabilities		Revised goal to be more outcome-oriented
	Improve the health and quality of life of Americans with disabilities	Reduce the number of children with birth defects due to prenatal alcohol exposure by increasing the percentage of women who report abstinence of any alcohol consumption during pregnancy.	Revised measure
		Improve the quality, comprehensiveness, and usefulness of data derived from the National Birth Defects Prevention Network.	Revised measure
		Increase the number of states collecting community-based data on autism and other developmental disabilities.	Revised measure
	Prevent birth defects and developmental disabilities	Reduce the number of children with birth defects due to prenatal alcohol exposure by increasing the percentage of women who report abstinence of any alcohol consumption during pregnancy.	Simplified the language. Now reads: Reduce the percentage of women who report any alcohol consumption during pregnancy.
Birth Defects/ Disabilities continued	Prevent birth defects and developmental disabilities	Improve the quality, comprehensiveness, and usefulness of data derived from the National Birth Defects Prevention Network.	Language changed for clarity. Now reads: Increase the number of American births covered by birth defects monitoring programs (data used to plan services to children, evaluate prevention, and plan future prevention strategies).

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Birth Defects/ Disabilities continued	Improve the data on the prevalence of birth defects and developmental disabilities.	Increase the number of states participating in the National Birth Defects Prevention Network.	Measure deleted from 2003 plan due to required reduction in the number of measures.
	Monitor, characterize, and improve the health status of Americans with disabilities.	Increase the number of states biennially utilizing the state Behavioral Risk Surveillance System to monitor the health status of people with disabilities.	Measure deleted from 2003 plan due to required reduction in the number of measures.
Chronic Disease/Health Promotion Breast and Cervical	Increase early detection of breast and cervical cancer by building nationwide programs in breast and cervical cancer prevention, especially among high-risk, under served women.	Excluding breast cancers diagnosed on an initial screen in the NBCCEDP, diagnose at least 70% of women aged 40 and older at the localized stage.* (*first mammogram provided through CDC's NBCCEDP.)	Measure will be eliminated effective FY 03 due to concerns about data quality.
	Increase early detection of breast and cervical cancer by building nationwide programs in breast and cervical cancer prevention, especially among high- risk, under served women.	Excluding invasive cervical cancers diagnosed on an initial screen in the NBCCEDP, lower the ageadjusted rate of invasive cervical cancer in women aged 20 and older to not more that 22 per 100,000 Pap tests provided.* (*first Pap test provided through CDC's NBCCEDP).	Revised performance measure. Established 04 targets.
	Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services.	Maintain the percentage of newly enrolled women who have not received a Pap test within the past five years.	New measure - FY 04.

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Chronic Disease/Health Promotion continued	Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services	Increase the number of women screened.  Breast: mammogram or CBE  Cervical: Pap Smear	New measure - FY 04.
	Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services	Increase the percentage of women with abnormal results* who receive a final diagnosis within 60 days of screening.  *Breast - abnormal mammogram (suspicious of abnormality, highly suggestive of malignancy, or assessment incomplete) and/or abnormal CBE  *Cervical - abnormal Pap includes high grade SIL, squamous cancer, or abnormal glandular cells	New measure - FY 04.
	Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services	Increase the percentage of women with cancer who start treatment within 60 days of diagnosis.	New measure - FY 04.
	Expand community-based breast and cervical cancer screening and diagnostic services to low income, medically underserved women. For women diagnosed with cancer or precancer, assure access to treatment services	Cervical: Increase the percentage of women with precancerous lesions* who start treatment within 90 days of diagnosis  *includes CIN II, CIN III, and CIS	New measure - FY 04.

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Chronic Disease/Health Promotion continued	Support prevention research to develop sustainable and transferable community-based behavioral interventions.	Ensure that PRCs work toward closing the gap between research findings and public health practices.	Process measure
Community Based Prevention Research			
	Support prevention research to develop sustainable and transferable community-based behavioral interventions.	Ensure that at least one PRC in each DHHS region established research priorities and develops interventions in collaboration with a constituent community.	Process measure - historically achieved target.
Heart Disease	Increase the capacity of state cardiovascular health programs to address prevention of cardiovascular disease at the community level	Increase the number of states with five of the seven core heart disease and stroke prevention capacities.	Measure will be deleted effective FY 03. CDC has historically met the target for this measure. A new measure has been developed.
	Reduce death and disability due to heart disease and stroke and eliminate disparities.	Reduce the proportion of heart disease and stroke deaths that occur before transport to emergency health services.	New measure - FY 04.
	Reduce death and disability due to heart disease and stroke and eliminate disparities.	Reduce the prevalence of uncontrolled high blood pressure (BP ≥140/90), among patients with hypertension, especially among populations at high risk, in states that collaborate with community health centers.	New measure - FY 04.
Diabetes	Increase the capacity of state based diabetes control programs to address the prevention of diabetes and its complications at the community level.	Increase the percentage of diabetes control programs that adopt, promote, and implement guidelines for improving the quality of care for persons with diabetes.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Chronic Disease/Health Promotion continued	Increase the capacity of state based diabetes control programs to address the prevention of diabetes and its complications at the community level.	Conduct studies on translating research findings into clinical and public health practice, and publish results in peer-reviewed journals.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
	Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.	For states receiving CDC funding for diabetes prevention and control programs (DPCPs), increase the percentage of persons with diabetes who receive annual eye and foot exams.  *Refers to basic implementation states (Formerly comprehensive) only.	New measure - FY 04.
	Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level.	For states receiving CDC funding for diabetes prevention and control programs (DPCPs), increase the percentage of persons with diabetes who receive at least two A1c measures per year.	New measure - FY 04.
	Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level	By 2010, decrease by 20% the number of people with pre-diabetes who advance to diabetes among states with pre-diabetes programs.  *New initiative	New measure - FY 04.
Diabetes	Increase the capacity of state based diabetes control programs to address the prevention of diabetes and its complications at the community level.	Increase the percentage of DCPs with one capacity in all key areas (e.g. surveillance, partnerships, communication networks, assessment of quality care, public awareness.)	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Chronic Disease/Health Promotion continued	Increase the capacity of state diabetes control programs to address the prevention of diabetes and its complications at the community level	Increase the number of DPCPs that promote health system approaches to identifying persons who are at high risk for developing diabetes (e.g. obese and/or impaired glucose metabolism).  *New initiative	New measure - FY 04.
HIV Prevention among School- aged Youth	Reduce cigarette smoking among youth	Reduce the percentage of youth (grades 9-12) who smoke.	Revised target.
	Decrease levels of obesity or reduce the rate of growth of obesity in communities reached through nutrition and physical activity interventions.	Increase the number nutrition and physical activity interventions that are implemented and evaluated in funded states.	New measure - FY 04.
Arthritis	Increase the capacity of state arthritis programs to address the prevention of arthritis and its complications at the community level.	Enhance state based arthritis surveillance by increasing the number of states using BRFSS modules on arthritis and quality of life.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
	Increase the capacity of state arthritis programs to address the prevention of arthritis and its complications at the community level.	Increase the number of states addressing arthritis at the core level.	Process measure - historically achieved target
	Support prevention research to develop sustainable and transferrable community-based behavioral interventions.	Ensure that at least one PRC in each DHHS region establishes research priorities and develops interventions in collaboration with a constituent community.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Asthma	Improve state and local public health capacity to control asthma	States will have implemented core asthma programs (this is a measure that has been deleted from the June 02 submission)	This is not an outcome measure. The overall purpose of the state grants is to reduce asthma morbidity. This goal is more accurately measured in the remaining asthma measure regarding asthma hospitalizations.
Environmental Health Newborn Quality Assurance	Ensure the quality of lab technologies to quickly and accurately detect inherited disorders in newborns	Increase the number of disorders covered by the Newborn Screening Quality Assurance Program (this is a measure that has been deleted from the June 02 submission).	NCEH has met the target for the past 2 fiscal years and there are no plans to change the target, e.g. increase the number of disorders which are covered by the program.
Managing Risk Behaviors - BRFSS	Help states monitor the prevalence of major behavioral risks associated with premature morbidity and mortality in adults to improve the planning, implementation, and evaluation of health promotion and disease prevention programs.	Increase the number of states participating in the BRFSS that complete 4,000 telephone interviews per year.	Measure will be deleted effective FY 2003. CDC has historically achieved the targets.
Cancer Registries	Improve the quality of state based cancer registries	Increase the percentage of states funded by CDC's NPCR that report at least 95% of unduplicated, expected cases of reportable cancer in state residents in a diagnosis year.	Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
Chronic Disease/Health Promotion continued	Support prevention research to develop sustainable and transferrable community-based behavioral interventions.	Ensure that PRCs work toward closing the gap between research findings and public health practices.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
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Environmental Health continued Childhood Lead Poisoning	Reduce the burden of lead poisoning in children	Increase the percentage of CDC-supported states with systems to determine the number of Medicaid-enrolled children who are screened for lead poisoning (this is a measure that has been deleted from the June 02 submission)	This measure does not accurately convey the actual number of Medicaid children screened for lead poisoning. The first measure regarding reducing the number of children with elevated blood lead levels is the overarching goal of the program and the number of Medicaid children screened is subsumed in that measure.
Genomics	Help states use genetic information in their public health programs	Increase the number of states receiving technical assistance from CDC to integrate genetics into public health (this is a measure that has been deleted from the June 02 submission)	This is a process measure. The second measure in this section more accurately captures the intent of the program.
Epidemic Services and Response	Maximize the distribution and use of scientific information and prevention messages through modern communication technology.	Based on established criteria continue to publish the Morbidity and Mortality Weekly Reports (MMWR) series of publications including Reports and Recommendations, Surveillance Summaries, and the Annual Summary to communicate major public health events to the media, public policy makers and health professionals through multiple media channels print, television, radio, interactive World Wide Web.	Achieved - deleting measure
		The MMWR will refine communication efforts through a Center-wide communications plan to provide a framework for current activities and maximize communicating public health messages through print and the World Wide Web.	Achieved - deleting measure
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Epidemic Services and Response continued	Efficiently respond to the needs of our public health partners through the provision of epidemiologic assistance	Based upon established criterial for participation, Epidemic Intelligence Service (EIS) officers will respond to at least 95% of the requests for epidemic assistance from domestic and international partners	Achieved - deleting measure
	Build expertise within CIOs to conduct prevention effectiveness studies of public health interventions.	Increase the number of professional prevention effectiveness staff and fellows.	Consolidated & deleting measure - after 2002
		Increase the number of staff in CIOs who can use prevention effectiveness methods.	Consolidated & deleting measure - after 2002
	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.	Provide for effective workforce for staffing state and local health departments and in other public health related organizations.	Consolidated & deleting after 2002
		By FY 2002, implement the plan to address needed changes in EIS training methodologies identified in the evaluation study.	Achieved - deleting measure
		Number of courses to train state and local public health professionals in epidemiology, surveillance, informatics, prevention effectiveness, and management through a program modeled after the EIS program.	New measure
		Number of EIS officers assigned to state or municipal health departments.	New measure
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

HIV/AIDS Prevention	Increase the proportion of HIV-infected people who know they are infected.	Increase the percentage of HIV-positive tests for which persons return for results.	Revised for accuracy: Increase the percentage of HIV-positive tests from CDC funded test sites with post-test counseling sessions reported
	Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.	Increase the number of states that conduct HIV case reporting.	Revised for accuracy: Increase the number of states and District of Columbia that conduct HIV case reporting in adults and adolescents.
	All	All	Goals changed to better align with HIV Prevention Strategic Plan Through 2005.
Tuberculosis	Eliminate tuberculosis in the United States	Target revision: Increase the percentage of contacts of infectious (AFB smear-positive) cases who are placed on treatment for latent TB infection and complete a treatment regimen.	Targets for 2000 and later years have been adjusted to reflect changes in data collection methods.
Immunization	Improve Vaccine Safety Surveillance	Expand the network of CDC and CDC-funded staff, virologists, epidemiologists, technical and scientific officers on long-term assignments in WHO country and regional offices.	The following performance measures were replaced or omitted in favor of more outcome oriented measures. CDC will continue to report on these measures until 2002, as they were previously included in the FY 2002 Performance Plan.
		Expand a special program to prepare a cadre of trained public health professionals throughout CDC to complete short-term assignments with WHO.	Deleting measure
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Infectious Diseases Control Continued		Use new data mining techniques to increase the number of detected true and false signals of adverse events associated with vaccination.	Deleting measure
		Expand the Vaccine Safety Datalink (VSD) sites to increase the number of persons under active surveillance for vaccine safety.	Deleting measure
		Improve the ability of health care providers to report vaccine adverse events, including those associated with influenza vaccine, by pilot testing electronic reporting to VAERS in managed care organizations.	Deleting measure
Immunization	Improve vaccine safety surveillance.	Increase the number of persons under active surveillance for vaccine safety via large linked databases to 13 million people by 2010.	Revised for more outcome-oriented measure.
	Strengthen epidemiologic and laboratory capacity to recognize, respond to, and monitor infectious diseases	Increase on-site technical support and assistance to the 57 state-based prevention programs funded through the ELC cooperative agreement by increasing percentage of programs visited within the budget year	Revised measure
	Apply scientific findings to prevent and control infectious discases	Expand surveillance for unusual HIV variants.	Measure moved from HIV section to the Infectious Diseases Control section
Epidemiology and Laboratory Capacity	#1: Strengthen epidemiologic and laboratory capacity to recognize, respond to, and monitor infectious diseases.	#1: Increase the number of EID microbiology fellows trained for employment in public health laboratories.	Process-oriented. Another measure is being developed to better reflect outcomes from increasing EID fellows.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Infectious Diseases Control Continued  Priority Disease Problems	Protect Americans from priority infectious diseases.	#2: Increase the number of states and/or local health departments that integrate viral hepatitis preventing into STD and HIV treatment programs.	Process-oriented
		#3: Provide support to 20 health departments to assess the effectiveness of integration of HCV counseling, testing, and referral programs.	
		Establish sentinel surveillance systems for chronic HCV in 10 states to monitor trends in incidence, risk factors for infection and outcomes of disease.	
	Influenza	#1. Establish sentinel surveillance sites to monitor influenza viruses (1 site/250,000 population) to enhance early detection of viruses with pandemic potential domestically.	Combined with #2 below to reduce measurements.
		#2 Provide support to build capacity for influenza surveillance wits and networks internationally to enhance early detection of viruses with pandemic potential and improve vaccine decisionmaking.	Combined with #1 under influenza to reduce # of measurements.
	Foodborne Illnesses	#1. Detect and investigate large or unusual outbreaks of diarrheal and or foodborne illness.	Achieved targets three consecutive years. Goal met.
		#2. Increase the proportion of foodborne outbreaks in which the causative food is identified.	Exceeded measurement for three years. Goal met/Measurement dropped.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Infectious Diseases Control Continued Antimicrobial Resistance	Reduce the spread of antimicrobial resistance	Provide support to health department s and hospitals for surveillance, prevention, and control of antimicrobial resistance	Met target two consecutive years/Goal met.
		Establish a surveillance system to collect data on antimalarial drug resistance in African countries.	Met target two consecutive years./Goal met.
Medical Errors and Healthcare- associated infections	#1. Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare.	1. Reduce the rate of central line-associated bloodstream infections in adult ICU patients to 3.80, as measured through the NNIS system.	Deleting measure. Measurement has been achieved or exceeded.
		Fund demonstration programs to develop and evaluate new strategies to measure and prevent healthcare associated infections.	Goal was not outcome oriented and removed to meet required decrease in number of measurements in performance plan. Baseline established, goals never reported.
Public and Provider Education	#1 Apply scientific findings to prevent and control infectious diseases.	#2. Establish 10 surveillance networks to monitor antimicrobial resistance, threats from transfusion of blood/blood products, and infectious diseases in travelers and immuno-suppressed and under served populations.	Achieved or exceeded three consecutive years. Goal was not outcome oriented and removed to meet required decrease in number of measurements in performance plan.
		#4. Increase participating of 134 hemophilia treatment centers in the Universal Data Collection system.	Achieve or exceeded three consecutive years./Goal met.
Injury Prevention and Control	Reduce the incidence of youth violence	In a CDC-funded youth violence project, reduce the number of students reporting incidents of fighting.	Measure achieved
		Develop best practice protocols for implementation and evaluation of youth violence prevention programs.	Measure achieved
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Injury Prevention and Control Continued		Increase the number of regional best practices workshops, and disseminate workshop results.	Measure achieved
	Reduce violence against women	Establish a biennial survey of the incidence and prevalence of violence against women.	Measure achieved
		Establish demonstration projects to address prevention of violence against women.	Revised measure to be more outcome-oriented.
	Reduce violence against women (continued)	Establish a research program to address understudied aspects of violence against women (e.g., assess factors of perpetration of IPV that would inform development of interventions and treatment)	Revised measure to be more outcome-oriented.
		Evaluate the effectiveness of communities with coordinated community responses.	Measure achieved
		Establish at least one surveillance system for collecting intimate partner violence data representative of an entire state	Measure achieved
	Improve the uniformity, quality, and accessibility of emergency department (ED) data for public health surveillance in several States, ultimately developing the capacity to improve data in all States through development of guidelines, recommendations, or technical assistance. Reduce the number and severity of head injuries in CDC funded projects by increasing bicycle helmet use.	Reduce the number of bicycle-related emergency department visits by 5% per year from 123,475 in 1995.	Funding for this program shifted to other injury program priorities.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
		Conduct state training programs	Revised measure to be more outcome-oriented.
	Educate the capacity of states to implement effective rape prevention and education programs	Develop case definitions for sexual assault.	Revised measure to be more outcome-oriented.
	Increase external input on the research priorities, policies, and procedures related to the extramural research supported by CDC	Increase efficiency and effectiveness of research investments by employing competitive peer-review processes.	Revised measure to be more outcome-oriented.
		Publish recommendations for conducting and evaluating smoke alarm promotion programs.	Revised measure to be more outcome-oriented.
		In CDC-funded projects within the 13 states, increase the number of homes with at least one smoke alarm on each habitable floor.	Achieved
	Reduce the incidence of residential fire-related injuries and deaths by increasing functional smoke alarms on every habitable floor	In CDC-funded projects within 14 states (our previous round of state projects), increase the proportion of homes with at least one smoke detector on each habitable floor.	Exceeded
		Implement CDC guidelines for design and use of TBI registries in 2 states by 2004; report outcomes associated with TBI.	Findings disseminated and measure achieved
	Improve the timeliness and quality of data used to determine the medical and social impact of traumatic brain injury.	Develop a uniform reporting system for TBI; determine incidence and prevalence; report on uses of state surveillance and follow-up registry data; disseminate information on TBI trends	Reworded for FY03 plan to say "Increase the number of states receiving CDC funding for surveillance and to identify and track injuries."
Injury Prevention and Control Continued		Increase the use of bicycle helmets by child and teen bicyclists in CDC-funded project areas.	Partially Achieved funding ended in FY 00

Injury Prevention and Control Continued	Improve the uniformity, quality, and accessibility of emergency department (ED) data for public health surveillance in several States, ultimately developing the capacity to improve data in all States through development of guidelines, recommendations, or technical assistance	Establish the capability of state health departments to receive secure transmission of non-identifiable patient data from participating emergency departments.	Revised measure to be more outcome-oriented.
	Enhance the capacity of states to implement effective rape prevention and education programs	Develop case definitions for sexual assault.	Measure achieved
		Conduct state training programs	Measure achieved
	Reduce the number and severity of head injuries in CDC funded projects by increasing bicycle helmet use.	Reduce the number of bicycle- related emergency department visits by 5% per year from 123,475 in 1995.	Funding for this program shifted to other injury program priorities.
		Increase the use of bicycle helmets by child and teen bicyclists in CDC-funded project areas.	Partially Achieved funding ended in FY 00
	Improve the timeliness and quality of data used to determine the medical and social impact of traumatic brain injury.	Develop a uniform reporting system for TBI; determine incidence and prevalence; report on uses of state surveillance and follow-up registry data; disseminate information on TBI trends	Reworded for FY03 plan to say "Increase the number of states receiving CDC funding for surveillance and to identify and track injuries."
		Implement CDC guidelines for design and use of TBI registries in 2 states by 2004; report outcomes associated with TBI.	Findings disseminated and measure achieved
	Reduce the incidence of residential fire-related injuries and deaths by increasing functional smoke alarms on every habitable floor.	The incidence of residential fire-related deaths will be reduced.	Reworded for FY03 plan to say "Among the state receiving funding from CDC, reduce deaths from residential fire."
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
	Improve the uniformity, quality, and accessibility of emergency department (ED) data for public health surveillance in several States, ultimately developing the capacity to improve data in all States through development of guidelines, recommendations, or technical assistance.	Establish the capability of state health departments to receive secure transmission of non-identifiable patient data from participating emergency departments.	Reworded for FY03 plan to say "Increase the number of states receiving CDC funding for surveillance and to identify and track injuries."
	Provide online access to injury prevention data	Implement a user-friendly, personal computer-based system for accessing Federal injury data in a variety of national and state-based systems.	Measure achieved
	Increase external input on the research priorities, policies, and procedures related to the extramural research supported by CDC.	Increase efficiency and effectiveness of research investments by employing competitive peer-review processes.	Reworded for FY 03 plan to say "Develop new or improved approaches for preventing and controlling death and disability due to injuries."
		Publish recommendations for conducting and evaluating smoke alarm promotion programs.	Measure achieved
		In CDC-funded projects within the 13 states, increase the number of homes with at least one smoke alarm on each habitable floor.	Measure achieved
Injury Prevention and Control Continued		In CDC-funded projects within 14 states (our previous round of state projects), increase the proportion of homes with at least one smoke detector on each habitable floor.	Exceeded/measure achieved

Occupational Safety & Health Research	Conduct a targeted program of research to reduce morbidity, injuries, and mortality among workers in high-priority areas and high-risk sectors / Conduct a high quality research program in occupational safety and health which provides relevant, useful results to workers, employers, and other agencies on occupational diseases, workplace hazards, risk factors, and effective methods of prevention.	Expand involvement of other federal agencies in NORA-related research.  Increase the science base for occupational safety and health through publications, innovations, and research partnerships.  Demonstrate impact of NORA on research activity through bibliometrics and other proxy measures, such as accomplishments of NORA partnerships teams	Revised goal to coincide with Healthy People 2010 and President's Management Agenda
	New Performance Goal: Conduct a high quality research program in occupational safety and health that advances scientific knowledge and provides technically and economically utilizable results to workers, employers, governmental agencies, and the scientific community on workplace safety and health hazards, risk factors, and effective methods of prevention.		Revised overall performance goal to be more outcome oriented
	Old Performance Goal: Conduct a high quality research program in occupational safety and health that advances scientific knowledge provides relevant, useful results to workers, employers, other agencies, and the scientific community on occupational diseases, workplace hazards, risk factors, and effective methods of prevention:		
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Occupational Safety & Health Continued		New Measure: Increase the relevance of occupational safety and health research for future improvements in workplace protection.  Old Measure: Relevance of occupational safety and health research for future improvements in workplace protection.  New Measure: Ensure the quality of occupational safety and health research as measured by peer review.  Old Measure: Quality of research as measured by peer	Revised FY 03 and FY 04 measure to be more outcome oriented  Revised FY 03 and FY 04 measure to be more outcome oriented
Tracking Work Injuries, Illnesses, and Hazards (formerly surveillance section)	New Performance Goal: Increase the capacity for the collection and use of information on the occurrence and frequency of work injuries, illnesses, and hazards in order to access the actual burden of occupational injuries and illnesses.  Old Performance Goal: Improve the quality (accuracy) of information and to increase the capacity for the collection and use of information on the occurrence and frequency of work injuries, illnesses, and hazards in order to keep target essential research and appropriate interventions for improvement of worker safety and health.	review.	Revised overall performance goal to be more outcome oriented
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Occupational Safety & Health Continued		New Measure: Improve the quality and usefulness of tracking information by safety and health professionals and researchers in targeting research and intervention priorities; and measuring the success of implemented intervention strategies.  Old Measure: Quality and usefulness of surveillance information by safety and health professionals and researchers in targeting research and intervention priorities; and measuring the success of implemented intervention strategies.	Revised FY 03 and FY 04 measure to be more outcome oriented
Information, Training, and Capacity Building (formerly Capacity Building section)	New Performance Measure: Ensure safer and healthier work environments for all Americans through information dissemination, knowledge transfer, and training.  Old Performance Goal: Enhance the capacity to achieve a safe and healthy workplace for all Americans by assuring that there is an adequate supply of trained occupational safety and health professionals for the next decade, and enhancing knowledge and skill of employers, workers, and safety and health professional		Revised overall performance goal to be more outcome oriented
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
		New Measure: Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors.	Created new performance measure to consolidate old performance measurements. New performance measure is outcome oriented and coincides with HHS outcome goal 1.6 and Healthy People 2010.
Prevention Activities through Evaluation, Safety and Health Interventions and Recommendations	New Performance Goal: Increase safety and health in the workplace by demonstrating, communicating, and promoting technically and utilizable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities.  Old Performance Goal: Increase safety and health in the workplace by demonstrating, communicating, and promoting the use of effective solutions to control workplace hazards and reduce work-related injuries, and fatalities.		Revised overall performance goal that is more outcome oriented.
Occupational Safety & Health Continued		Added New Measure: Increase quality, relevancy, and usefulness of NIOSH information and recommendations by occupational safety and health professionals, workers, employers, government, the scientific community, and the public.	Added new FY 03 and FY 04 performance measure that is outcome oriented and coincides with HHS outcome goal 4.4, 8.5

Occupational Safety & Health Continued		New Measure: Increased utilization of control technology and personal protective technology in targeted sectors	Created new performance measure to consolidate old performance measurements. New performance measure is outcome oriented and coincides with HHS outcome goal 2.2
		Old Measure: Reduce the annual incidence of disabling work injuries among children and youth.	Removed FY 03 and FY 04 performance measurement. FY 03 and FY 04 targets consolidated into new performance measurement.
		Old Measure: Reduce the annual incidence of needle stick injuries among hospital employees	FY 03 and FY 04 performance measure removed from plan by CIO during revision process
		<b>Old Measure:</b> Reduce the incidence and severity of silica exposures among construction workers.	Removed FY 03 and FY 04 performance measurement. FY 03 and FY 04 targets consolidated into new performance measurement.
		Old Measure: Reduce the annual incidence of material handling injuries among miners installing support structures	FY 03 and FY 04 performance measure removed from plan by CIO during revision process
		Old Measure: Reduce the annual incidence of musculoskeletal disorders among workers in the construction industry.	FY 03 and FY 04 performance measure removed from plan by CIO during revision process
		Old Measure: Reduce the percentage of damaged, field deployed, self-contained self-rescuers (SCSRs) (Type of respirator	FY 03 and FY 04 performance measure removed from plan by CIO during revision process, too output based.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Occupational Safety & Health Continued		Old Measure: Increase the percentage of respirators users who have been trained how to use respirators for protection against potentially toxic work environments	FY 03 and FY 04 performance measure removed from plan by CIO during revision process, too output based
		Old Measure: Decrease average years of life lost to pneumoconiosis among U.S. workers	FY 03 and FY 04 performance measure removed from plan by CIO during revision process
		Old Measure: Reduce the annual incidence of elevated blood lead concentrations in persons due to work exposures	Removed FY 03 and FY 04 performance measurement. FY 03 and FY 04 targets consolidated into new performance measurement.
Surveillance	Identify high-risk working conditions by developing a surveillance system for major occupational illnesses, injuries, exposures, and health hazards / Improve the quality (accuracy) of information and to increase the capacity for the collection of information on the occurrence and frequency of work injuries, illnesses, and hazards so that the analysis of this information leads to essential research and appropriate intervention for improvement of worker health and safety.	Implement the strategic plan, and seek opportunities for enhancement via stakeholder interaction.  Collect, analyze, and disseminate surveillance data on occupational illnesses, injuries, and hazards.	Revised goal
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Occupational Safety & Health Continued Capacity Building	Foster safe and healthy 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. / Enhance the capacity to achieve a safe and healthy workplace for all Americans by assuring that there is an adequate supply of trained occupational safety and health professionals for the next decade.	Transfer scientific and technical information to employers, workers, the public, and the occupational safety and health community.  Conduct, arrange, and sponsor technology transfer and training sessions.  Support capacity building activities.  Support training for occupational safety and health professionals.  Review a sample of documents, training materials, and communication efforts, and begin implementation of findings.	Revised goal to coincide with President's Management Agenda
Work Safety and Health Interventions	Promote safe and healthy working conditions by increasing occupational disease and injury prevention activities through workplace evaluations, interventions, and CDC recommendations. / Increase safety and health in the workplace by demonstrating, communicating, and promoting the use of effective solutions to control workplace hazards and reduce workrelated injuries, diseases, and fatalities.	Respond to requests for workplace evaluations from employers, workers, and others, and provide practical advise to address problems.  Provide scientific support for policy development, testimony, and non-regulatory initiatives.  Evaluate the effectiveness of targeted prevention programs.	Revised goal to coincide with Health People 2010 objectives
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Preventive Health and Health Services Block Grant	Provide interim dynamic support for high priority state and local disease prevention and health promotion programs.	Increase the number of grantees who submit as part of their annual report 1 health outcome impact success story.	Process measure
	Support high-priority state and local disease prevention and health promotion programs.	Increase the number of grantees who submit as part of their annual report 1 health outcome impact success story.  Increase the number of grantees who submit both an annual application and annual report using the standardized electronic grant application and reporting system (GARS).	In the 2/02 submission, CDC has proposed adding these new measures. However, given the mandate to reduce the total number of measures in the performance plan, CDC withdrew these measures.
Public Health Improvement	Provide interim dynamic support for high priority state and local disease prevention and health promotion programs.	Increase the number of grantees who submit both an annual application and annual report using the standardized electronic grant application and reporting system.	Process measure
	Prepare local, frontline public health workers to respond to current and emerging public health threats.	Establish a national system of Centers for Public Health Preparedness to develop and dissemination competencies based public health curricula	Revised measure to be more outcome-oriented: Percent of states/terr. served by a center for public health preparedness(cphp) that provides education/training in BT and other public health threats and emergencies to frontline public health practitioners.
	Prepare local, frontline public health workers to respond to current and emerging public health threats.	Build capacity for technology based learning at Federal, State, and local levels	Revised measure to be more outcome-oriented: Percent of local health departments who deploy distributed learning technology in public health education and training.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Public Health Improvement	Implement training programs to provide an effective workforce for U.S. health departments and laboratories and ministries of health in developing countries.	The number of public health professionals participating in distance learning activities will be increased.	Output-oriented - deleting measure. This information is already reported in the budget output table.
	Implement training programs to provide an effective workforce for U.S. health departments and laboratories and ministries of health in developing countries.	The number of Sustainable Management Development graduates who conduct training in developing countries will be increased.	Output-oriented - deleting measure. This information is already reported in the budget output table.
	Implement training programs to provide an effective workforce for U.S. health departments and laboratories and ministries of health in developing countries.	Evaluate the impact on laboratory practice of training programs conducted by the National Laboratory Training Network.	Moved to different goal (prepare frontline state and local health departments and laboratories to respond to current and emerging health threats) because it measures impact on lab practices
	Implement training programs to provide an effective workforce for U.S. health departments and laboratories and ministries of health in developing countries.	The number of states served by state and regional leadership development programs will be increased.	Output-oriented - deleting measure. This information is already reported in the budget output table.
	State and local health departments are able to electronically access and distribute up-to-date PH information and emergency health alerts, monitor the health of communities, and assist in detection of emerging public health problems.	Expand the connectivity of the Health Alert Network.	Moved from bioterrorism- This is a dual-use program between public health improvement and bioterrorism
	Conduct research to identify and evaluate community-based prevention interventions.	Disseminate research findings in formats that encourage uptake by decision-makers (clinicians, administrators, and legislators)	Process measure - deleting measure.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Public Health Improvement continued	Strengthen the scope and nature of extramural public health research programs.	Expand the scope of public health research to multidisciplinary research efforts that bridge the gap between public health practice, public health research, bioethics, and health policy research.	Achieved and reported in FY 2001.
	Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.	Percent of states/terr. Served by a Center for Public Health Preparedness (CPHP) that provides education training in BT and other public health threats and emergencies to frontline public health practitioners.	Consolidated measure Measure: Evaluate the impact on the performance/preparedness of frontline public health practitioners resulting from education and training programs implemented or supported by CDC, including the Centers for Public Health Preparedness system.
		Percent of local health departments who deploy distributed learning technology in public health education and training.	Consolidated measure Measure: Evaluate the impact on the performance/preparedness of frontline public health practitioners resulting from education and training programs implemented or supported by CDC, including the Centers for Public Health Preparedness system.
		States demonstrating improvement in laboratory testing and reporting of priority diseases.	Performance measure consolidated into one measure.  Measure: Evaluate the impact on laboratory practice of the National Laboratory System (NLS) training programs conducted by the National Laboratory Training Network.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Public Health Improvement continued	State and local health departments are able to electronically access and distribute up-to-date public health (PH) information and emergency health alerts, monitor the health of communities and assist in the detection of emerging public health problems.		Performance Goal 2 consolidated into Performance Goal 1 1. Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies and prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats.
Public Health Improvement - REACH	Improve the lives of racial and ethnic populations who suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.	Fund selected communities to implement REACH 2010 interventions based on community planning activities.	CDC has historically met target. Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan.
	Improve the lives of racial and ethnic populations who suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.	Develop a comprehensive dissemination plan for transferring lessons learned from the REACH 2010 projects to communities across the country.	Measure will be deleted effective FY 03. CDC is eliminating this measure based on the mandate to reduce the total number of measures in the performance plan
	Improve the lives of American Indian and Alaska Native populations who suffer disproportionately from the burden of disease and disability, and develop tools and strategies that will enable the nation to eliminate these health disparities by 2010.	CDC will support AI/AN organizations to address health priorities, prevention gaps, and service delivery interventions for their communities.	Process measure. Eliminated effective FY 03. CDC will however continue to report on progress related to this measure in the performance summary
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
		Design and construct an Environmental Toxicology Laboratory, Building 110, to replace Buildings 17, 25, 31, and 32, Chamblee campus.	Revised measure
		Complete construction of infrastructure project in Security Buffer Zone, Clifton Road campus.	Revised measure
Office of the Director		Review and manage CDC's patent portfolio to maximize return for public health benefit.	Revised measure
		Complete construction of infectious disease laboratory, Building 109, to replace Buildings 4, 6,7,8, and 9, Chamblee campus.	Revised measure
		Begin design of a Scientific Communications Center to replace Building 2 and vacate and modernize Building 3, Clifton Road campus.	Revised measure
		Design and construct a new Emerging Infectious Disease Laboratory, Building 18, Clifton Road campus, to vacate and modernize Building 1 South, house bioterrorism activities, and provide additional BSL-4 capacity.	Revised measure
		building consolidation process  Construct CDC buildings	New/revised measure
Facilities	imprement scheduled improvements, construction, security, and maintenance consistent with available resources and priorities identified in CDC's master facilities planning process.	17 (Infectious Disease Research Laboratory) at the Clifton Road campus.  Design CDC buildings to begin	New/revised measure
Buildings and	Implement scheduled	Construct Phase II of Building	Deleting measure

Office of the Director		Begin design of New Headquarters Building 21, Clifton Road campus, for lease consolidation project.	Revised measure
		Begin design of Building 106, Chamblee campus, for Lease Consolidation Project.	Revised measure
	Identify, evaluate, and protect novel technologies	Review and manage CDC's patent portfolio to maximize return for public health benefit	Revised for more outcome-oriented measure
		Increase the number of employee invention reports (EIRs) filed per year.	Deleting measure
	Facilitate the commercialization of unique technologies	Market all available licensing opportunities for CDC's intellectual property, and update availability of new technologies on a quarterly basis.	Deleting goal and measure.
		At least annually, provide new evidence that CDC licenses provide a substantial basis for development of commercially significant products and processes.	Deleting measure.
		Increase CDC outreach activities through participation in national and international research, trade, and technology transfer meetings/conferences.	Deleting measures.
	Promote private-sector participation and investment in applications of novel research discoveries.	Increase the number of CRADAs, Material Transfer Agreements, Clinical Trial Agreements, and other CDC-private sector research cooperation mechanisms.	Deleting goal and measure.
		Increase the number of EIRs arising from cooperative research with the private sector.	Deleting measure.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Office of the Director continued	Increase public health scientists' knowledge and practice of human subjects protection in research.	Increase the number of states with assurances of compliance and IRBs.	Deleting goal and measure.
		Increase the number of CDC scientists who receive computer-based training in scientific ethics.	Deleting measure.
Minority Health	Prepare minority medical, veterinary, pharmacy, and graduate students for careers in public health	Increase the number of minority students participating in the Hispanic Health Professions Internship Program, Ferguson Emerging Infectious Disease Fellowship Program, Public Health Summer Fellowship Program, and Project IMHOTEP.	Deleting measure
	Foster a stronger collective departmental perspective on AI/AN issues	Working in conjunction with IHS, identify and pursue areas of mutual interest and benefit.	Deleting measure
OEEO	Enhance agency recruitment efforts to ensure the availability of applicant pools that include qualified minorities, women, and persons with disabilities	Increase our participation in the Agency's recruitment activities with HBCUs, HACUs, Tribal Colleges & Universities, Persons with Disabilities and build and expand other partnerships.	Deleting measure
	Provide continuing EEO and diversity training to managers, supervisors, and employees	Increase the opportunities for EEO Training for CDC/ATSDR workforce.	Deleting measure
	Through early intervention and Alternative Dispute Resolution (ADR), reduce the number of EEO complaints	Reduce the number of complaints in the inventory	Deleting measure
	Provide a tool to measure CIO performance and management accountability under the EEO Program.	Develop and disseminate an EEO report to each CIO quarterly.	Deleting goal and measure.
	Provide leadership and coordination for support activities across CDC.	Develop and provide technical assistance and consultation for CDC staff.	Deleting goal and measure.
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation
Health Communication	Increase awareness of public health issues.	Develop a multi-tiered strategy for working with the private sector on communication initiatives.	Delete goal and measure.
		Expand capacity to obtain accurate and timely audience information which can be made available to all CDC programs and public health partners.	Delete measure.
	Effectively communicate CDC's scientific information to multiple audiences by increasing our understanding of each audience.	Develop an expedites OMB Clearance process that makes audience research/input more timely and do-able	Delete measure.
		Develop and implement a process to ensure narrative goals and measures are more effectively linked to CDC's budget	Deleting measure.
		Develop and implement a formal process for evaluating performance goals and measures	Deleting measure.
	Improve CDC's Performance Plan	Develop and implement a formal process for evaluating performance goals and measures	Deleting measure.
		Enhance the capacity of CDC policy staff to perform their official duties through training, team building, and sharing best practices, and promote better collaboration among policy teams.	Deleting measure.
Office of the Director continued/ Program Planning and Evaluation		Coordinate the development and timely submission of correspondence, reports, and OMB clearance packages.	Deleting measure.

Health Communication continued		Build strong partnerships with national, international public health agencies, non- governmental agencies, and	Deleting measure
		relevant private sector partners.  Develop a strategy for working with the news media on communicating about biological and chemical terrorist events.	Deleting measure
	To strengthen the science and practice of health, risk, and crisis communication through research.	Increase the amount of funds allocated for communication research and evaluation among CDC's programs and CDC's public health partners (through cooperative agreements, fellowships, or competitive grants processes).	Deleting measure
		Conduct research that advances the science and practice of risk and crisis communication in a Bioterrorism response.	Deleting measure
		Conduct research that advances the science of health communication and clearly indicates the contribution communication makes in health behavior change interventions.	Deleting measure
		Increase the number of publications authored by CDC communication professionals.	Deleting measure
	Strengthen the science and practice of health, risk, and crisis communication through research and capacity building.		Deleting goal and measure
Terrorism	All goals	All FY 04 Measures are new	New measures
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Support	Enhance CDC's information security program and ensure that critical information systems and infrastructure operate reliably.	Protect CDC's information system and ensure the reliable and continuous operation of CDC's critical information systems and information technology infrastructure (data center, wide area network, email, Internet/web services, and telecommunications).	New measure to consolidate related performance measures from the 5 areas of the President's Management Agenda (PMA) - measures below contribute to achieving a "green light" and will be monitored internally.
Information Access, Security, and Reliability	Provide a variety of standardized and integrated means for access to CDC information resources by health practitioners and the public.	Enhance CDC's information content and technology infrastructure to increase public access to CDC information resources through the CDC website and CDC's Voice/Fax Information Service (VIS).	Deleting measure
	Enhance CDC's information security program.	Protect CDC's information system from serious losses, alterations, or releases of data or information that are critical, highly sensitive, or covered by privacy or confidentiality requirements.	Consolidated/revised measure
	Ensure that critical information systems and infrastructure operate reliably.	Ensure the reliable and continuous operation of CDC's critical information systems and information technology infrastructure (data center, wide area network, e-mail, Internet/web services, and telecommunications).	Consolidated/revised measure
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Support	Identify, evaluate, and protect novel technologies.	Review and manage CDC's patent portfolio to maximize return for public health benefit.	Less than 30 percent of unlicenced patents are being maintained by CDC beyond 4 years from the date of issue. Upon further analysis, this is not a valid measure of technology transfer. It is an arbitrary measure that may not reflect the public policy needs of the agency to invest in solutions to anticipated problems or the "ahead of their time" nature of CDC inventions.
Competitive Sourcing, Financial Assistance, and Performance- Based Contracting	Implement competitive sourcing for analyzing and conducting program activities that are commercial in nature.	Directly convert to contract and/or conduct cost comparison studies of CDC staff performing commercial functions listed in the CDC FAIR Act inventory.	Deleting measure
	Establish performance measures for grants and cooperative agreements.	Document grantee performance relevant to the purpose of Program Announcements, Healthy People 2010 Goals and appropriate Programmatic GPRA goals by incorporating performance measures into Program Announcements.	Deleting measure
	Streamline financial assistance programs (grants and cooperative agreements) through consolidation.	Consolidate competitive grant and cooperative agreements through the use of umbrella Program Announcements.	Deleting measure
	Enhance the effectiveness of service contracts through performance-based contracting.	Increase the use of performance-based contracting.	Deleting measure
Financial Management	Ensure the proper preparation and presentation of CDC's financial statements.	Achieve 100% audited financial statements with no qualifications.	Deleting measure
Program Activity	Goal	FY 2002/03 Original Performance Measure	Revision and Explanation

Program Support Recruitment Timeliness	Decrease the time needed to classify positions and refer candidates for vacancies.	Decrease the time needed to refer candidates to fill positions	Deleting measure
Workforce Planning	Enhance workforce planning efforts at CDC	Improvement of supervisory ratio	Deleting measure
		Increase in the span of control and organizational size.	Deleting measure
		Reduction in the number of organizational units.	Deleting measure
SES Performance Contracts	Development and implement SES Performance Contracts.	Development and implementation of SES Performance Contracts	
Recruitment and Retention Strategies	Increase Hispanic/Latino representation at CDC	Increase percentage of Hispanic/Latino representation in the workforce.	
	Recruitment and retention of a highly qualified workforce.	Use of above the minimum appointments to attract superior candidates.	
		Use of recruitment bonuses for hard-to-fill positions.	
		Use of retention allowances to retain essential employees.	