Section II

Performance Plan and Reports/Budget Linkages

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

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$112,972	FY 2005:	$115,638
FY 2004: (Conference)	$112,743	FY 2004:	$118,728
FY 2003: (Actual)	$98,039	FY 2003:	$103,951

The mission of the National Center on Birth Defects and Developmental Disabilities (NCBDDD) is to promote the health of babies, children, and adults, and enhance their potential for full, productive living; identify the causes of birth defects and developmental disabilities; help children to develop and reach their full potential; and promote health and well-being among people of all ages with disabilities.

I. 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 making sure that disability status is included in all major health surveys. However, because of the need to monitor 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.

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 to 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.

II. Program Performance Analysis

CDC has major prevention programs underway in two areas: folic acid to prevent spina bifida and fetal alcohol syndrome (FAS) prevention.

A. Birth Defects and Developmental Disabilities Prevention

Goal. Prevent birth defects and developmental disabilities

Measure 1. Decrease the percentage of women who report any alcohol consumption during pregnancy

In terms of FAS prevention, much has been accomplished since the new objective on FAS prevention was added in 2003. 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. A recent CDC study of the program found that it reduced risk of alcohol-exposed pregnancies among high-risk women by two-thirds. A randomized controlled trial of this intervention is now underway. Two additional epidemiologic and intervention studies related to alcohol use and pregnancy among Hispanic women are also being implemented.

In addition, targeted media campaigns geared toward specific multicultural populations are underway in Saint Louis, Iowa, and California. Training and educational materials for professionals in health and social service agencies, law enforcement, and school systems are also being developed. To enhance professionals' knowledge of FAS, CDC has funded four FAS regional training centers located around the country to provide information and education to physicians, nurses, and other allied health professionals about FAS. In addition, CDC's congressionally mandated National Taskforce on Fetal Alcohol Syndrome and Fetal Alcohol Effects recently published recommendations to improve early detection of FAS, services for children and adults already living with the condition, and services for women at high-risk of having an alcohol-exposed pregnancy. This combination of activities, along with enhanced monitoring efforts, should position CDC to achieve its performance targets.

Measure 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

Fortification of the food supply with folic acid (a B vitamin) has allowed major reductions in the rates of serious birth defects of the spine (spina bifida) and brain (anencephaly). However, more reductions are possible if all women of reproductive age consumed adequate amounts of folic acid before and during pregnancy. CDC is working with 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. In addition, CDC is developing materials for women who have no or low literacy skills to ensure that all women receive the folic acid message.

CDC has also conducted and published the results of research demonstrating that folic acid may reduce the occurrence of other birth defects. Most recently, CDC published findings that women with diabetes who take multivitamins before and during early pregnancy had a lower risk of having a child with diabetes-associated birth defects such as heart defects and central nervous system defects. The baseline figure for this measure has been revised based on updated data on the prevalence of spina bifida and anencephaly for 2000. The trajectory for future data points has also been shifted to ensure accurate data to assess trends in folic acid preventable defects. Data for FY 2003 will be available December 2007.

Measure 3. Increase the number of U.S. births covered by birth defects monitoring programs, which use these data to plan services for children and evaluate prevention strategies

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, which can then be used more effectively to draw programmatic and scientific conclusions. Establishing 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 give us important clues about risk factors and causes of birth defects.

To investigate causes and risk factors for birth defects, CDC has funded seven Centers for Birth Defects Research and Prevention to conduct the National Birth Defects Prevention Study, a large collaborative study of the causes of birth defects. 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, infants' mothers were asked about their pregnancy, 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 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 center's Data Sharing Committee to acquire access to the data. Because of the nature of the 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, because these are the activities that will eventually lead to discovery of causes of birth defects.

Mature birth defects tracking programs can achieve results and the more representative the data, the more helpful these data are. Most recently, using data from CDC's model birth defects program in Atlanta, CDC determined that maternal obesity—a known risk factor for having a child with birth defect of the spine or brain—is also a risk factor for heart defects, abdominal wall defects, and multiple defects. Women who are not obese, but are still overweight, are also at higher risk of having a child with certain birth defects. This research increases our knowledge about birth defects and underscores the need for efforts to ensure that women have a healthy weight before becoming pregnant. This finding adds another facet to CDC's programs working to combat the current obesity epidemic in the United States.

Although CDC's efforts to monitor the prevalence and to look for causes of developmental disabilities is less developed as the efforts for birth defects, this program is growing rapidly. As it

matures and we gain a sense of the true magnitude of autism and other developmental disabilities, we will be able to develop appropriate outcome measures for these conditions. In January 2003, CDC reported the most comprehensive prevalence study of autism in a major U.S. metropolitan area (Atlanta). A validation study of this program is planned. In addition to continuing the efforts of the CDC model program on developmental disabilities, we are focusing on helping build the capacity of states to conduct this type of monitoring. This will enable us to identify potential geographic differences in the magnitude of these conditions and to identify clues to potential causes.

Measure 4—Efficiency. Establish an ongoing data management center for developmental disabilities monitoring and research sites, resulting in savings of program staff time

Including CDC's own model tracking program in Atlanta, CDC supports 14 states to track autism and other developmental disabilities, and will fund an additional 3 to 4 states this fiscal year. These efforts are essential for CDC to fulfill its congressional mandate to collect, analyze, and disseminate autism data. The establishment of an ongoing data management center for these sites will result in significant time savings. This type of data coordination requires a core of expertise, which is most efficiently used by housing it in one location rather than using CDC staff time and having each site hire staff to fulfill this function. The first step in accomplishing these savings is to establish the baseline for this measure by creating the data center.

B. Disabilities and Health

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

Measure 1. By 2010, decrease to 10% the percentage of newborns who screen positive for hearing loss but are lost to follow-up

CDC is collaborating with the Health Resources and Services Administration (HRSA) to help states implement the new Early Hearing Detection and Intervention (EHDI) program. CDC helps states establish programs to track 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 research the causes of hearing loss and to implement cost-benefit studies. Some states have already seen declines in the average age of diagnosis for hearing loss as a result of this program. Ultimately, this program will track rates from screening all the way through to intervention. At this early stage in the program, we are targeting our efforts to measure the impact of the first and second phases in this process (and have revised the baseline accordingly)—to track the number of children initially screened for hearing loss in the hospital and the number evaluated by a trained audiologist to confirm or deny screening results. Even this seemingly small step involves multiple places where children with hearing loss can be "lost to follow-up." Data for FY 2002 will be reported in December 2004.

Measure 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 disabilities

At the direction of Congress, CDC has implemented programs to improve the health and quality of life for people with disabilities. Two major types of program activities exist. One program supports research to identify risk and protective factors, prevention effectiveness strategies, and cost effective health promotion interventions. One of these research programs, "Living Well with a Disability," has been proven to improve health and reduce medical costs and is now being implemented in 17 states.

The other program supports state efforts to implement health and wellness programs for people with disabilities.

III. Goal-by-Goal Performance Measurement

A. Birth Defects and Developmental Disabilities Prevention

Goal: Prevent birth defects and developmental disabilities			
Performance Measure	Targets	Actual Performance	Ref.
1. Decrease the percentage of women who report any alcohol consumption during pregnancy	**FY 05:** 8.5% **FY 04:** 10.0% **FY 03:** 11.5%	**FY 05:** 12/2007 **FY 04:** 12/2006 **FY 03:** 12/2005 **FY 02:** 12/2004 **FY 01:** 12.5% **FY 99:** 12.8% (baseline)	B-74 O
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 05:** 3% reduction **FY 04:** 2% reduction **FY 03:** 1% reduction	**FY 05:** 12/2008 **FY 04:** 12/2007 **FY 03:** 12/2006 **FY 02:** 12/2005 **FY 01:** 12/2004 **FY 00:** 1,932	B-74 1 O
3. Increase the number of U.S. births covered by birth defects monitoring programs, which use these data to plan services for children and evaluate prevention strategies	**FY 05:** 2,800,000 **FY 04:** 2,700,000 **FY 03:** 2,600,000	**FY 05:** 10/2005 **FY 04:** 10/2004 **FY 03:** Exceeded/ 2,609,477 **FY 01:** 2,096,988 (baseline)	B-74
4. Establish an ongoing data management center for developmental disabilities monitoring and research sites, resulting in savings of program staff time	**FY 05:** Establish data center	**FY 05:** 12/2006	E

B. Disabilities and Health

Goal: Improve the health and quality of life of Americans with disabilities			
Performance Measure	Targets	Actual Performance	Ref.
1. By 2010, decrease to 10% the percentage of newborns who screen positive for hearing loss but are lost to follow-up	**FY 05:** 25% **FY 04:** 30% **FY 03:** 35%	**FY 05:** 12/2007 **FY 04:** 12/2006 **FY 03:** 12/2005 **FY 02:** 12/2004 **FY 01:** 31.7% **FY 00:** 42.3% (baseline)	B-74 5 O
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 disabilities	**FY 05:** 8 **FY 04:** 7 **FY 03:** 6 **FY 02:** 5	**FY 05:** 10/2005 **FY 04:** 10/2004 **FY 03:** Exceeded/17 **FY 02:** Exceeded/10 **FY 01:** 2 (baseline)	B-74

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$104.0**	**$118.7**	**$115.6**
Efficiency Measure	$0.0	$0.0	$0.0
Birth Defects and Developmental Disabilities Prevention	**$55.1**	**$62.9**	**$61.3**
Measure 1	$13.5	$13.1	$12.7
Measure 2	$9.4	$9.5	$9.3
Measure 3	$19.8	$21.4	$20.8
Human Development and Disability	**$48.9**	**$55.8**	**$54.4**
Measure 1	$13.5	$14.2	$13.9
Measure 2	$24.9	$30.9	$30.1

*Dollars in millions

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

The two overall goals encompass 100% of the Birth Defects, Developmental Disabilities, Disability, and Health budget, with individual measures representing approximately 75%%. Remaining funds can be described as follows:

Goal 1. Prevent birth defects and developmental disabilities

Birth defects are the leading cause of infant mortality, and developmental disabilities such as autism affect 17% of children under the age of 18. Programs to track these conditions, identify their causes, and prevent them represent more than 50% of Birth Defects, Developmental Disabilities, Disability, and Health budget. Because the developmental disabilities programs are newer than the birth defects programs, they are not yet able to show long-term outcomes. The developmental disabilities objectives are monitored internally and make up the 12% of Birth Defects, Developmental Disabilities, Disability, and Health activities.

Goal 2. Improve the health and well-being of people with disabilities

Activities in this area represent 47% of Birth Defects, Developmental Disabilities, Disability, and Health budget, with the individual measures representing 37% of these funds. The remaining 10% of funds support other activities in attention-deficit hyperactivity disorder, muscular dystrophy, and child development. These efforts are also monitored internally.

II-B. Chronic Diseases Prevention and Health Promotion

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$915,425	FY 2005:	$929,807
FY 2004: (Conference)	$853,378	FY 2004:	$883,014
FY 2003: (Actual)	$789,972	FY 2003:	$818,939

The mission of CDC's National Center for Chronic Diseases Prevention and Health Promotion (NCCDPHP) is to prevent death and disability from chronic diseases; to promote maternal, infant, and adolescent health; to promote healthy personal behaviors; and to accomplish these goals in partnership with health and education agencies, major voluntary associations, the private sector, and other federal agencies.

Overarching Program

I. Program Description and Context

More than 1.7 million Americans die of a chronic disease each year, accounting for about 70% of all deaths in the United States. In addition, the prolonged course of illness and disability from diseases such as arthritis, cancer, diabetes, heart disease, and stoke results in pain and suffering, poor quality of life, and disability for millions of Americans. Medical care for people with chronic diseases accounts for more than 75% of the $1.4 trillion we spend as a nation on medical care. Furthermore, if disease patterns stay the same, by the year 2030 the healthcare system will have to spend an additional $300 to $400 billion per year, excluding inflation, to treat the chronic diseases of an aging population. This expense means increased costs of $1,500 per year for every person in the United States just to help support the care of our aging citizens.

Chronic diseases are caused by behaviors that are preventable; for example, tobacco use is the single most preventable cause of death and disease, with poor diet and sedentary behavior close behind and on the rise. CDC works to prevent the occurrence and progression of chronic diseases by reducing or eliminating behavioral risk factors, by increasing the prevalence of health promotion practices, and by detecting chronic disease early to avoid complications. CDC's strategy for preventing the leading causes of death in the United States is a crosscutting approach: support for state programs, surveillance, prevention research, evaluation, and health promotion. CDC plays a leadership role in coordinating and catalyzing the efforts of numerous public and private partners such as other government agencies, professional organizations, voluntary organizations, academic institutions, community organizations, private organizations, and businesses. The expertise, experience, and outreach capabilities of these partners substantially extend CDC's effectiveness in reaching people at highest risk for chronic diseases. Active partnerships in public health are essential, as they enable CDC to leverage limited federal resources, thereby multiplying prevention efforts.

A significant portion of NCCDPHP's mission involves supporting and managing public health programs implemented by states and localities, which prevent and control chronic diseases. To support these programs, NCCDPHP provides technical consultation in planning, establishing,

maintaining, and evaluating prevention and control strategies for selected chronic disease and health promotion activities. NCCDPHP project officers are the primary conduit through which this consultation is provided and/or coordinated.

NCCDPHP is currently pursuing a key initiative to improve the efficiency and effectiveness of project officers. This initiative involves developing and using information systems to support program administration, management, consulting, and evaluation. These information systems provide a central repository of information about all funding recipients, their program plans (goals, objectives, performance milestones and indicators), performance (programmatic and financial), and outcomes related to investments in health promotion and disease prevention program demonstrations, national organizations' efforts, and prevention research projects. In addition, these information systems allow a project officer to enter information related to technical assistance, consultative plans, communications and site visits. Information systems collect important programmatic information in a concise, structured approach making the assimilation of information more manageable.

Web-based information systems can shorten the time project officers spend in collecting, sorting, filing, and searching for program-related information. Without an information system, project officers must manually sort through long paper applications and progress reports to find the information needed to understand recipient programs and progress, provide technical assistance, or respond to inquiries. Because information systems collect important programmatic information in a concise, structured approach and store it in a central repository, a project officer can go to one location and query the system or run a report for desired information. Information systems can also provide more timely management and evaluation information so that project officers can provide more astute, focused, and effective consulting to the states and localities.

Evidence of the time savings for project officers is found in the current Breast and Cervical Cancer information systems. It is estimated that project officers save approximately 100 hours per submission each year by using the Web-based System for Technical Assistance Reporting (STAR) system. Specifically, project officers spend 60 hours less in aggregating data for all programs and 40 hours less in providing technical assistance. With the Minimum Data Elements (MDE) Web-based system, approximately 80 to 120 hours are saved each year in time required to receive, acknowledge, scan for viruses, and transfer the data to the servers; perform checks on the data; record layout; and produce edited reports.

Just as an information system can save NCCDPHP staff time, it can also save recipient time. An information system provides one location that documents and easily assimilates all information to meet reporting requirements. Prior to the use of information systems, recipients routinely spent over 20 hours to gather and assimilate information to describe their programs and report information to NCCDPHP, particularly through interim progress reports. Recipients using the Division of Diabetes Translation Management Information System (DDT MIS) report that the burden of generating the interim progress report is only 4 hours.

In addition, because the information in Web-base information systems is in real time, the programs are better equipped to respond to inquires in a timelier manner and make programmatic decisions in a more informed manner. Typically, when a program receives an inquiry for information, the program spends a great deal of time going through volumes of information sources to assimilate the information into a summarized response. Information systems allow a program to query all

programmatic information and generate detailed or summary reports across all programs on various topics.

Overall, decreasing the administrative burden on NCCDPHP staff and recipients to collect and use programmatic information through the use of information systems allows project officers to spend more time performing program consultation. This results in a more efficient use of project officers' time, and allows recipients to spend more time on program implementation.

II. Efficiency Measure

Goal. Decrease the number of hours spent each year to collect, aggregate, assess, and analyze programmatic data

Measure. Increase the number of Web-based management information systems (MIS) to save program staff time

As project officers focus less on program administration and more on actual consulting, they spend more time providing program consulting, which increases the level of efficiency of a project officer. As such, this measure defines the number of management information systems within NCCDPHP divisions that project officers use to provide more efficient program consulting to recipients.

Currently, NCCDPHP staff and recipients use the following five information systems to collect programmatic information:

1. Division of Diabetes Management Information System (DDT MIS).
2. Racial and Ethnic Approaches to Community Health Management Information System (REACH MIS).
3. Office of Smoking and Health's (OSH) National Tobacco Control Program Chronicle.
4. Breast and Cervical Cancer Minimum Data Elements (MDE).
5. National Breast and Cervical Cancer Early Detection Program System for Technical Assistance Reporting (STAR).

A. Early Detection of Breast and Cervical Cancer

I. Program Description and Context

Breast cancer is the most commonly diagnosed nondermatologic cancer and the second leading cause of cancer deaths among women in the United States. In 2003, it was estimated that 211,300 new cases and 39,800 deaths would occur. Cancer of the uterine cervix would claim the lives of 4,100 women, and 12,200 new cases would be diagnosed. Research suggests that precancerous conditions and invasive cervical cancer are more likely to be found in women who have never been screened or have not been screened in the past 5 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.

The Breast and Cervical Cancer Prevention Mortality Act of 1990 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. CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides cancer screening for

underserved women, particularly low-income women, older women, and members of racial/ethnic minorities. Women eligible for NBCCEDP represent approximately 7% to 8% of all U.S. women. Current funding levels allow CDC to screen approximately 16% to 19% of those eligible (based on 2000 U.S. Census data).

Although NBCCEDP serves a discrete segment of American women and is not population-based, the program is intended to contribute to *Healthy People 2010* objectives to reduce breast and cervical cancer death rates. Program activities are also in accordance with the following goals 1 and 3 of the HHS Strategic Plan: reduce the major threats to the health and well being of Americans and increase the percentage of the nation's children and adults who have access to regular healthcare and expand consumer choices.

NBCCEDP 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 NBCCEDP who have abnormal screening results and/or a diagnosis of cancer, assuring timely access to diagnostic and treatment services is critical. Although 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. To date, 49 states have received approved Medicaid amendments to participate in this program.

For FY 2004 and FY 2005, several new activities have been identified as priorities for CDC. These include advancing the use of geographic information technologies (GIS) and implementing evidence-based outreach and recruitment interventions. These activities are intended to strengthen recruitment of rarely and never screened women for cervical cancer screening and women ages 50 to 64 for breast cancer screening. CDC will also work closely with health economists to evaluate and improve NBCCEDP program efficiencies. Economists will work with other CDC staff to develop more accurate estimates of the eligible population by state, characterize programs reaching a larger percentage of women in their geographic area than others, and apply economic evaluation techniques to estimate the cost of health service delivery in NBCCEDP.

Monitoring and evaluation activities will also be strengthened. Based on the strategic and evaluation planning referenced above, CDC hopes to improve outcome measures, increase monitoring efforts, and continue evaluation projects in the areas of case management, providers' use of clinical guidelines, the Breast and Cervical Cancer Prevention and Treatment Act of 2000, and data quality. Dissemination of evidence-based strategies will also continue. Finally, a Web-based evaluation training for grantees is in development and will improve local assessment of program efforts.

The NBCCEDP strategic plan also identifies partnership development activities with stakeholders internal and external to CDC including the American Cancer Society, the National Cancer Institute, the Center for Medicaid and Medicare Services, the NBCCEDP Council, the American College of Obstetricians and Gynecologists, CDC's Wisewoman Program, and CDC's comprehensive cancer control initiative. Our relationships with these partners are critical to leveraging resources and increasing efficiencies across and within our agencies.

II. Program Performance Analysis

Through September 2001, 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.

In this report, CDC is providing NBCCEDP performance data for FY 2001. Complete FY 2002 data will be available in January 2004. CDC recently instituted a change in the NBCCEDP data submission schedule to coincide with a new program fiscal (funding) year for grantees. The data, also known as Minimum Data Elements (MDEs) are submitted electronically twice a year (October 15 and April 15). Therefore, analysis of the October submission will be available in January, and at that time FY 2002 performance data and goals will be reassessed. Grantees are provided 9.5 months after the initial screening date to gather diagnostic and treatment information for submission and an additional 3 months are needed for the contractor to prepare the analysis.

Goal 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

Measure. Excluding invasive cervical cancers diagnosed on an initial screen in NBCCEDP, lower the age-adjusted rate of invasive cervical cancer in women aged 20 and older

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 FY 2001, the age-adjusted rate was 14 per 100,000. Beginning in 2003, CDC will move to calculating this rate based on a rolling 3-year timeframe rather than cumulative data (for instance, FY 2003 rate will reflect data for the time period 2001–2003). Using a 3-year period ensures 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. Data for FY 2002 and FY 2003 will be available in January 2004 and January 2005, respectively.

Goal 2. 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, ensure access to treatment services

Measure 1. Increase the number of women screened

CDC continues to increase the number of women screened through NBCCEDP. In FY 2001, CDC screened 356,395 women for breast cancer and 265,306 for cervical cancer. This reflects positive trends toward meeting our FY 2004 (381,382 breast/275,000 cervical) and FY 2005 (401,000 breast/280,000 cervical) targets. Data for FY 2002 and FY 2003 will be available in January 2004 and January 2005, respectively.

Measure 2. Increase the percentage of newly enrolled women who have not received a Pap test within the past 5 years

CDC encourages programs to reach underserved women for screening, including women who are rarely or never screened for cervical cancer. CDC defines "hard to reach" women as those who have not had a Pap test within the past 5 years. 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 to meet because they must continually tap into communities of hard to reach women to identify those who are rarely and

never screened. The target for FY 2004 is 22.5% and FY 2005 is 25%. Data for FY 2002 and FY 2003 will be available in January 2003 and January 2004, respectively.

Measure 3. Increase the percentage of women with abnormal results who receive a final diagnosis within 60 days of screening

In FY 2001, 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. The FY 2001 figures represent slight increases over FY 2000 figures. 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 "hard to reach" women. FY 2004 targets are 86.5% for breast screening and 64% for cervical screening. New targets for FY 2005 have been established at 87.5% for breast screening and 64.5% for cervical screening. Data for FY 2002 and FY 2003 will be available in January 2003 and January 2004, respectively.

Measure 4. Increase the percentage of women with cancer who start treatment within 60 days of diagnosis

In FY 2001, 93.1% of women diagnosed with breast cancer and 88.5% of women diagnosed with invasive cervical cancer initiated treatment within 60 days. These data have remained steady during FY 2000 and FY 2001. For FY 2004, CDC has set a target of ensuring the start of treatment within 60 days for 92% of women diagnosed with cervical cancer and for 95% of women diagnosed with breast cancer. For FY 2005, CDC has a set a target of ensuring the start of treatment within 60 days for 92.5% of women diagnosed with cervical cancer and for 95.5% of women diagnosed with breast cancer. Data for FY 2002 and FY 2003 will be available in January 2003 and January 2004, respectively.

Measure 5. Cervical: Increase the percentage of women with precancerous lesions who start treatment within 90 days of diagnosis (includes CIN II, CIN III, and CIS)

For women diagnosed with precancerous cervical lesions, CDC has set a target of ensuring the start of treatment within 90 days to 94% in 2004 and 94.5% in FY 2005. In 2000, the baseline was established at 92.5%. In 2001, the percentage of women with precancerous lesions who started treatment within 90 days of diagnosis was 91.7%. Data for FY 2002 and FY 2003 will be available in January 2003 and January 2004, respectively.

Note: In regard to these timeliness-related measures (2.3−2.5), relatively small percentage increases are proposed for future targets. Several challenges confront programs in relation to these measures, including delays in receiving lab results for Pap testing, waiting periods for diagnostic services, and challenges in tracking "hard to reach" women.

III. OMB PART Review of the National Breast and Cervical Cancer Detection Program

OMB used the PART to review NBCCEDP in 2002. The assessment found that

1) The program provides important health screenings to a population that would otherwise not receive these services. However, the program lacks long-term health outcome goals and intermediate measures rather than health outcomes.
2) The program has developed new annual performance goals to focus on measuring the contribution of its program on its target populations.

3) While the program has relatively strong management practices, all program managers are not held accountable for achieving the program's stated performance goals, and the program lacks procedures to measure or improve efficiencies.

CDC has implemented corrective action plans to resolve the deficiencies.

B. Tobacco Use Prevention

I. 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, nearly 4,000 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.

CDC funding is used to

- Prevent smoking initiation among youth.
- Promote cessation among adults and youth.
- Reduce exposure to secondhand smoke.
- Eliminate tobacco-related disparities among population groups.
- Promote sustainable funding for science-based comprehensive tobacco control programs.
- Promote global tobacco prevention and control.
- Conduct tobacco product research and information dissemination.

These goals, all of which play a role in reducing tobacco use among youth, are supported by funding comprehensive state programs, as well as research, surveillance and evaluation, and communication of research findings. In FY 2004 and FY 2005, CDC will continue to support comprehensive state programs, research, surveillance and evaluation, and the communication of research findings related to tobacco use. Through services provided by CDC, as well as research and evaluation of programs by CDC and grantees, comprehensive state programs continue to refine operations and conduct tobacco prevention and control activities in an increasingly efficient manner.

Comprehensive state programs, including school-based programs and local outreach efforts effectively reduce the prevalence of tobacco use. Through the National Tobacco Control Program (NTCP), CDC funds all 50 states, 7 U.S. territories and Freely Associated States of the Pacific, and the District of Columbia. The purpose of 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. NTCP has these goals:

1) Prevent initiation of tobacco use among young people.
2) Promote cessation of tobacco use among youth and adults.
3) Protect the public from exposure to secondhand smoke.
4) Identify and eliminate disparities in tobacco use among populations groups.

Each of the CDC and NTCP goals relate directly to the 21 *Healthy People 2010* tobacco objectives. In addition, these goals also directly relate to the HHS Strategic Plan, goal 1: Reduce major threats to the health and well being of Americans. Specifically they relate to goal 1.1: Reduce risky behaviors

and other factors that contribute to the development of chronic diseases, especially diabetes and asthma; goal 1.5: Reduce tobacco use, especially among youth; and goal 4: Enhance the capacity and productivity of the nation's health science research enterprise.

Best Practices for Comprehensive Tobacco Control Programs is a guidance document that translates the *Healthy People 2010* 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.
- 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 totaled $774.7 million in FY 2002. Preliminary 2003 data indicate a decline in spending for tobacco control as states have diverted funding to address budget shortfalls.

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 of $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 totaled $861.9 million, representing $3.16 per capita. However, as of FY 2002, only six states were 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.

II. Program Performance Analysis

Goal. Reduce cigarette smoking among youth

Measure. Reduce the percentage of youth (grades 9–12) who smoke

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 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 nongovernmental organizations. The FY 2005 target is 26.5%. Data for FY 2003 will be available in May 2004. *Note:* Data is released biennially.

C. Community-Based Prevention Research

I. Program Description and Context

The Prevention Research Centers (PRCs) were first authorized by Congress in 1984. Each center conducts at least one core research project within an underserved 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." The National Institutes of Health's (NIH) 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 28 PRCs also created models to prevent heart disease, diabetes, and the consequences of osteoporosis; detect breast and cervical cancer; and evaluate 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 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 non-federal 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.

The PRCs serve as a national resource for developing effective prevention strategies and applying those strategies at the community level. Their activities support Goal 4 of the HHS Strategic Plan: Enhance the capacity and productivity in the nation's health science research enterprise. The work of the PRCs contributes to the *Healthy People 2010* efforts and is directly related to objective 23-17: Increase the proportion of federal, tribal, state, and local public health agencies that conduct or collaborate on population-based prevention research.

II. Program Performance Analysis

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

Measure. Ensure that at least one PRC in each HHS region establishes research priorities and develops interventions in collaboration with a constituent community

CDC achieved the FY 2002 target of ensuring that at least one research project per PRC is aimed at closing the gap between research and practice. To move to outcome-oriented measures, this measure was eliminated in FY 2003. However, CDC will continue to monitor progress in this area internally.

D. Heart Disease and Stroke

I. 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 39% of deaths in the United States (900,000 each year) are directly attributable to heart disease and stroke. Associated annual costs of heart disease and stroke exceed $351 billion. Major disparities exist among populations with a disproportionate burden of death and disability from heart disease and stroke occurring 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 70%, and there is evidence that many high risk patients do not receive treatment in compliance with science-based guidelines. 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.

The development of an effective nationwide heart disease and stroke prevention program would promote health systems policy changes that encourage the appropriate treatment of high blood pressure, high cholesterol levels, stroke, and heart disease. This would help achieve the long-term goals of reducing death and disability due to heart disease and stroke; eliminating health disparities; and delaying the age of onset of heart disease and stroke and associated morbidity and disability.

In its first four years, CDC's Heart Disease and Stroke Prevention Program funded states to focus on policy and environmental actions to increase heart-healthy nutrition and physical activity habits and promote cardiovascular health. This focus has expanded to emphasize the prevention and treatment of high blood pressure, high cholesterol, heart disease, and stroke, improve emergency response, improve the quality of care, and increase the public's knowledge of signs and symptoms.

In FY 2003, CDC will fund 33 states including the District of Columbia. Of these states, 22 receive funding for capacity building and 11 states receive funding for basic implementation programs. In line with the program's expanded focus, new performance measures are required to evaluate each state's ability to promote changes to ensure the prevention and treatment of high

blood pressure, high cholesterol, heart disease and stroke in the public, among high-risk patients, healthcare providers, and in healthcare settings. These performance measures for FY 2004 will include (1) reducing the proportion of heart disease and stroke deaths that occur pre-transport, and (2) reducing the prevalence of uncontrolled high blood pressure among high-risk populations and patients with hypertension in community health centers and other health provider partners.

CDC's nationwide heart disease and stroke prevention program will 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 develop registries and new surveillance systems to increase the surveillance capacity of state programs. CDC has established the Paul Coverdell National Acute Stroke Registry; its purpose is to reduce death and disability associated with stroke and to improve the quality of care and life among stroke survivors.

In addition to these activities, CDC also translates prevention science into strategies and practices; defines and conducts public health research and evaluation; and monitors changes in heart disease and stroke risk factors, program outcomes, and policy and environmental indicators.

CDC also partners and collaborates with national organizations and other federal agencies to increase public awareness of symptoms for both heart attack and stroke; promote standard of care guidelines among healthcare providers for the treatment of high blood pressure, high cholesterol, heart disease, and stroke; and educate patients to have a more informed role in treatment management. CDC seeks to develop and enhance national and state partnerships and public health capacity to improve cardiovascular health (CVH) and prevent and control CVD. CDC's crosscutting approach to preventing 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.

Partnership and collaboration are the keys to CDC's program efficiency, often maximizing resources through collaboration with partners. For example, the *Healthy People 2010* partnership of CDC with the American Heart Association/American Stroke Association; the Center for Medicare and Medicaid Services; HHS' Office of Public Health and Science, Office of Disease Prevention and Health Promotion; the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute; NIH's National Institute of Neurological Disorders and Stroke; and the Indian Health Service provide an inter-agency focus on specific national *Healthy People 2010* objectives related to reducing heart disease, stroke, high blood pressure, and high cholesterol. Health disparities in American-Indian and in African-American populations are targeted through collaborations between CDC and the Indian Health Service and the International Society for Hypertension in Blacks. Collaborations involving the control of hypertension include those with the Veterans Administration and with the Health Resources and Services Administration.

CDC's national and state-level health communication programs about symptom awareness and the need to call 911 for emergency transport to reduce pre-transport heart disease and stroke deaths also address national objectives indicated in *Healthy People 2010*. They include reducing coronary heart disease deaths; increasing the proportion of adults aged 20 years and older who are aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911; increasing the proportion of adults aged 20 years and older who call 911 and administer cardiopulmonary resuscitation (CPR) when they witness an out-of-hospital

cardiac arrest; reducing stroke deaths; and increasing the proportion of adults who are aware of the early warning symptoms and signs of a stroke.

CDC's collaboration activities to reduce the prevalence of uncontrolled high blood pressure among high-risk populations and patients with hypertension also address national *Healthy People 2010* objectives to reduce the proportion of adults with high blood pressure; increase the proportion of adults with high blood pressure whose blood pressure is under control; increase the proportion of adults with high blood pressure who are making behavior changes to help control their blood pressure; and increase the proportion of adults who have had their blood pressure measured and can state whether it was high or normal. Federally Qualified Community Health Centers are inherent to these objectives because they reach high-risk populations including uninsured and poorer population groups that may not typically have their healthcare needs met.

Program activities are in accordance with objectives of goals 1, 3, and 4 of the HHS Strategic Plan: reduce the major threats to the health and well-being of Americans; increase the percentage of the nation's children and adults who have access to regular healthcare and expand consumer choices; and enhance the capacity and productivity of the nation's health science research enterprise.

II. Program Performance Analysis

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

Measure. Increase the number of states with five of the seven heart disease and stroke prevention capacities

CDC has expanded its efforts to protect Americans from cardiovascular disease. In FY 2002, CDC exceeded its own target with 22 states achieving five of the seven heart disease and stroke prevention capacities. In FY 2003, this measure was eliminated because performance indicators that measure the impact or outcomes of the program were added.

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

Measure 1. Reduce the proportion of heart disease and stroke deaths that occur before transport to emergency services

Program activities are in place to achieve the performance measure of decreasing the proportion of heart disease and stroke pre-transport deaths. They include national and state-level health communication programs about symptom awareness and the need to call 911 for emergency transport. To date, intra and inter-state stroke networks, coalitions, and sign and symptoms campaigns have been developed. In FY 2003, states began and will continue to assess public awareness for stroke and heart disease symptoms at the state level. Health communications tools to enhance sign and symptoms campaigns are being developed to help states reduce the proportion of heart attack and stroke deaths which occur before transport to emergency services. In FY 2003, the proportion of heart disease and stroke deaths that occur before transport to emergency services was 50%. In FY 2004 and FY 2005, CDC proposes to reduce that proportion to 45%.

States are already documenting prevention achievements. Intra and inter-state stroke networks and coalitions have been developed. In FY 2003, states have begun and will continue to assess public awareness of stroke and heart disease symptoms at the state level. Health communications tools to

enhance signs and symptom campaigns are being developed to help the states reduce the proportion of heart attack and stroke deaths which occur before transport to emergency services.

Measure 2. Reduce the prevalence of uncontrolled high blood pressure (>140/90) among patients with hypertension, especially among populations at high risk, in states that collaborate with community health centers

Program activities to achieve the performance measure of reducing the prevalence of uncontrolled high blood pressure among high-risk populations and patients with hypertension include collaborations between states and their Federally Qualified Community Health Centers, which provide healthcare to underserved, uninsured, and minority populations. To date, states have assisted health centers in conducting needs assessments, and providing hypertension trainings and educational assistance for providers related to national guidelines for hypertension care and prevention. Some states have also developed a stroke task force, which will further promote stroke prevention in the community health centers. For FY 2004 and FY 2005, CDC proposes to reduce the prevalence of uncontrolled high blood pressure (above 140/90) to 45% from a baseline of 50% in FY 2002, among patients with hypertension, especially among populations at high risk, in states that collaborate with community health centers.

E. Diabetes

I. Program Description and Context

Over 18 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 costs the nation nearly $132 billion a year. Diabetes can cause heart disease, stroke, blindness, kidney failure, pregnancy complications, amputations of the leg, foot, and toe, as well as deaths related to flu and pneumonia. Particularly at risk are the 5 million Americans who are unaware that they have the disease. The number of U.S. adults with diagnosed diabetes (including women with gestational diabetes) has increased 61% from 1991. CDC further estimates that the number of Americans with diagnosed diabetes will increase from 11 million to 30 million between 2000 and 2050.

Diabetes is the primary cause of new cases of blindness, non-traumatic amputations, and kidney failure in adults. 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. Each year, 12,000 to 24,000 people in this country become blind because of diabetic eye disease. Regular eye exams and timely treatment could prevent up to 90% of diabetes-related blindness.

CDC's National Diabetes Control Program conducts health promotion and disease prevention activities to improve the quality of care that health systems provide to persons with diabetes. The program activities support and promote preventive healthcare 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 United States through surveillance.
- Translates research findings into clinical and public health practice.
- Conducts state-based diabetes control programs.

- Provides information to increase public awareness about how to control diabetes.

CDC's diabetes program is based on the prevailing science for diabetes prevention and control which demonstrates that many of the serious diabetes-related complications, such as blindness, kidney failure, and lower-limb amputations, may be prevented. CDC translates the results of rigorous clinical studies into widespread public health applications in health systems and communities by conducting applied research (to turn scientific results into action) and by funding state health departments (to operate state-based diabetes control programs). CDC works with state health departments and other partners to improve the health of people with diabetes through strategies such as improving nutrition, increasing physical activity, controlling blood glucose levels, and improving access to proper medical treatment.

In FY 2003, CDC funded diabetes prevention and control programs (DPCPs) in 24 states at a basic implementation level and 27 states (including the District of Columbia) 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 showing 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.

CDC collaborates with NIH, developing and implementing the National Diabetes Education Program (NDEP), which has a network of more than 200 public and private partners. NDEP increases awareness about diabetes and its control among healthcare providers and people at risk for diabetes. NDEP also develops interventions and materials to improve diabetes care and prevention, especially in communities with a high burden of the disease. CDC also works with the Health Resources and Services Administration in conducting the Diabetes Collaborative to improve the diabetes care by fostering excellence in federally funded health center systems. CDC also partners with national voluntary organizations, such as the American Diabetes Association, the American Public Health Association, and the Association of State and Territorial Health Officers to further its mission.

To measure the program's impact in reducing diabetes-related complications, CDC established several national program objectives focused on critical preventive care practices people with diabetes should receive to deter the progression of complications. These intermediate outcome measures include increasing the percentage of people with diabetes who receive the recommended foot and eye exams, A1c testing, and pneumococcal and influenza immunizations.

The state DPCPs are demonstrating success in achieving these objectives and are moving toward the national goals. For example, The California Diabetes Control Program, in partnership with California's Medicare, helped five of seven plans significantly increase flu vaccination rates by 16% to 25% for persons with diabetes who were likely not to have been vaccinated previously. This effort is part of CDC's national media campaign to educate people with diabetes on their increased risk for other illnesses. The campaign is based on research that indicates that people with diabetes are about three times more likely than people without the disease to die with complications of the flu. Currently, 10,000 to 30,000 people with diabetes die each year with complications of the flu and pneumonia.

In FY 2004 and FY 2005, CDC will continue building the nation's diabetes prevention and control programs by increasing the number of states funded at the basic implementation level and by expanding the depth and breadth of primary prevention applied research and state-based pilot projects underway. CDC will continue to support national efforts such as *Healthy People 2010* and the HHS Strategic Plan. CDC, in collaboration with NIH, co-directed the development of the objectives in the *Healthy People 2010* Diabetes Chapter and is actively engaged in monitoring and updating the objectives. CDC activities are in accordance with objectives of goals 1, 3 and 4 of the HHS Strategic Plan: reduce the major threats to the health and well being of Americans; increase the percentage of the nation's children and adults who have access to regular healthcare and expand consumer choices (Eliminate racial and ethnic disparities); and enhance the capacity and productivity of the nation's health science research enterprise.

II. Program Performance Analysis

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

Measure 1. 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

This report reflects a significant change in the way in which CDC analyzes the Behavioral Risk Factor Surveillance System (BRFSS) data for the measure assessing increase in foot and eye exams among people with diabetes. Rather than focusing solely on basic implementation DPCPs, CDC now analyzes data from all the basic implementation and capacity building DPCPs participating in the BRFSS. CDC is now also using adjusted data rather than crude data. These revisions have been made to clarify some of the performance measurement challenges revealed by the OMB PART under which the diabetes program was reviewed in FY 2003.

In FY 2002, the percentage of persons with diabetes who received annual eye and foot exams was 64.2% and 66.6%, respectively. Data for FY 2003 will be available in October 2004.

CDC continues to work with the state DPCPs 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.

Note: Only the 16 states funded at the basic implementation level are included in the actual performance data analysis up through FY 2001.

Measure 2. For states receiving CDC funding for DPCPs, increase the percentage of persons with diabetes who receive at least two A1c measures per year

Beginning in FY 2004, CDC introduced a 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%. This measure reflects the evolution of CDC's National Diabetes Program focus from process outcomes to intermediate impact outcomes. In FY 2004 and FY 2005, CDC proposes to increase the percentage of persons with diabetes who receive at least two A1c measures per year in states receiving CDC funding to

72.5% from the 2000 baseline of 62.0%. Data for FY 2004 and FY 2005 will be available in October 2005 and October 2006, respectively.

Measure 3. Increase the number of DPCPs that promote health system approaches among those who are at high risk for developing diabetes (New initiative)

Measure 4. In states with prediabetes programs, increase the proportion of people with prediabetes who engage in diabetes prevention practices (New initiative)

Effective FY 2004, CDC has increased from zero (FY 2002) to 5 the number of DPCPs that promote health system approaches to prevent diabetes among those at high risk for developing diabetes. In addition, CDC seeks to increase the proportion of people with pre-diabetes who engage in diabetes prevention practices. This will provide comprehensive data for program planning. CDC's FY 2005 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 minorities.

III. OMB PART Review of the Diabetes Program

In FY 2002, OMB used the PART to review CDC's diabetes program and found that

1) While the program does not yet have long term measures, it has made substantial progress in developing long term outcome measures and modifying its annual performance measures to reflect output rather than process goals.
2) The program has made progress in achieving its annual performance goals and some efficiencies in its program operations.
3) The management of this program is fairly strong with processes and procedures in place to review the efficiency of its operations.
4) There is no explicit mechanism that links the program budget to the achievement of the program's stated performance goals.

(*Source:* www.whitehouse.gov/omb/budget/fy2004/pma.html)

F. National Program of Cancer Registries

I. Program Description and Context

The mission of CDC's National Program of Cancer Registries is to

- Provide funds to states and territories to improve existing cancer registries.
- Plan and implement registries where they do not exist.
- Develop model legislation and regulations for states to enhance the viability of registry operations.
- Set standards for data completeness, timeliness, and quality; provide training for registry personnel.
- Help establish a computerized reporting and data-processing system.

Cancer is the second leading cause of death among Americans. In 2003, an estimated 556,500 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 U.S. territories and Freely Associated States of the Pacific. CDC also provides training in data collection, analysis, interpretation, and quality assurance for completeness, timeliness, and quality.

NPCR has made it possible for most 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.

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.

NPCR activities support objective 3-14 of *Healthy People 2010*: increase the number of states that have a statewide population-based cancer registry that captures case information on at least 95% of the expected number of reportable cancers. Activities are also supportive of goal 2 of the HHS Strategic Plan: enhance the ability of the nation's public health system to effectively respond to bioterrorism and other public health challenges.

II. Program Performance Analysis

Goal. Improve the quality of state-based cancer registries

Measure. 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

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 NPCR data for January 2003 (for cancer cases diagnosed in 2000), 61% (28 of 46) NPCR states were at least 95% complete within 24 months of the close of the diagnosis year. Although this target was unmet, more than 80% of NPCR states were over 90% complete within 24 months of the close of the diagnosis year. Data from these registries are scheduled for inclusion in the *2003 United States Cancer Statistics*.

NPCR is working closely with 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. CDC eliminated this measure in 2003, but will continue to measure program performance internally.

G. HIV Prevention among School-Aged Youth

I. Program Description and Context

CDC's HIV Prevention Among School-Aged Youth Program works to reduce the number of new cases of HIV infections among our nation's young people. CDC also works to integrate the prevention of sexually transmitted diseases (STDs) and unintended pregnancies into the HIV prevention program. Significant increases in the HIV epidemic in the United States during the last decade have disproportionately affected adolescents and young adults who can benefit from school- and university-based HIV prevention programs. CDC supports programs to prevent HIV infection among young people through schools, organizations that serve youth in high-risk situations (YHRS), and colleges.

In the United States, the greatest impact of HIV-related death is on young and middle-aged adults, particularly racial and ethnic minorities. Thirteen percent of HIV infections in 29 states with HIV reporting have been diagnosed among young people ages 13 to 24. The majority of these infections are acquired through sexual contact. In 2000, HIV/AIDS was the sixth leading cause of death for Americans between the ages of 25 and 34; many of these infections were acquired in the teens and twenties.

About 53 million young people attend more than 119,000 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 funds several programs to enable its constituents to implement adolescent and school health programs. CDC funds state, territorial and local education agencies, and national nongovernmental organizations to provide HIV prevention programs for school-aged youth and youth in high risk situations. These programs provide young people with the skills and knowledge needed to avoid infection with HIV, STDs, and unintended pregnancies.

The long-term goals of CDC's HIV prevention program among school-aged youth are as follows:

- Reduce HIV, STDs, and unintended pregnancies among school-aged youth.
- Increase the proportion of adolescents (grades 9–12) who abstain from sexual intercourse or use condoms if currently sexually active.
- Strengthen existing HIV prevention programs serving schools and youth-serving agencies.
- Strengthen programs to reach out of school youth.
- Support the implementation of STD prevention programs in schools.
- Increase efforts to reduce risk behaviors among youth in high-risk situations.

Since 1987, CDC has supported training for more than one million teachers and other school personnel to implement HIV prevention education in schools. Between 1991 and 1997, the percentage of high school students receiving HIV education in school increased from 83% to 92% and then leveled off to 89% in 2001. In that same period, the Youth Risk Behavior Survey (YRBS) has shown a promising trend, stating that from 1991 to 2001:

- The percentage of high school students who had ever had sex decreased from 54% to 46%.

- The percentage of students who used a condom at last intercourse increased from 46% to 58%, leveling off by 2001.
- The percentage of students who had sexual intercourse with four or more people during their life decreased from 19% to 14%.

While this trend is encouraging, many adolescents still engage in behaviors that put them at risk for HIV infection. CDC currently supports 48 states, 7 territorial, and 18 large city education agencies to help schools implement HIV prevention programs to teach young people to avoid HIV risk behaviors. In 2001, these efforts helped ensure that 89% of all high school students received HIV prevention education. CDC intends to continue working with its funded partners to ensure that at least 90% of all high school students receive HIV prevention education during FY 2004 and FY 2005. Supporting these efforts, CDC funds 58 national, nongovernmental organizations to help implement HIV prevention programs among youth in schools, YHRS, and college students.

CDC believes these education efforts will lead to reduced sexual risk behaviors among our nation's youth. In FY 2004 and FY 2005, CDC is working to increase the proportion of adolescents (grades 9–12) who abstain from sexual intercourse or use condoms if currently sexually active.

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. For example, a recent study of a school-based program revealed that for every dollar invested in the program, $2.65 in total medical and social costs was saved and more significantly the program prevented new cases of HIV/STD infections.

CDC recognizes the importance of local decision-making in our nation's education system and has based its program in providing sound scientific information to organizations that work with schools to help state and local decision-makers, local communities, and parents make decisions about a variety of health issues in our nation's schools.

CDC's activities relate to two other national efforts to prevent HIV infection among school-aged youth including

- HHS Strategic Plan Goal 1: reduce the major threats to the health and well-being of Americans. Specifically: reduce the proportion of adolescents engaged in sexual activity, the proportion of persons engaged in unsafe sexual behaviors, and unintended pregnancies.
- *Healthy People 2010* Leading Health Indicator 25-11: increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.

II. Program Performance Analysis

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

Measure 1. Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school to 90% or greater

Data from the 2001 national YRBS demonstrate that 89% of high school students have been taught HIV/AIDS prevention in school (FY 2001 target was 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 is highly relevant and important to prevention efforts. *Note:* Data are released biennially.

Measure 2. Increase the proportion of adolescents (grades 9–12) who abstain from sexual intercourse or use condoms if currently sexually active

Data from the 2001 national YRBS demonstrate that 86% of all adolescents (FY 2001 target was 89%), 85% of African-American adolescents (FY 2001 target was 87%), and 84% of Hispanic adolescents (FY 2001 target was 88%) abstained from sexual intercourse or used condoms if sexually active. Progress has been made from 1991 to 2001. CDC will continue to review, analyze, and discuss the possible reasons for not reaching the FY 2001 targets, in consultation with our funded states, cities, and national nongovernmental organizations, and will make programmatic adjustments as needed to improve program effectiveness required to reach the stated targets. Data for FY 2003 and FY 2005 will be available in July 2004 and July 2006, respectively.

H. Monitoring Risk Behaviors

I. 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 U.S. territories and Freely Associated States of the Pacific, and the District of Columbia, BRFSS is 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, BRFSS has been 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, 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 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. Following the September 11, 2001, attack on the World Trade Center, Connecticut, New Jersey, and New York added questions to BRFSS to analyze the emotional and 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.

BRFSS is a primary data source of information for many of the *Healthy People 2010* objectives. BRFSS directly coincides with the data and information objectives of chapter 23. Activities are in

accordance with goal 2 of the HHS Strategic Plan: enhance the ability of the nation's public health system to effectively respond to bioterrorism and other public health challenges.

II. Program Performance Analysis

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

Measure. Increase the number of states participating in BRFSS that complete 4,000 telephone interviews per year

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 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 2002, 38 states had a sample size of at least 4,000 completed interviews, thus achieving its target. FY 2002 data was released in April 2003. Detailed information regarding BRFSS is in Appendix D.

I. Nutrition, Physical Activity and Obesity

I. Program Description and Context

The purpose of CDC's Nutrition, Physical Activity and Obesity (NPAO) program is to prevent and control obesity and other chronic diseases by supporting states in the development and implementation of science-based nutrition and physical activity interventions. Major program areas are

- Balancing caloric intake and expenditure.
- Improved nutrition through increased breast-feeding and increased consumption of fruits and vegetables.
- Increased physical activity.
- Reduced television time.

Through its NPAO Program, CDC addresses the role of nutrition and physical activity in improving the public's health and preventing and controlling chronic diseases. The scope of activities includes epidemiological and behavioral research, surveillance, training and education, intervention development, health promotion and leadership, policy and environmental change, communication and social marketing, and partnership development.

Obesity in the United States is truly epidemic. In the last 10 years, obesity rates have increased by more than 60% among adults. Approximately 59 million adults, or 31% of the adult population, are obese; and more than 60% of adults are now overweight or obese. Furthermore, the epidemic is not limited to adults: since 1980, obesity rates have doubled among children and tripled among adolescents. Of children and adolescents aged 6–19 years, 15% (about 9 million young people) are overweight.

People who are overweight are at increased risk for heart disease, high blood pressure, diabetes, arthritis-related disabilities, and some cancers. In 2000, the cost of obesity in the United States was estimated to be $117 billion, of which $61 billion was for direct medical costs and $56 billion for indirect costs. Promoting regular physical activity and healthy eating and creating an environment that supports these behaviors are essential to reducing the epidemic of obesity.

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. Despite the proven health 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 from 42% in 1991 to 32% in 2001.

Research shows good nutrition lowers the risk for many chronic diseases, including obesity, heart disease, stroke, some types of cancer, diabetes, and osteoporosis. Although Americans are slowly adopting healthier diets, a considerable gap remains between recommended dietary intake 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. Moreover, unhealthy eating habits are often established during childhood. More than 60% of young people eat too much dietary fat, and less than 20% eat the recommended five or more servings of fruits and vegetables each day.

CDC NPAO Program activities have focused on building state capacity to develop and implement state 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. From FY 2000 to FY 2002, 12 state health departments were funded to build capacity. These states began the process to

- Develop plans for targeted populations.
- Develop appropriate internal and external partnerships to carry out the plans.
- Develop, conduct, and evaluate 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

- Expand effective pilot interventions to include a full range of interventions in communities.
- Expand partnerships with other health department units and external partners to maximize impacts of the statewide program.
- Implement all aspects of the state plan and review and update the plan periodically.

With FY 2003 appropriations, CDC has funded 17 states to build capacity, and 3 states to implement large-scale programs.

In addition to financial assistance to states, CDC is providing national leadership and technical assistance to state-based NPAO programs by

- Coordinating national surveillance activities.
- Monitoring data quality of national surveillance systems.

- Assisting with analyses and interpretation of findings from qualitative and quantitative research.
- Assisting in the social marketing process, guiding program evaluation, and sharing community, environmental and policy strategies to promote physical activity and healthy eating.
- Funding and disseminating relevant state-of-the-art research findings and recommendations (such as analyses found in "The Guide to Community Preventive Services") related to obesity.
- Coordinating national-level partnerships with relevant organizations and agencies involved in the promotion of physical activity and nutrition for the prevention and control of obesity and other chronic diseases.

CDC has devised a logic model that describes the national program to prevent and control obesity and other chronic diseases. This model is used as a tool to guide the evaluation of the program and the development of the program performance measures. Because the NPAO Program has been in existence for 3 years, the selected performance measures currently focus on process and impact objectives. The goals of this program are to improve dietary intake and physical activity levels, and decrease obesity and 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.

The NPAO Program supports the HHS Strategic Plan's goal 1: reduce the major threats to the health and well being of Americans, objective 1: reduce risky behaviors and other factors that contribute to the development of chronic diseases, especially diabetes and asthma; goal 3, objective 4: eliminate racial and ethnic disparities; and goal 4, objective 1: advance the understanding of basic biomedical and behavioral science and how to prevent, diagnose, and treat disease and disability. In addition, the program relates to the achievement of two leading health indicators (physical activity and obesity), and 37 *Healthy People 2010* objectives.

II. Program Performance Analysis

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

Measure. Increase the number of nutrition and physical activity interventions that are implemented and evaluated in funded states

During the first 3 years of the program, the 12 funded states have been 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 12 states are currently 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. Funded states are also improving 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, as well as other programs that benefit from overweight prevention and control.

Evidence-based programs that work to promote healthy eating, physical activity, healthy weight and breast-feeding 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* was published in late 2003. Other 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 Breast-feeding*. 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 to monitor vegetable and fruit consumption, physical activity levels, and the behavioral determinants of eating and physical activity, such as hours of television viewing.

IV. Goal-by-Goal Performance Measurement

Efficiency Measure: Decrease the number of hours spent each year by a program to collect, aggregate, assess and analyze programmatic data			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of Web-based management information systems resulting in savings of program staff time	**FY 05:** 6	**FY 05:** 12/2005 **FY 04:** 12/2004 **FY 03:** 4 (baseline)	E

A. Early Detection of Breast and Cervical Cancer

Goal 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			
Performance Measure	Targets	Actual Performance	Ref.
Excluding invasive cervical cancers diagnosed on an initial screen in NBCCEDP, lower the age-adjusted rate of invasive cervical cancer in women aged 20 and older*	**FY 05:** <14/100,00† **FY 04:** 15/100,000† **FY 03:** 16/100,000† **FY 02:** 22/100,000	**FY 05:** 1/2007† **FY 04:** 1/2006† **FY 03:** 1/2005† **FY 02:** 1/2004 **FY 01:** 14/100,000 **FY 99:** 19/100,000 **FY 95:** 26/100,000	B-81 HP, HHS, O

*First Pap test provided through CDC's NBCCEDP
†FY rate based on 3 years of data (see text)

Goal 2: 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, ensure access to treatment services			
Performance Measure	Targets	Actual Performance	Ref.
1. Increase the number of women screened Breast: mammogram or CBE Cervical: Pap Smear	**FY 05:** Breast 401,000; cervical 280,000 **FY 04:** Breast 381,682; cervical 275,000	**FY 05:** 1/2007 **FY 04:** 1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** Breast 356,395; cervical 265,306 **FY 00:** Breast 247; cervical 192 (baseline: 229,000)	B-81 HP, HHS, O
2. Increase the percentage of newly enrolled women who have not received a Pap test within the past 5 years	**FY 05:** 25% cervical **FY 04:** 22.5% cervical	**FY 05:** 1/2007 **FY 04:** 1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** 22.9% **FY 00:** 21.7% cervical (baseline)	B-81 HP, HHS, O
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 05:** Breast 87.5%; cervical 64.5% **FY 04:** Breast 86.5%; cervical 64%	**FY 05:** 1/2007 **FY 04:** 1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** Breast 83.6%; cervical 61.9% **FY 00:** Breast 82.2%; cervical 61.2% (baseline)	B-81 HP, HHS,O
4. Increase the percentage of women with cancer who start treatment within 60 days of diagnosis	**FY 05:** Breast 95.5%; cervical 92.5% **FY 04:** Breast 95%; cervical 92%	**FY 05:** 1/2007 **FY 04:** 1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** Breast 93.1%; cervical 88.5% **FY 00:** Breast 94%; cervical 88% (baseline)	B-81 HP, HHS, O
5. 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 05:** 94.5% **FY 04:** 94%	**FY 05:** 1/2007 **FY 04:** 1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** 91.7% **FY 00:** 92.4% (baseline)	B-81 HP, HHS, O

B. Tobacco Use Prevention

Goal: Reduce cigarette smoking among youth			
Performance Measure	Targets	Actual Performance	Ref.
Reduce the percentage of youth (grades 9–12) who smoke	**FY 05:** 26.5%* **FY 03:** 26.5% **FY 01:** 34.2%†	**FY 05:** 5/2006 **FY 03:** 5/2004 **FY 01:** Exceeded/28.5% **FY 99:** Exceeded/34.8% **FY 97:** 36.4% **FY 95:** 34.8% **FY 93:** 30.5% **FY 91:** 27.5%	B-81 1 HP, HHS,O

*Data is released biennially.

†YRBSS data released in June 2000 indicated achievement of the FY 01 target, and CDC revised the teen smoking projections.

C. Community-Based Prevention Research

Goal: Support prevention research to develop sustainable and transferable community-based behavioral interventions			
Performance Measure	Targets	Actual Performance	Ref.
Ensure that at least one PRC in each HHS region establishes research priorities and develops interventions in collaboration with a constituent community	**FY 02:** At least one research project per PRC that reflects community-based participatory research	**FY 02:** Achieved/28 PRCs **FY 98:** 28	B-81 HHS, HP

D. Heart Disease and Stroke

Goal 1: Increase the capacity of state cardiovascular health programs to address prevention of cardiovascular disease at the community level			
Performance Measure	Targets	Actual Performance	Ref.
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:** Exceeded/22 **FY 01:** Exceeded/18 **FY 00:** Exceeded/15 **FY 99:** Exceeded/11	B-81

Goal 2: Reduce death and disability due to heart disease and stroke and eliminate disparities			
Performance Measure	Targets	Actual Performance	Ref.
1. Reduce the proportion of heart disease and stroke deaths that occur before transport to emergency services	**FY 05:** Heart disease deaths 45%; stroke deaths 45% **FY 04:** Heart disease deaths 45%; stroke deaths 45%	**FY 05:** 6/2005 **FY 04:** 6/2004 **FY 02:** Heart disease deaths 47%; stroke deaths 48% (1999 baseline)	B-81 1 HP, HHS,O

2. Reduce the prevalence of uncontrolled high blood pressure (≥140/90) among patients with hypertension, especially among populations at high risk, in states that collaborate with community health centers	**FY 05:** 45% **FY 04:** 45%	**FY 05:** 6/2005 **FY 04:** 6/2004 **FY 02:** 50% (baseline)	B-81 1 HP, HHS,O

Note: Heart Disease and Stroke: The heart disease measures for 2003 were inadvertently not included in the 2003 plan. Whereas 2003 dollars support the measures identified, 2003 targets were not provided.

E. Diabetes

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	Ref.
1. For states receiving CDC funding for DPCPs, increase the percentage of persons with diabetes who receive annual eye and foot exams	**FY 05:** Eye 75%; foot 70% **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 05:** 10/2006 **FY 04:** 10/2004 **FY 03:** 10/2004 **FY 02:** Eye 64.2%; foot 66.6% **FY 01:** Eye 69.8%; foot 65.3%* **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:** Eye 61.7%; Foot 52.4%* (baseline)	B-81 1 HP, HHS, O
2. For states receiving CDC funding for DPCPs, increase the percentage of persons with diabetes who receive at least two A1c measures per year	**FY 05:** 72.5% **FY 04:** 72.5%	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 01:** 63.3% **FY 00:** 62.0% (baseline)	B-81 1 HP, HHS,O
3. Increase the number of DPCPs that promote health system approaches among those who are at high risk for developing diabetes (New initiative)	**FY 05:** 5 **FY 04:** 5	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 02:** 0 (baseline)	B-81 HHS, HP
4. In states with prediabetes programs, increase the proportion of people with prediabetes who engage in diabetes prevention practices (New initiative)	**FY 05:** Maintain baseline **FY 04:** Establish baseline	**FY 05:** 10/2006 **FY 04:** 10/2005	B-81 1 HHS, HP, O

*Diabetes: The total percentage of the NCCD goal is slightly higher than the total percentage of the measures. The measures are based on the diabetes sub budget line. The goal, however, includes a percentage of STEPS funding.

F. National Program of Cancer Registries

Goal: Improve the quality of state-based cancer registries			
Performance Measure	Targets	Actual Performance	Ref.
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 02:** Unmet/61% **FY 01:** Unmet/65% **FY 00:** Exceeded/70% **FY 99:** Exceeded/60% **FY 98:** 29% **FY 97:** 17%	B-81 4

G. HIV Prevention among School-Aged Youth

Goal: Reduce the percentage of HIV/AIDS-related risk behaviors among school-aged youth through dissemination of HIV prevention education programs			
Performance Measure	Targets	Actual Performance	Ref.
1. Achieve and maintain the percentage of high school students who are taught about HIV/AIDS prevention in school at 90% or greater*	**FY 05:** 90% or more **FY 03:** 90% or more	**FY 05:** 7/2006 **FY 03:** 7/2004 **FY 01:** Unmet/89% **FY 99:** Achieved/91% **FY 97:** 92% **FY 95:** 86%	B-81 HP, HHS *
2. Increase the proportion of adolescents (grades 9–12) who abstain from sexual intercourse or use condoms if currently sexually active*	*All adolescents* **FY 05:** 89%* **FY 03:** 89% *African-American adolescents* **FY 05:** 87% **FY 03:** 87% *Hispanic adolescents* **FY 05:** 88% **FY 03:** 88%	*All adolescents* **FY 05:** 7/2006 **FY 03:** 7/2004 **FY 01:** Unmet/86% **FY 99:** 85% **FY 97:** 85% **FY 95:** 83% (YRBSS) *African-American adolescents* **FY 05:** 7/2006 **FY 03:** 7/2004 **FY 01:** Unmet/85% **FY 99:** 83% **FY 97:** 80% **FY 95:** 82% (YRBSS) *Hispanic adolescents* **FY 05:** 7/2006 **FY 03:** 7/2004 **FY 01:** Unmet/84% **FY 99:** 84% **FY 97:** 82% **FY 95:** 77% (YRBSS)	B-81 HP, HHS, O *

*Data is released biennially.

H. Monitoring Risk Behaviors (Behavioral Risk Factor Surveillance System)

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	Ref.
Increase the number of states participating in BRFSS that complete 4,000 telephone interviews per year	**FY 02:** 18 states **FY 01:** 18 states	**FY 02:** Exceeded/38 **FY 01:** Achieved/18 **FY 00:** 18 **FY 99:** 9	B-81

I. Nutrition, Physical Activity, and Obesity

Goal: Decrease levels of obesity, or reduce the rate of growth of obesity, in communities through nutrition and physical activity interventions			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of nutrition and physical activity interventions that are implemented and evaluated in funded states	**FY 05:** 20 interventions **FY 04:** 12 interventions	**FY 05:** 12/2006 **FY 04:** 12/2005 **FY 02:** 0 interventions	B-81 HHS, HP

Note: Obesity: The total percentage of the NCCD goal is slightly higher than the percentage of the measure. The measure is specific to CDC's state based program. However, the goal is inclusive of CDC's DNPA program, the Youth Media Campaign, and percentages of coordinated school health and STEPS.

V. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$818.9**	**$883.0**	**$929.8**
Efficiency Measure	$0.0	$0.0	$0.0
Early Detection Breast and Cervical Cancer	**$196.5**	**$211.9**	**$223.2**
Goal 1 – Measure 1	$196.5	$44.2	$46.5
Goal 2 – Measure 1	N/A	$61.8	$65.1
Goal 2 – Measure 2	N/A	$26.5	$27.9
Goal 2 – Measure 3	N/A	$26.5	$27.9
Goal 2 – Measure 4	N/A	$26.5	$27.9
Goal 2 – Measure 5	N/A	$26.5	$27.9
Tobacco Use Prevention	**$106.5**	**$132.5**	**$139.5**
Measure 1	$106.5	$132.5	$139.5
Community-Based Prevention Research	**$0.0**	**$0.0**	**$0.0**
Measure 1†	N/A	N/A	N/A
Heart Disease and Stroke	**$0.0**	**$44.2**	**$46.5**
Goal 1 – Measure 1†	N/A	N/A	N/A
Goal 2 – Measure 1	N/A	$26.5	$27.9
Goal 2 – Measure 2	N/A	$17.7	$18.6

Diabetes	**$73.7**	**$114.8**	**$111.6**
Measure 1	$65.5	$26.5	$37.2
Measure 2	N/A	$17.7	$9.3
Measure 3	N/A	$8.8	$9.3
Measure 4	N/A	$8.8	$9.3
National Program of Cancer Registries	**$0.0**	**$0.0**	**$0.0**
Measure 1†	N/A	N/A	N/A
HIV Prevention Among School-Aged Youth	**$49.1**	**$44.2**	**$55.8**
Measure 1 & 2 combined	$49.1	$44.2	$55.8
Monitoring Risk Behaviors	**$0.0**	**$0.0**	**$0.0**
Measure 1†	N/A	N/A	N/A
Nutrition, Physical Activity and Obesity	**$106.5**	**$106.0**	**$111.6**
Measure 1	$49.1	$35.3	$37.2

*Dollars in millions

†Performance measure was eliminated in FY 2003. Activity is still monitored internally.

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

CDC's strategy to prevent the leading cause of death in the United States is a crosscutting approach: support for state programs, surveillance, prevention research, and evaluation and health promotion. CDC's measures identify selected high-priority programs defined in budget initiatives and only represent a portion of CDC's broader strategy. The following programs are monitored internally but are not reflected entirely in the full cost performance plan: Cancer, Health Promotion, School Health and Prevention Research Centers.

II-C. Environmental Health

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$183,795	FY 2005:	$191,819
FY 2004: (Conference)	$183,212	FY 2004:	$201,193
FY 2003: (Actual)	$182,829	FY 2003:	$200,586

The mission of the Environmental Health Laboratory is to improve human exposure assessment using biomonitoring to better protect the public from death or disease resulting from exposure to environmental chemicals.

Overarching Program

A. Biomonitoring

I. Program Description and Context

The purpose of the environmental health program is to improve the diagnosis, treatment, and prevention of disease caused by exposure to environmental chemicals by measuring these chemicals in human blood, serum, urine, or other body tissue.

CDC's Environmental Health Laboratory assesses human exposure to environmental chemicals using biomonitoring (i.e., the direct measurement of environmental chemicals in human samples, such as blood or urine). No other laboratory in the world can measure environmental chemical exposure in people as quickly, reliably, or extensively. CDC develops biomonitoring exposure measurements and some are only available at CDC. Except for effects on skin or eyes, chemicals must get into the body to affect health. Because biomonitoring measures the amount of chemicals in the body, it provides the most health-relevant exposure information. As a result, biomonitoring exposure information is critical to determine health risks resulting from an exposure situation—ranging from a low-level exposure of minimal health significance needing no public health response to a high exposure of significant health risk warranting immediate attention.

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 diseases 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.

CDC works with states to transfer biomonitoring technology to public health laboratories. In addition, CDC uses its biomonitoring expertise to

- Assess the exposure of the U.S. population to chemicals.
- Help state and local public health officials evaluate disease clusters or exposure of populations or individuals to chemicals.
- Conduct studies that determine what levels of exposure are safe and what levels cause death or disease.

Lack of human exposure information hampers the ability of public health to protect populations from adverse effects (e.g, cancer, birth defects, neurologic and immunologic disease) that result from exposure to toxic chemicals in the environment. Poor public health decisions that result from limited human exposure information will likely fail to address exposures of substantive health impact or waste large amounts of money addressing exposures of negligible health consequence. Because people in the United States are exposed to tens of thousands of chemicals each day, better exposure information is required to identify true problem exposures and exposures that need no attention. Public health officials and other decision-makers need biomonitoring data to help make evidence-based decisions to prevent disease and death caused by exposure to environmental chemicals.

Exposure to environmental chemicals is population-wide. For example, almost all Americans have lead in their body from lead added to gasoline. Certain demographic groups (e.g., children, women of childbearing age, the elderly) may be more susceptible to exposure or adverse health effects. In addition to the general population, people living near unusual exposure sources or in unhealthy housing, eating contaminated foods, breathing contaminated indoor air, drinking water containing high levels of pollutant chemicals, or being exposed to high levels of chemicals in dust or soil may have a higher risk for disease than those not in these situations.

Every 2 years, CDC assesses exposure of the U.S. population and of demographic groups within the population to environmental chemicals. In 2001, CDC published the *National Report on Human Exposure to Environmental Chemicals,* which contained biomonitoring exposure data for 27 environmental chemicals. In 2003, CDC published its *Second National Report on Human Exposure to Environmental Chemicals,* which provided 2 years (1999–2000) of exposure data for the U.S. population on 116 chemicals, including expanded data on the 27 chemicals listed in the first report. (see www.cdc.gov/exposurereport). The second report also presented exposure data for demographic groups defined by age, sex, and race or ethnicity. It is the most extensive assessment of the exposure of the U.S. population to date. This report is also available in Spanish. The third report is scheduled for release in early 2005 and will contain expanded information on the 116 chemicals in the second report as well as new data on approximately 30 additional chemicals.

CDC solicited public nominations for chemicals or categories of chemicals for possible inclusion in future releases of the report. Nominated chemicals were reviewed by an external expert panel as well as by CDC laboratory scientists and then placed in alphabetical order in priority groups. The listing is available at www.cdc.gov/exposurereport). Chemicals listed in the first group are more likely, although not guaranteed, to be in future reports.

Current CDC biomonitoring activities include

- *Innovations in Development of Laboratory Methods*
  Key factors influencing biomonitoring results 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. Such innovations contribute directly to the efficiency and cost-effectiveness of the methods used so that now CDC can measure at least 300 environmental chemicals in human 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. The specificity of these advanced methods allows scientists to identify a chemical from others that are structurally similar. The methods must be precise so that scientists can reproduce the same results over both the short and long term. Further, because the analytical methods used are designed to be rugged, there is minimal "downtime." Generally, scientists aim to measure at least seven different chemicals per method and to analyze 40 to 50 samples per day.

All analytical methods developed must be certified under the Clinical Laboratory Improvements Act of 1988 (CLIA) (see Appendix D). 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 high quality. CLIA-approved methods are used to analyze levels of environmental chemicals published in the report that are measured in specimens obtained from NHANES. Senior staff and internal quality assurance officers verify the use of CLIA-approved methods. The sample size and control mechanisms for the report have been established as part of NHANES.

- *Publication of CDC's National Report on Human Exposure to Environmental Chemicals*
  First issued in 2001, the report published biomonitoring exposure data for the U.S. population on 27 environmental chemicals. The second report, released in 2003, contained data on 116 chemicals, including expanded data on the 27 chemicals in the first report and is the most extensive assessment ever made of the U.S. population's exposure to environmental chemicals. Current plans are to release future reports that cover 2-year periods (e.g., 2001–2002, 2003–2004, 2005–2006) and that include many additional chemicals. Data published in future releases will help answer questions about whether or not exposure levels in the population are increasing or decreasing over time; whether public health interventions to reduce exposure are effective; and whether or not certain groups of people have higher levels of exposure than other groups.

- *Preparedness for Responding to Chemical Terrorism*
  CDC also uses biomonitoring as the foundation of its response to chemical terrorism and has developed a panel of laboratory tests (known as the Rapid Toxic Screen) to identify up to 150 chemical terrorism agents in human blood or urine. Without the biological monitoring measurements that comprise the Rapid Toxic Screen, it is impossible to assess individual internal dose exposure to chemical agents. In the event of a known or suspected chemical terrorism incident, blood and urine samples will be collected from affected people and sent to CDC for analysis using the Rapid Toxic Screen. CDC maintains a Laboratory Response Team on call 24/7 to acquire or help obtain these samples and facilitate reporting of results on site.

  Initially, CDC would examine the first 20 to 30 samples to determine which chemical agent or agents had been used. Then, for each individual sample of blood or urine, CDC would measure the level of the chemical agent for that person. To provide surge capacity, CDC has also established a Chemical Terrorism Laboratory Network (CTLN) that currently consists of five

state public health laboratories (Virginia, New York, California, Michigan, and New Mexico) that can use many of the methods in the Rapid Toxic Screen. To date, CDC has transferred to these laboratories methods for analyzing nerve agents, blister agents, and cyanide-based compounds.

- *Biomonitoring Grants to State Public Health Laboratories*
  CDC awarded $1,979,438 for FY 2004 to state public health laboratories in New York, New Hampshire, and in the Rocky Mountain Consortium (New Mexico [lead state], Arizona, Colorado, Montana, Utah, and Wyoming) to implement biomonitoring programs within their borders. As additional funds become available, CDC hopes to award funds to other state public health laboratories that have developed plans to conduct biomonitoring.

- *Working With Stakeholders*
  CDC's Environmental Health Laboratory works with academic institutions and others on 50 to 70 studies annually to examine the health effects of human exposure to particular environmental chemicals. The laboratory is working closely with the Association of Public Health Laboratories and state public health laboratories to implement biomonitoring programs in state laboratories. At this time, CDC has funded laboratories in eight states (two individual states [New York and New Hampshire] and six states that comprise the Rocky Mountain Consortium [New Mexico, Arizona, Colorado, Montana, Utah, and Wyoming]) to conduct biomonitoring programs. As additional funds become available, CDC hopes to award funds to other state public health laboratories that have developed plans to conduct biomonitoring. CDC's Environmental Health Laboratory also works with industry, advocacy groups, and other federal agencies to apprise them of developments and to learn about issues of concern related to biomonitoring or the *National Report on Human Exposure to Environmental Chemicals*.

  In addition, CDC is working to develop a nationwide capacity to provide rapid and effective analysis of chemical agents in people's blood or urine. The most recent directives related to the use of terrorism focus area funding will allow all state public health laboratories to attain one of three levels of response related to chemical terrorism. The first level provides a coordinated overall terrorism response that involves collecting clinical samples and quickly delivering them to a laboratory that can provide reliable analyses. The second and third levels involve developing different degrees of in-state analytical capabilities to measure chemical agents in blood and urine.

  By establishing an effective geographic distribution of analytical capabilities and focusing efforts on those states that will maintain readiness, the nation will be better able to respond effectively to an event involving the use of chemical-terrorism agents. Depending on the level of response capacity (Level I, II, or III) of a laboratory, CDC awarded focus area funds to applicants that range from approximately 18,000 to 1.9 million.

II. Program Performance Analysis

Goal 1. Improve laboratory capability to monitor human exposure to environmental chemicals

Measure. Develop laboratory methods to measure human exposure to additional environmental chemicals

CDC scientists specialize in developing analytical methods to measure environmental chemicals in blood, urine, saliva and other human specimens. Methods have high-quality criteria for accuracy, precision, sensitivity, specificity, operational ruggedness, and sample processing speed. These biomonitoring methods have contributed substantively to

- Detection of unsafe exposures.
- Identification and remediation of exposure sources.
- Evaluation of the effectiveness of exposure interventions.
- Determination of safe and unsafe levels of exposure to specific chemicals.
- Identification of the cause of diseases or deaths of unknown etiology.

Goal 2. Biennially, determine the exposure of Americans to an increasing number of priority environmental chemicals

Measure. Test a sample of Americans for exposure to an increasing number of priority environmental chemicals

The first *National Report on Human Exposure to Environmental Chemicals* provided information about levels of 27 chemicals found in a representative sample of the U.S. population; the second report, published in January 2003, contained information about 116 chemicals, including new data on the 27 chemicals in the first report. Current plans are to release future reports of the exposure of the U.S. population that cover 2-year periods. CDC also uses its biomonitoring expertise to investigate unusual exposures and to study the causes of disease and birth defects. For instance, in FY 2002–2003, CDC scientists analyzed blood and urine samples to investigate a cluster of cases of acute lymphocytic leukemia among children in Nevada. CDC scientists also collaborate on 50 to 70 studies each year to assess human exposure to environmental chemicals.

B. Asthma

I. Program Description and Context

The mission of CDC's National Asthma Control Program is to reduce the number of deaths, hospitalizations, emergency department visits, school or work days missed, and limitations on activity due to asthma.

In 2000, an estimated 31.3 million people in the United States reported that they had been diagnosed with asthma sometime in their lives. An estimated 12 million reported an attack in the previous 12 months. 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 indicate that 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 HHS and *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:** Ensuring that all stakeholders have the opportunity to be involved in developing, implementing, and evaluating local asthma control programs.

Building strong state-based asthma control programs across the nation is an important long-term goal 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.

II. Program Performance Analysis

Goal. Reduce the burden of asthma

Measure. Reduce hospitalizations due to asthma for states that have implemented a comprehensive asthma control program

CDC aims to reduce hospitalizations due to asthma by helping states create 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. This program effort is being measured by direct target goals set by *Healthy People 2010* and driven by HHS' strategic goal to "reduce the major threat to the health and well being of all Americans."

States can find out where and how to target their intervention efforts and assess whether they are reducing hospitalizations and other adverse effects due to asthma through data provided by strong state-based surveillance systems. By measuring the number of hospitalizations caused by asthma, each state that has implemented a comprehensive control program will better understand the strengths and weaknesses of their surveillance systems and interventions meant to reduce adverse health effects of asthma that cause such hospitalizations. With appropriations of $37.1 million in FY 2003, CDC funded 37 states, 9 cities, 1 territory (Puerto Rico), and a number of other partners, including other federal agencies, universities, and national organizations, under its National Asthma Control Program for activities to be conducted in FY 2004. These grantees and CDC are conducting 7 asthma tracking projects, 49 intervention, 39 partnership, 3 public health research, and 7 directed source funding projects. CDC also funded seven urban school districts, one state education agency, and six national nongovernmental organizations to support and address asthma control within a coordinated school health program.

In FY 2004, CDC will increase its support for state-based programs to improve the state's ability to track asthma, implement science-based asthma interventions, and build partnerships related to asthma control; as well as 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.

C. Childhood Lead Poisoning

The mission of the National Lead Poisoning Prevention Branch is to eliminate childhood lead poisoning by providing leadership in training, surveillance, primary and secondary prevention, applied research, and evaluation of science-based interventions.

I. Program Description and Context

One of the *Healthy People 2010* goals is to eliminate childhood lead poisoning as a major public health problem. The National Childhood Lead Poisoning Prevention Program (CLPPP) is part of a CDC initiative to reduce adverse health affects in infants and children by identifying children at risk and reducing or eliminating their exposure to harmful levels of lead.

Childhood lead poisoning remains a major preventable environmental health problem, especially among poor, inner city and minority children. It was recognized as a public health crisis in the United States between 1976–1980, when analysis of blood lead levels (BLL) in children from the National Health and Nutrition Examination Survey (NHANES II) revealed that 88% of children 1–5 years of age had elevated BLL (greater than or equal to 10 micrograms per deciliter [µg/dL]). Children from low-income backgrounds, especially racial and ethnic minorities living in substandard, poorly maintained housing built before 1950, are at highest risk for lead exposure. Nearly 22% of black children living in homes built before 1946 have elevated BLL, compared with less than 2% in non-Hispanic whites living in newer homes. In addition, Medicaid-enrolled children account for 60% of all children with elevated BLL. However, recent data show that only 19% of Medicaid-enrolled children have been screened for lead poisoning.

The past two decades have seen a dramatic reduction in the prevalence of childhood lead poisoning. For example, in the early 1990s, 4.4% of children had elevated BLL, and by 1999–2000, according to the *National Report on Human Exposure to Environmental Chemicals,* CDC estimated that the percentage of U.S. children 1–5 years old with elevated BLL was 2.2%. Despite these successes, childhood lead poisoning remains a serious environmental health problem. CDC estimates that approximately 434,000 children aged 1–5 years had elevated BLL in 1999–2000.

To meet the *Health People 2010* public health objective, CDC's Lead Poisoning Prevention Program provides technical assistance and guidance to state and local programs on shifting their efforts from providing direct services (blood lead testing and case management) to the core public health functions of policy development, program assurance, surveillance, and program assessment in relation to lead poisoning prevention.

Although substantial reductions in the number of children with EBLLs have continued to occur, significant challenges remain regarding attainment of the *Healthy People 2010* goal to eliminate childhood lead poisoning. House dust contaminated by deteriorated lead-based paint remains the primary source of lead exposure for children in the United States. Lead-based paint hazards primarily affect poor children living in urban neighborhoods—areas that are often also affected by high levels of unemployment, substance abuse, and poverty. The challenges in reaching these

communities, though substantial, are far from insurmountable, as illustrated by several public health successes (e.g., high rates of childhood immunization).

Elimination of elevated blood lead levels requires that we provide care for children already exposed to lead and remove or reduce sources so that future generations are not exposed to the same sources. CDC believes that a concerted effort, especially in the area of primary prevention of lead poisoning of children, could virtually eliminate this problem by 2010, and accomplish the nation's health objective to "eliminate elevated blood lead levels in children," as presented in *Healthy People 2010*.

CLPPP is an ongoing comprehensive, population-based primary and secondary prevention program designed to identify children with elevated BLL and offer appropriate case management, including environmental inspections for lead sources, as well as educate health professionals and paraprofessionals and the public on measures that may be taken to prevent lead poisoning in the pediatric population. CLPPP is committed to achieving this goal by

- Collecting state-based blood lead data of high scientific quality.
- Conducting data analyses of state-based data to establish screening trends and case identification across regions.
- Focusing resources on populations at highest risk for lead exposure.
- Building capacity of states to collect, analyze and translate their data to address relevant lead poisoning prevention policies.

Since the inception of CLPPP in 1990, the lead poisoning prevention program has grown from funding 5 states and New York City in 1990 to 37 states and 5 cities in 2003. In 2003, CLPPP released a program announcement that focuses on efforts to prevent children from ever having elevated BLL and requires state and local partners to develop and implement plans to eliminate childhood lead poisoning in their jurisdictions by 2010. CLPPP is also partnering with other federal agencies, primarily the Department of Housing and Urban Development and the Environmental Protection Agency as well as advocacy and non-profit agencies such as the Alliance to End Childhood Lead Poisoning and the National Center for Health Housing, to increase coordination across agencies responsible for outreach, education, technical assistance and data collection related to focusing lead screening and lead hazard abatement to individuals and communities where the risk for exposure is greatest and evaluating the effectiveness of these interventions.

II. Program Performance Analysis

Goal 1. Reduce the burden of lead poisoning in children

Healthy People 2010 calls for elimination of childhood lead poisoning by the end of this decade. The most recent estimates from NHANES indicate that approximately 434,000 U.S. children younger than 6 years of age had elevated blood lead levels (EBLLs) (i.e., greater than or equal to 10 µg/dL of (whole) blood.

Measure. Reduce the number of children with elevated blood lead levels

EBLLs among young children can be eliminated by state and local prevention activities. Beginning in 2003, state and local health departments funded by CDC for childhood lead poisoning prevention programs are required to develop formal elimination plans. Certain jurisdictions (i.e., Minnesota, Boston, Chicago, and Cleveland) already have convened lead elimination workgroups involving

key representatives from health, housing, banking, and other areas involved in children's health and welfare. A critical factor in any elimination plan is use of local data to define and address local problems. Key elements for effective targeting strategies include 1) enacting state laws requiring reporting of all BLLs, 2) linking state-level environmental and Medicaid enrollment data, 3) improving overall data quality, and 4) streamlining reporting through the National Electronic Disease Surveillance System (NDSS). Data for FY 2003 will be available in September 2006.

Goal 2. Improve state childhood lead poisoning prevention programs' ability to monitor the burden of lead poisoning in children

CDC is mandated to support comprehensive programs to prevent lead poisoning in children. CDC will continue to urge CLPPPs to direct interventions at areas with the greatest demonstrated problems, and at populations with the highest risks. State and local data, in combination with NHANES, will enable us to continue monitoring progress toward elimination of elevated BLLs among all young children.

Measure. Support state implementation of Web-based lead tracking systems in all states and 5 local governments with childhood lead poisoning prevention programs

CDC tracks children's blood lead levels and conducts applied research to improve childhood lead poisoning prevention interventions. An evaluation of existing child lead tracking systems has revealed weaknesses that must be improved through technology and training. CDC is providing more targeted technical assistance to state and local health departments for evaluation of the screening, case management, blood sampling procedures, data management and other programmatic activities. To effectively monitor trends, target prevention efforts to communities most at risk, and evaluate screening and other interventions, CDC also works with state and local programs to improve BLL tracking systems and the collection, timeliness, and quality of surveillance data. CDC is working with states to develop a lead tracking system that can be integrated with other child health, laboratory and environmental programs at the health department. This Web-based system will improve electronic laboratory reporting and tracking of other children's environmental health conditions.

D. Genomics and Disease Prevention

The mission of CDC's Genomics and Disease Prevention program is to integrate advances in human genetics into public health research, policy, and programs.

I. Program Description and Context

In the United States, 9 of 10 leading causes of death have genetic components. Research sponsored by the National Institutes of Health (NIH) has identified gene variants that play a role in childhood diseases (e.g., sickle cell disease, asthma), birth defects and developmental disabilities (e.g., cystic fibrosis), chronic diseases (e.g., cancer, cardiovascular disease, Alzheimer disease), occupational diseases (e.g., bladder cancer), and infectious diseases (e.g., HIV/AIDS). Though the Human Genome Project is now complete, the translation of current genetic discoveries into effective disease prevention strategies is in its infancy. Public health assessment is required to determine the benefits and risks in using these discoveries for disease prevention and health promotion in the population.

Few resources have been invested in determining which genetic tests are useful for the public, or what the results mean to the individual's health. The absence of public health research data threatens to limit access to the promise of genomics for improving the health of the public. CDC plans to build on NIH-sponsored primary research into genomics by investing in public health research to help develop useful applications of genomics in actually preventing disease.

CDC has made some initial progress integrating genomics into public health activities. Since 1997, CDC has

- Funded the development of a model system for evaluating genetic tests.
- Funded three Centers for Genomics and Public Health to focus on public health research, technical assistance to the states, and training of healthcare personnel in genomic competencies (i.e., the genetics-related skills, knowledge, and attitudes necessary for the effective practice of public health).
- Held three national meetings on the impact of genetics in public health.
- Collaborated with internal and external partners to determine genomic competencies for all levels of public health workers.

In addition, CDC has a substantial history in applied genetics, which includes the following:

- Working on newborn screening for inborn errors of metabolism.
- Identifying genetic causes of birth defects, developmental disabilities, and sensory disorders, such as hearing loss.
- Establishing prevalence and treatment outcomes of traditional genetic disorders such as Duchenne muscular dystrophy.

The genomics program will continue to serve the CDC priority of Excellence in Science by generating credible, peer-reviewed (internally and externally) public health research to provide evidence-based data for public health policy and programs in genomics. It also serves to bolster CDC's identity as a source of credible information in public health. HHS' priorities are served by applying the research into further improvements of healthcare delivery and containment of costs. *Healthy People 2010* goals are also served by focusing research into areas where genomics can enhance prevention of disease.

For the future, CDC will use contracts, grants, and cooperative agreements with partner organizations, states, local health agencies, and universities, to develop the disease-specific, public health research that fills the gaps between the promise of genomics and its use in preventing disease. The research, if funded, will have these three components:

1) *Assessments of genetic tests, including the public health impact of those tests.*
   This research will include
   - Epidemiologic research to establish clinical validity and applicability for use in population-based programs, such as newborn screening.
   - Laboratory comparison with a gold standard to demonstrate analytic validity.
   - Health services and behavioral and social research to assess a test's clinical utility.

2) *Genomics and family history*
   Studies will evaluate family history as a tool for effecting positive changes in health behaviors and improved health outcomes for various diseases.

3) *Population-based studies on the national impact of genomics on disease*
This research will focus on integrating genomics into the public health response to cancer clusters, outbreaks of infectious diseases, acute effects of toxic exposures, adverse events following vaccination, and other conditions of public health importance, such as birth defects, chronic diseases, and developmental disabilities. Population-based studies will take genetic discoveries and determine their association with and contribution to disorders of public health importance so that effective strategies can be sought to reduce the impact of these disorders.

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.

II. Program Performance Analysis

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

Measure. Use data that define the utility of DNA-based tests to educate public health professionals and the public on the usefulness of the tests in fighting disease

One genomics performance focuses on stronger public health research direction. By evaluating DNA-based tests on the market, CDC has served several priorities within the agency and HHS. Genomics promotes the CDC priority of Excellence in Science by generating credible, peer-reviewed (internally and externally) public health research to provide evidence-based data for public health policy and programs in genomics. It also serves to bolster CDC's identity as a source of credible information in public health. HHS' priorities are served by applications of the research into further improvements of healthcare delivery and containment of costs. *Healthy People 2010* goals are served by focusing research into areas where genomics can enhance prevention of disease. CDC has completed reviews of three tests and of major sections of two additional tests. The project is extended through September 2004 to complete the report on these five tests. A new project to expend the evidence-based assessments of genomics in health practice has been initiated for FY 2004.

III. Goal-by-Goal Performance Measurement

Efficiency Measure: Improve NCEH/ATSDR program management			
Performance Measure	Target	Actual Performance	Ref.
Improve staff time dedicated to scientific and program activities by consolidating ATSDR and NCEH Management staff	**FY 05:** 5%	**FY 05:** 12/2006 **FY 04:** Establish baseline	E

CDC is improving NCEH/ATSDR's program management by hiring an independent consultant to evaluate, assess and recommend implementation options for consolidating staff and functions at the Office of the Director level. CDC then convened a team to review the consultant's options and recommend specific implementation actions. CDC began implementing the plan by temporarily assigning staff within NCEH/ATSDR Office of the Director. In January 2004, Federal Register,

Volume 69, No.1, published the "Statement of Organization, Functions and Delegations of Authority" for the consolidation of NCEH/ATSDR.

A. Biomonitoring

Goal 1: Improve laboratory capacity to monitor human exposure to chemicals in the environment			
Performance Measure	Targets	Actual Performance	Ref.
Develop laboratory methods to measure human exposure to additional priority environmental chemicals	**FY 05:** 14 new chemicals **FY 04:** 14 new chemicals **FY 03:** 13 new chemicals	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/13 chemicals **FY 02:** Achieved/13 chemicals **FY 99:** Achieved/8 chemicals **FY 97:** 200 (baseline)	B-100 HP-8, 27, 113 1, 4

Goal 2: Periodically determine the number of Americans exposed to environmental chemicals and the degree of their exposure			
Performance Measure	Targets	Actual Performance	Ref.
Test a sample of Americans for exposure to an increasing number of priority environmental chemicals	**FY 05:** Report on 140 chemicals from the previous 2-year period **FY 04:** Test 140 chemicals **FY 03:** Test 100 chemicals; report on 75 chemicals from the previous 2-year period	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Exceeded/released second report on 116 chemicals **FY 02:** Achieved/75 chemicals; reported on 50 chemicals **FY 01:** Achieved/released report on 27 chemicals; completed testing of 50 chemicals for next report **FY 00:** Exceeded/27	B-100 HP-8, 27, 113 1, 4

B. Asthma

Goal: Reduce the burden of asthma			
Performance Measure	Targets	Actual Performance	Ref.
Reduce hospitalizations due to asthma for states that have implemented a comprehensive asthma control program	**FY 05:** 12% reduction **FY 04:** 10% reduction	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 9/2003* Baseline†: age rate/10,000, < 5 yrs 60.9; 5-64 yrs 13.8; ≥65 yrs 19.3	B-100 HP-24 1 O

*Data analysis has been postponed.

†Data source: *Healthy People 2010*. Actual performance is determined the following year due to data collection and analysis lag.

C. Childhood Lead Poisoning

Goal 1: Reduce the burden of lead poisoning in children			
Performance Measure	Targets	Actual Performance	Ref.
Reduce the number of children with elevated blood lead levels*	**FY 05:** 200,000 **FY 03:** 300,000 **FY 99:** 25% reduction	**FY 05:** 09/2008 **FY 03:** 09/2006 **FY 99-00:** 434,000*	B-100 NHANES

*Based on the 1999–2000 NHANES data, it is estimated that 2.2% of children aged 1–5 years in the United States have elevated blood lead levels, i.e., equal to or greater than 10 mg/dL. This 2.2% estimate translates to 434,000 children with a 95% confidence interval from 189,000 to 846,000 children.

Goal 2: Improve state childhood lead poisoning prevention programs' ability to monitor the burden of lead poisoning in children			
Performance Measure	Targets	Actual Performance	Ref.
Support state implementation of web-based lead tracking systems in all states and 5 local governments with childhood lead poisoning prevention programs	**FY 05:** 20 states reporting **FY 03:** 1 state reporting	**FY 05:** 9/2006 **FY 03:** 1 state reporting	B-100

D. Genomics and Disease Prevention

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	Ref.
Use data which define the utility of DNA-based tests to educate public health professionals and the public on the usefulness of the tests in fighting disease	**FY 05:** 7 tests **FY 04:** 6 tests **FY 03:** 6 tests	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Unmet/5 tests **FY 02:** Achieved/4 tests **FY 01:** Achieved/3 tests **FY 00:** 0 (baseline)	B-100

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$200.6**	**$201.2**	**$191.8**
Efficiency Measure	$0.0	$0.0	$0.0
Biomonitoring Goal 1 – Measure 1 Goal 2 – Measure 1	**$48.1** $24.1 $24.1	**$48.3** $24.1 $24.1	**$46.0** $23.0 $23.0
Asthma Measure 1	**$46.1** $46.1	**$46.3** $46.3	**$44.1** $44.1
Childhood Lead Poisoning Goal 1 Goal 2	**$54.2** $27.1 $27.1	**$54.3** $27.2 $27.2	**$51.8** $25.9 $25.9
Genomics and Disease Prevention Measure 1	**$6.0** $6.0	**$6.0** $6.0	**$5.8** $5.8

*Dollars in millions

Approximately 77% of NCEH funds are represented in the measurement tables above. Environmental activities account for the remaining 23% of program funds. These activities include but are not limited to the following:

- Projects on defining tracking functions for the National Environmental Health Tracking Network.
- Programs for environmental health concerns associated with unsafe drinking water, air pollution, and pesticide exposures.
- Programs that address veterans' health concerns.
- State health departments receiving technical assistance and/or training in environmental health services.
- State and local health departments, universities, including schools of public health, and organizations receiving funds from CDC to improve environmental health practice.

II-D. Epidemic Services and Response

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$92,485	FY 2005:	$98,859
FY 2004: (Conference)	$91,776	FY 2004:	$103,252
FY 2003: (Actual)	$77,494	FY 2003:	$88,501

The mission of the Epidemic Services and Response program is to strengthen the public health system by coordinating public health surveillance at CDC and providing domestic and international support through scientific communications, statistical and epidemiologic consultation, as well as training of experts in surveillance, epidemiology, applied public health, and prevention effectiveness.

I. Program Description and Context

CDC's Epidemic Services and Response program provides resources and scientific expertise to

- Rapidly communicate critical information to public health officials about disease outbreaks and other acute health events and trends in health and health behaviors.
- Train public health professionals who are prepared to respond to public health emergencies, outbreaks, and other assistance requests.
- Develop and refine research methods and strategies to benefit public health practice.
- Develop, operate, maintain, and evaluate surveillance systems.

Diminishing public health resources and the deterioration of state and local public health systems emphasizes the need for improved epidemiologic capacity at the state and local levels. As evidenced during the anthrax investigations in the fall of 2001, many state and local public health departments are dependent on CDC during disease outbreaks and public health emergencies. Improving state and local capacity to provide epidemic services would reduce this dependency on CDC, strengthen the ability of state and local health agencies to address public health threats, and improve public health infrastructure.

The nation has a growing need for trained epidemiologists to address current public health problems. Trained epidemiologists at the national, state, and local level are necessary to ensure frontline protection of the public's health. Rapid response capability is needed at all levels to meet the real and ongoing threats of terrorism and bioterrorism. Within CDC, epidemiologists must be appropriately trained to provide technical assistance to local, state, and national governments on emerging and re-emerging infectious diseases.

The urgency of outbreaks, terrorist events, toxic exposures, and other acute public health events underscores the critical need for a reliable and accurate communications tool that supplies public health officials with up-to-the-minute alerts, reports, and assistance. A secure, Web-based communications network for public health investigation and response simplifies and expedites the exchange of routine and emergent public health information between CDC and other health agencies.

Communications
Epidemic Services and Response communicates critical information to public health officials by publishing the *Morbidity and Mortality Weekly Report (MMWR)*, which is CDC's main channel to communicate 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 provides 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. *MMWR* is available in print and on the Internet.

Training
CDC continues to provide the United States 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 to contain health threats. CDC conducts training programs in five critical areas: epidemiology, public health practice, informatics, preventive medicine, and 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.

CDC's online continuing education program for physicians, nurses, and public health practitioners was developed in response to the demand for more continuing education for the public health workforce. The MMWR continuing education program (CEP) provides electronic and paper text testing delivered simultaneously with the electronic and paper editions of the MMWR. Online users can score their answers and print award certificates and transcripts after each test; mail and fax services are also available. Since its inception, CEP has awarded more than 130,000 continuing education credits to approximately 64,000 participants in the United States and 49 countries. The impact is dramatic, with 72% of participants reporting that the content will affect their clinical and public health practice, thus helping to protect Americans from existing and emerging health threats.

Applied Research
CDC carries out various-applied research and methods development activities in areas such as social determinants of health, aberration detection, burden of disease, injury and death, prevention effectiveness, and healthcare quality.

Surveillance
CDC monitors and tracks over 60 mandated notifiable infectious diseases in the United States, including foodborne illness outbreaks, contaminated water sources (i.e., swimming pools), influenza, and others. Healthcare providers and laboratories report this information to state health departments; it is used to identify and control disease outbreaks. CDC provides technical assistance and consultation on surveillance principles and methods to international, state, and local health agencies, and to nontraditional partners such as medical examiners and coroners, health maintenance organizations, and private industry.

Improving the capacity of state and local health agencies to respond to disease outbreaks and emerging infections is key to achieving the public health goals outlined in *Healthy People 2010*.

To respond to this need, CDC provides support to state and local health agencies through a multidisciplinary approach, which draws on CDC's broad experience in the following areas:

- Coordinating public health surveillance.
- Providing scientific communications.
- Providing statistical and epidemiological consultation.
- Training experts in surveillance, epidemiology, applied public health, informatics, communications, and prevention effectiveness.

In response to HHS' directive that CDC assign an Epidemic Intelligence Service (EIS) officer or EIS graduate to every state, the agency created the Career Field Officer Program. The goal of this program is to implement a national cadre of EIS-trained Career Field Officers who will work with states and large local health departments to build epidemiologic and emergency response capacity.

EIS is a unique 2-year, post-graduate program that consists of service and on-the-job training for health professionals interested in epidemiology. Since 1951, approximately 2,500 EIS Officers (CDC's "Disease Detectives") have graduated from this program. Each year, EIS officers assist with about 100 investigations requested by states and other countries. CDC field officers assigned to state and local health departments conduct an average of 500 studies and consultations per year. These investigations benefit the states and local level agencies and provide important training experiences for the EIS officers.

In addition to the on-the-job training gained by investigation of disease outbreaks; natural and man-made disasters; and other public health emergencies, the EIS program provides formal instruction to EIS officers through courses in epidemiology, biostatistics, public health ethics and law, evaluation of surveillance systems, scientific writing, and prevention effectiveness.

Following EIS training, approximately 70% of EIS participants pursue public health careers. This is particularly important for state and local level public health agencies that often have difficulties in recruiting and retaining qualified individuals for epidemiologist positions.

A nationwide challenge is the shortage of trained personnel ready to respond in all areas of public health practice. Because of this shortage and its implications for the future of public health, CDC conducts training programs in five critical areas: epidemiology, public health management, informatics, preventive medicine, and 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.

Strengthening epidemiologic response capabilities at the state and local level benefits the nation's public health by increasing the ability to respond to disease outbreaks, epidemics, and public health emergencies. Providing state and local public health staff with skills to detect and measure disease; identify risk factors for emerging public health issues; evaluate program effectiveness; develop policies and plans to support community efforts; and develop interventions ensures an appropriate and rapid epidemiological response. Enhanced state and local capacity for disease response strengthens public health infrastructure and ensures that resources are targeted so that the maximum public health benefit can be achieved.

When a new, highly dangerous, or re-emerging disease is detected, CDC is expected to be on the front lines providing outbreak response, epidemiologic expertise, and state-of-the-art laboratory assistance. With the ease and frequency of modern travel, protecting the health of U.S. citizens must

involve responding to infectious disease outbreaks and environmental disasters occurring elsewhere in the world.

III. Program Performance Analysis

Efficiency Measure. By 2006, increase the efficiency with which the OMB Clearance package for Epi-Aids is processed, resulting in reduced number of staff hours spent in preparing the package for submission

The OMB Clearance package for Epi-Aids is processed every 3 years. In FY 2003, staff expended approximately 200 hours developing materials for this package. By FY 2005, procedures will have been implemented that reduce to 50 the number of staff hours spent each year on the preparation of this package.

Goal. As a long-term objective, CDC will implement accessible training programs to provide an effective workforce to staff state and local health departments, laboratories, and ministries of health in developing countries

Measure 1. Number of EIS officers assigned to state or municipal health departments

In FY 2003, in response to HHS Secretary's guidance to increase the number of trained epidemiologists on the frontlines of public health, 79 EIS officers were hired, oriented, and placed in the program. With the 2002 class, this brings the total to 167, including 49 officers assigned to state or local health departments. Five additional EIS alumni, bringing the total to 12, were placed as "Career Epidemiology Field Officers" (CEFO) in state or local health departments to help develop local epidemiological capacity and to provide technical expertise for terrorism and emergency response activities. In FY 2004, 40 more EIS Officers and CEFOs will be placed in state or local health departments.

Measure 2. Increase the number of healthcare professionals at the local, state, federal, and international levels who participate in training in epidemiology, surveillance, and public health management

In FY 2004, a program to educate public health professionals engaged in epidemiologic and surveillance-related activities at the state and local levels will be implemented. Following a report, received in August 2003, identifying capacities and gaps at the state and local levels, training methodologies are being developed on surveillance and epidemiology for both entry level and experienced participants as needed. Internal training of healthcare professionals at CDC will continue, but efforts will be increased for training at the state, local and international levels. Training in public health management continues for participants in CDC's many training programs.

IV. Goal-by-Goal Performance Measurement

Efficiency Measure	Targets	Actual Performance	Ref.
By 2006, increase the efficiency with which the OMB Clearance package for Epi-Aids is processed, resulting in reduced number of staff hours spent in preparing the package for submission	**FY 05:** 50 hours	**FY 05:** 12/2006 **FY 03:** 200 hours (baseline)	E

Goal: As a long-term objective, by 2006, CDC will implement accessible training programs to provide an effective workforce to staff state and local health departments, laboratories, and ministries of health in developing countries			
Performance Measure	Targets	Actual Performance	Ref.
1. Number of EIS officers assigned to state or municipal health departments	**FY 03:** 64	**FY 03:** Met/64	B-109  # 2 & 5
2. Increase the number of healthcare professionals at the local, state, and federal, and international levels who participate in training in epidemiology, surveillance, and public health management	**FY 05:** 300 **FY 04:** 200	**FY 05:** 10/2005 **FY 04:** 10/2004 **FY 03:** 74 (baseline)	B-109  #2 & 5

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$88.5**	**$103.3**	**$98.9**
Efficiency Measure	$0.0	$0.0	$0.0
Measure 1 & 2 Combined	**$36.9**	**$36.8**	**$36.5**

*Dollars in millions

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

Approximately 41% of funds are allocated to current performance measures. The following are some of the activities performed with the remaining Epidemic Services funds.

- Publication of *MMWR*.
- Global Disease Detection initiative in FY 2004 and FY 2005.
- Upgrades and maintenance of the National Notifiable Disease Surveillance System.
- Epidemiologic expertise and ongoing consultation on disease surveillance policy and procedures to CSTE, state health departments, and other CDC CIOs.

II-E. Health Statistics

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$149,600	FY 2005:	$160,226
FY 2004: (Conference)	$127,634	FY 2004:	$151,734
FY 2003: (Actual)	$125,899	FY 2003:	$149,733

The mission of the National Center for Health Statistics (NCHS) is to collect, analyze, and disseminate information to help guide actions and policies that improve the health of Americans.

I. Program Description and Context

CDC's performance goal for FY 2005 is to monitor trends in the nation's health through high-quality data systems addressing issues relevant to decision-makers.

CDC data systems monitor trends and issues that are key to understanding the health of Americans and the national healthcare 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 healthcare delivery system.

CDC data are used for decision-making and research. To support these uses, the data are available through CDC and HHS publications, articles in peer-reviewed journals, de-identified electronic data sets, and electronic access to summary reports via the Internet. CDC is also 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 survey participants.

Biomedical research also depends on CDC's data. High quality data are essential to researchers, helping them set research priorities, form medical hypotheses, and evaluate clinical findings using nationally representative benchmarks. The surveys allow researchers to apply a finding from limited clinical settings to a broad population context. To understand the impact of a clinical discovery, the data describe the impact and burden within the national population. The surveys also help track the diffusion of technology, procedures, and medicines, as well as prevention techniques through the healthcare system.

CDC data systems and related activities support HHS programs and policies by providing health information to identify and understand health problems, track goals, and evaluate programs. For example, CDC data support the following HHS priorities:

- Address racial and ethnic differentials in health by providing data to identify problems and track progress.
- Implement *Healthy People 2010* by providing the underlying data infrastructure for setting targets and tracking progress in meeting health objectives.
- Support GPRA by providing data to identify action areas and by providing neutral, objective tracking data used across HHS agencies.

To understand accurately 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 create new data dissemination techniques to meet the needs of our users. CDC collects and analyzes health data and disseminates health information through these venues:

- *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, healthcare use, healthcare access, injury causes, immunization rates, and HIV testing practices. Health agencies and organizations use the data to plan and monitor health policies and programs.
- *National Vital Statistics System.* This system is the source of the nation's birth and death statistics. The laws of states and registration areas govern the collection and registration of these vital events. Hospitals, physicians, and funeral directors originate vital records and reports. States compile records and forward them to CDC.
- *National Survey of Family Growth.* This multipurpose survey consists of personal interviews with a national sample of women and, for the first time, men 15–44 years of age in the civilian non-institutionalized 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 healthcare. It is a rich source of data on healthcare use 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 Examination 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 to determine rates of major diseases and health conditions and to develop public health policies and interventions.

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

II. Program Performance Analysis

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

Measure 1. Monitor the nation's health through high-quality data systems by a) conducting ongoing surveys

In FY 2003, all four targeted data systems were operating and produced detailed trend data for monitoring health. Additionally, one system, NHANES, interviewed and examined approximately 5,100 individuals in 15 scientifically selected communities across the nation to generate national estimates.

b) increasing participant response rates

NHANES achieved a 75% response rate through improved outreach with communities, constituents, states, and policy-makers. FY 2003 response rates were impacted by the war with Iraq, the blackout in the Northeast, and the growing number of gated communities in which we are unable to access residents. We expect that our response rates will fluctuate from year to year as a result of the sample design and current conditions, and that the cumulative response rate over the 6 years of the survey will be maintained between 77% and 78%.

c) working with partners

In FY 2003, CDC continued to work with the National Association for Public Health Statistics and Information Systems (NAPHSIS) and the Social Security Administration (SSA) to complete the work on the models, standards, and specifications needed to develop re-engineered vital statistics systems. Lastly, NAPHSIS, SSA, and CDC continued to complete the work on the models, standards, and specifications needed to develop and re-engineer the vital statistics systems.

Measure 2—Efficiency Measure. Deliver timely data to the nation's health decision-makers by

a) reducing data release time lags

Final data for 2002 natality was released in December 2003, once again the fastest release of data in 36 years, within 11 months of the end of the data collection year, and far exceeding the goal of 16 months. FY 2004 data will be ready in November 2004.

b) making statistics Internet accessible

CDC is working with states and other partners to develop electronic birth and death registration systems to improve the timeliness and accuracy of vital statistics data. Preliminary 2001 mortality data was released in February 2003; final 2001 mortality data was released in November 2003.

c) producing publications

Preliminary data for 2002 natality was released in June 2003, within 6 months of the data collection year. Final 2001 natality data was released in December 2002, within 11 months of end of data collection year. Internet-only releases, such as Health E-Stats and the Early Release of NHIS help make CDC's data more accessible to the public. Lastly, *Health, United States, 2003,* released in October 2003, is available online and has been mailed to data users.

In FY 2003, CDC continued to lead the efforts to produce *America's Children: Key National Indicators of Well-Being 2002,* which was released in July 2003. The report contains data on key indicators of children's health in the United States monitored through federal statistics covering areas related to health, economic security, behavior, education, and social and physical environment. The report also included a new indicator on the number of children with parents born outside the United States.

In FY 2003, CDC achieved continued improvements on technological advances, such as use of the Internet to make data more timely and accessible. Virtually all CDC publications are available on the Internet concurrent with their release in published form. All CDC data are now available, from 1968 to the present, on CD-ROM. Available data sets include the 2001 National Ambulatory Medical Care Survey, the 2001 National Hospital Ambulatory Medical Care Survey, the 2000 National Home and Hospice Survey, the 2002 National Health Interview Survey, and the 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 the data systems and website for disabled people.

III. Goal-by-Goal Performance Measurement

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	Ref.
1. Monitor the nation's health through high-quality data systems by			B-117
a) conducting on-going surveys	**FY 05:** a) Conduct four ongoing surveys and data systems that produce detailed trend data for monitoring health	**FY 05:** a) 11/2005	
	FY 04: a) Same as above	**FY 04:** a) 11/2004	
	FY 03: a) Same as above	**FY 03:** a) Achieved/4 **FY 97:** a) Achieved/3 (baseline)	
b) increasing participant response rates	**FY 05:** b) Increase and maintain 78% participation for NHANES through improved outreach with communities, constituents, states and policy-makers	**FY 05:** b) 11/2005	
	FY 04: b) Same as above	**FY 04:** b) 11/2004	
	FY 03: b) Maintain 78% response rate for NHANES	**FY 03:** b) 75% response rate **FY 02:** b) 78% response rate **FY 01:** b) 81% response rate **FY 00:** b) 80% response rate **FY 99:** b) 72% response rate (baseline)	
c) working with partners	**FY 05:** 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 05:** c) 11/2005	
	FY 04: c) Same as above	**FY 04:** c) 11/2004	
	FY 03: c) Same as above	**FY 03:** c) Completed work on models, standards, and specifications needed to develop re-engineered vital statistics systems **FY 00:** c) 0 states, non-profit groups such as NAPHSIS	

2. Deliver timely data to the nation's health decision-makers by			B-117 E
a) reducing data release time lags	**FY 05:** a) Reduce time lags for release of core data systems by 5% *Vital Statistics (VS):* Release 2004 preliminary data in 9 months from end of data collection year	**FY 05:** a) 11/2005	
	FY 04: a) Same as a) above	**FY 04:** a) 11/2004	
	Vital Statistics (VS): Release 2003 preliminary data in 9 months from end of data collection year	**FY 03:** a) Met or exceeded targets **FY 02:** a) Met or exceeded all targets except release of Final 2000 Mortality data, released in 21 months, a 19% reduction from baseline; FY 99 baseline achieved	
b) making statistics Internet-accessible	**FY 05:** b) Make health statistics Internet-available, including the development of one new product	**FY 05:** b) 11/2005 **FY 04:** b) 11/2004 **FY 03:** b) Health E-Stats, Internet-only releases available for viewing, searching, and downloading **FY 02:** b) NCHS website accessible to the visually impaired **FY 01:** b) Achieved **FY 00:** b) Monthly vital statistics available for viewing, searching, downloading within 4 months **FY 99:** b) Monthly vital statistics available for viewing, searching, and downloading within 4 months	
c) producing publications	**FY 05:** c) Produce reports and publications that document trends, issues, and problems in health	**FY 05:** c) 11/2005	
	FY 04: c) Same as above	**FY 04:** c) 11/2004 **FY 03:** c) *Health, United States 2003—Trends in Health of Americans* released in October 2003	

(continued)		**FY 02:** c) *Health, United States 2002—Trends in Health of the Nation* released in Sept. 2002 **FY 01:** c) *Health, United States 2001 + Urban and Rural Health Chart* book **FY 00:** c) Health, United States 2000 + Adolescent Health Chart book	

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$149.7**	**$151.7**	**$160.2**
Health Statistics Measure 1 Measure 2	**$149.7** $127.3 $22.5	**$151.7** $129.0 $22.8	**$160.2** $136.2 $24.0

V. Reports from Previous FY 2003 Goals

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

Measure 1. Develop, test, and support the State and Local Area Integrated Telephone Survey (SLAITS)

In FY 2003, SLAITS released various reports, publications, and public use microdata files (PUF) for the SLAITS National Survey of Children with Special Healthcare Needs (NSCSHCN). SLAITS anticipates releasing various reports, publications and PUF for the following two survey modules in the summer of 2004:

- The SLAITS National Asthma Survey (NAS).
- The SLAITS National Survey of Children's Health (NSCH).

NSCSHCN and NSCH are funded by the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau (MCHB), and NAS is funded by CDC's National Center for Environmental Health (NCEH). The Assistant Secretary for Planning and Evaluation (ASPE) provided additional funding for NSCSHCN.

Measure 2. Develop new monitoring tools to address emerging topics

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 population groups. Using the flexible, efficient Community Health and Nutrition Examination Survey (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 NHANES. CDC is offering this new monitoring tool to implement a series of focused research studies to interested collaborators.

Goal 2. Disseminate health data in innovative ways

Measure 1. Make health statistics available via the Internet

Measure 2. Release statistics in new formats to speed the release of data on high-priority topics

Measure 3. Increase the number of persons who obtain health information from the NCHS website

Achieved all FY 2003 targets for these measures.

VI. FY 2003 Goal-by-Goal Performance Measurement

The following charts provide reports for FY 2003 measures that have been revised for the FY 2004 Performance Plan and will be phased out after this submission.

Goal 1: Monitor trends in the nation's health through high-quality data systems addressing issues relevant to decision-makers			
Performance Measure	Targets	Actual Performance	Ref.
1. Develop, test, and support SLAITS	**FY 03:** Provide management, oversight, technical support to prospective SLAITS users	**FY 03:** Achieved **FY 02:** Achieved **FY 99:** Achieved/developed SLAITS; pretested in 3 sites, including 1 Indian reservation	B-117
2. Develop new monitoring tools to address emerging topics	**FY 03:** Provide management oversight and technical support to prospective CHANES users	**FY 03:** Worked with New York City on the support of a study modeled on CHANES	B-117

CDC will verify performance via contractor reports, pretest reports, meeting proceedings, publications, and website records.

Goal 2: Disseminate health data in innovative ways			
Performance Measure	Targets	Actual Performance	Ref.
1. Make health statistics available via the Internet	**FY 03:** Maintain current products	**FY 03:** Achieved/developed at least one new product for the Internet **FY 02:** Achieved/developed at least one new product for the Internet	B-117
2. Release statistics in new formats to speed the release of data on high-priority topics	**FY 03:** Maintain release of statistics in current formats	**FY 03:** Achieved	B-117
3. 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:** 13.7 million visitor sessions **FY 02:** 12.5 million visitor sessions **FY 01:** 3.2 million visitor sessions	B-117

II-F. HIV/AIDS Prevention

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$1,143,299	FY 2005:	$1,159,055
FY 2004: (Conference)	$1,141,661	FY 2004:	$1,170,794
FY 2003: (Actual)	$1,146,648	FY 2003:	$1,174,701

The mission of CDC is to reduce new HIV infections in the United States and to support HIV/AIDS prevention, care, and treatment efforts globally.

I. 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 4 years, several new initiatives have significantly affected program activities. In 1999, Congress, through the Minority AIDS Initiative, provided funding to CDC specifically 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 14 countries in Africa and Asia. The Global AIDS Program now reaches 25 countries on 3 continents. In 2001, CDC published a revised *HIV Prevention Strategic Plan Through 2005* with other federal agencies, partners, and outside experts. On April 17, 2003, CDC, in partnership with other HHS agencies and other government and nongovernmental agencies, announced a new HIV initiative, "Advancing HIV Prevention: New Strategies for a Changing Epidemic (AHP)," aimed at reducing barriers to early diagnosis of HIV infection and increasing access to and use of quality medical care, treatment, and ongoing prevention services for those living with HIV. The overall goal of the initiative is to reduce HIV transmission in the United States.

HIV remains a deadly infection for which there is no effective vaccine or cure and for which treatments are limited. Through December 2002, 859,000 persons had been reported as having AIDS, of whom 501, 699 (58%) had died. An estimated 850,000 to 950,000 persons are currently 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. At the end of 2002, minorities represented more than 60% of persons living with AIDS.

In 2002, among men, the majority of new AIDS cases (55%) 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.

HIV has high economic costs as well. The estimated lifetime cost in the United States of treating one person infected with HIV is $224,000, adjusted for 2002 dollars. With approximately 40,000

persons infected each year, the United States faces additional annualized costs of more than $8 billion every year.

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, an estimated 5 million persons 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 surveillance and other data reveal emerging epidemics in India, China, Russia, and other parts of the world.

The HIV/AIDS pandemic is also one of the major threats to child health and survival. More than 90% of the estimated 3 million children living with HIV/AIDS worldwide were infected during their mother's pregnancy, during birth, or through breast-feeding. In 2001, approximately 2 million pregnant HIV-infected women gave birth worldwide, and 720,000 of their children contracted the virus from their mothers.

Current Activities

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 2001, CDC published a revised *HIV Prevention Strategic Plan—Through 2005* to guide its HIV prevention efforts, both domestically and abroad. The plan was developed in concert with experts in public health, prevention science and medicine, and representatives from affected communities. The goal of this plan is to reduce the number of new HIV infections in the United States from an estimated 40,000 to 20,000 per year, focusing particularly on eliminating racial and ethnic disparities in new HIV infections. Through the plan, CDC aims to accomplish the following:

- Decrease 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.
- Increase the proportion of HIV-infected people in the United States who know they are infected through voluntary counseling and testing.
- Increase the proportion of HIV-infected people in the United States who are linked to appropriate prevention, care, and treatment services.
- Strengthen the capacity nationwide to monitor the epidemic, develop and implement effective prevention interventions, and evaluate prevention programs.
- Help reduce HIV transmission and improve HIV/AIDS care and support in partnership with resource-constrained countries.

The goals in this performance plan are aligned with the goals of the HIV prevention strategic plan. Targets for the goals and performance measures in this document reflect currently available resources and tools. CDC's HIV Prevention Strategic Plan is available on the Internet at www.cdc.gov/nchstp/od/news/prevention.pdf.

Domestic Strategies, Activities, and Resources

To make further progress towards its HIV prevention goals, CDC has launched a new HIV initiative, called *Advancing HIV Prevention: New Strategies for a Changing Epidemic (AHP)*. Through the initiative, CDC will increase the emphasis on prevention services for people living with HIV, as well as efforts to prevent HIV infection in at-risk persons who are HIV negative. AHP describes a logical approach

to identify the estimated 180,000–280,000 people who are unaware of their status and connect them to care, treatment, and prevention. In addition, by continuing to work with the Health Resources and Services Administration (HRSA) and the Center for Medicaid and Medicare Services, as well as other HHS agencies, CDC will reach persons who have been diagnosed with HIV but who are not receiving ongoing treatment and preventive care services.

This new initiative builds on CDC's core set of HIV prevention activities including surveillance research, 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. CDC and state and local health departments use surveillance to 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. These data also help CDC estimate the size and scope of the epidemic.

Advancing HIV Prevention: New Strategies for a Changing Epidemic

The initiative consists of four key strategies:
1. Make HIV testing a routine part of medical care.
2. Implement new models for diagnosing HIV infections outside medical settings.
3. Prevent new infections by working with persons diagnosed with HIV and their partners.
4. Further decrease perinatal HIV transmission.

These strategies are designed to use new tools and knowledge to prevent new infections and promote the health of persons with HIV.

CDC provides funding and technical assistance to state and local health departments to conduct HIV/AIDS surveillance. Every state must report 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, and has recently initiated projects to assess HIV incidence in conjunction with HIV case reporting.

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

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 composed of many smaller epidemics that often differ substantially. 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, including community planning coordinated through health departments, and direct funding of community-based organizations (CBOs). Through the HIV community planning process, communities tailor HIV prevention programs to local needs. Committees include representatives from all affected communities; state and local health departments; nongovernmental organizations providing HIV prevention and related services; and experts in epidemiology, behavioral science, and program evaluation. These committees collaborate to determine the most appropriate HIV prevention interventions based on local epidemic data, community resources, and science. In 2003, CDC issued new guidance to assist jurisdictions in their community planning process. This guidance accompanied an announcement for a new cycle of funding to state and local health departments for HIV prevention.

HIV Prevention in Massachusetts

The goals of the Massachusetts Department of Public Health's (MDPH) Counseling and Testing program are to increase the number of persons at risk for HIV who know their HIV status, decrease the number of new HIV infections, and improve the health and quality of life of infected and high-risk uninfected persons. MDPH implemented two pilot programs called "Think HIV Testing" where participating hospitals identified an increased number of HIV-positive persons that may not have otherwise been identified. One hospital discovered that many patients were willing to get an HIV test during their hospital stay. The hospital, with help from MDPH, now successfully offers its inpatients routine HIV testing. Evidence from this and other programs was used to form one of the key strategies—make HIV testing a routine part of medical care—in advancing HIV prevention.

Since 1989, CDC has provided funding directly to CBOs to conduct HIV prevention activities. Since 1999, CDC has received additional funding through the Minority AIDS Initiative to augment these 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. In 2004, CDC will consolidate six of its programs for CBOs to a single program to implement outreach, counseling, testing, and prevention case management strategies as outlined in the AHP initiative.

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 nongovernmental organizations to provide training and materials.
- Provides direct technical assistance to CBOs.
- Synthesizes and disseminates information on science-based interventions.

Finally, CDC works to evaluate its programs so that the agency can monitor progress and refine its efforts. CDC's evaluation efforts include evaluating CDC's Minority AIDS Initiative activities and developing state and local health department evaluation guidance. In the new program announcements for the state and local health departments, CBOs, and capacity building assistance providers, CDC is requiring grantees to report regularly on core indicators for the programs.

Global AIDS Program Countries FY 2003

Angola	Botswana	Brazil	Cambodia
China	Ivory Coast	Dem. Rep. of Congo	Ethiopia
Guyana	Haiti	India	Kenya
Malawi	Mozambique	Namibia	Nigeria
Rwanda	Senegal	South Africa	Tanzania
Thailand	Uganda	Vietnam	Zambia
Zimbabwe			

International Strategies, Activities, and Resources

CDC's Global AIDS Program (GAP) exists to help prevent HIV infection, improve care and support, and build capacity to address the global HIV/AIDS pandemic. Through GAP, CDC provides financial and technical assistance through partnerships with governments, community- and faith-based organizations, the private sector, and national and international entities working in 25 resource-constrained countries. These efforts support the administration's goals related to AIDS globally and goal 5 of CDC's *HIV Prevention Strategic Plan Through 2005* to help reduce HIV transmission and improve HIV/AIDS care and support in partnership with resource-constrained countries.

CDC works with the Health Resources and Services Administration (HRSA), the National Institutes of Health (NIH), the U.S. Agency for International Development (USAID), the Departments of State, Labor and Defense, and other agencies and organizations to help countries in Africa, Asia, and Latin America address the devastating impact of HIV/AIDS. These efforts complement multilateral efforts, including the Global Fund to Combat HIV, TB, and Malaria. CDC has a field presence in 25 countries in Africa, Asia, and Latin America to help support national HIV/AIDS control programs. In addition, CDC has established four regional programs to serve countries in Southeast Asia, Southern Africa, the Caribbean, and Central America and plans to establish additional regional program this year in Western Africa.

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 focuses on two or three major program areas in each country. Priorities include:

- Achieving primary prevention of HIV infection through activities such as expanding voluntary counseling and testing programs, building programs to reduce mother-to-child transmission, and strengthening programs to reduce transmission via blood transfusion and medical injections.
- 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 antiretroviral treatment programs.
- Strengthening the capacity of countries to collect and use surveillance data and manage national HIV/AIDS programs by expanding HIV/STD/TB surveillance programs and strengthening laboratory support for surveillance; diagnosis; treatment and disease monitoring; and HIV screening for blood safety.

CDC is a key participant in the President's Emergency Plan for AIDS Relief, announced in the State of the Union address in January 2003. The plan, authorized by Congress through the passage of H.R. 1298, the U.S. Leadership Against HIV/AIDS, TB and Malaria Act of 2003, incorporates an

ongoing presidential initiative focusing on mothers and infants: the President's International Mother and Child HIV Prevention Initiative (PMTCT). HHS (in particular, CDC and HRSA) and USAID are jointly implementing this initiative initially in 14 countries in Africa and the Caribbean. It builds upon existing efforts, including those of GAP. The initiative focuses on prevention, treatment, and care for HIV-infected pregnant women to reduce transmission of HIV/AIDS to their infants. The two principal strategies are increasing the availability of preventive care, including drug treatments, and building healthcare delivery systems to reach up to 1 million women annually with the care they need. Initial operating plans have been approved for all countries and initial funding was disbursed in FY 2003. In 2004 and 2005, efforts will be expanded to address the broader goals of the 5-year emergency plan to care for up to 10 million persons living with HIV/AIDS and AIDS orphans, prevent up to 7 million new HIV infections, and treat up to 2 million suffering from HIV/AIDS. In 2005, funding for the initiative will be supported through the Department of State.

Prevention of Mother-to-Child-Transmission

Prevention of mother-to-child-transmission (MTCT) of HIV infection is a priority in 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%.

II. Program Performance Analysis

Overarching Goal

Goal. By 2010, reduce by 25% the number of new HIV infections in the United States, as measured by a reduction in the number of HIV infections diagnosed each year among people under 25 years of age, from 2,100 in 2000 to approximately 1,600 in 2010

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. CDC currently reports HIV data from 30 areas (29 states and the U.S. Virgin Islands) and will add additional areas as data become available.

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

The number of HIV infection cases among persons under 25 years of age diagnosed each year is the best data available to monitor new HIV infections. HIV infections occurring in those groups are likely to have been acquired recently and thus are a relatively good proxy measure of HIV incidence. In addition, these data enable CDC to look at yearly trends in a meaningful way. Data are 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. This measure is still being refined and has undergone revisions in previously reported data.

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

Surveillance data reported through December 2002 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 delaying 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. Data for 2002 continue to show a decrease in perinatally acquired AIDS cases from 101 in 2001 to 90 in 2002.

Measure 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.

A. Domestic HIV/AIDS

Efficiency Measure. Decrease the amount of time to review, process, and award funds to directly-funded CBOs

CDC is consolidating six programs for CBOs into one program in FY 2004. The consolidation will decrease the administrative work at CDC required to develop, publish, compete, review and award six different programs; provide CDC with opportunity to improve oversight of grantees by reducing the number of different grant requirements which project officers are expected to know; and provide a set of core performance indicators to monitor and evaluate grantee performance.

For example, the review process involves the convening of special emphasis panels, obtaining subject matter experts, conducting pre-decisional site visits and budget negotiations, and developing technical reports for each program announcement. With a consolidation of six programs to one, CDC will be able to streamline the review and oversight process by decreasing all of these current functions, in terms of staff time and cost.

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

Measure. Among HIV-infected persons over 18 years of age, reduce the proportion who had high-risk sex with a negative partner or partner of unknown status

Because every new HIV infection is the result of transmission from an infected person, encouraging infected persons to adopt safe behaviors is one of the highest priorities of HIV prevention. Helping those who are infected to adopt safer behaviors is a key strategy of CDC's new HIV initiative. In 2004, CDC has asked its state grantees to prioritize interventions with those who are HIV positive, and has included prevention with positives as a key component of its new directly-funded CBO program. Targets and actual performance estimates represent the median figure from 16 participating areas. In 2002, the median reported is 13.9%. Data for FY 2003 will be available in August 2004.

Goal 2. By 2010, increase by 13% the proportion of HIV-infected people who know they are infected, as measured by the proportion diagnosed before progression to AIDS (baseline: 75% in 2000, 2010 target: 85%)

Of the estimated 850,000 to 950,000 persons infected with HIV in the United States, up to a quarter

are unaware of their infection. 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. Further, research shows that persons who are aware of their infection are more likely to adopt behaviors to protect themselves and their partners. Thus promoting knowledge of serostatus among those who are infected is essential to preventing new infections.

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

Measure 2. Among persons with HIV infection attributed to heterosexual behavior, increase the proportion diagnosed before progression to AIDS

Measure 3. Among persons with HIV infection attributed to injecting drug use, increase the proportion diagnosed before progression to AIDS

Measure 4. Among persons with HIV infection attributed to male-to-male sexual contact, increase the proportion diagnosed before progression to AIDS

Note: Measure 1 is a new measure 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 in 2004.

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 percentage of persons who learn of their infection before the latest stages of the disease—before the development of an AIDS-defining condition. The percentage 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. By increasing the proportion of persons who are aware of their infection at an earlier stage, CDC aims to decrease transmission of HIV infection and to improve the health status of those who are infected. Activities related to these measures include efforts to increase knowledge of HIV status through voluntary counseling and testing, and to link HIV-positive persons with prevention, care, and treatment services.

Measure 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. In 2001, there was a reported increase from 69.3% in 2000 to 71.3% in the percentage of HIV-positive test results from CDC-funded sites with post test counseling reported. Data for FY 2002 will be available spring 2004.

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 preliminary HIV test results while you wait. These results still require confirmatory testing, with results shared at post-test counseling sessions. This measure may be revised when rapid testing becomes more widespread.

Goal 3. By 2010, increase to at least 80% the proportion of HIV-infected people who are linked to appropriate prevention, care, and treatment services, as measured by those who report having received some form of medical care within 3 months of their HIV diagnosis

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

This measure reflects linkage to care after initial diagnosis. A physician should evaluate most HIV-infected persons soon after receiving the 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. An average of 77.4% of persons diagnosed with HIV/AIDS were in care within 3 months of diagnosis in 2001; this average increased to 80.3% in 2002.

Measure 2. Expand the number of states that are able to measure adherence to treatment and the impact of antiretroviral therapy (ART) on long-term survival

CDC funds health departments to collect information on the care of 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 any care. 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 is being phased out.

Measure 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. Analyses of the studies indicated the need to develop a more representative cross-sectional survey instrument. This measure is being phased out after FY 2003 data are reported in September 2004.

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

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

As of April 2003, 49 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands have some type of surveillance for HIV infection. Of these, 34 states and 5 U.S. territories and

Freely Associated States of the Pacific use the same confidential, name-based method for reporting infections in adults and adolescents that is used in AIDS surveillance; 17 others used other systems. Georgia has planned to implement name-based HIV reporting in January 2004. Currently, only data from name-based reporting systems can be used in CDC reports. CDC is evaluating the remaining methods to determine if they meet reporting standards.

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

Testing technology can now distinguish recent or "incident" HIV infections from "remote" infections among those who tests positive for HIV. In FY 2000 and FY 2001, CDC began funding prospective and retrospective studies in 21 sites to measure HIV incidence and prevalence in high-risk populations, and in certain healthcare settings and geographical areas; and to analyze and disseminate data from surveys to help evaluate the impact of HIV prevention efforts.

The incidence studies used the new testing technology to measure HIV incidence. The data are used to guide local HIV prevention and care efforts. Funding for these studies was discontinued in FY 2003. New HIV incidence studies were piloted in FY 2002 and implemented in FY 2003 in over 20 of the states with HIV reporting systems. Data for 2003 will be available in September 2004.

Measure 3. Increase the 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 2003.

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

In FY 1988, CDC made funding available for the National and Regional Minority Organizations (NRMOs) program designed to provide technical assistance to community-based HIV prevention efforts. In 1989, CDC began to provide direct funding to minority 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 FY 2002 and FY 2003, CDC made 279 awards to CBOs (each year). Most of these programs address the needs of persons considered to be at high-risk for acquiring or transmitting HIV infection, including MSM, injecting drug users, youth, homeless persons, sex workers, and incarcerated persons. This measure is being phased out.

Measure 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 is being phased out.

B. International HIV/AIDS

Goal 1. By 2010, work with other countries, international organizations, the Department of State, USAID, and other partners to achieve the United Nations General Assembly Special Session on HIV/AIDS goal of reducing prevalence among 15 to 24 years of age

CDC continues to develop HIV/AIDS prevention, care, and treatment programs in 25 countries in sub-Saharan Africa, Asia, Latin America, and the Caribbean. In collaboration with USAID and HRSA, CDC has begun to implement PMTCT, an initiative to prevent the transmission of HIV from mother to infants and to improve healthcare delivery in 14 countries in Africa and the Caribbean. CDC has assigned staff in 25 countries and has hired over 600 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; and in-depth case studies of CDC's value-added in these countries have begun. CDC has worked closely with external partners including USAID, the World Health Organization (WHO), the World Bank, and others to develop a set of common core indicators of progress.

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

Surveillance. With funding received in FY 2003, CDC supported surveillance efforts in 25 countries. In FY 2005, CDC expects to expand surveillance support in all 25 GAP countries with a particular focus on the 14 Emergency Plan countries.

Voluntary Counseling and Testing. With funding received in FY 2003, CDC strengthened voluntary counseling and testing (VCT) programs in 20 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 expects to support VCT in 25 countries in 2005.

Locally Appropriate Technical Assistance for Treatment of STDs, TB, and Other Opportunistic Infections. With funding received in 2003, CDC worked to initiate, expand or strengthen locally appropriate technical assistance for treatment of sexually transmitted infections (STIs), tuberculosis, and other AIDS-related diseases in 20 countries. CDC expects to support technical assistance for STDs, TB and other opportunistic diseases in 25 countries in 2005.

Goal 2. Counsel, test, and treat up to 1 million pregnant women and reduce mother to child transmission by up to 40% among women treated, in collaboration with other parts of HHS and USAID

Measure. Increase the number of countries participating in the President's International Mother and Child HIV Prevention Initiative that have coordinated needs assessments, planned programs, and begun implementation

CDC is a partner in the President's International Mother and Child HIV Prevention Initiative, intended to reach 1 million women annually and to reduce mother to child transmission by 40% within 5 years or less in 12 African and 2 Caribbean countries. In recognition of CDC's involvement with the initiative, this performance measure has been revised.

With FY 2003 funding, CDC enhanced support to implement programs that provide interventions to prevent perinatal transmission of HIV in 20 countries. In 2004, CDC is working with USAID to

implement the President's Initiative in all 14 countries and continues to support MTCT programs in 6 of the other bilateral GAP countries. These efforts will be incorporated into the President's Emergency Plan for AIDS Relief and in FY 2005, funding used to support this initiative will be included in the Department of State's budget request.

III. OMB PART Review of Domestic HIV Prevention

In 2002, the domestic HIV/AIDS program was reviewed by OMB through use of the PART. OMB cited deficiencies mainly in the area of performance measurement. The assessment found that:

- The program had long-term health outcome goals, but not specific targets and timeframes that were consistent with the existing budget.
- The program had developed new annual performance indicators but baseline data for these measures were unavailable at the time of review.
- The budget and program performance were not explicitly lined up.
- There were no process/measures in place to improve efficiency. OMB also believed that the program had some weaknesses in the management and oversight of grantees.

A second review of the program in FY 2003 noted that CDC had made progress in devising targets and timeframes consistent with its existing budget and with reporting baseline data on the new performance measures.

In particular, CDC has revised three of its five domestic HIV/AIDS prevention goals in its FY 2005 Performance Plan. These goals contain ambitious targets that are measurable and include specific targets and timeframes that are consistent with the CDC's current budgetary resources. Four new annual performance measures have been added to the GPRA plan, along with baseline data and targets. To better track and monitor the *CDC HIV Prevention Strategic Plan*, a set of indicators has been developed. Annual targets and baselines for these indicators have been established and 10-year targets have been set for those most indicative of progress toward the goals. These goals are also consistent with CDC's current budgetary resources.

To address the PART assessment, as well as program audits conducted by the Office of Inspector General, CDC conducted an internal stratified random sample of CBOs to ensure that funded grantees are following proper fiscal procedures, have scientifically sound programs, and are in compliance with Content Review Guidelines. Preliminary findings indicate that CDC needs to provide more focused technical assistance and guidance to CBO grantees. CDC has strengthened oversight procedures and put new reporting systems in place to collect better performance data from grantees. In the new program announcements for the state and local health departments, CBOs, and capacity building assistance, CDC is requiring grantees to report regularly on core indicators for the programs. Grantees will be held accountable for performance and action will be taken if grantees fail to perform to include a range of corrective actions from providing additional technical assistance to redirection of funding. CDC had not previously explicitly stated corrective actions in program announcements.

By requiring grantees to report on a core set of program indicators, CDC will obtain important evaluation data on HIV prevention programs that are currently being administered by state and local health departments, CBOs, and subgrantees. In addition, CDC will be able to make comparisons of programs through a standard tool and use the findings to improve the prevention programs.

To determine whether HIV prevention funds are being used in a way consistent with the demographics and risk factors of the epidemic or appropriately targeting the highest risk groups, CDC completed two internal analyses with state and local health departments. The first analysis was a retrospective pilot study of two health department jurisdictions comparing the distribution of expenditures by race/ethnicity and HIV risk to the distribution of prevalent AIDS cases in the respective jurisdiction. Data were also collected on expenditures of CDC funds awarded directly to CBOs and expenditures of federal, state, local, and nongovernmental funds. The second analysis was a jurisdiction-level analysis to compare the distribution of HIV prevention expenditures by race/ethnicity and HIV risk to the distribution of prevalent AIDS cases in the respective jurisdiction of 55 of the 65 health departments. CDC used this data to develop the new program announcement for state and local health departments, particularly in developing methods for assessing provision of HIV prevention services. In addition, the results from the analyses led CDC to emphasize the utility of client level data in assessing HIV prevention service provisions. Such data has been requested in the program announcements for both health departments and CBOs.

CDC has also worked to achieve program and administrative efficiencies. For instance, CDC is consolidating six programs for CBOs into one in FY 2004. This consolidation will

- Lessen the amount of administrative work CDC does to develop, publish, compete, and award six different program announcements.
- Give CDC an opportunity to improve oversight of grantees by reducing the number of different grant requirements which project officers are expected to know.
- Provide grantees a specific set of interventions, which will be protocol-driven.
- Provide a set of core performance indicators to systematize and standardize monitoring of processes and outcomes.

CDC is also updating its HIV/AIDS Reporting System to make it more compatible with the data surveillance reporting systems maintained at the local and state levels. With upgrades in software and hardware, the Enhanced HIV/AIDS Reporting System will allow state and local agencies to report more easily HIV and AIDS data to CDC. In addition, CDC is incorporating its counseling, testing and referral (CTR) data into the new Program Evaluation and Monitoring System (PEMS).

IV. Goal-by-Goal Performance Measurement

Overarching HIV/AIDS Prevention

Goal: By 2010, reduce by 25% the number of new HIV infections in the United States, as measured by a reduction in the number of HIV infections diagnosed each year among people under 25 years of age, from 2,100 in 2000 to approximately 1,600 in 2010			
Performance Measure	Targets	Actual Performance	Ref.
1. Reduce the number of HIV infection cases diagnosed each year among people under 25 years of age *CDC will continue to revise baseline and targets when data from more states with adequate HIV reporting systems are available* *FY 2000 and 2001 data are from 25 states with confidential, name-based HIV reporting* *2002 data are from 30 areas with confidential, name-based HIV reporting*	**FY 05:** Overall: 1,800 reported cases **FY 04:** Overall: 1,900 reported cases *Note:* targets have not been revised to reflect 30 areas	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** 2,926* **FY 01:** 2,241* **FY 00:** Overall: 2,070 reported cases*	B-126 HHS-1 1 O
2. Decrease the number of perinatally acquired AIDS cases, from the 1998 base of 235 cases	**FY 05:** <100 cases **FY 04:** <100 cases **FY 03:** <139 cases **FY 02:** 141 cases	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** Exceeded/90 **FY 01:** Exceeded/101 **FY 00:** Exceeded/102 **FY 99:** Exceeded/171 **FY 98:** 235 **FY 97:** 310 **FY 96:** 509†	B-126 HP-13-17 1 O
3. Reduce the annual incidence of new HIV infections	**FY 03:** 35,600 new infections/year **FY 02:** 35,600 new infections/year **FY 01:** 37,900 new infections/year	**FY 03:** 9/2005 **FY 02:** 9/2004 **FY 01:** Estimated baseline: 40,000 **FY 00:** Estimated baseline: 40,000 **FY 99:** Estimated baseline: 40,000‡	B-126 HP -13-5 HHS-1 1 O

*All data have been modified to update annual "actual performance" numbers based on the most recent HIV and AIDS Surveillance data. Therefore, some values have changed for prior years.
†CDC is not yet able to measure annual changes in incidence and is therefore removing this measure.
‡Baseline changed from reported to diagnosed cases to increase accuracy.

A. Domestic HIV/AIDS

Efficiency Measure	Target	Actual Performance	Ref.
Decrease the amount of time in the review and oversight process for directly-funded CBOs, as reflected in the number of CDC programs for CBOs	**FY 05:** 3 current announcements	**FY 05:** 12/2006 **FY 04:** 3 program announcements **FY 03:** 9 program announcements	E

Goal 1: Decrease the number of persons at high risk for acquiring or transmitting HIV infection*			
Performance Measure	Targets	Actual Performance	Ref.
Among HIV-infected persons 18 years of age and over, reduce the proportion who had high-risk sex with a negative partner or partner of unknown status	**FY 05:** <10%	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** 13.9% (median) **FY 01:** 12.3% (median)	B-126 HHS-1 1 O

*This measure reflects only activities specifically aimed at reducing the risk behavior of HIV infected persons. Omitted are activities designed to meet objectives for risk reduction among men who have sex with men, youth, injecting drug users, heterosexuals, perinatal transmission and occupational exposure.

Goal 2: By 2010, increase by 13% the proportion of HIV-infected people who know they are infected, as measured by the proportion diagnosed before progression to AIDS (baseline: 76% in 2000; target for 2010: 85%)			
Performance Measure	Targets	Actual Performance	Ref.
1. Among persons with HIV infection, increase the proportion diagnosed before progression to AIDS	**FY 05:** 80% **FY 04:** 80%	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** 77%* **FY 01:** 77%* **FY 00:** 76%* Data are from 30 states with HIV reporting	B-126 HP-13-15 1 O
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:** Unmet/81% **FY 01:** Met/82% **FY 00:** 80% **FY 99:** 81% Data are from 30 states with HIV reporting	B-126 HP-13-15 O
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 03:** 8/2004 **FY 02:** Unmet/74%* **FY 01:** Unmet/74%* **FY 00:** 73%* **FY 99:** 74%* **FY 98:** 72%* Data are from 30 states with HIV reporting	B-126 HP-13-15 1 O
4. 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 03:** 8/2004 **FY 02:** Exceeded/76% **FY 01:** Exceeded/75%* **FY 00:** 74% **FY 99:** 73% **FY 98:** 74% Data are from 30 states with HIV reporting	B-126 HP-13-15 1 O

5. Increase the percentage of HIV-positive tests with post-test counseling sessions reported from CDC funded test sites	**FY 05:** 80% **FY 04:** 80% **FY 03:** 75% **FY 02:** 75%	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** 04/2004 **FY 01:** Exceeded/71.3% **FY 00:** Exceeded/69.3% **FY 99:** Exceeded/70% **FY 98:** 73.1% **FY 97:** 67.4% **FY 96:** 74.4%	B-126 5 O

*All data have been modified to update annual "actual performance" numbers based on the most recent HIV and AIDS Surveillance data. Therefore, some values have changed for prior year.

Goal 3: By 2010, increase to at least 80% the proportion of HIV-infected people who are linked to appropriate prevention, care, and treatment services, as measured by those who report having received some form of medical care within 3 months of their HIV diagnosis (2001 baseline: 79%)			
Performance Measure	Targets	Actual Performance	Ref.
1. Increase the proportion of HIV-infected people who received some form of medical care within 3 months of HIV diagnosis (Data are from interviews taken from a sample of persons in 16 areas)	**FY 05:** 80% **FY 04:** 80%	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** 80.3% **FY 01:** 79%	B-126 HHS-3 & 4 O
2. Expand the number of states that are able to measure* -adherence to treatment -impact of ART on long-term survival This study was initiated with three components: -access to care -adherence to treatment -impact of ART (The access to care component ended in FY 2001)	**FY 03:** Initiate analyses of data **FY 02:** Continue to support the same states funded in FY 01 **FY 01:** Continue to expand the numbers of states that collect data and can measure care and treatment outcomes	**FY 03:** Initiated analyses **FY 02:** Adherence 19; impact 11 **FY 01:** Access 6; adherence 16; impact 11 **FY 00:** Access 5; adherence 15; impact 11 **FY 99:** Access 4; adherence 12; impact 11	B-126

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 **FY 02:** Develop new methods based on findings **FY 01:** Publish final results; disseminate methodology **FY 00:** Publish preliminary results of ASD survival analyses **FY 99:** Measure trends in long-term survival and rates of transmission of new infections	**FY 03:** 9/2004 **FY 02:** Unmet/study is being phased out **FY 01:** Met/published final results; disseminated methodology and software **FY 00:** Exceeded/published final results **FY 99:** Data analysis completed	B-126

*This measure reflects linkage to care. Other activities related to this goal but not reflected here include efforts to ensure appropriateness of treatment, such as efforts to ensure appropriate care for persons dually infected with HIV and TB.

Goal 4: Strengthen the capacity nationwide to monitor the epidemic; develop and implement effective HIV prevention interventions; and evaluate prevention programs			
Performance Measure	Targets	Actual Performance	Ref.
1. Increase the number of states and the District of Columbia that conduct HIV case reporting in adults and adolescents that meet CDC guidelines	**FY 05:** 50 states and D.C. **FY 04:** 50 states and D.C. **FY 03:** 50 states	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** Unmet/49 states and D.C.; 34 report by name **FY 99:** Released guidelines; 34 states (reports); 4 states, 1 territory (other method)	B-126
2. Measure HIV incidence and prevalence in high-risk populations	**FY 03:** 30 sites	**FY 03:** 9/2004	B-126
3. Increase the percentage of states that adopt and maintain recommended security and confidentiality standards	**FY 03:** 100% of states **FY 99:** Update guidelines to include security and confidentiality standards	**FY 03:** Met **FY 99:** 100% (baseline)	B-126
4. Fund CBOs to provide HIV prevention services to persons at high risk for HIV infection	**FY 03:** 259 awards	**FY 03:** Exceeded/279 **FY 02:** Exceeded/279 **FY 01:** Exceeded/271 **FY 00:** Exceeded/253 **FY 99:** Met **FY 97:** 94	B-126

5. Fund community coalition planning and implementation projects to expand community demonstration projects	**FY 03:** 11	**FY 03:** Met/11 **FY 97:** 0 (baseline)	B-126

B. International HIV/AIDS

Goal 1. By 2010, work with other countries, international organizations, the U.S. Department of State, USAID, and other partners to achieve the United Nations General Assembly Special Session on HIV/AIDS goal of reducing prevalence among 15 to 24 years of age			
Performance Measure	Targets	Actual Performance	Ref.
Initiate, expand, or strengthen HIV/AIDS prevention, care, treatment, and support activities globally (Includes all GAP funding except that specifically dedicated to the PMTCT)	*Surveillance* **FY 05:** 25 countries/regions **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 05:** 25 countries/regions **FY 04:** 25 countries/regions **FY 03:** 25 countries/regions **FY 02:** 25 countries/regions **FY 01:** 19 countries/regions **FY 00:** 12 countries/regions *Locally appropriate technical assistance for treatment of STDs, TB, and other opportunistic infections* **FY 05:** 25 countries/regions **FY 04:** 25 countries/regions **FY 03:** 25 countries/regions **FY 02:** 25 countries/regions **FY 01:** 15 countries/regions **FY 00:** 5 countries/regions	*Surveillance* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** Met/25 **FY 02:** Met/25 **FY 01:** Exceeded/22 **FY 00:** Unmet/13 *Voluntary counseling and testing* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** Unmet/20 **FY 02:** Unmet/20 **FY 01:** Unmet/18 **FY 00:** Met/12 *Locally appropriate technical assistance for treatment of STDs, TB, and other opportunistic infections* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** Unmet/20 **FY 02:** Unmet/20 **FY 01:** Exceeded/18 **FY 00:** Exceeded/11	B-126

*In FY 2005, funding specifically dedicated to the President's Mother and Child HIV Prevention Initiative and the President's Emergency Plan for AIDS Relief will be included in the Department of State budget request.

Goal 2: Counsel, test, and treat up to 1 million pregnant women and reduce mother to child transmission by up to 40% among women treated, by working with USAID			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of countries participating in the President's International Mother and Child HIV Prevention Initiative that have coordinated needs assessments, planned programs, and begun implementation FY 00-03: Initiate, expand, or strengthen perinatal HIV prevention programs in collaboration with national and international partners*	*Coordinated needs assessments* **FY 05:** 14 countries **FY 04:** 14 countries *Planned programs* **FY 05:** 14 countries **FY 04:** 14 countries *Begun implementation* **FY 05:** 14 countries **FY 04:** 14 countries **FY 03:** 20 countries **FY 02:** 17 countries **FY 01:** 10 countries **FY 00:** 5 countries	*Coordinated needs assessments* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 02:** 0 country/region (baseline) *Planned programs* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 02:** 0 country/region (baseline) *Begun implementation* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** Met/20 **FY 02:** 0 country/region (baseline) **FY 01:** Exceeded/13 **FY 00:** Exceeded/8	B-126

*Funds for the President's International Mother and Child HIV Prevention Initiative and the Emergency Plan for AIDS Relief will be requested in the FY 2005 budget request of the Department of State.

VI. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$1,174.7**	**$1,170.8**	**$1,159.1**
Efficiency Measure	$0.0	$0.0	$0.0
Overarching HIV/AIDS Prevention†	**$833.7**	**$827.1**	**$818.8**
Measure 1 & 3 combined	$819.0	$803.1	$795.0
Measure 2	$14.7	$13.7	$13.6
Domestic HIV/AIDS	**$693.1**	**$687.7**	**$680.8**
Goal 1	$329.0	$322.1	$318.9
Goal 1 - Measure 1	N/A	$96.2	$95.2
Goal 2	$149.8	$146.8	$145.3
Goal 2 – Measure 1 , 2, 3, & 4 combined	$141.9	$139.0	$137.6
Goal 2 – Measure 5	$7.9	$8.6	$8.5
Goal 3	$47.3	$46.3	$45.9
Goal 3 – Measure 1	$7.2	$7.1	$7.1
Goal 3 – Measure 2‡	$0.0	N/A	N/A
Goal 3 – Measure 3‡	$7.9	N/A	N/A
Goal 4	$167.0	$172.5	$170.7
Goal 4 – Measure 1	$67.4	$71.3	$70.6
Goal 4 – Measure 2‡	$5.7	N/A	N/A
Goal 4 – Measure 3‡	N/A	N/A	N/A
Goal 4 – Measure 4‡	$56.6	N/A	N/A
Goal 4 – Measure 5‡	$6.5	N/A	N/A

International HIV/AIDS	**$146.3**	**$146.2**	**$144.8**
Goal 1	$114.1	$71.7	$70.9
Goal 1 - Measure 1	$114,1	$71.7	$70.9
Goal 2†	$0.0	$0.0	$0.0
Goal 2 - Measure 1†	$0.0	$0.0	$0.0

*Dollars in millions
†Estimated full cost numbers apply to HIV/AIDS, STD, and TB.
‡Activity performance ends in FY 2003
Funding levels for FY 2003 and FY 2004 were adjusted to comparability as a result of transferring the President's mother and Child HIV Prevention Initiative to the Department of State in FY 2005.
NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

Overarching Goal
Amounts associated with the overarching goal include all HIV research and domestic funding in CDC's HIV, STD and TB budget activity, except for amounts (under 4%) spent on activities to meet goal 5 of CDC's strategic plan: help reduce HIV transmission and improve HIV/AIDS care and support in partnership with resource-constrained countries.

Domestic HIV/AIDS
Goals 1–4 account for over 96% of the total research and domestic HIV budget. The remaining amount (under 4%) is spent on activities to meet goal 5 of CDC's strategic plan: help reduce HIV transmission and improve HIV/AIDS care and support in partnership with resource-constrained countries. Individual measures represent priority areas, however, the sum of the percentages for these measures do not fully account for the budgeted goals (96%); activities representing these additional funds are cross-cutting and monitored internally.

II-G. Sexually Transmitted Diseases

CDC works to prevent and control sexually transmitted diseases (STDs) in the United States.

I. Program Description and Context

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

The United States has 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 18 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 and indirect 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 $1.2 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 two- to five-fold.

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 United States. 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 is 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 United States. Principal activities include:

- Monitoring disease trends using national and local data to focus and assess prevention activities.
- Conducting laboratory, behavioral, clinical, and health services research and program evaluation to develop improved tools for STD control and provide a scientific base for improving program efforts.
- 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 can provide optimal STD treatment, care, and prevention services.

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 5 of 10 HHS regions from 2001 to 2002, and increased in 4 regions. Although chlamydia positivity has declined in 2003 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 other regions.

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 males. Infections due to *Neisseria gonorrhea*, like those resulting from *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease (PID) in the United States. 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 United States. 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 to eliminate syphilis in the United States, which focuses on the following:

- Community involvement to develop and implement syphilis elimination plans.
- Enhanced surveillance.
- Outbreak response preparedness.
- Biomedical and behavioral interventions.
- Enhanced health promotion.
- 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.)

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 site, 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 these sites at 80% from 1999 to 2002.

II. Program Performance Analysis

Goal 1. 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

Measure 1. Reduce the prevalence of chlamydia among high-risk women under age 25, from 11.6%

Data on the prevalence of chlamydial infection in defined populations have been useful to monitor disease burden and guide screening programs. For example, CDC monitors trends in prevalence among women enrolled in the U.S. Department of Labor National Job Training Program for economically disadvantaged women aged 16 to 24 years who entered the National Job Training Program from 28 states, and Puerto Rico. In 2002, the overall prevalence was 10.5%. Because of little or no change in the prevalence of chlamydia among the National Job Training Program participants, and because CDC does not have activities specifically targeting the National Job Training Program, the target has been adjusted to 10% for 2002 and 2003 and will be phased out after FY 2003 data are reported in October 2004. (See Appendix D for more information on these measures.)

Measure 2. Reduce the prevalence of chlamydia among women under age 25 in publicly funded family planning clinics

In 2002, CDC achieved the target of reducing chlamydia prevalence to less than 6% 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: 3.0% to 14.2%). However, in nearly all states chlamydia positivity was greater than the *Healthy People 2010* objective of 3%. FY 2003 data will be available in October 2004.

Measure 3. Reduce the incidence of gonorrhea in women aged 15 to 44

The United States experienced a 73.8% decline in the reported rate of gonorrhea from 1975 to 1997. After a small increase in 1998, the gonorrhea rate has decreased slightly since 1998. Among women aged 15 to 44, the 2002 rate was 279 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. FY 2003 data will be available in October 2004.

Measure 4. Reduce the incidence of PID, as measured by a reduction in hospitalizations for PID, in women aged 15 to 44

Hospitalizations for PID have decreased throughout the 1980s and early 1990s, but have remained relatively constant between 1995 and 2001. These trends may reflect changes in the etiology of PID (with increasing proportions of more indolent chlamydial infection) as well as changes in the clinical diagnosis and management of PID rather than true trends in disease. A greater proportion of women diagnosed with PID in the 1990s have been treated in outpatient instead of inpatient settings when compared to women diagnosed with PID in the 1980s. FY 2002 data will be available in December 2004.

Measure 5. Reduce the number of initial visits to physicians for PID in women aged 15 to 44

The reported number of initial visits to physicians' offices for PID through the National Disease and Therapeutic Index has declined from 1993 through 2002. FY 2001 data indicate hospitalizations increased in women aged 15 to 44 for PID. FY 2002 data will be available in December 2004.

Goal 2. Reduce the incidence of primary and secondary (P&S) syphilis

Measure 1. Increase the percentage of U.S. counties with an incidence of P&S syphilis in the general population of 4 per 100,000

The rate of P&S syphilis in the United States declined by 89.2% from 1990 through 2000. In 2002, 94% of U.S. counties had an incidence of P&S syphilis in the population equal or below 4 per 100,000, achieving the target of greater than 92%. However, 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 2002 from 2.2 to 2.4 per 100,000; this increase was observed only in men. The number of P&S syphilis cases reported to CDC increased to 6,862 in 2002 from 6,103 in 2001, an increase of 12.4%. Data for FY 2003 will be available in October 2004.

Measure 2. Increase the percentage reduction in the racial disparity (reported ratio is black: white)

Syphilis remains one of the most glaring examples of racial disparities in health, with 2002 rates among African Americans 8 times those among white Americans, down from a 64-fold differential at the beginning of the last decade. This racial disparity (8:1) 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 68.8% from 1997 to 2002. Communities burdened by poverty, racism, unemployment, low rates of health insurance, and inadequate access to healthcare are often disproportionately affected by syphilis. CDC aims to continue reducing this racial disparity in 2004 and 2005.

To date, substantial progress has been made in syphilis elimination efforts.

	1997	1998	1999	2000	2001
Reported P&S 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
Measure. Reduce the incidence of congenital syphilis per 100,000 births

The lack of syphilis serologic testing and treatment during pregnancy remains the major reason that congenital syphilis persists in the United States. 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 2001 and 2002, the overall rate of congenital syphilis decreased by 16.1% in the United States, from 12.2 to 10.2 cases per 100,000 live births. Data for 2003 will be available in October 2004.

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 1992 through 2002, the average yearly percentage decrease in the congenital syphilis rate was 19.2%. The average yearly percentage decrease in the rate of P&S syphilis reported among women for the years 1992 through 2002 was 21.2%.

Note: All data are reported by calendar year. (Appendix D has additional data verification and validation information for each disease area.)

III. Goal-by-Goal Performance Measurement

Goal 1: 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	Ref.
1. Reduce the prevalence of chlamydia 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 03:** 10/2004 **FY 02:** Unmet/10.1% **FY 01:** Unmet/10.6% **FY 00:** Unmet/11.9% **FY 99:** Unmet/11.5% **FY 98:** 11.7% **FY 95:** 11.6%	B-126 1 O
2. Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics *Source:* Regional Infertility Prevention Programs; CDC	**FY 05:** <5% median **FY 04:** <5% median **FY 03:** <5% median **FY 02:** <5% median	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** Unmet/5.6% **FY 01:** Met/5.6% **FY 00:** Met/5.2% **FY 99:** Met/5.5% **FY 98:** 5.4% **FY 96:** 9%	B-126 HP-25-1a 1 O
3. Reduce the incidence of gonorrhea in women aged 15 to 44 *Source:* STD Morbidity Surveillance System; CDC	**FY 05:** <250/100,000 women **FY 04:** <250/100,000 women **FY 03:** <250/100,000 women **FY 02:** <250/100,000 women	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** Unmet/279/100,000 **FY 01:** Unmet/286/100,000 **FY 00:** Unmet/278/100,000 **FY 99:** Unmet/286/100,000 **FY 98:** 286/100,000 **FY 97:** 264/100,000 **FY 96:** 258/100,000 **FY 95:** 303/100,000	B-126 HP- 25-2 1 O

4. Reduce the incidence of PID, as measured by a reduction in hospitalizations for PID, in women aged 15 to 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 03:** 12/2005 **FY 02:** 12/2004 **FY 01:** Unmet/142/100,000 **FY 00:** Unmet/120/100,000 women **FY 99:** Unmet/127/100,000 women **FY 98:** 155/100,000 women **FY 97:** 157/100,000 women **FY 96:** 164/100,000 women **FY 95:** 162/100,000 women	B-126 1 O
5. Reduce the number of initial visits to physicians for PID in women aged 15 to 44 *Source:* National Disease and Therapeutic Index, IMS America, Ltd.	**FY 04:** <225,000 visits **FY 03:** <225,000 visits **FY 02:** <225,000 visits	**FY 04:** 12/2005 **FY 03:** 12/2004 **FY 02:** Met/197,000 **FY 01:** Unmet/244,000 visits **FY 00:** Unmet/254,000 visits **FY 99:** Unmet/250,000 visits **FY 98:** 233,000 visits **FY 97:** 260,000 visits **FY 96:** 286,000 visits **FY 95:** 262,000 visits	B-126 HP-25-6 1 O

Goal 2: Reduce the incidence of P&S syphilis			
Performance Measure	Targets	Actual Performance	Ref.
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 05:** >95% of counties **FY 04:** >95% of counties **FY 03:** >95% of counties **FY 02:** >92% of counties	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** Met/94% **FY 01:** Met/94% **FY 00:** Met/93% **FY 99:** Met/91% **FY 98:** 90% **FY 97:** 87% **FY 96:** 90% **FY 95:** 81%	B-126 1 O HP 25-3
2. Reduce the racial disparity (reported ratio is black:white) (FY 03, and prior FYs, measure written as "Increase the percentage reduction in the racial disparity")	**FY 05:** 11:1 **FY 04:** 13:1 **FY 03:** 15%, to 14:1 **FY 02:** 15%, to 17:1	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** Met/50% reduction to 8:1 **FY 01:** Met/30% reduction to 16:1 **FY 00:** Met/20% reduction to 24:1 **FY 99:** Unmet/12% reduction to 30:1 **FY 98:** 21% reduction to 34:1	B-126 1 O HP 25-3

Goal 3: Reduce the incidence of congenital syphilis			
Performance Measure	Targets	Actual Performance	Ref.
Reduce the incidence of congenital syphilis per 100,000 births *Source:* STD Morbidity Surveillance Systems, CDC	**FY 05:** <12 **FY 04:** <12 **FY 03:** <12 **FY 02:** <12	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 03:** 10/2004 **FY 02:** Met/10.2 **FY 01:** Met/12.2 **FY 00:** Unmet/14.0 **FY 99:** Met/14.5 **FY 98:** 21.3 **FY 97:** 27.8 **FY 96:** 32.9 **FY 95:** 47.7	B-126 HP-25-9 1 O

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$1,174.7**	**$1,170.8**	**$1,159.1**
Sexually Transmitted Diseases	**$161.1**	**$160.7**	**$159.1**
Goal 1	N/A	$91.6	$90.7
Goal 1 – Measure 1†	N/A	N/A	N/A
Goal 1 – Measure 2	N/A	$15.3	$15.2
Goal 1 – Measure 3	N/A	$29.6	$29.3
Goal 1 – Measure 4‡	N/A	N/A	N/A
Goal 1 – Measure 5	N/A	$46.7	$46.2
Goal 2	N/A	$57.2	$56.6
Goal 2 – Measure 1	N/A	$50.5	$50.0
Goal 2 – Measure 2	N/A	$6.7	$6.6
Goal 3	N/A	$11.9	$11.8
Goal 3 – Measure 1	N/A	$11.9	$11.8

*Dollars in millions

†Estimated full cost numbers apply to HIV/AIDS, STD, and TB.

‡Activity performance ends in FY 2003.

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

STD

Performance goals represent approximately 93% of the Sexually Transmitted Diseases budget. Note the following in association with full cost information provided in the performance tables:

- Included in the FY 2004 and FY 2005 allocations are amounts currently budgeted in the Infectious Disease line for STD lab research. This amount and the activities supported by it will be transferred to the National Center for HIV, STD and TB Prevention on October 1, 2003. Calculations may be adjusted slightly as the transfer is finalized.
- Infrastructure/core funds are included in goal 1, measure 3; goal 1 measure 5; and goal 2, measure 1. Infrastructure/core funds support efforts primarily addressing syphilis, chlamydia and gonorrhea, but also HPV and other STDs.

II-H. Tuberculosis

CDC provides leadership in preventing, controlling, and eventually eliminating tuberculosis (TB) from the United States, in collaboration with community, state, and international partners.

I. Program Description and Context

CDC administers and promotes a national program to prevent, control, and eliminate TB in the United States. These activities are authorized in the Public Health Service Act, Section 317E. Components include the following:

- Grants to states and other entities for prevention and control services.
- Research into the prevention and control of TB, especially research concerning strains of TB resistant to drugs and research concerning cases of TB that affect certain populations.
- Demonstration projects.
- Public information and education programs.
- Education, training, and clinical skills improvement activities to prevent, control, and eliminate TB.

The expected outcome produced is the elimination of TB in the United States with decreasing morbidity and mortality each year.

Many people think that TB is a disease of the past. One reason is that the United States is currently seeing a decline in TB and new TB cases are at an all-time low. However, this success may lead to declining attention, complacency, and neglect, putting the nation at risk for increases in TB.

In the 1970s and early 1980s, TB control efforts were scaled back, and 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 reported cases between 1985 and 1992. Many of these cases were drug-resistant and difficult to treat. The nation mobilized additional resources to combat the resurgence in the 1990s. This effort has paid off; from 2001 to 2002, reported cases of TB in the United States declined from 15,989 cases to 15,075 cases, representing the 10th consecutive year of declining TB morbidity. Regaining control of TB is one of the major public health success stories of the last decade and has put the nation back on track toward TB elimination.

All 50 states and the District of Columbia report TB cases each year. Every new TB case can spread if not promptly recognized and treated. TB continues to pose considerable challenges:

- TB is a leading infectious killer of young adults worldwide, claiming the lives of over 2 million people each year. About one third of the world's population is latently infected with the bacterium that causes TB.
- An estimated 10 to 15 million people in the United States have latent TB infection, and about 10% of these individuals will develop an active case of TB. Those infected with HIV have a far greater chance of developing TB.
- Persons born outside the United States now account for over half of all TB cases in the United States.

Drug-resistant TB also poses a continuing threat. If persons with TB do not complete their full course of treatment, they can develop and spread strains of TB that are drug-resistant. 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. In 1999, the Advisory Council for the Elimination of Tuberculosis (ACET) and in 2000, the Institute of Medicine (IOM) reaffirmed this goal. In its report, *Ending Neglect: The Elimination of Tuberculosis in the United States,* 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 TB disease.
- Support the development of improved tools for TB prevention and control, such as a better vaccine, new diagnostic tests, and improved drugs.
- Work in partnership with the countries that contribute most to TB morbidity in the United States.

Controlling and Preventing TB Along the United States–Mexico Border

In March 2003, CDC launched a pilot project, the Binational TB Referral and Case Management Program, to test the use of a binational TB card. Use of the card will help ensure continuity of care and completion of treatment for patients who migrate between the United States and Mexico, and help coordinate the referral of patients between the health systems of both countries. The system will be piloted in three sister-city regions along the United States-Mexico border and in five Mexican states: Tamaulipas, Jalisco, Michoacan, Veracruz, and Oaxaca.

Elimination of TB is a long-term goal that requires developing new tools and fully implementing the strategies recommended by IOM. CDC has developed the following interim goal, consistent with currently available resources and tools, for the nearer term: progress towards TB elimination in the United States (defined as less than 1 case per 1,000,000 population) by achieving a TB case rate of 1 per 100,000 population in U.S.-born persons, 2 cases per 100,000 population in non-U.S.-born persons residing in the United States, and 3 cases per 100,000 overall case rate by 2010.

Success in achieving this goal and ultimately TB elimination depends on the following:

- 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.
- Maintaining timely, complete local, state, and national TB information systems to monitor elimination efforts.
- Helping to control the spread of TB globally.

In the United States, CDC provides financial and technical assistance to local, state, and territorial TB control programs to monitor TB, sustain decreases in new cases, and support directly observed therapy and investigation of contacts of active TB cases. CDC has recently begun a pilot project in the southeastern United States to address high rates of TB among African Americans. CDC also supports the following entities:

- The *TB Trial Consortium* to develop and test new therapies.
- The *TB Epidemiological Studies Consortium* to evaluate new approaches to control TB.
- The *Model TB Centers* to provide training and education in TB prevention and control.

Internationally, CDC collaborates with the U.S. Agency for International Development, the World Health Organization, and others through efforts such as the *Stop TB Initiative* (www.stoptb.org) and by providing assistance to specific countries.

New York City's TB control program has been one of the most dramatic public health successes in recent decades. In the early 1990s, the city was the epicenter of the TB and multidrug-resistant TB epidemics of the country. Funding from federal, state, and local sources enabled the city's program to implement new TB control initiatives, such as

- The case management of all TB patients and directly observed therapy (DOT).
- Cohort reviews by program staff on all TB cases.
- Improved delivery of clinical care by health department chest clinics.
- Targeted testing of high-risk populations.
- New regulations on detaining non-compliant TB patients.

The result was a dramatic decline in the number of TB cases to 1,084 cases in 2002, a 72% decrease from 1992, the peak year of the recent epidemic. Multi-drug resistant TB declined by nearly 95% from the 1992 peak of 441 cases to 25 cases in 2002.

CDC initiated and funded a pilot project in Idaho, Wyoming, Montana, and Utah to build capacity by regionalizing activities. The increasing complexity of cases and the gradual erosion of infrastructure in low-incidence areas have reduced the capacity of certain areas to respond to programmatic challenges. For example, TB programs in low-incidence areas are often understaffed, or are staffed by persons with multiple program responsibilities. These staffing shortages can hamper a program's efforts to respond to outbreaks and the program's ability to remain engaged in the maintenance phase (initiating and completing therapy for cases and contacts). Staffing shortages may also limit a program's ability to execute effectively strategic planning, surveillance/data analysis, training needs assessments, and grants (cooperative agreement) administration. This regional approach is designed to augment the capacity of individual states and take advantage of economies of scale.

In FY 2004 and FY 2005, CDC will continue to work with state, national, and international partners to address IOM's recommendations. CDC continues to

- Support state and local TB programs.
- Maintain control of TB in low incidence areas.
- Implement directly observed therapy and contact investigation.
- Disseminate new tools to aid in TB control, including diagnostics and treatments.
- Help control TB globally.

No new projects are expected to begin in FY 2004 and FY 2005.

CDC is aligning its TB goals with its GPRA goal for TB. The overarching GPRA goal has been redefined to be achievable with current resources and tools. The *Healthy People 2010* goal will also be redefined to match exactly the GPRA goal.

ACET meets regularly to provide input into all goal planning and evaluation of progress. Members, associates, or liaisons represent all constituencies and partners. ACET was recently recognized as one of the top advisory councils in "best practices." All the states and big cities that receive cooperative agreement funds for TB elimination have been working with CDC to develop goals to measure their progress towards the overarching goal of TB elimination. This effort will be reflected in their yearly progress reports.

CDC's Division of TB Elimination just underwent reorganization in order to meet the organizational requirements of the President's Management Agenda. CDC eliminated all sections, which better defines Branch activities in a way that supports the mission of the Division, CDC, and HHS. It also created an International Research and Evaluation Branch to bring focus to CDC's international TB activities. One support staff FTE was eliminated to decrease overall staff size, especially within the support series, as suggested in the agenda.

II. Program Performance Analysis

Regaining control of TB is one of the major public health success stories of the last decade and has put the nation back on track toward TB elimination. From 2001 to 2002, reported cases of TB in the United States declined from 15,989 cases to 15,075 cases, representing the 10th consecutive year of declining TB morbidity. However, the remaining cases are going to be more resource intensive to find and treat and any decline in TB healthcare infrastructure will cause rates to soar as they did in the late 1980s. Few significant improvements have been made in drug development, diagnostics, or vaccine development. Without these new innovations, TB elimination goals cannot be met.

Goal. Progress towards TB elimination in the United States (defined as less than 1 case per 1,000,000 population) by achieving an interim TB rate of 1 case per 100,000 population in U.S.-born persons, 2 cases per 100,000 population in foreign-born persons residing in the United States, and 3 per 100,000 cases overall, by 2010

Measure 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)
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 reduce TB cases and to eliminate eventually TB. By 2005, CDC anticipates that 88% of TB patients will complete therapy within 12 months. In 2000, 80.2% of patients were reported to complete therapy within 12 months, an increase from 67.6% reported in 1994. FY 2001 data will be available in September 2004.

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 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 providers to improve the skills they need to help achieve this objective.

Measure 2. Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results

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 unknown, patients may receive inadequate treatment leading to the spread of drug-resistant organisms, additional morbidity, and mortality. The performance for this measure in 2002 was 93%, up from 74.7% in 1994. With continued progress, CDC expects that programs will achieve the 95% target in FY 2005. 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.

Measure 3. Increase the percentage of contacts of infectious (AFB smear-positive) cases that 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 for latent infection. 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. Data from 1999 and later years should be interpreted with caution because of incomplete reporting from program areas.

Through cooperative agreements with state and local health departments, CDC supports identifying and examining contacts of persons with active TB, as well as completing 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 the Health Resources and Services Administration and other federally funded programs serving groups at high risk for TB to facilitate testing and completion of treatment. Results are delayed due to inadvertent lapse of OMB approval of the data collection instrument for this measure. This data collection was reinstated in FY 2003 (with no violation of the Paperwork Reduction Act) and we expect to report results by December 2004.

Measure 4. For TB case reports sent to CDC from states, increase the percentage in which at least 90% of core data items are complete

To design and carry out community TB prevention and elimination efforts, public health officials and community leaders must 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 case report was revised and expanded to include information on TB risk factors (such as HIV status), drug resistance, and treatment, the proportion of core variables that were at least 95% complete increased from 7 of 18 to 16 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.

III. Goal-by-Goal Performance Measurement

Goal: Progress towards TB elimination in the United States (defined as less than 1 case/1,000,000 population) by achieving an interim TB rate of 1 case/100,000 population in U.S.-born persons and 2 cases/100,000 population in foreign-born persons residing in the United States, and 3/100,000 cases overall, by 2010			
Performance Measure	Targets	Actual Performance	Ref.
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 05:** 88% **FY 04:** 88% **FY 03:** 88% **FY 02:** 88% **FY 01:** 88% **FY 00:** 85%	**FY 05:** 9/2008 **FY 04:** 9/2007 **FY 03:** 9/2006 **FY 02:** 9/2005 **FY 01:** 9/2004 **FY 00:** Unmet/80.2% **FY 94:** 67.6% (baseline)	B-126 HP-14-12 4 O
2. Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results	**FY 05:** 95% **FY 04:** 95% **FY 03:** 95% **FY 02:** 95%	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** Unmet/93% **FY 94:** 74.7% (baseline)	B-126 4 O
3. 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	**FY 05:** 61% **FY 04:** 61% **FY 03:** 63% **FY 02:** 63% **FY 01:** 63%* **FY 00:** 75% **FY 99:** 75%	**FY 05:** 9/2007 **FY 04:** 9/2006 **FY 03:** 9/2005 **FY 02:** 9/2004 **FY 01:** 12/2004 **FY 00:** Unmet/56.7%* **FY 98:** 74% **FY 97:** 71.6% **FY 93:** 68.4%	B-126 HP-14-13 4 O
4. 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 03:** 9/2004 **FY 02:** 16 out of 22 core variables ≥ 95% complete *Remaining variables* -Month/year arrived U.S. 85%; B skin test 91.3%; initial drug susceptibility results 93%; year of previous dx 92.2%; HIV status 47.4%; HIV status (25–44) 59.4% **FY 01:** 16 out of 22 core variables ≥ 95% complete **FY 00:** 16 out of 22 core variables ≥ 95% complete (baseline) *Remaining variables* -Month/year arrived U.S. 84.7%; TB skin test 92.9%; initial drug susceptibility results 92.7%; year of previous dx 92.4%; HIV status 45.8%; HIV status (25–44) 58.1%	B-65 O

(continued)		**FY 99:** 16 out of 22 core variables ≥ 95% complete (baseline) *Remaining variables* -Month/year arrived U.S. 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%	B-65 O

*Targets changed to reflect revisions in data collection methods.

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost†	**$1,174.7**	**$1,170.8**	**$1,159.1**
TB	**$138.9**	**$139.7**	**$138.3**
Measure 1	$107.0	$97.1	$100.3
Measure 2	$0.0	$12.6	$12.4
Measure 3	$27.8	$27.2	$29.0
Measure 4	$2.1	$0.0	$0.0

*Dollars in millions

†Estimated full cost numbers apply to HIV/AIDS, STD, and TB.

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

TB

The overall goal receives 100% of the TB budget, however, a small portion of the budget is used for international TB, which is not included in any of the measures. Full cost variance:
FY 2005 = 2.5%, FY 2004 = 2%, FY 2003 = 1.5%.

Measures represent 0% of the TB FY 2003 budget; funds for this activity reside in the National Center for Infectious Disease (NCID) budget activity. The Division of TB Elimination worked in collaboration with the Division of AIDS, STD, and TB Laboratory Research, NCID to distribute the funds for this activity in FY 2003. FY 2003 estimates therefore include both DTBE and DASTLR amounts. In FYs 2004 and FY 2005, DASTLR will be a part of NCHSTP and the corresponding TB budget activity in NCID will become part of the NCHSTP TB funds.

II-I. Immunization

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$644,070	FY 2005:	$540,503
FY 2004: (Conference)	$643,344	FY 2004:	$655,667
FY 2003: (Actual)	$643,320	FY 2003:	$655,247

The mission of the National Immunization Program (NIP) is to provide leadership for the planning, coordination, and conduct of immunization activities. It focuses on several major programmatic areas, including childhood and adult immunizations, global polio eradication, global measles control, and vaccine safety.

I. Program Description and Context

Implementing effective immunization systems and methods that help achieve high immunization coverage rates with recommended vaccines as well as ensuring the effective use of vaccines are key to protecting against vaccine-preventable diseases. 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 by Congress, 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.

Appropriate administration of safe and effective vaccines remains one of the most successful and cost-effective public health tools to prevent disease, disability, and death and reduce economic costs resulting from vaccine-preventable diseases. Vaccines are now available to protect children and adults against life-threatening or debilitating diseases. The vaccines are responsible for the control of many infectious diseases, including diphtheria, measles, mumps, and pertussis, that were once common in this country. As childhood immunization coverage continues to increase, the incidence of vaccine-preventable diseases declines significantly. For example, there have been no cases of polio caused by wild polio virus in the Western Hemisphere since 1991. Measles is no longer endemic in the United States and only one child was born with congenital rubella syndrome in 2002. Cases of *Haemophilus influenzae* type b (Hib) have dropped more than 99% in children younger than 5 since the introduction of the Hib vaccine in 1990.

Vaccines are Highly Cost-Effective
For every $1 spent:
DTaP saves $27.00
MMR saves $23.00
Varicella saves $5.40

Although vaccine coverage levels for children are at an all-time high, every day in the United States, 11,000 babies are born who will need up to 22 vaccinations before they are 2 years old to be

protected against 12 vaccine–preventable diseases. Approximately 1 million 2-year-olds in the United States have not received one or more of the recommended vaccines. Even though coverage levels for preschool immunization are high in many states, pockets of need, or areas within each state and major city where substantial numbers of underimmunized children reside, continue to exist.

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. 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 50,000 U.S. adults die annually of vaccine-preventable diseases. Pneumonia and influenza were the fifth leading cause of death in all persons aged 65 and older based on 2000 national mortality data.

Pneumonia and influenza were the fifth leading cause of death in all persons aged 65 and older based on 2000 national mortality data.

Global Immunization Activities and Partnerships
CDC global immunization efforts are key to sustaining low disease rates domestically. Measles is one of the most infectious diseases in the world and is frequently imported into the United States. In 2002, most cases of measles in the United States were associated with international visitors or U.S. residents who were exposed to the measles virus while traveling abroad. According to the World Health Organization (WHO), nearly 777,000 measles deaths occurred among persons in developing countries in 2000. In populations that are not immune to measles, the disease spreads rapidly. If measles immunization efforts 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.

The number of measles cases in the Western Hemisphere has been reduced by more than 99% from approximately 250,000 cases in 1990 to 104 cases (all associated with imported viruses) in 2003 (provisional data as of December 27, 2003). Before measles immunization was available, nearly everyone in the United States got measles, resulting in approximately 3 to 4 million measles cases each year. An average of 450 measles associated deaths was reported each year between 1953 and 1963.

WHO, UNICEF, and CDC have prepared a 5-year strategic plan (2001–2005) for global measles control, mortality reduction, and regional elimination. The plan calls for a one-half reduction in measles mortality by 2005. CDC is also a major partner with the American Red Cross, the International Federation of Red Cross and Red Crescent Societies, the Pan-American Health Organization (PAHO), WHO, UNICEF, and the United Nations Foundation in eliminating measles and reducing measles mortality. A public-private sector coalition has been formed to implement the 5-year Global Measles Strategic Plan to reduce measles mortality.

Extraordinary progress was made in 2002 toward achieving the global eradication of polio. Today more than 200 countries and territories are polio-free, and the disease is indigenous to only seven countries in South Asia and Africa. The polio virus causes acute paralysis that can lead to permanent physical disability and even death. Before the 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 United States and the entire Western Hemisphere.

Global disease eradication and elimination programs are also collaborative efforts. CDC works with WHO, Rotary International, the U.S. Agency for International Development (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.

Domestic Immunization Activities and Partnerships
Vaccine Purchase Grants: Since 1963, CDC has provided grant support to help state and local health departments purchase safe and effective vaccines. The grant program aligns with *Healthy People 2010* public health objectives as well as HHS goals to increase access to healthcare. Vaccine grants support the purchase of Advisory Committee on Immunization Practices (ACIP) recommended vaccines through CDC's consolidated vaccine purchase contracts available to state and local health departments at substantially reduced prices, saving states billions of dollars.

These grants purchase vaccines for children who seek immunization services from state and local health departments, but who are not eligible for the VFC program. These children are predominately underinsured (their insurance does not cover immunization) or insured, but they cannot afford high deductibles. Legislation is being proposed in the FY 2005 President's budget to expand access for underinsured children to receive VFC vaccines at public health clinics.

State Operations/Infrastructure Grants: CDC provides grant support to help state and local health departments plan, develop, and conduct childhood immunization programs. These immunization infrastructure investments are crucial to maintain immunization systems and ensure that high immunization levels are not jeopardized. In recent years, efforts have been expanded to include adolescents and adults, but to a much lesser extent than the support provided for childhood immunization activities. 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.
- Assess immunization coverage levels and pockets of under-immunized children.

Although coverage for preschool immunization is high in almost all states, pockets of need— areas with substantial numbers of under-immunized children—still 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.

CDC also plays a critical role in developing immunization policy by providing technical and scientific support to policy-making advisory groups. These groups include 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.

This support also is key in implementing new vaccine recommendations such as Pneumococcal Conjugate Vaccine (PCV). Once fully implemented, this vaccine is projected to prevent more than one million episodes of childhood illness and approximately 120 deaths among children annually.

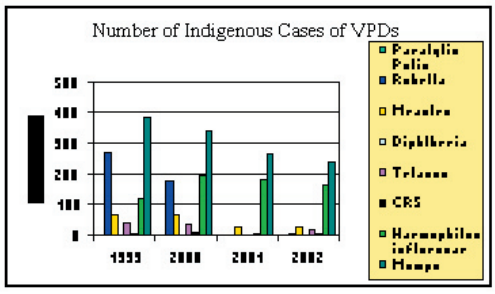
Immunizations are subject to a higher standard of safety than other medical interventions because they are given to healthy people. Like all medical interventions, no vaccine is 100% safe or effective. CDC has implemented a multi-faceted strategy to address immunization safety issues to maintain public confidence in immunizations, preserve high coverage levels, prevent a resurgence of vaccine-preventable diseases, and detect adverse events quickly. CDC develops and implements an immunization safety monitoring system to determine which illnesses are caused by vaccines, and which ones are not. CDC, in cooperation with the Food and Drug Administration (FDA), conducts research to determine the occurrence and scientific basis for infrequent adverse events following vaccination.

II. Program Performance Analysis

Although substantial progress has been made to reduce and/or eliminate the incidence of vaccine-preventable diseases, total eradication of some diseases is unlikely to occur except under exceptional circumstances.

When an organism is found in the environment, such as tetanus, the only way to reduce cases to zero is to assure complete protection, which implies both vaccination and immunological response to vaccine. When vaccination does not significantly impact the transmission of an organism or when transmission occurs in a population that cannot be vaccinated, such as with pertussis, significant numbers of cases will continue to occur. Additionally, when protection from vaccination occurs in the United States but not globally, such as with rubella, cases will continue to be introduced by travelers or immigrants.

However, smallpox has been eradicated and polio caused by the wild polio virus no longer occurs in the United States. The last case of wild-virus polio, indigenously acquired in the United States, occurred in 1979, and the last indigenous case in the Western Hemisphere occurred in 1991. The goal remains to achieve global eradication of the disease by 2005.



Efficiency Measure. Establish a target range for costs associated with assessing vaccination coverage levels and providing Assessment, Feedback, Incentives and Exchange (AFIX) in healthcare provider office and clinic settings

AFIX is a proven method of improving vaccination rate. CDC will establish the target range by reviewing grantee expenditure data in conjunction with data obtained from health services research and evaluation studies. CDC will encourage grantees to align their costs with the target range, so that additional AFIX visits can be conducted with the subsequent cost savings.

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

Measure 1. The number of indigenous cases of paralytic polio, rubella, measles, Haemophilus influenzae invasive disease (type b and unknown) in children under 5 years of age, diphtheria, congenital rubella syndrome, and tetanus will remain at or be reduced to zero by 2010

Polio

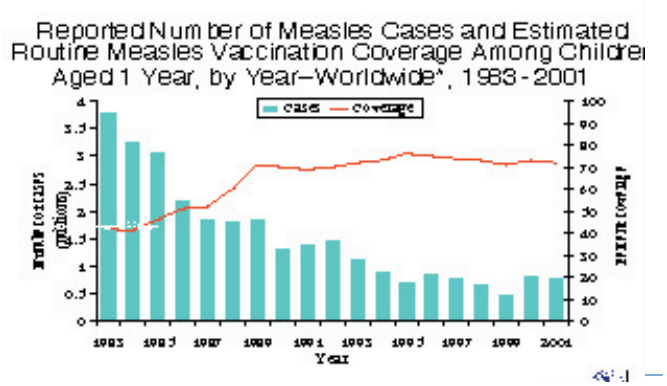
Cases of most childhood vaccine-preventable diseases are down more than 96% from the pre-vaccine era. No cases of paralytic polio due to indigenous transmission of wild polio virus have been reported in the United States since 1979. Coverage levels for preschool children are at an all-time high for all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

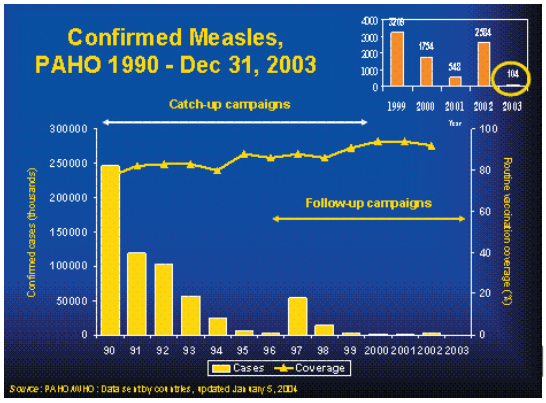
Rubella

The number of reported cases of rubella has dramatically declined from 57,600 when the vaccine was introduced in 1969. In 2002, only 10 indigenous cases of rubella were reported and there was 1 confirmed case of a child born with Congenital Rubella Syndrome (CRS) in 2002. However, some children born in 2002 may not be diagnosed with CRS until 2003 or later. Most of the rubella cases occurred among foreign-born adults. This decline is expected to continue as a result of strong vaccination programs and the continued progress with molecular typing. This research will help identify the source and spread of rubella outbreaks and CRS cases in the United States and will help determine the rubella strain variations in the United States.

Measles

Only 26 reported cases of indigenous measles occurred in 2002. In March 2000, experts reviewed information on measles epidemiology, imported cases, population immunity, and the quality of measles surveillance. They concluded that measles is no longer 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.





Haemophilus influenzae

Conjugate vaccines for the prevention of *Haemophilus influenzae* type b (Hib) are highly effective. Hib is no longer the leading cause of meningitis among children younger than 5 years old in the United States. However, the number of possible cases reported did increase from 120 cases in 1999 to 187 cases in 2002. 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 number of cases increased in 2002, the number of type b cases (both serotyped and not)—for which the vaccine is effective—may have remained the same or decreased.

Measure 2. Reduce the number of indigenous cases of mumps in persons of all ages from 666 (1998 baseline) to 0 by 2010

The reduction in the number of indigenous cases of mumps has exceeded the goal of 500 cases. In 2001, there were 266 cases of mumps and 253 cases in 2002. This reduction is linked to the effectiveness of the Measles-Mumps-Rubella (MMR) vaccine and its coverage rate.

Measure 3. Reduce the number of cases of pertussis among children under 7 years of age

The reported number of cases of pertussis has increased over the last 25 years. This increase has been mainly among adolescents and adults and among infants less than 3 months of age. The increase likely has resulted both from an increase in circulating *Bordetella pertussis* and from increased surveillance activities, especially among older age groups. In children under 7 years of age, the predominant increase has been among infants less than 3 months of age. Prevention efforts should be directed at maintaining high on-time vaccination rates and increasing knowledge of pertussis and the entire spectrum of clinical symptoms. These efforts will improve the management of pertussis cases and outbreaks.

Goal 2. Ensure that 2-year-olds are appropriately vaccinated

Measure. 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, 3 doses polio vaccine, 1 dose varicella vaccine, and 4 doses pneumococcal conjugate vaccine

The prior goal of four doses of Diphtheria-Tetanus-acellular Pertussis (DTaP) vaccine was changed to three doses in 2002, primarily because of vaccine shortages, which resulted in many children not being able to get the fourth dose. ACIP has recommended that, if vaccine is in short supply or not available, the fourth dose should be dropped. As a result, it is not appropriate to measure this dose at this time. In addition, 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 reached almost 81% in 2002. Coverage for this vaccine has more than doubled from 26% in 1997 to 76% in 2001 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 communities with active surveillance. The greatest decline in cases occurred among children 1–4 years of age. Cases declined in all age groups, including infants and adults, indicating reduced disease transmission in these areas.

Following prevention of Hib 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 pneumococcal conjugate vaccine (PCV), pre-licensure, showed this vaccine to be more than 97% effective against invasive pneumococcal infections. Overall, this vaccine is projected to prevent over 1 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. ACIP added 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.

Goal 3. Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease

Measure 1. Increase the rate of influenza and pneumococcal pneumonia vaccination in persons 65 years of age or older

The growth rate of the elderly population has far exceeded the population of the country as a whole. In the 20th century, the 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 21st 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.

During the past decade, vaccination rates among older adults increased steadily as CDC implemented national strategies and promoted adult and adolescent immunization among healthcare providers and state and local governments. Influenza vaccine coverage rates among the elderly have continually increased, from 30% in 1989 to 66% in 2002. An increasing proportion of older adults also reported receipt of pneumococcal vaccination, from 15% in 1989 to 55% in 2002. However, data suggest that influenza vaccination levels may have reached a plateau. Delays in distribution of influenza vaccine supplies during the 2000-2001 season and to a lesser degree in the 2001–2002 season posed additional challenges to increasing coverage levels. Because large gaps remain between existing coverage levels and some of the targets for subsequent years, CDC has decided to maintain a target of 74% for 2003, 2004, and 2005 for influenza vaccination. In addition, because states use the performance targets to justify funding levels in support of immunization infrastructure, CDC believes that a reduction of the target levels at this point could harm their programs.

Measure 2. Achieve a vaccination rate of 60% among non-institutionalized high-risk adults aged 18 to 64 years for influenza and pneumococcal pneumonia by 2010

Current levels of coverage among adults vary widely among age, risk, and racial and ethnic groups. High-risk adults aged 18 to 64 years may not have insurance coverage for influenza and pneumococcal vaccines. These vaccines are covered by Medicare, thus vaccinating greater numbers of older adult is feasible. Person with high-risk conditions, such as heart disease and diabetes, remain at increased risk for these diseases.

Goal 4. Help domestic and international partners achieve WHO's goal of global polio eradication

Measure 1. Purchase doses of oral polio vaccine for mass immunization campaigns in Asia, Africa, and Europe

In 2002, CDC purchased 694 million doses of polio vaccine for use in mass global immunization campaigns. In FY 2003, WHO made a strategic shift to target resources more to the remaining seven endemic countries, both in response to a global shortfall of funds and to achieve eradication faster where polio reservoirs exist. Consistent with this shift, CDC expects to purchase slightly less polio vaccine doses and to expand more funds on surveillance and operational costs in all endemic and high-risk countries. 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 2002 to complete additional short-term assignments. CDC has provided epidemiologic, laboratory, and programmatic expertise to assist polio-endemic countries and WHO with polio eradication activities. Additionally, a number of CDC staff are assigned to WHO and other international organizations to provide leadership and technical expertise.

Measure 2. Achieve and sustain zero cases of polio by 2005

The global polio eradication initiative, in partnership with WHO, 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 1,918 cases in 2002. About 250,000 lives have been saved and 4 million cases of childhood paralysis have been avoided, and the number of polio-endemic countries has dropped from 125 in 1988 to 7 in 2002. In 2002, the American Region of WHO completed its 11th 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) and the European Region (51 countries) have achieved regional eradication of polio. More than 90 countries conducted mass immunization campaigns in 2002, vaccinating 550 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 strategies to interrupt transmission in the remaining seven endemic countries. CDC will continue to provide scientific assistance to improve tracking to certify that polio eradication has occurred.

Goal 5. Work with global partners to reduce the cumulative global measles-related mortality rate

Measure 1. By 2005, reduce by 50% the cumulative global measles-related mortality compared with 1999 estimates (Baseline: 875,000 deaths)

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. In 2003, CDC reviewed immunization programs in Albania, Angola, Brazil, China, Moldova, and Namibia and provided technical support for measles surveillance or campaigns in another 28 countries. In addition, CDC bought measles vaccines for outbreak response in Burkina Faso, Niger, and Romania and provided technical support that resulted in curtailment of the outbreak in these countries.

Measure 2. Eliminate indigenous measles transmission in all 47 countries of the Americas

According to available surveillance information, measles transmission has been interrupted in all countries of the Western Hemisphere for the past 6 months (as of May 2003). An aggressive plan to eliminate measles has reduced cases in the Western Hemisphere by more than 99% from about 250,000 in 1990 to 18 cases in 2003 (as of May 2003), the lowest number of cases ever reported. Deaths from measles complications have virtually disappeared. Globally, measles caused an estimated 777,000 deaths in 2000 and was the leading cause of death among children under 5 years of age from a vaccine-preventable disease.

Goal 6. Improve vaccine safety surveillance

Measure. By 2010, improve capacity to conduct vaccine safety studies by increasing the number of persons in the linked databases to 13 million people

CDC plays a 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.

III. OMB PART Review of the Immunization 317 Grant Program

The Section 317 Grant Program received an "Adequate" PART rating from OMB in the FY 2004 review. The first round of the assessment determined that the program had strong management practices and was successful in improving vaccination coverage levels among children. OMB recommended that program management and planning be improved to impact positively the reporting of program results.

Program improvements and management initiatives are underway, that will significantly advance the 317 Grant program's progress toward fully implementing performance based budgeting principles. Since the initial assessment of the 317 Grant Program, CDC has made progress implementing the following recommendations:

1) Undergo an independent evaluation on a regular basis, or as needed, to fill gaps in performance information to support program improvement and evaluate effectiveness.

In 2003, NIP, the program responsible for the 317 grant program, entered into a contract to have an independent party conduct a comprehensive evaluation. The evaluation has three phases; the first phase began in 2003; the second and third phases began in 2004. The independent evaluation will be of sufficient scope to address strategic planning weaknesses and to provide guidance about mechanisms that can be put in place to measure efficiency.

2) Establish processes and procedures to measure and/or improve program efficiency

- NIP is developing and implementing a business process improvement project to strengthen the efficiency and accountability of vaccine management systems. Once implemented, the new system will ultimately automate and integrate vaccine ordering and management with immunization registries.
- NIP evaluated the progress made in achieving goals established in its strategic plan for 2000–2005. The evaluation will be used to develop a new strategic plan that has improved measures that reflect performance improvements and program efficiencies.

NIP hired a contractor to do a baseline assessment of IT activities and is consolidating all IT functions into the Office of the Director. The change realigns and consolidates branches with complementary functions and eliminates a division.

3) Improve mechanisms linking the program's budget for state immunization program and operations activities to program performance

- NIP proposed a new efficiency measure related to AFIX, a program to assess vaccination coverage levels and provide feedback in healthcare provider offices and clinic settings. The efficiency measure establishes a cost range for AFIX visits. Once implemented, NIP will work with grantees to align their AFIX costs with the recommended range so that additional AFIX visits can be conducted with the subsequent cost savings. AFIX visits are a core program activity proven to increase immunization coverage rates. Immunization coverage is a major performance measure for the 317 Grant Program.
- NIP has improved its grant award processes by requesting that grantees provide more quantifiable objective information in their applications and annual progress reports. The refinement of evaluation criteria for grant applications will improve the program's ability to link the program's budget for state immunization program and operations activities to program performance.
- The independent evaluation of NIP should provide insight into additional improvements that can be made to align the budget with performance.
- NIP developed a logic model of the 317 Grant Program that reflects the long-term goals of increasing vaccination coverage levels and decreasing the incidence of vaccine-preventable diseases, as well as intermediary outputs. The identification of intermediate program outputs is an essential step toward performance-based budgeting for this program because it is difficult to tie program dollars to long-term outputs such as reducing vaccine-preventable diseases and increasing immunization coverage.

IV. Goal-by-Goal Performance Measurement

Efficiency Measure	Target	Actual Performance	Ref.
Establish a target range for costs associated with assessing vaccination coverage levels and providing feedback (AFIX) in healthcare provider office and clinic settings	**FY 05:** Identify methods to help decrease AFIX costs in grantees that are above the target range	**FY 05:** 12/2006 **FY 04:** Establish baseline estimate for target range of costs	E

Goal 1: Reduce the number of indigenous cases of vaccine-preventable diseases			
Performance Measure	Target	Actual Performance	Ref.
1. The number of indigenous cases of paralytic polio, rubella, measles, Haemophilus influenzae invasive disease (type b and unknown) in children under 5 years of age, diphtheria, congenital rubella syndrome, and tetanus will remain at or be reduced to 0 by 2010	*Paralytic Polio* **FY 05:** 0 **FY 04:** 0 **FY 03:** 0 **FY 02:** 0 *Rubella* **FY 05:** 15 **FY 04:** 15 **FY 03:** 15 **FY 02:** 20 *Measles* **FY 05:** 50 **FY 04:** 50 **FY 03:** 50 **FY 02:** 60 *Haemophilus influenzae* **FY 05:** 150 **FY 04:** 150 **FY 03:** 175 **FY 02:** 175 **FY 01:** 0 *Diphtheria** **FY 05:** 5 **FY 04:** 5 **FY 03:** 5 **FY 02:** 5 **FY 01:** 0	*Paralytic Polio* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02–FY 97:** 0 *Rubella* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 10 **FY 01:** 14 **FY 00:** 176 **FY 99:** 271 **FY 98:** 364 **FY 97:** 181 *Measles* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 26 **FY 01:** 62 **FY 00:** 63 **FY 99:** 66 **FY 98:** 74 **FY 97:** 81 *Haemophilus influenzae* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** b + unknown 187 **FY 01:** b + unknown 181 **FY 00:** b + unknown 197 **FY 98:** 163 *Diphtheria* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 0 **FY 01:** 0 **FY 00:** 1 **FY 99:** 0 **FY 98:** 1 **FY 97:** 3	B-140 O

(continued)	*Congenital rubella syndrome* **FY 05:** 5 **FY 04:** 5 **FY 03:** 5 **FY 02:** 5 **FY 01:** 0 *Tetanus** **FY 05:** 25 **FY 04:** 25 **FY 03:** 25 **FY 02:** 25 **FY 01:** 0	*Congenital rubella syndrome* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 1 **FY 01:** 3 **FY 00:** 9 **FY 99:** 6 **FY 98:** 7 **FY 97:** 5 *Tetanus* **FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 6 **FY 01:** 1 **FY 00:** 35 **FY 99:** 40 **FY 98:** 41 **FY 97:** 50	B-140 O
2. Reduce the number of indigenous cases of mumps in persons of all ages from 666 (1998 baseline) to 0 by 2010	**FY 05:** 200 **FY 04:** 200 **FY 03:** 250 **FY 02:** 250 **FY 01:** 500	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 253 **FY 01:** 266 **FY 00:** Exceeded/338 **FY 99:** Exceeded/387 **FY 98:** 666 **FY 97:** 683	B-140 O
3. Reduce the number of cases of pertussis among children under 7 years of age	**FY 05:** 2,300 **FY 04:** 2,300 **FY 03:** 2,500 **FY 02:** 2,500 **FY 01:** 2,000	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** 4,109 **FY 01:** 3,163 **FY 00:** 2,708 **FY 99:** 3,247 **FY 98:** 3,417 **FY 97:** 3,043	B-140 O

*To be in line with *Healthy People 2010*, beginning in 2001, the diphtheria and tetanus cases will be measured in persons < 35 years of age (previously < 25 years of age).

Data is obtained from various 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.

†Provisional data

Goal 2: Ensure that 2-year-olds are appropriately vaccinated			
Performance Measure	Target	Actual Performance	Ref.
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 -3 doses polio vaccine -1 dose varicella vaccine† -4 doses pneumococcal conjugate vaccine†	**FY 05:** 90% coverage **FY 04:** 90% coverage **FY 03:** 90% coverage **FY 02:** 90% coverage	**FY 05:** 8/2006 **FY 04:** 8/2005 **FY 03:** 8/2004 **FY 02:** DTaP 95%; Hib 93%; MMR 91%; Hepatitis B 90%; Polio 90%; Varicella 81% **FY 01:** DTaP 94%; Hib 93%; MMR 91%; Hepatitis B 89%; Polio 89%; Varicella 76% **FY 00:** DTaP 94%; Hib 93%; MMR 91%; Hepatitis B 90%; Polio 90%; Varicella 68% **FY 99:** DtaP 96%; Hib 94%; MMR 92%; Hepatitis B 88%; Polio 90%; Varicella 58% **FY 98:** DTaP 96%; Hib 93%; MMR 92%; Hepatitis B 87%; Polio 91%; Varicella 43%	B-140 O

* Includes any measles-containing vaccine.
†Performance targets for newly recommended vaccines will begin 5 years after ACIP recommendation. Measures for varicella will begin in 2001 and for pneumococcal conjugate measure in 2006, even though coverage will be reported earlier.
Data are collected through the National Immunization Survey and reflect calendar years.

Goal 3: Increase the proportion of adults who are vaccinated annually against influenza (flu) and ever vaccinated against pneumococcal disease			
Performance Measure	Target	Actual Performance	Ref.
1. Increase the rate of flu and pneumococcal pneumonia vaccination in persons 65 years of age and older	**FY 05:** Flu 74%; pneumococcal 69% **FY 04:** Flu 74%; pneumococcal 69% **FY 03:** Flu 74%; pneumococcal 69% **FY 02:** Flu 74%; pneumococcal 66%	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** Flu 66%; pneumococcal 55% **FY 01:** Flu 63%; pneumococcal 54% **FY 00:** Flu 68%; pneumococcal 53% **FY 99:** Flu 66%; pneumococcal 50%	B-140 O
2. Achieve a vaccination rate of 60% among non-institutionalized high-risk adults aged 18 to 64 years for flu and pneumococcal pneumonia by 2010	**FY 05:** Flu 32%; pneumococcal 22% **FY 04:** Flu 32%; pneumococcal 22% **FY 03:** Flu 32%; pneumococcal 2%	**FY 05:** 1/2007 **FY 04:**1/2006 **FY 03:** 1/2005 **FY 02:** 1/2004 **FY 01:** Flu 29%; pneumococcal 17% **FY 00:** Flu 32%; pneumococcal 18% **FY 99:** Flu 31%; pneumococcal 17%* **FY 98:** Flu 31%; pneumococcal 15%	B-140 O

*Preliminary estimate based on vaccination rates among persons aged 18-64 with diabetes.
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.

Goal 4: Help domestic and international partners achieve WHO's goal of global polio eradication			
Performance Measure	Target	Actual Performance	Ref.
1. Purchase doses of oral polio vaccine for mass immunization campaigns in Asia, Africa, and Europe	**FY 05:** 500 million doses **FY 04:** 500 million doses **FY 03:** 600 million doses	**FY 05:** 6/2006 **FY 04:** 6/2005 **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-140
2. Achieve and sustain zero cases of polio by 2005	**FY 05:** 0 **FY 04:** 100 **FY 03:** 200 **FY 02:** 500 **FY 01:** 1,500	**FY 04:** 6/2006 **FY 04:** 6/2005 **FY 03:** 6/2004 **FY 02:** 1,918* **FY 01:** 483 **FY 00:** 2,979	B-140 O

*Provisional data

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.

Goal 5: Work with global partners to reduce the cumulative global measles-related mortality rate			
Performance Measure	Target	Actual Performance	Ref.
1. By 2005, reduce by 50% the cumulative global measles-related mortality compared with 1999 estimates (baseline: 875,000 deaths)	**FY 05:** 435,000 **FY 04:** 500,000 **FY 03:** 621,600	**FY 05:** 6/2007 **FY 04:** 6/2006 **FY 03:** 6/2005 **FY 02:** 644,000 **FY 01:** 745,000 **FY 00:** 777,000	B-140 O
2. Eliminate indigenous measles transmission in all 47 countries of the Americas	**FY 05:** less than 500 cases* **FY 04:** less than 500 cases* **FY 03:** less than 500 cases*	**FY 05:** 6/2006 **FY 04:** 6/2005 **FY 03:** 104 (no indigenous transmission) **FY 02:** 2,588 cases (45/47 countries) **FY 01:** 537 cases (46/47countries) **FY 00:** 1,754 cases (baseline)	B-140 O

*Maintain elimination of endemic measles in all 47 countries. Cases occurring will be related to importations only.

The global measles data source is WHO 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.

Goal 6: Improve vaccine safety surveillance			
Performance Measure	Target	Actual Performance	Ref
By 2010, improve capacity to conduct vaccine safety studies by increasing the number of persons in the linked databases to 13 million	**FY 05:** 10 million **FY 04:** 10 million **FY 03:** 10 million	**FY 05:** 6/2006 **FY 04:** 6/2005 **FY 03:** 6/2004 **FY 02:** 7.5 million (baseline)	B-140

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.

V. Summary of Full Cost of Performance Program Area

A. Immunization (Excluding Vaccines for Children)

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost†	**$655.2**	**$655.7**	**$540.5**
Efficiency Measure	$0.0	$0.0	$0.0
Reduce indigenous cases	**$219.5**	**$218.0**	**$179.7**
Measure 1	$154.0	$152.4	$125.7
Measure 2	$19.7	$19.7	$16.2
Measure 3	$45.9	$45.9	$37.8
2 years old properly vaccinated	**$219.5**	**$218.0**	**$179.7**
Measure 1	$219.5	$218.0	$179.7
Increase vaccines against influenza	**$26.2**	**$26.2**	**$21.6**
Measure 1	$13.1	$13.1	$10.8
Measure 2	$13.1	$13.1	$10.8
Global polio eradication	**$111.4**	**$111.5**	**$91.9**
Measure 1	$59.0	$59.0	$48.6
Measure 2	$52.4	$52.5	$43.2
Global measles-related mortality rate	**$45.9**	**$49.2**	**$40.5**
Measure 1	$39.3	$42.6	$35.1
Measure 2	$6.6	$6.6	$5.4
Vaccine safety surveillance	**$32.8**	**$32.8**	**$27.0**
Measure 1	$32.8	$32.8	$27.0

*Dollars in millions

†Immunization's six goals and 11 measures represent 100% of its full costs.

B. Vaccines for Children

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost†	**$1,174.2**	**$1,208.0**	**$1,373.0**

*Dollars in millions

†There are currently no performance goals or measures for Vaccines for Children.

II-J. Infectious Diseases Control

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$400,779	FY 2005:	$431,053
FY 2004: (Conference)	$369,485	FY 2004:	$441,548
FY 2003: (Actual)	$359,225	FY 2003:	$430,882

The mission of the National Center for Infectious Diseases (NCID) is to prevent illness, disability, and death caused by infectious diseases in the United States and around the world.

I. Program Description and Context

In 1994, CDC and its 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, the World Health Organization (WHO), and nongovernmental 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.
- *Prevention and control*—to ensure prompt implementation of prevention strategies and enhance communication of public health information about emerging infectious diseases.

Within this framework these key priorities have emerged:

- Addressing infectious diseases that contribute to high mortality, morbidity, and healthcare costs (i.e., hepatitis C, influenza, foodborne illnesses, Group B Streptococcal infections, and HIV).
- Finding solutions to the problems posed by antimicrobial resistance.
- Reducing the burden of illness from infectious diseases among hospitalized patients and healthcare workers.

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

- Educating healthcare and public health professionals to improve identification of persons at risk for HCV infection and ensure appropriate counseling, diagnosis, management, and treatment.
- Educating the public and persons at risk about risk factors and the need for testing and evaluation.

- Promoting clinical and public health activities aimed at identifying, counseling, and testing persons at risk and evaluating or referring persons found to be infected.
- Developing outreach and community-based programs to address practices that put people at risk and identify persons who need testing.
- Strengthening surveillance to monitor disease trends and evaluate the effectiveness of prevention activities.
- Conducting epidemiologic research to guide prevention efforts.

Influenza

During annual epidemics of influenza, about 36,000 deaths and over 110,000 hospitalizations per year are attributed to influenza and its complications. Experts believe that an influenza pandemic is long overdue and past influenza pandemics have taken a far higher toll than annual epidemics. Each year, CDC plays a significant national and international role in the prevention and control of influenza. In addition, CDC is working with HHS and WHO to improve influenza pandemic preparedness in order to minimize the impact on Americans of a potential influenza pandemic. To fulfill these roles , CDC

- Conducts worldwide monitoring of influenza viruses to collect data to contribute to annual Northern and Southern hemisphere vaccine decisions.
- Builds capacity domestically and internationally to improve the early detection systems for new influenza viruses with the potential to cause epidemics or pandemics of influenza.
- Works closely with states to improve the infrastructure for delivery of influenza vaccines.
- Conducts applied research on influenza viruses to develop better vaccines.
- Participates in the development of an influenza pandemic preparedness plan for the United States.

Foodborne Illnesses

CDC's mission is to build public health capacity for early detection, timely resolution, and prevention of foodborne disease outbreaks. The desired outcome is to reduce the morbidity, mortality, and economic burden caused by these illnesses. Each year 76 million U.S. citizens suffer from foodborne illnesses; 325,000 are hospitalized, about 5,000 die, and the economic burden is estimated to be greater than $6 billion. CDC is developing and implementing programs to accomplish the following:

- Build a strong nationwide public health network for foodborne disease surveillance and response.
- Design and implement prevention strategies.
- Support, educate, and train the public health workforce.
- Provide scientifically sound health information to the public.

CDC is working in partnership with state and federal regulatory agencies, state and local health departments, educational institutions, nongovernmental organizations, and consumer groups to ensure that the agency is using an integrated systems approach to accomplish its mission.

CDC provides funding, scientific consultations, epidemiologic assistance, new technology, and public health expertise to 56 state/local/territorial health departments to improve their foodborne disease detection, response, and prevention capacities. CDC has equipped, trained and supported 45 public health laboratories who submit PFGE patterns to PulseNet to perform DNA fingerprinting of foodborne diseases (specifically *E. coli* O157:H7, *Salmonella Typhimurium,* and *Listeria monocytogenes).* The PulseNet network has revolutionized foodborne disease surveillance by providing for near real-time comparison of patterns through a CDC electronic database. PulseNet provides early detection

of foodborne illnesses caused by common food items occurring simultaneously in separate geographic locations. CDC provides funding and scientific support to 10 FoodNet sites that respond to new and emerging foodborne diseases of national importance, monitor the burden of foodborne diseases, and identify the sources of specific foodborne diseases. Currently, 11 pathogens and syndromes are under surveillance in these FoodNet sites.

Group B Streptococcal Infections

Perinatal group B streptococcal disease is the most common cause of severe infections in newborns. In 1996, 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 for preventing group B streptococcal disease. Surveys have shown that these prevention recommendations were widely adopted; this coincided with large declines in disease incidence. Beginning in 1999, disease incidence began to plateau. In 2002, CDC and partners re-evaluated prevention recommendations and released a new recommendation for universal prenatal screening for group B streptococcal colonization. This recommendation, endorsed by AAP and supported by ACOG, should lead to further disease reduction.

Antimicrobial Resistance

In the United States and around the world, many infections are becoming resistant to antimicrobial drugs. 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 reported in the community.

An interagency task force, co-chaired by CDC, The Food and Drug Administration (FDA), and the National Institutes of Health (NIH), released *A Public Health Action Plan to Combat Antimicrobial Resistance*, which calls for the following:

- A national antimicrobial resistance surveillance plan.
- Promotion of appropriate use of antimicrobial drugs and prevention of transmission of infections.
- Research into antimicrobial resistance and mechanisms of transmission.
- New product development to prevent, diagnose, and treat infections.

Medical Errors and Healthcare-associated Infections

Ensuring the safety of patients receiving healthcare is a public health priority. The Institute of Medicine (IOM) estimates 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 United States annually.

IOM has called for a 50% reduction in medical errors and adverse events within 5 years and for a national system to monitor and report these events, which will be critical to achieving this goal. In addition, IOM suggests 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. CDC's 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 that will measure and provide interactive capacity to intervene through health communications campaigns and targeted intervention programs.

II. Program Performance Analysis

Efficiency Measure. Increase access to health information for international travel with the same funding

With the introduction of new technology, most notably the Internet, CDC has dramatically reduced the number of staff hours required to respond to inquiries surrounding traveler's health. In 1995, there were over 60,000 live phone calls (in addition to sending 177,000 responses to the automated fax system and 181,000 uses of the ATT voice system) and only 137,000 hits to the travelers' health website. By 2000, the number of phone calls had dropped to just under 4,000, automated faxes, 41,000 and 72,000 uses of the ATT voice system and over 2.5 million visits to the traveler's health website. From July 2002 through June 2003, there were under 4,000 direct phone calls, e-mails and letters, and approximately 5 million hits for the traveler's health website.

A. Protect Americans from Infectious Diseases

Goal 1. Protect Americans from infectious diseases—hepatitis C, chronic liver disease, and viral hepatitis

Measure. Provide support to up to 65 health departments for coordinators to initiate hepatitis prevention and control activities

In FY 2003, CDC exceeded the targeted number of health departments to receive funding. CDC funded two additional coordinators through the prudent management of hepatitis program funds. Hepatitis C coordinators in state and local health departments help initiate and integrate hepatitis prevention activities in existing public health programs (e.g., HIV and STD prevention, immunization, epidemiology, and surveillance) in various settings. They also develop and provide educational programs and materials.

Goal 2. Protect Americans from infectious diseases—Influenza

Measure. Monitor influenza viruses in states (1 site/250,000 population domestically) and support influenza surveillance sites and networks internationally to enhance early detection of viruses with pandemic potential and improve vaccine decision-making

CDC has improved preparedness for both epidemics and a possible pandemic of influenza by expanding influenza surveillance. In FY 2002, CDC exceeded the number of targeted domestic sites through recruitment of U.S. sentinel physicians and follow-up by CDC staff to ensure constant reporting. 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 continue to build capacity for influenza surveillance sites and networks internationally. These international networks strengthen global surveillance capabilities to increase the likelihood of early detection of an influenza pandemic and effective tracking of its spread.

The international surveillance networks provide critical information needed to improve vaccine decision-making. Improving U.S. sentinel physician surveillance is a priority because it is the primary system for measuring annual influenza morbidity and is a source for measuring the potential impact of an influenza pandemic in the United States. Data collected about circulating influenza viruses are used to form the basis for annual vaccine decisions.

Goal 3. Protect Americans from infectious diseases—foodborne illnesses

Measure 1. Expand the number of public health laboratories using PulseNet for early identification of and response to foodborne disease outbreaks (number of agents may increase as new pathogens are identified)

CDC and its state partners designed and implemented the PulseNet DNA fingerprinting network in public health laboratories to provide 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 2003, the targets for each of the pathogens were achieved.

Measure 2. Enhance FoodNet by increasing the number of pathogens and syndromes under active surveillance

CDC led the development and implementation of FoodNet, a network of 10 sentinel sites, which 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 accomplished the following:

- Strengthened and expanded the early warning system for foodborne illness.
- Improved and expanded pathogen-detection methods.
- Improved techniques to avoid, reduce, and eliminate pathogens.
- Improved outbreak containment.

In collaboration with FDA and the U.S. Department of Agriculture (USDA), CDC designed training and educational materials for public health and healthcare professionals; collaborated with government, industry, and consumer partners to conduct a broad-based food safety education campaign (Fight BAC!); and launched a national partnership for school-focused foodborne illness prevention. In FY 2001 and FY 2003, CDC met its target with eight common bacterial pathogens, two parasites, and one syndrome (Hemolytic Uremic Syndrome) under active surveillance.

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 1996–2002 showed significant declines in rates of infection with *Yersinia enterocolitica* (43% decline between 1996 and 2002), *Listeria* (38%), and *Campylobacter* (24%), suggesting the current efforts to reduce these diseases are on track towards the *Health People 2010* objectives. Rates of infection with *Salmonella*, *E. coli* O157, and *Shigella* varied over this period of time, but did not change significantly. New interagency efforts in research and surveillance to improve and document the effectiveness of food safety measures are underway.

Goal 4. Protect Americans from infectious diseases—group B streptococcal Infections

Measure. Reduce the incidence of perinatal group B streptococcal infections to 0.3 per 1,000 live births

CDC did not meet the FY 2002 target to reduce the incidence of perinatal group B streptococcal infections to 0.3 per 1,000 live births. A new recommendation of universal prenatal screening developed by CDC in August 2002 (*MMWR* RR series, Aug 15) and by the American College of Obstetricians and Gynecology in December 2002 will help move toward achieving the target and away from the plateau experienced since 1999. Calendar year 2003 will be the first full year of universal screening recommendations. Data for FY 2003 will be ready in March 2004.

Goal 5. Protect Americans from infectious diseases—HIV variants

Measure. Expand surveillance for unusual HIV variants

CDC targeted and expanded participation to six countries for surveillance of unusual HIV variants in FY 2000 and FY 2001. In FY 2003, one country was added.

B. Antimicrobial Resistance

Goal 1. Reduce the spread of antimicrobial resistance

Measure 1. Diminish the rapid rise in the proportion of enterococci resistant vancomycin (VRE rate) among pathogens associated with nosocomial infections in Intensive care Unit (ICU) patients

The target to diminish the rapid rise in the proportion of VRE rate among pathogens associated with nosocomial infections in ICU patients has been exceeded. The rate of increase per year in the proportion of VRE has slowed, resulting in only a 10.5% increase over the 5-year historical mean. This is below the target of a 26% increase, suggesting that infection control measures implemented in U.S. hospitals may be effective in slowing the rate of increase. Continued efforts to reduce the prevalence of VRE are ongoing.

Measure 2. Reduce the number of courses of antibiotics for ear infections for children under 5 years of age to 57 courses per 100 children

The number of courses of antibiotics given for ear infections to children under 5 years of age rose from 59 in 2000 to 60 in 2001. The difference is largely due to the survey design used to collect the data and is not statistically significant. Future reductions in antibiotic prescriptions for otitis media will hinge on increasing awareness of the public health problem of antimicrobial resistance, maintaining effective national efforts including the CDC's education campaigns targeted to physicians and the public on judicious use of antibiotics, or on a decrease in the incidence of otitis media.

Measure 3. Increase the proportion of U. S. laboratories that use acceptable methods to test for Staphylococcus aureus with reduced susceptibility to vancomycin

The capacity of laboratories in the United States to detect emerging vancomycin resistance in Staphylococcus aureus, including vancomycin-intermediate Staphylococcus aureus (VISA) and vancomycin-resistant Staphylococcus aureus (VRSA), is improving. Data for this measure is obtained through laboratory surveys. In FY 2002 the survey was never conducted, so the data are not available. However, in FY 2003, 91% of U.S. laboratories had the capacity to detect VISA and VRSA. This increased capacity over previous years is likely due to increased awareness of the

problem by laboratory-based microbiologists through several educational efforts by CDC including a CD-ROM-based training program on Antimicrobial Susceptibility Testing (distributed by CDC and the Association of Public Health Laboratories), CDC's MASTER website on Antimicrobial Susceptibility Testing, several articles in *MMWR,* and a series of publications in the peer-reviewed literature that are highlighted in CDC-sponsored training workshops on susceptibility testing conducted by the Public Health Practices Program Office.

Measure 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

Because the common cold is caused by a virus, 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 CDC's antimicrobial resistance campaign. Although prescribing antibiotics for the common cold rose from 1,770 courses per 100,000 population in 2000 to 1,913 courses per 100,000 population in 2001, this difference is largely due to the survey design used to collect that data and is not statistically significant. CDC again exceeded its goal in FY 2002, 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.

C. Medical Errors and Healthcare-associated Infections

Goal 1. Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare

Measure. Reduce the rate of central line-associated bloodstream infections in adult ICU patients to 3.80

The FY 2002 target for reducing central line-associated bloodstream infections was unmet. This is consistent with the growing magnitude of the patient safety problem in the United States, especially with regard to healthcare-associated infections. Possible reasons for this reported increase include the following:

- The increasing severity of illness of patients in hospital ICUs.
- The national nursing shortage, which makes it more difficult to hire and retain well-trained staff and maintain favorable nurse to patient ratios.
- The continuing rise in the number of antimicrobial-resistant infections that are harder to treat.

These data reinforce the importance of implementing NHSN as part of the HHS patient safety data system. It also underscores the need for aggressive programs to control and reduce antimicrobial resistance in hospitals and the need to address the broader problem of hospital-acquired infections in the context of the HHS patient safety initiatives that are now underway.

CDC is actively collaborating with public and private sector partners to help bring about the changes that will lead to a redesigned, safer, and more effective healthcare system. Data for FY 2003 will be ready in April 2004.

III. Goal-by-Goal Performance Measurement

Efficiency Measure	Target	Actual Performance	Ref.
Increase access to health information for international travel with the same funding	**FY 05:** 5%	**FY 05:** 12/2006 **FY 04:** Establish baseline	E

A. Protect Americans from Infectious Diseases

Goal 1: Protect Americans from infectious diseases—hepatitis C, chronic liver disease, and viral hepatitis			
Performance Measure	Targets	Actual Performance	Ref.
Provide support to up to 65 health departments for coordinators to initiate hepatitis prevention and control activities	**FY 05:** 50 health departments **FY 04:** 50 health departments **FY 03:** 48 health departments	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Exceeded/50 **FY 02:** Exceeded/48 **FY 01:** Exceeded/34 **FY 00:** Exceeded/15 **FY 99:** 0	B-152 HP-14-9

Goal 2: Protect Americans from infectious diseases—influenza			
Performance Measure	Targets	Actual Performance	Ref.
Monitor influenza viruses in states (1 site/250,000 population domestically) and support influenza surveillance sites and networks internationally to enhance early detection of viruses with pandemic potential and improve vaccine decision-making	**FY 05:** 800 sites/2 networks **FY 04:** 800 sites/2 networks **FY 03:** 750 sites/1 network **FY 02:** 600 sites/1 network	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Exceeded 891/1 network **FY 02:** Exceeded 706/1 network **FY 01:** Exceeded 550/1 network **FY 00:** Exceeded 514/1 network **FY 99:** 410 **FY 96:** 0	B-152 HP-14-1 1

Goal 3: Protect Americans from infectious diseases—foodborne illnesses			
Performance Measure	Targets	Actual Performance	Ref.
1. Expand the number of public health laboratories using PulseNet for early identification of and response to foodborne disease outbreaks (number of agents may increase as new pathogens are identified)	*E. coli 0157:H7* **FY 05:** 45 labs **FY 04:** 45 labs **FY 03:** 45 labs *Salmonella Typhimurium* **FY 05:** 45 labs **FY 04:** 45 labs **FY 03:** 45 labs	*E. coli 0157:H7* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/45 labs **FY 02:** Achieved/45 labs **FY 00:** Achieved/40 labs **FY 99:** Achieved/29 labs **FY 97:** 0 lab (baseline) *Salmonella Typhimurium* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/45 labs **FY 02:** Achieved/45 labs **FY 00:** Achieved/40 labs **FY 99:** Achieved/7 labs **FY 97:** 0 lab (baseline)	B-152 HP-10-2

Goal 3: Protect Americans from infectious diseases—foodborne illnesses			
Performance Measure	Targets	Actual Performance	Ref.
(continued)	*Listeria monocytogenes* **FY 05:** 30 labs **FY 04:** 30 labs **FY 03:** 30 labs *Shigella sonnei* **FY 05:** 15 labs **FY 04:** 15 labs **FY 03:** 15 labs *Clostridium perfringens* **FY 05:** 5 labs **FY 04:** 3 labs **FY 03:** 0 lab *Campylobacter jejuni/C. coli* **FY 05:** 5 labs **FY 04:** 5 labs **FY 03:** 0 lab *Vibrio parahaemolyticus* **FY 05:** 5 labs **FY 04:** 5 labs **FY 03:** 0 lab *Vibrio cholerae* **FY 05:** 5 labs **FY 04:** 5 labs **FY 03:** 0 labs	*Listeria monocytogenes* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/30 labs **FY 02:** Achieved/30 labs **FY 00:** Achieved/20 labs **FY 99:** Achieved/7 labs **FY 97:** 0 lab (baseline) *Shigella sonnei* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/15 labs **FY 02:** Achieved/15 labs **FY 00:** 7 labs **FY 97:** 0 lab *Clostridium perfringens* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** 0 lab (baseline) *Campylobacter jejuni/C. coli* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** 0 lab (baseline) *Vibrio parahaemolyticus* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** 0 lab (baseline) *Vibrio cholerae* **FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** 0 lab (baseline)	B-152 HP-10-2
2. Enhance FoodNet by increasing the number of pathogens and syndromes under active surveillance	**FY 05:** 11 labs **FY 04:** 11 labs **FY 03:** 11 labs	**FY 05:** 9/2006 **FY 04:** 9/2004 **FY 03:** Achieved/11 **FY 02:** Achieved/11 **FY 00:** Achieved/10 **FY 99:** 8 labs **FY 97:** 7 labs	B-152 HP-10-2

Goal 4: Protect Americans from infectious diseases—group B streptococcal infections			
Performance Measure	Targets	Actual Performance	Ref.
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 03:** 03/2004 **FY 02:** Unmet/0.42 **FY 01:** 0.47 (final) **FY 00:** 0.5 (final) **FY 99:** Exceeded/0.4 **FY 95:** 1.3	B-152 O

Goal 5: Protect Americans from infectious diseases—HIV variants			
Performance Measure	Targets	Actual Performance	Ref.
Expand surveillance for unusual HIV variants	**FY 03:** 7 countries	**FY 03:** Achieved/7 countries **FY 02:** Unmet/6 countries **FY 01:** Achieved/6 countries **FY 00:** Achieved/6 countries **FY 99:** Achieved/2 countries **FY 98:** 0	B-152 O

B. Antimicrobial Resistance

Goal 1: Reduce the spread of antimicrobial resistance			
Performance Measure	Targets	Actual Performance	Ref.
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 03:** 26% **FY 02:** 26%	**FY 03:** 3/2004 **FY 02:** Exceeded/10.5% **FY 01:** 26.9% (corrected) **FY 00:** 25% **FY 99:** 40.9% (baseline); 5-year historical mean 47%	B-152 HP-14-21 5
2. Reduce the number of courses of antibiotics for ear infections for children < 5 years to 57 courses per 100 children	**FY 05:** 62 courses **FY 04:** 62 courses **FY 03:** 63 courses **FY 02:** 65 courses	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** Unmet/60 (CY 2001) **FY 01:** 59 (CY 2000) **FY 00:** 54 (CY 1999) **FY 97:** Base: 69 (correct)	B-152 5 O
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:** 10/2004 **FY 03:** 91% **FY 02:** Data unavailable **FY 00:** 76% **FY 98:** 56% (baseline)	B-152 HP-14-18 O
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 05:** 1,917 courses **FY 04:** 1,917 courses **FY 03:** 2,017 courses **FY 02:** 2,144 courses	**FY 05:** 9/2006 **FY 04:** 9/2005 **FY 03:** 9/2004 **FY 02:** Exceeded/1,913 (CY 2001) **FY 01:** Exceeded/1,770 (CY 2000) **FY 00:** Exceeded/1,999 **FY 97:** 2,535 (baseline)	B-152 HP-14-19 5 O

C. Medical Errors and Healthcare-associated Infections

Goal: Protect Americans from death and serious harm caused by medical errors and preventable complications of healthcare			
Performance Measure	Targets	Actual Performance	Ref.
Reduce the rate of central line-associated bloodstream infections in adult ICU patients to 3.8	**FY 05:** 3.8 **FY 04:** 3.8 **FY 03:** 3.8 **FY 02:** 3.8	**FY 05:** 4/2006 **FY 04:** 4/2005 **FY 03:** 4/2004 **FY 02:** Unmet/4.3 **FY 01:** 4.6 **FY 00:** 4.5* **FY 99:** Exceeded/4.4 **FY 98:** 5.3	B-152 5 O

*Revised with later data.

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$430.9**	**$441.5**	**$431.1**
Efficiency Measure	$0.0	$0.0	$0.0
Protect Americans from Infectious Diseases	**$346.4**	**$347.9**	**$305.6**
Goal 1 – Measure 1	$19.5	$16.4	$15.9
Goal 2 – Measure 1	$5.0	$4.2	$4.1
Goal 3 – Measure 1	$2.5	$2.9	$2.8
Goal 3 – Measure 2	$8.6	$10.0	$9.7
Goal 4 – Measure 1	$2.2	$1.8	$1.7
Goal 5 – Measure 1	$1.9	N/A	N/A
Antimicrobial Resistance	**$30.2**	**$33.1**	**$25.9**
Measure 1	$1.9	$1.6	$1.6
Measure 2	$1.5	$1.3	$1.2
Measure 3	$1.2	$1.1	$1.0
Measure 4	$1.5	$1.3	$1.2
Medical Errors and Healthcare-Associated Infections	**$4.7**	**$5.3**	**$4.3**
Measure 1	$4.7	$5.3	$4.3

*Dollars in millions

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

These measures represent just a fraction of CDC's overall efforts in infectious disease control. Consequently, the selected measures account for approximately 11% of our total infectious diseases budget. Still, the majority of CDC's efforts in infectious disease control is captured in the overall goals and an estimate has been provided for the amount of full costs that can be applied against each goal. The other remaining resources that are not allocated against specific measures support the following efforts:

- Chronic Fatigue Syndrome
- Food safety
- Global Detection initiative in FY 2005
- Address unexpected infectious disease outbreaks.
- Carry out applied research to develop, evaluate, and disseminate tools to identify and understand emerging infectious diseases.
- Enhance the nation's capacity to respond to infectious disease threats.
- Prepare for unforeseen emerging infectious diseases.

For example, CDC responds to emerging health threats like Severe Acute Respiratory Syndrome (SARS) and Monkeypox through mobilizing a public health force complete with laboratorians, epidemiologists, quarantine inspectors, and others.

II-K. Injury Prevention and Control

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$153,879	FY 2005:	$157,028
FY 2004: (Conference)	$153,591	FY 2004:	$160,278
FY 2003: (Actual)	$148,414	FY 2003:	$154,975

The mission of the National Center for Injury Prevention and Control (NCIPC) is to prevent injuries and to control and minimize the extent of injury or disability among those who are injured.

I. 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.

CDC's injury prevention and control program includes three new performance goals that 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.

Injuries

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 (TBI) 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 result in many lives lost; each year over 30% of women murdered in the United States are killed by a spouse or ex-spouse.

Traumatic Brain Injuries

CDC data indicate the following:

- Approximately 1 million Americans are treated for 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.

Homicides and Suicides

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 factors led to the killing. The National Violent Death Reporting System (NVDRS) data will provide answers to questions such as these:

- What is the proportion of women killed in domestic violence attacks who 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 three 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?
- What proportion of homicides are drug-related in any way?

Fire-related Incidents

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. Those at greatest risk of sustaining fire-related injuries are children ages 5 and younger, adults 65 and older; African Americans, American Indian/Alaska Natives, rural dwellers, and persons living in substandard housing or older manufactured homes.

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, the 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.

Injury Prevention

Preventing injuries cost far less than treating them. CDC's science-based approach encompasses the following:

- Surveillance to find out the extent of the problem.
- Research to determine risk factors.
- Development and implementation of prevention programs.
- Evaluation to find out which interventions work best.
- Support to states and local public health agencies.
- Partnerships with public and private organizations.

II. Program Performance Analysis

Efficiency Measure. Through the implementation of Web-based systems for state and territorial agencies, decrease the time between the submission of an application and the receipt of funds for injury prevention and control efforts

With an initial investment to develop the system, efficiencies are created when applications are received and processed more quickly. A Web-based system also allows to retrieve and summarize grantee information faster and better than what can be collected otherwise. In addition to the time saved, this measure also improves customer service. As more applications become standardized they will require less time with their growing familiarity and provide more efficient means for tracking and monitoring the status of their submission.

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

Measure. Among the states receiving funding from CDC, reduce deaths from residential fire

CDC began building core injury programs in states in 1999 by funding health departments in four states. Since then, CDC has provided limited funding to 28 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 helps program managers determine the magnitude of injury problem and identifies the population groups and behaviors at greatest risk of injury.

CDC funds 16 states to conduct smoke alarm installation programs coupled with fire safety education for home-fire deaths. The program aims 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 age 65. Health departments work with fire departments and community-based organizations. In 5 years, CDC's installation/education program has installed over 185,000 smoke alarms in program homes and an estimated 499 lives have been saved by early warning from a smoke alarm.

Goal 2. Monitor and detect fatal and non-fatal injuries

Measure. Increase the number of states receiving CDC funding to monitor, identify, and track injuries

Traumatic Brain Injury (TBI) Surveillance

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, 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 TBI programs. CDC will continue TBI follow-up registries to understand better the longer term impact of TBI 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 per 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 (NEISS)
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. It 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 United States and to guide decisions and policies about injury prevention and control.

National Violence Death Reporting System (NVDRS)
In FY 2002, CDC began implementing NVDRS in six states. In FY 2003, CDC increased by seven the number of states that implement NVDRS.

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

Measure. Develop new or improved approaches to prevent and control death and disability due to injuries

CDC research focuses on reducing morbidity, disability, death, and lowering costs associated with injuries. CDC's extramural research program supports the following:

- Individual, investigator-initiated research that is targeted to specific studies.
- 11 research centers for broad-based injury control.
- 10 centers for youth violence prevention.
- 1 center each for prevention of suicide and violence against women.
- Grants for small business innovative research.

CDC also conducts evaluation research to ascertain the efficacy and effectiveness of interventions and other factors that put people at risk for injury. The extramural program supports a productive and relevant research portfolio and uses a peer review approach that is based on review by the Injury Research Grant Review Committee (IRGRC) that is composed of experts in injury-related scientific disciplines or current research areas that enables them to evaluate the scientific and technical merits of grant applications.

III. Goal-by-Goal Performance Measurement

Efficiency Measure	Targets	Actual Performance	Ref.
Through the implementation of Web-based systems for state and territorial agencies, decrease the time between the submission of an application and the receipt of funds for injury prevention and control efforts	**FY 05:** 5% faster	**FY 05:** 12/2006 **FY 04:** Establish baseline	E

Goal 1: Increase the capacity of injury prevention and control programs to address the prevention of injuries and violence			
Performance Measure	Targets	Actual Performance	Ref.
Among the states receiving funding from CDC, reduce deaths from residential fire	**FY 05:** 1.28 per 100,000 **FY 04:** 1.29 per 100,000 **FY 03:** 1.30 per 100,000 **FY 02:** 1.31 per 100,000 **FY 01:** 1.32 per 100,000	**FY 05:** 10/2007 **FY 04:** 10/2006 **FY 03:** 10/2005 **FY 02:** 10/2004 **FY 01:** Achieved/1.20 per 100,000 **FY 00:** 1.33 per 100,000	B-163 HP-15-25 1

Goal 2: Monitor and detect fatal and non-fatal injuries			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of states receiving CDC funding to monitor, identify, and track injuries	*TBI Surveillance* **FY 05:** Maintain FY 04 state funding levels to continue implementing TBI surveillance	**FY 05:** 2/2005	B-163 HP-15-1
	FY 04: Disseminate TBI data at state level	**FY 04:** 2/2004	
	FY 03: Revise CNS surveillance guidelines to include protocols for collecting data on mild TBI	**FY 03:** Achieved	
	NEISS All Injury Surveillance **FY 05:** Provide national statistics via an Internet-based electronic reporting system made available to the public	**FY 05:** 12/2005	
	FY 04: Publish national statistics on non-fatal injuries treated in emergency departments by leading causes of injury	**FY 04:** 12/2004	
	FY 03: Implement an NEISS All Injury Program special study on traumatic brain injury	**FY 03:** Achieved	
	NVDRS Surveillance **FY 05:** Maintain FY 04 state funding levels to continue implementing NVDRS	**FY 05:** 12/2005	
	FY 04: Maintain FY 03 state funding levels to continue implementing NVDRS	**FY 04:** 12/2004	
	FY 03: Increase the number of states implementing NVDRS from 6 to 8	**FY 03:** Achieved/13 states funded **FY 02:** 6 states funded (baseline)	

Goal 3: Conduct a targeted program of research to reduce injury-related death and disability			
Performance Measure	Targets	Actual Performance	Ref.
Develop new or improved approaches to prevent and control death and disability due to injuries	**FY 05:** Maintain FY 04 funding level for research agenda targeted areas; peer review 98% of research projects **FY 04:** Maintain FY 03 funding level for research agenda targeted areas; increase peer-review by 5% **FY 03:** Fund one research project for injury research in targeted areas; increase peer-review by 5%	**FY 05:** 9/2005 **FY 04:** 9/2004 **FY 03:** Achieved/90% of research awards peer-reviewed; **FY 02:** 66% of research awards peer-reviewed; 134 projects funded (baseline)	B-163

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$155.0**	**$160.3**	**$157.0**
Efficiency Measure	$0.0	$0.0	$0.0
Increase capacity of injury program Measure 1	**$86.8** $3.1	**$89.8** $3.2	**$87.9** $3.1
Monitor fatal and non fatal injuries Measure 1	**$15.5** $15.5	**$19.2** $19.2	**$18.8** $18.8
Research to reduce injury-related death Measure 1	**$52.7** $52.7	**$51.3** $51.3	**$50.2** $50.2

*Dollars in millions

NOTE: Measures may not add up to total full costs for a given goal. A portion of the full costs may only be attributable to the goal level.

One hundred percent of NCIPC's budget is represented by its three goals. Goal 1 accounts for 56% of the budget, but measure 1 only accounts for 2% of this goal. CDC funds other injury programs including the Rape Prevention and Education Program, State Core Injury activities, and the Domestic Violence Enhancement and Leadership Through Alliances (DELTA) program that make up the remaining funding for this goal.

II-L. Occupational Safety and Health

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$278,587	FY 2005:	$314,674
FY 2004: (Conference)	$276,988	FY 2004:	$365,271
FY 2003: (Actual)	$273,384	FY 2003:	$361,431

The National Institute for Occupational Safety and Health (NIOSH) provides national and world leadership to prevent work-related illness, injuries, and mortality among workers.

I. Program Description and Context

Overarching Program Description and Context

Congress charges CDC with developing ways to improve and protect the health and safety of the American workforce. CDC's NIOSH is the federal entity responsible for conducting research on and making recommendations to prevent 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.

In pursuing its mission, NIOSH benefits from the following responsibilities and opportunities:

- The ability to perform industry-wide or workplace-specific investigations in workplaces of our choosing (right of access).
- The mandate to perform research to guide improved recommendations for better safety and health.
- The ability to link and integrate field and laboratory investigations to establish human exposure-response relationships epidemiologically and confirm them with demonstrations of biologic plausibility.
- The possibility to conduct intervention effectiveness research, which can be complex and costly, but which is essential to demonstrate the technical and economic feasibility of proposed solutions to workplace health and safety problems.
- The reputation for bringing independent authoritative scientific expertise to bear on issues of workforce health and safety.
- The ability to mobilize multi-disciplinary teams to focus on high-priority areas.
- The responsibility to develop and conduct ongoing tracking of worker health and safety, and exposure conditions, and to develop new approaches to improve tracking.
- A position within CDC that permits and encourages sharing of expertise with a commitment to disease and injury prevention and improvement of public health.

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. The economic burden of workplace

injuries is estimated at $240 billion, a burden higher than that for cancer, circulatory diseases, Alzheimer's, and AIDS (2002 Liberty Mutual Workplace Safety Index).

NIOSH strives to reduce the incidence of occupational injuries and illnesses with an integrated national program that includes research, tracking, capacity building, and prevention activities. NIOSH research focuses on developing new products and knowledge aimed at reducing occupational injury, illness, and death. Through its tracking component, NIOSH identifies and monitors high risk workplace situations/environments and worker populations. Within its capacity building efforts, NIOSH helps develop the capabilities of individuals and agencies in 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 professional. Within the area of prevention activities, 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 saving lives.

II. Program Performance Analysis

An essential component of performance planning involves the development of measures that ensure efficiency and effectiveness of the operation.

Efficiency Measure: Beginning October 2003, NIOSH began to

- Determine NIOSH's supervisor to employee ratio.
- Conduct baseline evaluations to determine the number of NIOSH employees with current mission-related Individual Development Plans (IDPs).
- Conduct present-time baseline evaluation to determine key Institute leadership positions (Deputy Division Directors/Division Associate Directors for Science [ADS] positions and higher, as well as other key positions) with anticipated retirement eligible dates from FY 2003 to FY 2004.

In FY 2004, NIOSH will

- Improve NIOSH's supervisor to employee ratio by at least 1.0 over FY 2003 baseline data numbers.
- Increase the number of employees with current mission-oriented IDPs to 30% of the NIOSH civil service population.
- Develop succession plans for 60% of key leadership positions with anticipated retirement eligible dates from FY 2005 to FY 2006.

In FY 2005, NIOSH will

- Increase the number of employees with current mission-oriented IDPs to 60% of the NIOSH workforce.
- Develop succession plans for 100% of key leadership positions with anticipated retirement eligible dates from FY 2006 to FY 2007.

A. Research

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

Measure 1. Increase the relevance of occupational safety and health research for future improvements in workplace protection

NIOSH conducts 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, research results are not useful unless they are translated into practice in the workplace, and ultimately result in improved worker safety and health.

In FY 2003, NIOSH contracted with the RAND Corporation to conduct a relevancy review of its research program. Findings from this study should be available in spring 2004. Once completed, NIOSH anticipates using this evaluation as a model for other relevancy reviews throughout the institute.

The relevancy of NIOSH research will be measured using the following:

- Retrospective evaluation of translation of research finding to occupational safety and health practice.
- Retrospective evaluation of research for relevance to workers and employers.

Information will be reported through the Project Planning System of CDC's Integrated Resources Information System (IRIS). NIOSH 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.

Measure 2. Ensure the quality of occupational safety and health research as measured by peer review

In FY 2003, 60% of new internal research projects and 100% of new research grants and cooperative agreements were externally peer-reviewed at project inception. All new NIOSH research grants and cooperative agreements are peer-reviewed through the NIH peer-review system.

B. Tracking Injuries, Illnesses, and Hazards

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

Measure. Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; and measure the success of implemented intervention strategies

Occupational safety and health tracking 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 is to increase the collection and use of information on the occurrence and frequency of work injury and illness. To help meet this goal, NIOSH 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 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.

To increase tracking capabilities at the state level, NIOSH collaborated with the Council of State and Territorial Epidemiologists (CSTE) to complete a set of occupational health indicators that are designed to provide information about a population's health status with respect to workplace factors. In 2003, the indicators were piloted by 10 states participating in the NIOSH States Occupational Surveillance Consortium (SOSC). In the future, a document with data from selected states will be developed to provide a broad view of occupational safety and health at the state level and differences that exist among states.

C. Information, Training, and Capacity Building

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

Measure 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

CDC engages in capacity building activities through information dissemination. In FY 2003, NIOSH assessed its capacity building capabilities through information dissemination by conducting a survey questionnaire of four professional associations. NIOSH mailed the survey in mid-January to a random sample of 300 members from the American Association of Occupational Health Nurses (AAOHN), American College of Occupational and Environmental Medicine (ACOEM), American Industrial Hygiene Association (AIHA), American Society of Safety Engineers (ASSE), providing a combined sample size of 1,200. From the 688 completed surveys, 74% responded affirmatively to reading or referring to occupational safety and health information provided or published by NIOSH within the last 12 months.

Measure 2. Increase the percentage of people with safety and health responsibilities who have academic or continuing education training

NIOSH maintains the national cadre of occupational safety and health professionals by training 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 develops 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.

D. Prevention Activities through Evaluation, Safety and Health Interventions and Recommendations

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

Measure 1. Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors

Intervention activities use technically and economically usable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities. These activities are best 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. Intervention studies also target special populations of workers such as children, minorities, and aging workers.

Currently, NIOSH has several programs that specifically address workplace safety and health interventions. Each year, NIOSH's Health Hazard Evaluation (HHE) Program conducts about 300 investigations of occupational health problems at work sites in response to requests from employers, employees, and other government agencies. In addition to this program, the Fatality Assessment Control and Evaluation (FACE) program and Fire Fighter Fatality Investigation and Prevention Program (FFFIPP) determine factors that contribute to fatal worksite events, identify emerging hazards, and develop safety recommendations.

In March 2003, NIOSH participated in stakeholder meetings organized by the federal Wage and Hourly Division to discuss an agenda for updating federal child labor laws. As a result, NIOSH published an Alert, *Preventing Deaths, Injuries, and Illnesses of Young Workers,* in August 2003, summarizing current statistics and providing concrete prevention recommendations for employers, parents, educators, and youth.

NIOSH recommendations were also instrumental in the development of The young Worker Protection Act (H.R. 3139) which was introduced to the House Committee on Education and the Workforce on September 23, 2003, that uses the 2002 NIOSH report, *National Institute for Occupational Safety and Health (NIOSH) Recommendation to the U.S. Department of Labor for Changes to Hazardous Orders,* as the basis for proposed new regulations to protect young workers. Most recently, this proposed legislation was referred to the House Subcommittee on Workforce Protection on October 14, 2003.

Measure 2. Increase workplace use of control and personal protective technologies in targeted sectors

Currently, emergency responders to chemical, biological, radiological, and nuclear (CBRN) 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, NIOSH 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, NIOSH issued its first approval of self-contained breathing apparatus (SCBA) respirators for occupational use by emergency responders against CBRN agents.

In March 2003, NIOSH announced its CBRN Air-Purifying Respirator standards and approval program. This respirator will also be used by emergency responders for events of terrorism. The CBRN APR standard developed by NIOSH addresses specific needs of the emergency responder, including chemical warfare agent testing, interoperability of filters, multi-hazard protection and panic demand contingency protection capability. Initial CBRN APR respirator approvals were expected in December 2003. In March 2003, NIOSH also implemented standards for upgrading traditional firefighter SCBA to CBRN protection levels. In FY 2003, NIOSH granted one CBRN SCBA upgrade approval to a major SCBA manufacturer.

In addition to developing respirator certification standards and user guidelines, NIOSH is committed to ensuring that CBRN-protective respirators are available to professional firefighters. In FY 2003, NIOSH increased the availability of CBRN-certified respirators for use during a CBRN event by professional firefighters.

Note: Additional performance data on the use of control and personal protective technologies in the workplace can be found in the Terrorism section of this report under "Preparedness and Response Capacity."

III. Goal-by-Goal Performance Measurement

Efficiency Measure	Targets	Actual Performance	Ref.
Determine future human capital resources needed to support programmatic strategic goals, focusing on workforce development/ training and succession planning	**FY 05:** Improve NIOSH's supervisor to employee ratio by at least 5% over FY 04 results Increase the number of employees with current mission-oriented Individual IDPs to 60% of the NIOSH civil service population Develop succession plans for 100% of key leadership positions with anticipated retirement eligible dates from FY 07 to FY 08	**FY 05:** Fall 2005 **FY 04:** Fall 2004 (baseline)	#5 E

A. Research

Goal: Conduct a high-quality research program in occupational safety and health that advances scientific knowledge and provides technically and economically usable 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	Ref.
1. Increase the relevance of occupational safety and health research for future improvements in workplace protection	**FY 05:** Increase relevance metric score by a percentage to be determined by 03 and 04 baseline studies and continue baseline evaluations **FY 04:** Increase relevance metric score by a percentage to be determined by 03 baseline study and continue baseline evaluations **FY 03:** Conduct baseline evaluation among safety and health professionals of NIOSH research relevance for practical workplace results	**FY 05:** Fall 2007 **FY 04:** Fall 2005 **FY 03:** 5/2004	B-169 4 HP-20 #5
2. Ensure the quality of occupational safety and health research as measured by peer review*	**FY 05:** 80% of internal research programs and 90% of research grants and cooperative agreements result in peer-reviewed publications within 1 year of project completion 70% of new internal research projects are reviewed by external peer-review at project inception **FY 04:** 70% of internal research programs and 80% of research grants and cooperative agreements result in peer-reviewed publications within 1 year of project completion 60% of new internal research projects are reviewed by external peer-review at project inception **FY 03:** 60% of new internal research projects and 70% of research grants and cooperative agreements result in peer-reviewed publications within 1 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	**FY 05:** Fall 2005 **FY 04:** Fall 2004 **FY 03:** Data available 3/2004 Exceeded target; 60% of new internal research projects and 100% of new research grants and cooperative agreements were externally peer-reviewed	B-169 4 HP-20 #5

B. Tracking Work Injuries, Illnesses, and Hazards

Goal: Increase the capacity to collect and use 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	Ref.
Improve the quality and usefulness of tracking information for safety and health professionals and researchers in targeting research and intervention priorities; and measure the success of implemented intervention strategies	**FY 05:** Continue to 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 Heightened use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%	**FY 05:** Fall 2005	B-169 1 HP-20.7 #5
	FY 04: Evaluate the role that tracking information had in designing research and intervention projects, and the role that follow-up tracking information can have in assessing the success of interventions Heightened use of tracking data as a way to reduce the prevalence rate of elevated blood lead concentrations in persons due to work exposures by 3%	**FY 04:** Fall 2004	
	FY 03: Establish a baseline by identifying those research and intervention projects that were based upon tracking information Identify NIOSH intervention programs that have used tracking information to demonstrate success of the intervention strategy Heightened use 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	**FY 03:** 187 research and intervention projects were based upon tracking information (baseline) 21 intervention programs used tracking information to demonstrate the success of the intervention strategy (baseline) 12.0 adults per 100,000 employed 16 and older with elevated blood lead levels of 25 mcd/dL or greater (baseline)	

Information will be reported through the Project Planning System of CDC's Integrated Resources Information System (IRIS) and NIOSH's Adult Blood Epidemiology Surveillance Program (ABLES) database. CDC will review all data for accuracy.

C. Information, Training, and Capacity Building

Goal: Ensure safer and healthier work environments for all Americans through information dissemination, knowledge transfer, and training			
Performance Measure	Targets	Actual Performance	Ref.
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 05:** Increase the number of occupational safety and health professionals who use NIOSH as a source for occupational safety and health information; continue to establish baseline **FY 04:** Increase the 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	**FY 05:** Fall 2005 **FY 04:** Fall 2004 **FY 03:** Out of 688 professionals who completed the survey, 74% indicated that they had read or referred to occupational safety and health information provided or published by NIOSH within the last 12 months (baseline)	B-169 4, 8 #4 #5
2. Increase the percentage of people with occupational safety and health responsibilities who have academic or continuing education training	**FY 05:** Increase by 3% the number with training **FY 04:** Increase by 3% the number with training **FY 03:** Establish baseline	**FY 05:** Fall 2003 **FY 04:** Fall 2004 **FY 03:** 1,405 full-time academic trainees and 31,508 continuing education trainees (baseline)	B-169 4 #5

CDC will obtain data from internal reviews and will use Efficiency and Effectiveness Ratio Evaluations to compare actual to planned results.

D. Prevention Activities through Evaluation, Safety and Health Interventions, and Recommendations

Goal: Increase safety and health in the workplace by demonstrating, communicating, and promoting technically and economically usable solutions to control workplace hazards and reduce work-related injuries, illnesses, and fatalities			
Performance Measure	Targets	Actual Performance	Ref.
1. Reduce the annual incidence of work injuries, illnesses, and fatalities, in targeted sectors	**FY 05:** 5% reduction of non-fatal injuries among youth ages 15–17; 7% reduction of fatal injuries among youth 15–17; 5% reduction in the annual number of silicosis deaths among U.S. residents age 15 and older **FY 04:** 3% reduction of non-fatal injuries among youth ages 15–17; 5% reduction of work-related fatalities among youth ages 15–17; 5% reduction in the annual number of silicosis deaths among U.S. residents age 15 and older **FY 03:** Establish baseline incidence rates of non-fatal 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	**FY 05:** Fall 2005 **FY 04:** Fall 2004 **FY 03:** Non-fatal injuries to youth: 5.2 emergency department treated injuries and illnesses per 100 FTE in 1999. (*Source:* NEISS) Fatal injuries for youth: 3.5 deaths per 100,000 FTE; average fatality rate for the period 1992-2000 (*Source:* CFOI); 180 silicosis deaths among U.S. residents age 15 and older (*Source:* 2002 World Surveillance Report, Norms Query System for 2000)	B-169 HP 20.1, 20.2, 20.4 #5 1 O
2. Increase workplace use of control and personal protective technologies in targeted sectors	**FY 05:** Increase the availability of CBRN certified respirators for use during a CBRN event to 20% of the professional firefighters; increase the percentage of U.S. pavers with installed engineering controls to 80% **FY 04:** Increase the availability of CBRN certified respirators for use during a CBRN event to 10% of the professional firefighters; increase the percentage of U.S. pavers with installed engineering controls to 70%	**FY 05:** Fall 2005 **FY 04:** Fall 2004	B-169 HHS-2 #5 O

(continued)	**FY 03:** Increase the availability of CBRN-certified respirators for use during a CBRN event to 3% of the professional firefighters; establish baseline percentage of U.S. pavers with installed engineering controls	**FY 03:** Met target/2 additional CBRN approvals were issued during FY 03 from the International Association of Fire Chiefs, the International Association of Firefighters, and direct contacts with large fire departments (66 fire departments represented); established baseline: 60% of U.S. pavers are equipped with installed engineering controls	B-169 HHS-2 #5 O

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.

IV. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$361.4**	**$365.3**	**$314.7**
Efficiency Measure	$0.0	$0.0	$0.0
Research Measure 1 & 2 combined	**$220.5** $220.5	**$208.2** $208.2	**$179.4** $179.4
Tracking Work Injuries, Illnesses, and Hazards Measure	**$25.3** $25.3	**$25.6** $25.6	**$22.0** $22.0
Information, Training, and Capacity Building Measure 1 Measure 2	**$54.2** $18.1 $36.1	**$62.1** $21.9 $40.2	**$53.5** $18.9 $34.6
Prevention Activities Measure 1 Measure 2	**$61.4** $47.0 $14.5	**$69.4** $51.1 $18.3	**$59.8** $44.1 $15.7

*Dollars in millions

100% of NIOSH's budget is represented in the measurement tables.

II. M. Preventive Health and Health Services Block Grant

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$133,298	FY 2005:	$133,298
FY 2004: (Conference)	$133,298	FY 2004:	$133,298
FY 2003: (Actual)	$134,089	FY 2003:	$134,089

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 citizens in their communities.

I. Program Description and Context

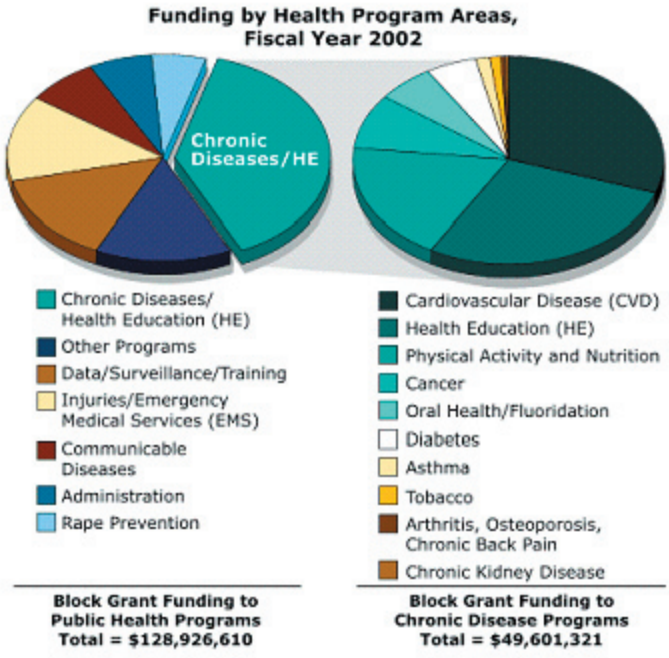
The PHHS Block Grant was authorized in Title XIX of the Public Health Services Act. Congress recognizes that state health departments and the other grantees do not have adequate funding to combat all their leading causes of illness, death, disability, and injury. Block grant funding gives states the capacity to complement categorical and state funding when needed. 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 this money to fund various essential public health services including the following:

- Preventive screening.
- Monitoring health status through data surveillance and analysis.
- Outbreak control.
- Workforce training.
- Public education through various media.
- Laboratory testing and support.
- Establishment of partnerships.
- Development of policies and plans.
- Enforcement of existing regulations and laws.
- Evaluation of 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 following pie chart reflects how the grantees chose to use their PHHS Block Grant dollars in FY 2002.



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 Institute of Medicine's *The Future of Public Health 1988*.

In 2002, CDC established a website (www.cdc.gov/nccdphp/prevbloc.htm) to enable states to access directly 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. In addition, 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 use PHHS Block Grant funds.

Block Grant funds can be linked to the following HHS Strategic Goals:

- Reduce the major threats to the health and well-being of Americans.
- Enhance the ability of the nation's public health system to respond effectively to bioterrorism and other public health challenges.
- Increase the percentage of the nation's children and adults who have access to regular healthcare and expand consumer choices (eliminate racial and ethnic disparities).

II. Program Performance Analysis

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

Measure. Eliminate the hours it takes to install GARS software on grantees machines by establishing a web-based system

A non-Web-based GARS is burdensome and inefficient for states and CDC. This burden is exacerbated as states face deep budget cuts. For example, as California looses program personnel (state health department budget cuts estimated at 50% or more), they are shifting GARS information entry to more users, thus increasing the number of installations and amount of necessary training. At the same time, they are losing computer support personnel due to staff reductions. Texas faces similar challenges. They recently informed CDC that state health department programs are being cut by 50%, a 20% increase over initial estimates.

Other challenges are not immediately apparent to CDC. For example, in Louisiana, the Block Grant Coordinator is in Baton Rouge and the technical support staff is in New Orleans. Technical support personnel must make a special trip to Baton Rouge to troubleshoot technical problems. Many states scatter employees in offices throughout the city, or as in Guam, on opposite sides of the island. These states have Local Area Networks (LANS) within a building, but unlike CDC, they do not have WANS (Wide Area Networks) to connect the various office buildings. Individuals that wish to view GARS information must physically travel to the office of the individual that has GARS installed. Alternatively, GARS users must print the information and mail or fax hard copies of the document to individuals in their own agencies. All of these problems would be eliminated by a Web-based version of GARS.

State health departments will save 1,952 hours per year on installation alone by using a Web-based GARS (1,952 grantee hours = average of 4 system per grantee 61 grantees 8 hours per installation). CDC will save 720 hours, for a total saving of 2,672 hours.

The conversion of a Web-based GARS can be accomplished cost-effectively because code from a Web-based product based on the original GARS has been developed by another CDC center and will be used as the basis for product development.

Efficiency Measure: Provide dynamic support for high-priority state and local disease prevention and health promotion programs			
Performance Measure	Targets	Actual Performance	Ref.
Eliminate the hours it takes to install GARS software on grantees machines by establishing a Web-based system	**FY 05:** 0 hours	**FY 05:** 12/2006 **FY 04:** GARS becomes Web-based; 12/2005	E B-180

III. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$134.1**	**$133.3**	**$133.3**
Efficiency Measure	$0.0	$0.0	$0.0

*Dollars in millions

NOTE: To reduce the overall number of output measures in CDC's performance plan, CDC has reduced the number of measures for PHHS Block Grant budget line to one efficiency measure. CDC is now developing a more outcome-oriented goal and measure.

II-N. Public Health Improvement

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$113,292	FY 2005:	$118,289
FY 2004: (Conference)	$172,562	FY 2004:	$183,602
FY 2003: (Actual)	$153,034	FY 2003:	$163,918

The mission of Public Health Improvement is to strengthen the public health infrastructure.

I. Program Description and Context

Public Health Practice

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 to protect 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 as well as 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.

Because these components are interrelated, deficiencies in one area—or in one jurisdiction—have a ripple effect throughout the entire public health system. Public health systems are defined as "all public, private, and voluntary entities that contribute to the delivery of essential public health services in a jurisdiction." 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 accomplish the following:

- 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 public health 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.

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 frontlines of public health. The ratio of public health workers to the U.S. population has declined 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, for example, only

- 44% have any formal training in public health. (*Source:* Gerzoff, R.B., Brown, C.K., Baker, E. L. Full-Time Employees of U.S. Local Health Departments, 1992-1993. Journal of Public Health Management Practice, 1999, 5(3), 1-9.).
- 22% of local public health officials have graduate degrees in public health. (*Source:* Gerzoff, RB, Richards TB. The education of local health department top executives. J Public Health Management and Practice 1997: 3(4):50-56.).
- 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 the CDC programs listed below.

- *Public Health Training Network (PHTN)* provides access to high quality, competency-based continuing education and the latest CDC science and guidance on emerging threats to health via a national distance learning system which reaches both public health and healthcare professionals. With the globalization of health threats, PHTN is now building a global distance learning system to enable the sharing of much needed health education and information with anyone, at any time, in any place.

- *National Laboratory Training Network (NLTN)* provides both cutting edge and basic training in the laboratory sciences to meet the needs of a variety of public heath professionals. Training formats include hands-on wet workshops, seminars, satellite broadcasts, videotapes, and computer based interactive self-study programs.

- *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* address the 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). Through the provision of funding and technical assistance to academic and other partners, CDC establishes and administers

formal management and leadership training programs that develop skills and promote peer collaboration.

- *Centers for Public Health Preparedness (CPHP).* In September 2000, CDC established a national network of Centers for Public Health Preparedness (CPHP) to strengthen bioterrorism and emergency preparedness at the frontlines 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. Academic centers meet broad national/regional needs while specialty centers focus on specific disciplines (e.g. physicians, nurses, environmental health), 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 to link 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.

Health Departments and Laboratories

As with the public health workforce, the nation's state and local public health systems are inadequately 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. CDC results from early implementation of the National Public Health Performance Standards Program show a range of average performance scores between 30% and 47% for five state public health systems, when their current performance was compared against optimal public health standards. Other studies have shown that local health departments provide 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 agencies and with clinical laboratories to ensure excellence in public health laboratory practice. Major initiatives include the following:

- *The National Public Health Performance Standards Program (NPHPSP)* stimulates and guides improved performance at the state and local levels by establishing national performance standards. The mission of NPHPSP is "to improve the quality of public health practice and the performance of public health systems." The program is a CDC partnership with six national public health organizations. OMB-approved assessment instruments for state public health systems, local public health systems, and local governing bodies were released in July 2002. The assessment instruments measure the performance and capacity to deliver the 10 Essential Public Health Services, thus providing much-needed standards for public health analogous to those used to evaluate hospitals and managed care organizations. CDC is now working with its national partners to support implementation of the assessment instruments, analyze and disseminate the performance data, and promote systems improvement activities.

- *The Model Performance Evaluation Program (MPEP)* was implemented in 1986 to evaluate laboratories performing tests to detect HIV type 1 antibody. MPEP develops methods to evaluate quality in laboratory testing systems, develops strategies to identify and correct testing quality failures, and evaluates the effect of testing quality on public health. The program has been expanded to include antimicrobial susceptibility testing of Mycobacteria tuberculosis isolates as well as other HIV-AIDs related laboratory tests such as CD4 levels and viral load. Studies derived from this program have led to publication of guidelines for CD4 T-cell testing.

- CDC is working with the *Association of Public Health Laboratories (APHL)* to promote the concept of a National Laboratory System (NLS) in which state public health laboratories take an active role in establishing strong communication links with the medical laboratories in their states to more rapidly identify and reduce the spread of potential public health threats. CDC developed the National Laboratory Database to allow state laboratories to assess testing capacity of private laboratories in their states, and to promote discourse between public and private laboratories. Demonstration projects in four states were funded in 2001 and a formative evaluation of those projects is currently underway to help identify criteria needed to expand effectively the NLS to all states. The projects increase public-private laboratory interaction and improve testing practices for specific diseases. CDC continues 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 continues 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 the creation of laboratory training programs in the Caribbean; the creation of guidelines and models for national laboratory quality programs with an emphasis on HIV and TB; and the promotion of multi-organizational cooperation through laboratory training.

Information, Communication, and Knowledge Management Systems

As with the workforce, demands on our nation's public health information infrastructure have never been greater. Today, microbes and disease vectors can move around the world at jet speed, yet our public health surveillance systems still rely, in many cases, on a time-consuming, resource-intensive system of paper-based reporting and telephone calls.

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% of CDC's e-mails were delivered successfully. Some public health laboratories, often the first to detect a new pathogen, still report their results by surface mail, with lag times up to 10–14 days.

In a February 1999 survey of local health departments, CDC found that only 45% had the capacity to send broadcast facsimile alerts (i.e., multiple faxes sent simultaneously to laboratories, physicians, state health agencies, CDC, or others). Similarly, less than 50% had high-speed continuous access to the Internet, and 20% lacked e-mail capabilities. (*Source:* NACCHO Research Brief. July 1999, No. 4). Lack of access to communication networks is not the only problem. 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 they prevent public health agencies from communicating with

each other in a timely manner and hinder communication between public health staff, private clinicians, or other sources of information about emerging health problems. (*Source:* Public Health's Infrastructure: A Status Report, 2000, CDC).

These basic communication gaps also exacerbate other problems, particularly the existing fragmentation of surveillance systems and the variability among 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.

To address these gaps, CDC has implemented programs that build the information and communication infrastructure at the state and local level. In addition to providing funding and technical assistance to ensure that the technological components of information systems are in place, CDC is also working with partners to develop systems for distributing useful information to the point of practice. The development of a knowledge management system for public health practice information is a key step in making the wealth of available public health information manageable and accessible to frontline public health practitioners. Knowledge management systems categorize, summarize, and prioritize public health information, making it user friendly for practitioners.

One example of a knowledge management system is the Health Alert Network (HAN), a major component of CDC's Public Health Information Network. HAN will strengthen the capacity of local health departments to serve as an early warning and response system against bioterrorism and other public health threats. While HAN was jointly developed by local, state, and federal partners, grant guidance requires that the bulk of federal funding be used to improve the infrastructure and readiness of local public health systems.

HAN is designed to meet the most critical needs of local public health departments. All 50 states, 4 large cities, and Guam received limited, initial funding to strengthen the core infrastructure for information access, communications and training at the community level. Five local health departments received increased funds to develop innovative approaches to local preparedness.

Eliminating Racial and Ethnic Disparities

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 41% higher among African Americans than among whites. The prevalence of diabetes is about 1.6 times higher among African Americans, 1.9 times higher among Hispanics than among non-Hispanic white Americans of similar age. Although African Americans and Hispanics represent only 26% of the country's population, more than 65% of 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 90% 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, compared with whites.

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 healthcare.

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.

REACH 2010 grantees used local data to implement interventions that address one or more of the six priority areas and target one or more of the racial and ethnic minority groups. Community coalitions are conducting interventions that include continuing education for healthcare providers around prevention; health education and health promotion using lay health workers and health communication campaigns.

Healthy People 2010 has as one of its goals eliminating racial and ethnic disparities in health among segments of the population, including differences that occur by gender, race or ethnicity, education or income, disability, geographic location or sexual orientation. REACH 2010 relates to *Healthy People 2010* priority areas pertaining to the following communities: African Americans, American Indians, Alaska Natives, Asian Americans, Hispanic Americans, and Pacific Islanders. REACH 2010 activities are in accordance with goal 3, objective 4 of the HHS Strategic Plan: eliminate racial and ethnic disparities.

In addition to CDC, other HHS agencies and offices have played critical roles in planning, coordinating, and supporting REACH 2010. These include the National Institutes of Health, the Administration on Aging, the Office of the Secretary, the Health Resources and Services Administration, and the Agency for Healthcare Research and Quality.

REACH 2010 projects are empowering community members to transform their neighborhoods into places that encourage healthy behaviors. Through close collaboration with community members and creative partnerships with public and private organizations, CDC will continue to spearhead the country's efforts to eliminate health disparities by carrying out the lessons learned from the REACH 2010 projects in communities across the country.

The evaluation of REACH 2010 is important in determining the program's effectiveness in reducing health disparities. Working with its grantees and partners, CDC has developed an evaluation model that guides the collection of qualitative and quantitative data using the following stages: capacity

building, targeted actions, community and system change, change among change agents, widespread risk, protective behavior change, and health disparity reduction.

National Electronic Disease Surveillance System (NEDSS)
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, in conjunction with its critical partners at the federal, state and local levels, 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 NEDSS with $20 million. 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 FY 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. In 2003, 57 health jurisdictions received NEDSS funding.

NEDSS is a national, integrated, standards-based public health surveillance infrastructure that will
- Allow rapid reporting of disease trends to control outbreaks.
- Create public and private healthcare sector linkages to increase the volume, accuracy, completeness, and timeliness of the data available for disease monitoring.
- 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. NEDSS is an integral component of the Public Health Information Network.

To implement NEDSS, CDC is
- Developing and implementing national data standards for public health surveillance and reporting.
- Providing technical infrastructure support for state and local communities.
- Establishing local, state, and regional demonstration projects that create linkages between the public health and healthcare data systems.
- Providing standards and technical assistance to maintain stringent security standards to protect confidentiality.

II. Program Performance Analysis

Goal 1. Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, 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

Measure 1. Evaluate the impact on the performance/preparedness of the frontline public health workforce resulting from education and training programs implemented or supported by CDC, including the CPHP system

The CPHPs comprise a national system of academic, practice, and specialty centers focusing on improving the capacity of frontline public health and healthcare workers to respond to all forms of terrorism. CPHPs work closely with each other to avoid duplication and to identify gaps in programs and services for bioterrorism preparedness and response. Using a common framework developed in partnership with national public health organizations, CPHPs focus on such topics as critical bioterrorism agents, surveillance and epidemiology, incident command, health/risk communication, and legal authorities. The original seven CPHPs, in collaboration with their state and local partners, prepared more than 180 educational products and trained more than 200,000 public health and healthcare professionals in the first 2 years. Following September 11, 2001, and the anthrax exposure events, CPHPs more than doubled their goals for outreach and developed an inventory of faculty expertise and assets available for local, regional, and national emergencies. In FY 2003, the academic centers provided access to more than 300 preparedness courses for 145,000 public health workers in state and local public health.

The specialty CPHPs developed and disseminated national model curriculum materials. For example, the University of Georgia developed a Basic Disaster Life Support course selected for national implementation by the American Medical Association. The St.. Louis Center for Bioterrorism and Emerging Infections disseminated more than 6,000 CD-ROMs on Smallpox Vaccination and Clinic Management.

The academic CPHPs (A-CPHPs) will initiate a comprehensive program evaluation model for FY 2004. The centers will track training, technical consultation, and systems change accomplished for state and local public health agencies. It is anticipated that evaluation results will be available for 10% of the states covered by A-CPHPs (estimate 4-5 statewide evaluations).

Public Health Ready is a program to prepare local governmental public health agencies to respond and protect the public's health through a voluntary certification program combining competency-based training of staff with planning and drilling for emergency response. Performance criteria were developed by project partners including CDC, the National Association of County and City Health Officials, the Association of State and Territorial Health Officials and A-CPHPs. The program was pilot-tested in 12 sites (June through October 2003). Pilot sites represent large, small, urban, rural, tribal communities, and diverse governance structures. Pilot sites share lessons learned through meetings, monthly conference calls, and technical assistance. Recommendations for a national roll out are anticipated by January 2004.

In FY 2003, 21 A-CPHPs found in 23 accredited schools of public health provided geographic coverage for 41 states. While this indicates that the performance goal is currently met, the program will continue to seek expanded geographic coverage and increased depth of coverage to ensure that state and local partners' needs are met. The goal is 100% national coverage by 2006.

The centers are an integral part of CDC's evaluation framework to ascertain the outcome of education and training at the learner level and to describe the linkages among workforce competency, organizational effectiveness, and health outcomes. The centers provide a national network of public health evaluators who are defining data sets for measuring impact.

CDC also supports education and training of frontline public health workers through a network of

50 state Distance Learning Coordinators (DLC). The DLC is each state's coordinator and primary liaison to the Public Health Training Network (PHTN) for assessing, developing, marketing, coordinating, and evaluating statewide distance learning strategies for training the public health workforce. In FY 2003, this group assisted with promoting and marketing the delivery of 32 CDC-produced satellite broadcasts and 198 PHTN broadcasts to the public health workforce.

Measure 2. Evaluate the impact of training programs conducted by the National Laboratory Training Network (NLTN) on laboratory practices

The number of laboratory staff trained by NLTN increases each year, but NLTN is most interested in whether or not the training it provides has an impact on laboratory performance. Prescribed testing practices and adherence to quality assurance measures have been shown to improve performance. NLTN assesses training needs by measuring baseline practices and then assesses changes in practices after training for selected courses, those given at the national level.

During FY 2003, NLTN conducted 259 training courses and trained 11,185 participants. These courses were developed based on documented training needs and delivered in collaboration with state public health laboratories. Courses were presented on topics such as bioterrorism, packaging and shipping BT agents safely, antimicrobial susceptibility testing, tuberculosis, and others. Selected courses from the previous year were evaluated to determine outcomes of training. As a result of NLTN training in Georgia on proper collection of bloodspot specimens for newborn screening, the number of specimens rejected decreased from 13.9% in March 2001 to 5.7% in October 2001 to 3.9% in December 2001. These results represent 3,874 babies in a single state who did not have to return to the hospital or clinic during the first quarter of 2002 for repeat blood collection. In addition to inconvenience and added pain, the delays in obtaining accurate test results as a consequence of rejected specimens can result in death or mental retardation in babies with certain genetic disorders. Because these results were impressive, NLTN will conduct training nationwide on this topic during 2004 and evaluate changes in specimen rejection rates as a result of that training.

NLTN converts distance learning programs originally developed as stand-alone videotapes, slide tape programs, and satellite courses into "Work-Shops-In-a-Box (WIBs). These workshops contain comprehensive training guides that can be used to qualify for continuing education credits at the worksite. Training on 16 topics has been converted to this method since 1995. More than 5,000 participants from 363 facilities have obtained Continuing Education Units by enrolling in WIB courses. Of the 190 that responded to surveys asking if the courses were effective, 95% said that they had updated or improved their laboratory practices and 39% said that the information presented helped the laboratory pass its inspection.

The National Laboratory System (NLS) demonstration projects in Nebraska, Minnesota, and Michigan have formally ended and activities associated with implementing the NLS, will be continued in these and additional states through funding received from the state bioterrorism grants. The Washington "Clinical Laboratory Initiative" NLS demonstration continues because it operates from the University of Washington and is not specifically terrorism-related. CDC developed the National Laboratory Database (NLD) to allow state laboratories to assess testing capacity of private laboratories in their states, and to promote discourse between public and private laboratories. The NLD tool allows states to continue work towards creation of an integrated national laboratory system. Activities associated with implementing NLS will continue in these 4 states through funding received from the state bioterrorism grants.

NCCLS (formerly National Committee for Clinical Laboratory Standards) is an organization that develops standards of laboratory practice using consensus panels of experts. Use of the standards is voluntary, but laboratories that adopt the standards are more likely to produce more accurate testing results. A major NCCLS initiative is the development of standards for antimicrobial susceptibility testing (AST). AST has become highly complex, so laboratories need assistance in interpretation and use of the standards. NLTN has developed and delivered a series of courses on use of NCCLS standards for AST. The effectiveness of the courses will be evaluated by measuring how laboratories adopted specific recommendations in NCCLS standards as a result of the training.

Measure 3. Expand front-line public health practitioners' access to Internet-based, CDC-approved public health practice guidelines, scientific/disease reference images, health and medical data, and information on the effectiveness of public health interventions

Several current projects address the need to disseminate scientific findings to the practice community and educate the public. Knowledge management systems categorize, summarize, and prioritize public health information, making it manageable and accessible to frontline public health practitioners. One such system is *CDC Recommends,* an online repository of CDC recommendations on a wide range of public health practice topics, available on CDC's website. The system has been designed with a dual interface, allowing both practitioners and the public to locate, download, and apply CDC guidelines from throughout the agency. This project will provide concise, necessary knowledge at the point of practice.

Food safety guidelines are the prototype for the development of an agency-wide integrated knowledge management system that builds on the model developed by *CDC Recommends.* A software tool currently being built and tested will guide additional CDC programs as they develop future modules for *CDC Recommends.* Thus, the recommendation formats will be consistent for users across subject areas. The website will contain audience-focused information accessible through various avenues. Both the multiple indexing and the tailored content support the public health practitioners in quickly finding information. This system serves a dual purpose by providing information during terrorism events and other public health emergencies, and by filtering the most current information to public health practitioners to improve delivery of routine services.

Another knowledge management system 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, the points at which recommendations should be made and which recommendations are appropriate. Preliminary indications reveal that such systems can increase the efficiency of adherence to public health practice guidelines and produce quality assurance processes that enhance the effectiveness of preventive screening and treatment.

Complementing these knowledge management system is the Public Health Image Library (PHIL), a unique online gallery of scientific photographs, electronic images, videos, and other objects representing significant public health visual information. In FY 2003 the number of images digitized, referenced and archived in PHIL rose from 1,350 to 4,000 images. Some 3,000 additional images will be introduced each year. Clinicians, scientists, researchers, publicists, teachers, students, and the public can access PHIL and obtain images depicting everything from microorganisms to mosquitoes, rashes to risk factors.

Measure 4. Expand the connectivity and functionality of the Health Alert Network (HAN)

The proportion of the U.S. population covered by local public health agencies connected to HAN has increased from a baseline of 86% in FY 2002 to 89%. Linking local health departments electronically to Health Alerts disseminated by CDC is a first step in assuring a rapid and effective response to public health emergencies. Progress towards even further expanded coverage continues. CDC is currently gathering additional data to assess high-speed Internet connectivity. This statistic will be updated when new data is aggregated.

Beginning in FY 2004, the connectivity measure will be replaced by a new measure, network testing, which will provide more robust indicators of local public health agency preparedness. These measures will also enable CDC to provide targeted technical assistance to jurisdictions that ensures they can receive messages 24/7, disseminate those messages to local community partners, and operate redundant wireless communications systems.

Measure 5. Expand and enhance HAN's ability to provide rapid access to public health guidelines, best practices, and information on the effectiveness of public health interventions

Currently, three basic building blocks for routine and emergency information dissemination are being completed nationwide by HAN:

1. Continuous high-speed Internet connectivity to support rapid information access.
2. Broadcast capacity to support emergency communication.
3. Distance learning infrastructure to support just-in-time training.

Plans for coming years include continued technical assistance and network testing to ensure timely message translation, dissemination, local response, and feedback.

Measure 6. Provide up to the minute scientific information and education via distance learning to thousands of health professionals, thereby reducing the cost and time delay of traditional educational strategies

By enabling public health workers to access educational opportunities in their own communities, the Public Health Training Network (PHTN) provides efficiency at the local, state, and federal level. One specific example can be documented through the National Immunization Program's decision to convert their course, "Vaccines for Preventable Diseases," which was previously delivered as a 5-day workshop, to a distance learning program, which is delivered in four 3-hour satellite, and web-delivered programs. Efficiency of this program (as well as others) can be measured in terms of:

- Significant reduction in actual travel and materials costs for students and educators.
- The ability to "repurpose" course segments so that they can be reused for every program (savings in terms of production and subject matter expert resources).
- Time efficiencies resulting from the ability to get needed information/education to critical audiences when it is needed rather than when it can be scheduled.
- PHTN makes possible "learning at the speed of scientific discovery," getting vital information to the care-givers of the planet in 24 hours if necessary.

Goal 2. 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

Measure 1. Fund selected communities to implement REACH 2010 interventions based on community planning activities

CDC currently funds 31 demonstration projects, 5 American Indian/Alaska Native Core Capacity, and 4 projects targeting the elderly. 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.

CDC will continue to provide funding to REACH 2010 demonstration projects and the five American Indian/Alaska Native organizations. CDC will internally monitor performance of these activities and will continue to report through calendar year 2003 on the status of these activities in the program performance analysis section.

Measure 2. Develop national strategies (recommendations) to eliminate gaps in each of the six health priority areas based on the interventions and disseminate findings from the REACH 2010 Projects

CDC continues to develop national strategies (recommendations) to eliminate 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. 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 2003, CDC convened a panel of experts to review strategies developed to date. The processes and strategies used 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. CDC will report on the status of this target in October 2004.

Measure 3. Collect qualitative and quantitative data in REACH 2010 communities to evaluate community capacity-building, intervention strategies, systems change, change among change agents, and change in risk/protective behaviors

In FY 2004 and FY 2005, CDC will collect and review quantitative data to examine changes in risk/protective behaviors in 27 communities with health priority areas in Breast and Cervical Cancer, Cardiovascular Disease, and Diabetes (excluding the REACH Elderly and American Indian/Alaska Native projects). Data will be collected through a behavioral surveillance instrument called the REACH 2010 Risk Factor Survey, which contains a series of questions related to physical activity; nutrition; heart disease and stroke; diabetes; and breast and cervical cancer. The collection of these data will inform the REACH 2010 program of widespread risk and protective behavior changes

in the REACH 2010 communities and will help the communities and CDC tailor prevention/intervention activities to the specific characteristics of the community.

In addition, CDC will collect and disseminate qualitative data related to three stages of the REACH 2010 Evaluation Logic Model: community capacity-building activities, intervention strategies, systems change and change among change agents. Information will be collected through an Internet-based data warehousing application called the REACH Information Network (REACH IN). REACH grantees will use the system to document current resources, identify specific needs, and document efforts and outcomes. The system will allow funded communities and CDC to monitor indicator outcomes related to specific health priority areas. By FY 2004, 60%, and by FY 2005, 85% of REACH communities will collect and disseminate qualitative data.

Goal 3. Develop a national, integrated, standards-based public health surveillance infrastructure that is securely linked to healthcare practice

CDC is working closely with its state and local partners to move towards industry-based, public health-wide standards for all electronic data exchange, alerting and communication activities under the framework of the Public Health Information Network. Use of these standards is helping forge strong national, regional and local public-private partnerships that are resulting in documented success in realtime access to critical information for public health, healthcare and emergency response professionals.

Measure 1. Conduct pilot projects to develop and test electronic linkages between public health agencies and the healthcare sector

In FY 2003, Version 1.0 of the NEDSS Base System was delivered and is operating in Nebraska and undergoing integration testing in Tennessee, South Carolina, and Louisiana.

Measure 2. Increase the number of states using electronic laboratory reporting

In FY 2003, 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.

III. OMB PART Review of the Health Alert Network

The OMB PART process reviewed the Health Alert Network in FY 2002. The assessment found that

- While CDC has shown progress toward previous output measures, CDC is refining existing goals into better outcome measures for 2004, and therefore cannot yet show significant progress toward these new standards.
- There were minor deficiencies identified in the management area, including a CDC-wide issue on financial management, and the fact that reports were not available to demonstrate the timeliness of obligations. Otherwise, management of this program is above average.
- CDC has gone to great lengths to ensure that their grantees are aware of and working to attain the larger strategic goals. Good progress has been made toward previous output goals. However, since new goals with an increased focus on outcomes are being established, grantee progress toward these new goals cannot yet be demonstrated.

- The purpose of the program is clear.

OMB re-assessed HAN in 2003. While results of the assessment are not yet available, CDC has made progress implementing the above recommendations.

Outcome measures: New, outcome-oriented goals for HAN have been developed and will be added to the CDC Performance Plan for FY 2005.

Management: PHPPO undertook a thorough review of its entire Financial Management System to include budget planning and budget execution and accounting architecture. This accounting system gives us the financial data we need to track budget execution and program performance by ensuring that we spend funds for the intended purpose. This was completed on September 1, 2002.

Grantee progress toward new goals: CDC has measured grantees' progress towards the newly established goals. This progress is reported in the FY 2003 PART submission.

IV. Goal-by-Goal Performance Measurement

Goal 1. Increase the number of frontline public health workers at the state and local level that are competent and prepared to respond to bioterrorism, infectious disease outbreaks, and other public health threats and emergencies; prepare frontline state and local health departments and laboratories to respond to current and emerging public health threats			
Performance Measure	Targets	Actual Performance	Ref.
1. Evaluate the impact on the performance/ preparedness of frontline public health workforce resulting from education and training programs implemented or supported by CDC, including CPHP* system *The CPHP program is a collaboration between CDC's Terrorism and Public Health Improvement Programs	**FY 05:** a) Evaluate impact in 50% of states b) 25% of local health depts. (LHDs) achieve certification under "Project Public Health Ready" (denominator: 3,000 LHDs) c) 90% of states are served by a CPHP d) 40% of LHDs deploy distributed learning technology in public health education and training (denominator: 3,000 LHDs) e) 85% of the 500 State Distance Learning Coordinators receive training **FY 04:** a) Evaluate impact in 30% of states b) 10% of LHDs achieve certification under "Project Public Health Ready" (denominator: 3,000 LHDs) c) 80% of states served by a CPHP d) 50% of LHDs deploy distributed learning technology in public health education and training (denominator: 3,000 LHDs)	**FY 05:** a) 12/2005 b) 10/2005 c) 10/2005 d) 12/2005 e) 9/2005 **FY 04:** a) 12/2004 b) 10/2004 c) 10/2004 d) 9/2004	B-182 HP-23

(continued)	e) 50% of the 500 current Distance Learning Coordinators have initiated basic competency training **FY 03:** a) Initiate evaluation in 10% of states b) Begin demonstration phase of "Project Public Health Ready" c) 50% of states served by a CPHP d) 30% of LHDs deploy distributed learning technology in public heath and education and training (denominator: 3,000 LHDs) e) 10% increase in DLCs trained in basic core competencies	e) 9/2004 **FY 03:** a) 7/2004; evaluation framework adopted 7/2003 b) Met/12 pilot sites selected c) Exceeded/82% states have access to CPHP services d) Met/30% of LHDs deployed distributed learning technology in public heath and education and training e) 84% of DLCs have completed basic courses for core competencies	B-182 HP-23
2. Evaluate the impact of training programs conducted by the National Laboratory Training Network on laboratory practices	**FY 05:** Evaluate the effect of training on reducing rejection rates of specimens submitted to state laboratories for newborn screening **FY 04:** Assess the increase in the number of laboratories that adopt specific NCCLS practices for antimicrobial susceptibility testing and reporting **FY 03:** a) Evaluate distance learning workshop-in-a-box programs to assess changes in practices and improve inspections b) 4 states implementing the NLS	**FY 05:** 8/2005 **FY 04:** 8/2004 **FY 03:** a) Met/evaluation complete b) Unmet/ demonstration project ended; implementation activities transferred to state bioterrorism grants	B-182 HP-23

3. Expand frontline public health practitioners' access to Internet-based, CDC-approved public health practice guidelines, scientific/disease reference images, health and medical data, and information on the effectiveness of public health interventions	**FY 05:** a) Begin implementing Media Asset Management Program by adding moving image assets b) Expand PHIL by 3,000 images **FY 04:** Expand PHIL by 3,000 images **FY 03:** a) Expand PHIL b) Develop knowledge management system for public health practice information	**FY 05:** a) 10/2006 b) 10/2005 **FY 04:** 10/2004 **FY 03:** a) Met/4,000 images b) Met/*CDC Recommends* contains guidelines and recommendations approved by CDC for the prevention and control of disease, injury, and disabilities **FY 02:** Developed capability to Web-stream and archive live CDC/PHTN broadcasts **FY 00:** Plan developed to continue enhancing online information resources	B-182 HP-23 4, 5  #4
4. Expand the connectivity and functionality of HAN* *HAN is a collaboration between CDC's Terrorism and Public Health Improvement Programs	**FY 03:** Extend HAN to local public health agencies to cover 90% of the U.S. population	**FY 03:** 89% of the U.S. population lives in local health jurisdictions that have high speed Internet connectivity; CDC is gathering additional data to assess high-speed Internet connectivity; this statistic will be updated when new data is aggregated **FY 02:** 86% of local health counties/jurisdictions have high-speed Internet connectivity (baseline)	B-182 HP-23  #4
5. Expand and enhance HAN's ability to rapidly provide access to public health guidelines, best practices, and information on the effectiveness of public health interventions *Note:* The HAN program staff are still debating how best to frame targets for this measure; we will be in contact with OPPE further regarding this issue	**FY 05:** a) 80% of state and 50% of local health departments will acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis b) 75% of state grantees will have communication established with identified, key stakeholders c) 75% of state grantees will have a protocol for testing and documenting send/receive capabilities	**FY 05:** 12/2005	B-182 HP-23  #4

(continued)	d) Establish interoperable wireless redundant communication systems in 55% of state health departments **FY 04:** a) 60% of states and 25% of local health departments will acknowledge receipt of health alert messages within 30 minutes of delivery on a 24/7 basis b) 50% of state grantees will have communication established with identified, key stakeholders c) 50% of state grantees will have a protocol for testing and documenting send/receive capabilities d) Establish interoperable wireless redundant communication systems in 40% of state health departments	**FY 04:** 12/2004	B-182 HP-23 #4
6. Provide up to the minute scientific information and education via distance learning to thousands of health professionals, thereby reducing the cost and time delay of traditional educational strategies	**FY 05:** 5% increase in number of participants registered in distance learning activities	**FY 05:** 12/2006 **FY 02:** 46,559 participants registered in distance learning activities (baseline)	E

Goal 2. By 2010, 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			
Performance Measure	Targets	Actual Performance	Ref.
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:** 32 Phase II grantees currently receive funding **FY 01:** Six new Phase II projects funded based on objective competition **FY 00:** Funded 14 Phase I coalitions and 24 Phase II coalitions **FY 99:** Funded 32 Phase I coalitions	B-182

2. Develop national strategies (recommendations) to eliminate gaps in the six health priority areas based on the interventions and disseminate findings from the REACH 2010 Projects	**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 03:** 10/2004	B-182
3. Collect qualitative and quantitative data in REACH 2010 communities to evaluate community capacity-building, intervention strategies, systems change, change among change agents, and change in risk/ protective behaviors	**FY 05:** REACH 2010 Risk Factor Survey data (quantitative) on changes in risk/ protective behaviors will be collected and disseminated in 100% of the communities (27) with health priority areas in breast and cervical cancer, cardiovascular diseases, and diabetes, (excluding the REACH Elderly; 85% of REACH 2010 communities will collect and disseminate data [qualitative]) **FY 04:** REACH 2010 Risk Factor Survey data (quantitative) on changes in risk/ protective behaviors will be collected and disseminated in 100% of the communities (27) with health priority areas in breast and cervical cancer, cardiovascular diseases, and diabetes, (excluding the REACH Elderly; 60% of REACH 2010 communities will collect and disseminate data [qualitative])	**FY 05:** 10/2006 **FY 04:** 10/2005 **FY 00:** 0 (baseline)	B-182 HHS, HP

Goal 3. Develop a national, integrated, standards-based public health surveillance infrastructure that is securely linked to healthcare practice			
Performance Measure	Targets	Actual Performance	Ref.
1. Conduct pilot projects to develop and test electronic linkages between public health agencies and the healthcare sector	**FY 03:** Fund 10 states	**FY 03:** Met/10 **FY 02:** Funded 19 states **FY 01:** Funded 19 states **FY 00:** Funded 14 states **FY 99:** 0	B-182 HP - 23
2. Increase the number of states using electronic laboratory reporting	**FY 03:** 40 states	**FY 03:** Met/40 states **FY 02:** 34 states **FY 01:** 15 states **FY 00:** 10 states (baseline)	B-182 HP - 23

V. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$163.9**	**$183.6**	**$118.3**
Efficiency Measure	$0.0	$0.0	$0.0

Increase number of frontline public health workers	**$6.9**	**$6.8**	**$3.1**
Measure 1	$0.3	$0.3	$0.2
Measure 2	$3.8	$3.8	$1.7
Measure 3	$2.8	$2.7	$1.3
Measure 4†	N/A	N/A	N/A
Measure 5†	N/A	N/A	N/A
Improve lives of racial & ethical populations‡	**$40.2**	**$39.7**	**$39.1**
Measure 1, 2, & 3 combined	$40.2	$39.7	$39.1
Develop national public health surveillance infrastructure¶	**$30.6**	**N/A**	**N/A**
Measure 1 & 2 combined	$30.6	N/A	N/A

*Dollars in millions

†Measures 4 and 5 are not funded through the Public Health Improvement resources but through Terrorism funds which are covered separately.

‡REACH performance measures account for 100% REACH funding for FY 2003 to FY 2005.

¶One hundred percent of NEDSS funding are allocated for FY 2003 to FY 2005 NEDSS performance measures; however, only FY 2003 measures appear in this plan. NEDSS FY 2004 and FY 2005 measures are similar to those described for FY 2003, but are monitored internally.

The remaining funds support other Public Health Improvement programs including the following:

- Extramural Prevention Research.
- Academic Partnerships.

- Core Cooperative Agreements (ASPH, ATPM, AAMC).

- Public Health Systems Research, Assessment, and Evaluation.

- Research and Evaluation.
- Performance Standards.
- Public Health Systems Analysis and Research.

- Leadership and Management Training Programs.

- Sustainable Management Development Program (SMDP).
- Public Health Leadership Institute (PHLI).
- Leadership Management Institute (LMI).
- Management Academy.
- Center for Laboratory Leadership.

II-O. Buildings and Facilities

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$81,500	FY 2005:	$0
FY 2004: (Conference)	$260,454	FY 2004:	$0
FY 2003: (Actual)	$266,258	FY 2003:	$0

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.

I. Program Description and Context

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 maintain properly 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.

II. Program Performance Analysis

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

Measure 1. Design East Campus Consolidated Lab Facility buildings and construct CDC buildings

As of June 2003, CDC was under construction with three Atlanta Master Plan Projects totaling six buildings. CDC is in the design phase on two additional projects and is in detailed planning on two

projects. CDC is also in design on a major non-Atlanta lab project in Fort Collins, Colorado. All of these facilities are anticipated to come on line in 2005 and 2006.

In 2002, implementation of approved projects proceeded according to schedule, with adjustments to reflect actual authorization and appropriations. Organizational and structural changes to CDC's facilities continues 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 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 "pre-qualify" 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 CDC. CDC will monitor projects currently entering the design and construction cycle to obtain quantitative data on performance objectives.

III. Goal-by-Goal Performance Measurement

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	Ref.
1. Design starts	**Clifton Road Campus** *Roybal – Bldg 24* **FY 04:** Begin design **Roybal East Campus Consolidated Lab** *Project Bldg 23* **FY 04:** Begin design . **Chamblee Campus** *Bldg 06* **FY 04:** Begin design **Cincinnati Campus** *Lab Consolidation – Site Acquisition* **FY 04:** Site analysis	 **FY 04:** 10/2004 **FY 04:** 10/2004 . **FY 04:** 10/2004 **FY 04:** 10/2004	B-198

2. Construct CDC buildings	**Clifton Road campus** *EOC Headquarters, Bldg 21* **FY 04:** Begin construction **FY 03:** Infrastructure and security upgrades – *Bldg* 20 *Scientific Communications Center, Bldg 19* **FY 03:** Begin construction *New Emerging Infectious Disease Lab, Bldg 18* **FY 03:** Continue construction **Chamblee Campus** *Infectious Disease Lab, Bldg 109* **FY 03:** Complete construction of Phase II *Environmental Toxicology Lab, Bldg 110* **FY 04:** Complete construction **FY 03:** Continue construction **Ft... Collins, CO** **FY 03:** Begin design **FY 04:** Complete design; begin construction	 **FY 04:** 1/2004 **FY 03:** On schedule **FY 03:** On schedule **FY 03:** On schedule **FY 03:** Complete **FY 04:** 10/2004 **FY 03:** Continue construction **FY 03:** On schedule **FY 04:** On schedule	B-198

CDC will collect data through contractor reports and on-site verification.

II-P. Office of the Director

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$59,673	FY 2005:	$0
FY 2004: (Conference)	$59,173	FY 2004:	$0
FY 2003: (Actual)	$49,426	FY 2003:	$0

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.

A. Office of Science Policy and Technology Transfer

I. Program Description and Context

The Office of Science Policy and Technology Transfer (OSTPP) provides direction and training on matters of scientific integrity and human subjects' protection. OSTPP 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.

II. Program Performance Analysis

Goal 1. Identify, evaluate, and protect novel technologies

Measure. Increase the number of employee invention reports (EIRs) filed per year

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, FY 2002, and FY 2003 that we believe reflect the need in 2001 to 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 CDC's portfolio of technologies available for practical application by the private sector.

Goal 2. Promote private-sector participation and investment in applications of novel research discoveries

Measure. Increase the number of patent license agreements (PLAs), CRADAs, Material Transfer Agreements, Clinical Trial Agreements, and other CDC private sector research cooperation mechanisms

As a result of CDC's increasing marketing efforts, companies continue to recognize the value of CDC research and intellectual property rights. CDC has executed 21 new patent license agreements, 13 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.

B. Office of Minority Health

I. Program Description and Context

The Office of Minority Health provides leadership, coordination, assessment, and evaluation for minority health initiatives, as well as policy initiatives targeting improving the health of ethnic populations. The office also supports cooperative agreements with academic institutions and national nongovernmental organizations to conduct prevention research, program development, and analysis and evaluation to improve the health status of minorities and reduce health disparities.

II. Program Performance Analysis

Goal 1. Prepare minority medical, veterinary, pharmacy, and graduate students for careers in public health

Measure. 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, Project IMHOTEP, and American Science and Engineering Society

CDC surpassed the FY 2003 target to enroll 65 students (by 19) 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 2004 data will be available in September 2004.

Goal 2. Support historically black colleges and universities (HBCUs), Hispanic serving institutions, and tribal colleges and institutions

Measure. Increase the number of funding mechanisms and the number of minority-serving institutions receiving support

The FY 2003 performance goal to support HBCUs, Hispanic-serving institutions, and tribal colleges and institutions was achieved through the award of cooperative agreements. In FY 2003, a total of 76 schools were reached through 4 cooperative agreements, exceeding the 2003 target by 9 schools. 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 2004 will be available in June 2004.

Goal 3. Foster a stronger collective departmental perspective on AI/AN issues

Measure. Working in conjunction with Indian Health Services (IHS), identify and pursue areas of mutual interest and benefit

The CDC, ATSDR, and IHS Senior Policy Workgroup held a strategic planning meeting in FY 2003 to plan support for the Aberdeen Area Tribal Epidemiology Center, to

- Discuss future collaboration with the Boys and Girls Clubs of America in Indian country.
- Brief senior staff on the Secretary's Intradepartmental Council on Native American Affairs.
- Update participants on a number of AI/AN health issues (including bioterrorism preparedness).
- Propose a six-point CDC, ATSDR, and IHS collaborative workplan. Topical areas within this workplan are as follows:
  - Linking clinical and preventive health services.
  - Fostering tribal-state partnerships.
  - Strengthening public health infrastructure.
  - Enhancing bioterrorism and emergency preparedness.
  - Strengthening disease prevention and control programs.
  - Minimizing the public health impact of hazardous substances.

CDC and IHS renewed several ongoing intra-agency agreements that provide staff and resource exchanges to improve public health in Indian country; these agreements address cancer, diabetes, heart disease, reproductive health, smoking, immunizations, sexually transmitted diseases, and viral hepatitis.

In FY 2004, CDC will continue to strengthen existing partnerships with HBCUs, 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.

The CDC, ATSDR and IHS Senior Policy Workgroup will finalize and initiate stepwise implementation of the proposed six-point workplan. The agencies will continue to implement new procedures to more accurately measure and monitor programmatic resources that target AI/AN populations and communities, to establish an inventory of AI/AN-focused programs, and to improve AI/AN access to CDC/ATSDR programs. CDC will initiate at least one new intra-agency agreement with IHS.

C. Office of Equal Employment Opportunity

I. Program Description and Context

The Office of Equal Employment Opportunity (OEEO) advises management on EEO program requirements and provides technical advice to agency employees, union officials, employee organizations, and applicants on the EEO program and complaint process. OEEO conducts a continuing campaign to eradicate every form of prejudice or discrimination; manages an accountability system for achieving the agency's EEO objectives of a diverse workforce; and

establishes a system to periodically evaluate the effectiveness of the agency's overall equal employment opportunity effort. Our civil rights responsibilities, mandated by federal legislation (29 CFR 1614, EEOC Management Directives 710, 713, and 714), require that we develop and issue internal policy guidance on the implementation of nondiscrimination statutes in CDC's programs and/or activities.

In FY 2002, OEEO provided developmental opportunities for one 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.

II. Program Performance Analysis

Goal. Enhance agency recruitment efforts to ensure the availability of applicant pools that include qualified minorities, women, and persons with disabilities

Measure. Increase our participation in the CDC's recruitment activities with HBCUs, HACUs, Tribal colleges and universities, persons with disabilities, as well as build and expand other partnerships

OEEO was unable to hire a summer intern during FY 2003. We continue to support and work with HRMO personnel in efforts to recruit and retain students from HBCUs, HACU, tribal colleges and universities, and persons with disabilities.

D. Office of Health Communication

I. Program Description and Context

The Office of Communication (OC) provides leadership in the development of CDC principles, strategies, and practices for effective communication. OC also functions as a CDC-wide forum for the discussion, development, and adoption of health communications policies and procedures. OC 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 so that they can 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.

II. Program Performance Analysis

Goal. Strengthen the science and practice of health, risk, and crisis communication through research and capacity building

Measure. Enhance the capacity of CDC's public health partners to communicate rapidly and accurately critical information about biological and chemical terrorist events

In 2002, OC met and/or exceeded all 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.

- Develop training opportunities on crisis and emergency risk communication for CDC staff and public health partners.

A CD-ROM-based job aide (i.e., the Emergency Risk Communication version of CDCynergy) has been developed, tested and is now being distributed to appropriate CDC employees and partners through established training mechanisms. This includes all state health departments.

III. Goal-by-Goal Performance Measurement

A. Office of Science Policy and Technology Transfer

Goal 1: Identify, evaluate, and protect novel technologies			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of employee invention reports (EIRs) filed per year	**FY 05:** 50 EIRs **FY 04:** 50 EIRs **FY 03:** 50 EIRs	**FY 05:** 12/2005 **FY 04:** 12/2004 **FY 03:** 41 EIRs **FY 02:** 37 EIRs **FY 01:** 42 EIRs **FY 00:** 45 EIRs **FY 99:** 31 EIRs	B-199

Goal 2: Promote private-sector participation and investment in applications of novel research discoveries			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of patent license agreements (PLAs), CRADAs, Material Transfer Agreements, Clinical Trial Agreements, and other CDC private sector research cooperation mechanisms	**FY 05:** 5% increase from previous year **FY 04:** 5% increase from previous year **FY 03:** 5% increase from previous year	**FY 05:** 12/2005 **FY 04:** 12/2004 **FY 03:** 42 **FY 02:** 27 Agreements **FY 01:** 11 CRADAs **FY 00:** 10 CRADAs **FY 99:** 6 CRADAs	B-199

B. Office of Minority Health

Goal 1: Prepare minority medical, veterinary, pharmacy, and graduate students for careers in public health			
Performance Measure	Targets	Actual Performance	Ref.
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, Project IMHOTEP, and American Science and Engineering Society	**FY 05:** 95 students **FY 04:** 92 students **FY 03:** 65 students	**FY 05:** 6/2005 **FY 04:** 6/2004 **FY 03:** Exceeded/9 **FY 02:** Exceeded/100 **FY 01:** Exceeded/64 **FY 00:** Exceeded/2 **FY 99:** 55 (baseline)	B-199

Goal 2: Support HBCUs, Hispanic serving institutions, and tribal colleges and institutions			
Performance Measure	Targets	Actual Performance	Ref.
Increase the number of funding mechanisms and the number of minority-serving institutions receiving support	**FY 05:** 4 cooperative agreements and 75 schools **FY 04:** 4 cooperative agreements and 69 schools **FY 03:** 4 cooperative agreements and 67 schools	**FY 05:** 6/2005 **FY 04:** 6/2004 **FY 03:** 4 cooperative agreements; exceeded number of schools/3 **FY 02:** 4 cooperative agreements, 67 schools **FY 01:** 4 cooperative agreements; exceeded number of schools/30	B-199

Goal 3: Foster a stronger collective departmental perspective on AI/AN issues			
Performance Measure	Targets	Actual Performance	Ref.
Working in conjunction with IHS, identify and pursue areas of mutual interest and benefit	**FY 04:** CDC, ATSDR and IHS Senior Policy Workgroup will implement the proposed six-point workplan; CDC will execute procedures to more accurately measure and monitor programmatic resources that target AI/AN populations and communities, and establish an inventory of AI/AN-focused programs; initiate at least one new intra-agency agreement with IHS **FY 03:** Clarify/quantify CDC resources targeting AI/AN populations	**FY 04:** 10/2004 **FY 03: FY 03:** IHS and CDC Senior Policy Group held one strategic planning **FY 02:** IHS and CDC Senior Policy Group held one strategic planning	B-199

C. Office of Equal Employment Opportunity

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	Ref.
Increase our participation in CDC's recruitment activities with HBCUs, HACUs, tribal colleges and universities, persons with disabilities; build and expand other partnerships	**FY 03:** Increase participation by 30%	**FY 03:** 2 sessions **FY 02:** 8 sessions **FY 01:** 7 sessions **FY 00:** 6 sessions	B-199

D. Office of Health Communication

Goal: Strengthen the science and practice of health, risk, and crisis communication through research and capacity building			
Performance Measure	Targets	Actual Performance	Ref.
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	**FY 03:** Achieved **FY 02:** Achieved	B-199

II-Q. Terrorism

Funding (Dollars in Thousands)

Total Funding		Overall Full Cost	
FY 2005: (PB)	$1,109,571*	FY 2005:	$1,114,196
FY 2004: (Conference)	$1,109,571*	FY 2004:	$1,122,709
FY 2003: (Actual)	$1,235,424*	FY 2003:	$1,248,721

*This figure does not include funding for smallpox activities or the Strategic National Stockpile.

The mission of the CDC/ATSDR Terrorism Preparedness and Emergency Response Program is to prevent death, disability, disease, and injury associated with urgent public health threats by improving the preparedness of the public health system, the healthcare delivery system, and the public through excellence in science and services.

I. Program Description and Context

Overarching Program Description and Context

The role of the public health system in terrorism and emergency response has evolved significantly since September 11 and the anthrax attacks of 2001. While CDC has led the response to public health emergencies such as the 2000 outbreak of Ebola in Uganda and the smallpox eradication effort of the 1970s, never before has public health faced the threat of the intentional use chemical, biological, radiological, and nuclear (CBRN) agents on such an incredible scale.

To address the challenges associated with terrorist threats, CDC intensified its strategic direction, programmatic activities and resources to address the preparedness and response capacity of the public health system. In the past year, CDC has developed its National Public Health Strategy for Terrorism Preparedness and Emergency Response. The strategy identified several strategic imperatives that must be addressed to prepare public health:

- Timely, effective, and integrated detection and investigation.
- Sustained prevention and consequence management programs.
- Coordinated public health emergency preparedness and response.
- Qualified, equipped, and integrated laboratories.
- Competent and sustainable workforce.
- Protected workers and workplaces.
- Innovative, relevant, and applied research and evaluation.
- Timely, accurate, and coordinated communications.

Within this framework of imperatives, CDC channels its terrorism preparedness and response efforts to address three key themes that address components of Bio-defense: bio-intelligence, containment and response, and recovery.

This document describes specific goals and performance measures to address the strategic imperatives and themes. While measures for FY 2003 and FY 2004 were developed prior to the strategy, their contributions have been and are directly aligned with the future direction of CDC's

terrorism preparedness and response effort, newly exemplified in the FY 2005 measures. Against each of these measures, CDC has made significant progress in FY 2003.

A number of CDC's terrorism preparedness and response measures for FY 2005 are the result of the PART review of the Division of State and Local Readiness which provides funding and technical assistance to support the development of preparedness and response capacity across all 50 states, U.S. territories and Freely Associated States of the Pacific, and 4 major metropolitan areas. A discussion of the PART review and how the CDC plans to make program enhancements is described in section III of this discussion: *FY 2004 PART Recommendations*.

A. Deterrence/Prevention

I. Program Description and Context

HHS, 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 maintain data on shipments of select agents between registered facilities and to work 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 U.S. 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.

II. Program Performance Analysis

Goal. Administer the Select Agent Program to regulate the storage, use, and transfer of designated biological agents

Measure. Inspect public health laboratories in accordance with the Select Agent Rule

Security of threat agents is paramount to our prevention efforts. In accordance with federal regulation, CDC/ATSDR carries out specific regulations focused on restricting unauthorized entry to laboratory areas and preventing unauthorized removal of designated biological agents from a laboratory setting. Employing specific protocols to regulate the storage, use, and transfer of select biological agents throughout the United States ensures agents are accounted for, restricts access to these agents, and allows only authorized personnel to perform necessary agent-specific work. In FY 2003, CDC/ATSDR documented 131 select agent transfers under the provisions of the new regulations, 42 C.F.R. Part 73. This is significantly fewer than the previous fiscal year total of 1,352

and is probably the result of the implementation of the new regulations that do not regulate dead agent or DNA fragments.

In FY 2003, CDC completed inspection of 268 laboratories. Application and registration for the Select Agent Program are currently being automated to save time and create efficiencies for the program.

B. Preparedness and Response Capacity

I. Program Description and Context

The prospect of terrorists unleashing biological, chemical, radiological or conventional weapons is terrifying. 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 and local 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.

In addition to the roles and responsibilities of state and local health departments during a CBRN event, emergency responders also play a key role in terrorism preparedness and response efforts. Since local responders will be the first on scene of a terrorist event, the quality of protective equipment used against CBRN warfare agents is critical to the response effort. Mechanisms for ensuring that respirators and other personal protective equipment adequately protect against CBRN acts of terrorism must be evaluated.

II. Program Performance Analysis

Goal 1. Rapidly investigate and respond to public health emergencies involving CBRN agents

Measure 1. Increase the availability of CBRN-certified respirators for use during a CBRN event by professional firefighters

Currently, professional firefighters responding to a CBRN event 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 do not have escape respirators tested and certified to address possible terrorist hazards. This is because criteria for identifying the required protection and respirator performance have not existed in the past. In 1998, NIOSH identified this gap 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 FY 2003, NIOSH increased the availability of CBRN certified respirators for use during a CBRN event by professional firefighters. Two additional CBRN approvals were issued during FY 2003, making CBRN-certified respirators available to an estimated 3% to 7% of career firefighters.

To make respirators available, NIOSH announced an application process to test and evaluate self contained breathing apparatuses (SCBAs) for use against CBRN agents in December 2001. Since January 2002, NIOSH has been processing applications. Recent approvals, announced in FY 2003 include the Interspiro Models Spiromatic S3 and Spirotek S3 9030, 6630, and 4530 and the Scott Model Air-Pak 4.5. NIOSH approvals are based on positive tests from rigorous laboratory tests, evaluation of product specifications for the devices, and assessment of the manufacturer's quality control procedures.

As of October 2003, NIOSH has begun expanding its efforts in increasing the availability of reliable escape respirators to non-emergency workers in areas identified as high terrorist threat locations. NIOSH certification will help employers and users select escape respirators with greater confidence, while simultaneously driving the development of newer, more advanced devices.

Performance will be verified in partnership with manufacturers and fire departments through surveillance of professional fire departments to determine the availability of CBRN respirators.

Measure 2. Increase the number of certification standards and user guidelines for respirators to protect emergency responders in a CBRN event

In addition to increasing the availability of CBRN-certified respirators to professional firefighters, NIOSH is expeditiously addressing the need for respirator standards, certification testing, and evaluation of respirators used for response to a CBRN event. Development of these standards benefits the nation's emergency responder community with certified respirators that meet the requirements of terrorism response. Within its certification process, NIOSH ensures that each of the developed CBRN respirator standards includes provisions for live chemical warfare agent testing as a requirement for respirator certification.

In FY 2002, NIOSH began efforts to increase the availability of tested and certified CBRN respirators for use during a CBRN event by emergency responders. In FY 2003, NIOSH exceeded its projected target of increasing the number of CBRN respirators standards to three classes of respirators. To date, NIOSH has completed certification standards for four classes of respirators: CBRN Self-Contained Breathing Apparatus, CBRN Air Purifying Respirator (APR), CBRN Escape APR and CBRN Escape Self-Contained.

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.

Goal 2. Rapidly control, contain and recover from public health emergencies involving CBRN agents

Measure 1. Conduct at least one internal and one external response or training for both radiological and chemical terrorist events; prepare comprehensive annexes to the CDC Emergency Response Plan for radiological and chemical terrorist attacks

The focus of CDC's emergency preparedness and response effort is to plan preparedness, report readiness and ultimately, demonstrate responsiveness. This responsiveness is demonstrated through the exercise of plans to assure effective containment and recovery from a public health emergency. In FY 2003, CDC continued its efforts to test the public health system's ability to respond to potential events, including chemical and radiological events. Exercises included those internal to the agency and those conducted externally with response partners.

In May 2003, CDC participated in the congressionally mandated Top Officials 2, an exercise to test the nation's ability to provide a coordinated response to multiple terrorist events. The exercise tested CDC's ability to work with its federal partners in a response situation. Lessons learned from the effort impact the National Response Plan as well as CDC's internal planning and guidance. CDC participated in other external exercises, including, Determined Promise 2003, Global Mercury, Scarlet Cloud, and Unified Defense 2003.

Additionally, the Director's Emergency Operations Center (DEOC) conducts and supports various exercises that include nationalization of other CDC assets through exercise-related calls initiated at state and local levels. Within CDC, the Strategic National Stockpile (SNS) exercises on a monthly basis to ensure that the agency is able to deploy rapidly and effectively.

Exercise of response plans helps CDC maintain the highest standards of response, with staff expected to report to DEOC within 20 minutes of request. Additionally, CDC's response teams are expected to fulfill the CDC/ATSDR requirement to be on site for emergency response within 6 hours of request.

In FY 2003, CDC also assigned work groups and completed development of annexes to CDC's Emergency Response Plan. These annexes, specific to radiological and chemical attacks were developed under the guidance and technical expertise of NCEH and ATSDR.

Measure 2. Establish state and local bioterrorism preparedness and response planning activities

In 1999, CDC/ATSDR began a program to provide technical assistance and funding to state, local, and territorial public health departments to develop public health infrastructure, capacity and plans to respond events of terrorism and related public health emergencies. Since the inception of the program, planning activities have spread from 5 states or localities in 1999 to 62 states, U.S. territories and Freely Associated States of the Pacific, and major metropolitan areas.

In FY 2003, the State and Local Preparedness Program's cooperative agreement provided funding to maintain preparedness and response planning activities with all 62 grantees. Planning for the FY 2003 cooperative agreement funding cycle included new guidance with additional levels of specificity for critical and enhanced capacities. Specific accomplishments associated with grantee planning include:

- 100% identified a state-wide Director of Bioterrorism.
- 95% established a Bioterrorism Advisory Committee.
- 91% developed a timeline to assess capacities and aid in improving emergency planning and coordination.
- 93% developed a timeline to assess legal authorities pertaining to public health emergency preparedness.
- 89% established a timeline for a state-wide plan.
- 75% developed a timeline for a regional plan.
- 95% indicate a 24/7 system is in place to activate the response plans.
- 87% developed interim plans to receive and manage the SNS.

C. Surveillance and Epidemiology Capacity

I. Program Description and 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 to rapidly detect, evaluate, and report suspicious health events that might indicate covert terrorist acts. CDC has provided funding for bioterrorism surveillance and epidemiology coordination to all state health departments and selected major metropolitan cities and territories.

II. Program Performance Analysis

Goal. Rapidly detect public health emergencies involving CBRN agents

Measure 1. 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

In FY 2003 the 50 states, 4 localities, and 8 U.S. territories and Freely Associated States of the Pacific that make up the cooperative agreement grantees were funded to expand epidemiology and surveillance capacity to detect, investigate, and mitigate public health threats. Cooperative agreement grantee capacity is determined by ability to

- Detect a terrorist event through a highly functioning, mandatory reportable disease surveillance system.
- Investigate and respond to an event as evidenced by a comprehensive and exercised epidemiologic response plan.
- Investigate and respond to a potential event as evidenced by ongoing state and local response to naturally occurring public health events.

In FY 2003, the state and local preparedness cooperative agreement maintained support for 62 state, local, and territorial public health departments to meet this target. Key accomplishments include

- 82% have systems established to detect rapidly a terrorist event through mandatory disease reporting.
- 95% have systems being developed to receive and evaluate urgent disease reports on a 24/7 basis.
- 53% developed systems to evaluate outbreak reporting.
- 75% developed a timeline to assess current epidemiologic capacity.
- 91% can initiate a field investigation within 6 hours of urgent disease report from all parts of jurisdiction on a 24/7 basis.

Measure 2. Support terrorism preparedness and emergency response training for Epidemic Intelligence Service (EIS) officers and Career Field Officers (CFOs) assigned to state and local public health departments

Since the inception of EIS in 1951, nearly 2,500 EIS officers have responded to requests for epidemiological assistance within the United States and throughout the world. Between September 2001 and September 2002, 136 EIS officers, or 93% of them, were deployed at the request of state and local authorities at least once to assist state and local public health agencies. In FY 2003, CDC has worked to increase the number of EIS and CFOs assigned to state and local public health departments.

Currently, CDC maintains 49 EIS officers and 15 CFOs in 52 states and jurisdictions. CDC's Epidemiology Program Office (EPO) works with them to ensure they have the knowledge, skills, and tools to respond to terrorism preparedness and emergency response needs through a minimum of 16 hours training in areas such as, but not limited to, team leadership, forensic epidemiology, field exercises, incident command structures, legal issues, and agent-specific strategies.

Measure 3. Increase the number of state and local public health professionals who use the Epidemic Information Exchange (Epi-X) to share intelligence regarding outbreaks and other emerging health events including those suggesting bioterrorism

Epi-X is CDC's secure Web-based communications network for public health officials, which links HHS and CDC with state terrorism surveillance and response programs, provides emergency alerts, and creates a forum to share important disease information nationwide. CDC will continually increase the number of public health professionals who use Epi-X.

In FY 2003, CDC exceeded its target of 1,300 public health professionals using Epi-X, as it enrolled 1,886 health officials. These professionals include federal, state, and local epidemiologists; laboratorians; and other designated health scientists. To further build upon this growth, EPO anticipates incorporating 4,600 users by FY 2006. Access for these users has increased rapidly, as emergency Epi-X notification is now more than seven times faster with the installation of new communications servers. The servers, which uses 161 digital telephone lines to call work, home, and mobile phone numbers, can deliver 2,000 thirty-second phone messages in less than 7 minutes.

Measure 4. Increase the number of reports of disease outbreaks and other emerging health events posted on Epi-X

Since its launch, Epi-X has posted more than 2,617 reports of disease outbreaks, other new public health activities, and requests for epidemiologic assistance from CDC. As use of the system grows, EPO expects that more reports will be shared, gradually escalating to 3,000 in FY 2006.

In FY 2003, EPO exceeded its target of 800 Epi-X postings with 1,286 reports posted to the website. Additionally, EPO established a working group with the Health Alert Network and the Office of Scientific Communications to formulate a plan to integrate Epi-X into the routine and emergent communication strategies at CDC.

Measure 5. Increase the number of states and major metropolitan areas with access to Epi-X

Currently, professionals in all 50 states can access Epi-X. To provide enhanced information to a broader audience, EPO worked to expand the number of states and major metropolitan areas with access to the system. Building from a baseline of 56 jurisdictions in FY 2002, EPO added 23 jurisdictions in FY 2003 thereby exceeding its previous goal of 75 jurisdictions and establishing access to Epi-X in 79 jurisdictions.

D. Laboratory Capacity

I. 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 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 diagnose rapidly and accurately agents causing public health problems.

To meet these needs, CDC, in collaboration with the Association of Public Health Laboratories (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, 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.

Laboratory capacity for biological agents
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 LRN. New rapid assays are being developed for using real-time PCR and antigen detection for potential bioterrorism agents.

Laboratory capacity for chemical agents
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.

II. Program Performance Analysis

Goal. Rapidly detect public health emergencies involving CBRN agents

Measure 1. Increase the number of laboratories in the Laboratory Response Network (LRN)

The LRN is a consortium of laboratories comprised primarily of state, local, and federal public health laboratories, each with different capabilities and levels of expertise. CDC is continuing to expand the number of laboratories who participate in LRN. Historically, an average of 12 to 15 laboratories/year have been added over each of the past 4 years. By the end of FY 2004, we anticipate this enrollment to remain constant with the additional recruitment of veterinary diagnostic, food, and environmental laboratories, which will increase the number to approximately 150 nationwide. As a network, they provide immediate and sustained laboratory testing and communication in the event of public health emergencies, particularly in response to acts of terrorism. Member laboratories are officially registered by the LRN coordinator through the LRN website and receive special information and support from CDC.

In FY 2003, CDC enrolled 25 new laboratories, of which 9 have been fully processed for a total of 113 functional laboratories (up from 104 in FY 2002), with the remaining 16 in the upgrading process for an anticipated total of 129. The FY 2003 target of 140 was postponed due to diversion of financial resources and personnel to address emergency public health priorities such SARS and the Monkeypox outbreaks that occurred across the country, as well as unanticipated regulatory issues with USDA that require higher-level intervention for a timely resolution.

Measure 2. Increase the capacity of state and major city laboratories to provide or gain access to rapid testing for potential bioterrorism agents

Reducing the time in which agents are identified requires that laboratories have access to rapid testing. By expanding the number of laboratories in LRN, CDC continues to build access for state and local laboratories to rapid testing critical to the identification of biological agents. The rapid testing capacity across the network increased from 436 assays available among 104 laboratories in FY 2002 to over 1,490 assays among 113 laboratories (an increase of over 200%), in FY 2003.

Combined with laboratorian training, testing research, and technical assistance for the transfer of agents to confirmatory laboratory, the following accomplishments demonstrate improved state and local access to rapid testing:

- Enhanced LRN to include smallpox rule out capability across U.S. clinical labs.
- 75% structures established to provide rapid and effective laboratory services to support terrorism preparedness and response.
- 84% timeline prepared to improve relations between clinical labs and LRN member labs.
- 98% can test for *Bacillus anthracis.*
- 86% can test for *Yersinia pestis.*
- 86% can test for *Francisella tularensis.*
- 33% systems in place to screen for radiological, explosive, and chemical risk of specimens prior to biological analysis.

Measure 3. Increase the number of rapid diagnostic tests to be developed for potential bioterrorism agents

CDC is dedicated to research that improves and develops rapid testing methods. Rapid agent identification is critical to the notification, control, and containment of an event and allows response authorities to deliver appropriate emergency services in a timely, effective manner. CDC continues to improve and build include tests, but are not limited to:

- Food specimens.
- Environmental specimens.
- Microscopic examinations.
- PCR (polymerase chain reaction) tests.
- DFA (direct fluorescent assay) tests.
- Other specialized confirmatory tests.

Currently, CDC has developed 52 rapid diagnostic tests. Specifically in FY 2003, 39 newly deployed PCR and TRF (antigen detection) assays were developed to cover additional biodetection needs with 10 bioterrorism agents for several different instrument platforms. This exceeded the FY 2003 target of 15 deployable tests.

Measure 4. Increase the number of laboratories qualified to provide surge capacity for analysis of chemical agents

CDC has funded five 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 equipment required to carry out the measurement of nerve agents in human samples. The staff have also completed proficiency testing to demonstrate their understanding of the method. Additionally, states are receiving training on measurement of sulphur mustards in human samples. Actual results will be reported in January 2004.

Measure 5. Increase the number of toxic substances likely to be used in chemical terrorism that can be rapidly measured in blood and urine

The Rapid Toxic Screen (RTS) is a series of tests to identify various chemical agents in human blood or urine. In a chemical terrorism event, RTS will help determine what chemical agents were used, who has been exposed, and to what extent.

In FY 2003, NCEH expects to add an additional 100 chemical substances that can be measured in blood and urine to reach its target of 250 substances. Actual results were reported in January 2004.

E. Strategic National Stockpile (SNS)

I. Program Description and Context

The Strategic National Stockpile (SNS) is a national repository of antibiotics, chemical antidotes, antitoxins, life-support medications, IV administration and airway maintenance supplies, and medical/surgical items. The SNS is designed to provide states the medicines, vaccines, and supplies to treat those affected by a bioterrorism attack, and prevent the further spread of those pathogens.

CDC has always administered the SNS and provided scientific leadership. Since March 1, 2003, the SNS has been owned and financed through the Department of Homeland Security (DHS). The FY

2005 budget reflects the administration's plan to return the fiduciary management of the SNS to HHS. Both HHS and DHS will be authorized to order deployment in an emergency. This change will align and parallel the federal role with the roles of the sate and local public health departments, the lead agencies for planning and deployment of the SNS assets.

The SNS is organized for flexible response. One component of the SNS is immediate-response capability with the 12-hour push packages. Each of the dozen 12-hour Push Packages includes pharmaceuticals, antidotes, and medical supplies. The packages are designed to provide rapid delivery of supplies in the early hours of a catastrophic event. 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 component is vendor-managed inventory (VMI), or a stockpile of drugs and materiel 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 materiel they represent came on-line ready for deployment. Maintaining and upgrading the materiel and supplies (e.g., purchase of additional antidotes, antibiotics, medical supplies, equipment) in both the 12-hour push package and VMI will continue to be a priority activity of the SNS Program as is the replacement of 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 and Freely Associated States of the Pacific, 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. The SNS Program will develop a series of strategic vaccines repositories and make arrangements for rapid vaccine deployment.

II. Program Performance Analysis

Goal. Rapidly control, contain, and recover from public health emergencies involving CBRN agents

Measure 1. 100% of state public health agencies are prepared to use material contained in the SNS as demonstrated by evaluation of standard functions as determined by CDC

Data will be available in December 2004.

Measure 2. Maintain an SNS for deployment in response to terrorist use of biological or chemical agents against the U.S. civilian population

The SNS was established in 1999 to assist state and local governments deliver essential medical materiel during an emergency. The stockpile is ready for immediate deployment to any U.S. location

within 12 hours and is equipped with life saving pharmaceuticals, antidotes, and other medical materiel that are necessary to counter the effects of dangerous agents. The VMI packages that complement the 12-hour push packages can be tailored to provide pharmaceuticals, vaccines, medical supplies and/or medical products specific to the suspected or confirmed agent or combination of agents.

As an SNS push package is delivered, a CDC/ATSDR team of technical advisors is also deployed. Known as a Technical Advisory Response Unit (TARU), this team is comprised of emergency responders and logistics experts that will advise local authorities on receiving, distributing, dispensing, replenishing, and recovering SNS materiel.

In FY 2003, CDC continued to maintain the SNS in accordance with direction provided by the Department of Homeland Security.

Measure 3. Increase the number of state and local health departments to be funded to create guidance for the receipt, breakdown and distribution of the SNS

In conjunction with the state and local cooperative agreement for terrorism preparedness and response, the SNS Program funds jurisdictions to receive, breakdown, and distribute stockpile materiel. Each year, the stockpile's efforts have grown with the cooperative agreement program, expanding to 62 jurisdictions in FY 2002.

In FY 2003, the SNS Program reached its target to maintain support of the 62 state, territorial, and local cooperative agreement grantees.

Measure 4. Maintain the number of 12-hour push packages

The SNS is organized for flexible response. The first line of support lies within the immediate response 12-hour push packages. These are caches of pharmaceuticals, antidotes, and medical supplies designed to provide rapid delivery of a broad spectrum of assets for an ill-defined threat in the early hours of an event. These push packages are positioned in strategically located, secure warehouses ready for immediate deployment to a designated site within 12 hours of the federal decision to deploy SNS assets.

If the incident requires additional pharmaceuticals and/or medical supplies, follow-on VMI supplies will be shipped to arrive within 24 to 36 hours. If the agent is well defined, VMI can be tailored to provide pharmaceuticals, supplies and/or products specific to the suspected or confirmed agent. In this case, the VMI could act as the first option for immediate response from the SNS. In FY 2003, the stockpile was directed to maintain a ready stock of the existing 12-hour push packages.

In FY 2003, the SNS successfully maintained it twelve 12-hour push packages to meet its target.

Measure 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

The SNS Program is part of a nationwide preparedness training and education program for state and local healthcare providers, first responders, and governments (to include federal officials, governors' offices, state and local health departments, and emergency management agencies). This training not only explains the SNS Program's mission and operations, it alerts state and local emergency response officials to the important issues they must plan for in order to receive, secure, and distribute SNS assets.

To conduct this outreach and training, CDC and SNS Program staff are currently working with the Department of Homeland Security, HHS agencies, Regional Emergency Response Coordinators at all of the U.S. Public Health Service regional offices, state and local health departments, state emergency management offices, the Metropolitan Medical Response System cities, the Department of Veterans' Affairs, and the Department of Defense.

In FY 2003, the stockpile successful maintained the two existing training, education and demonstration projects to meet its target.

F. Information and Risk Communications

I. Program Description and Context

Linking state and local health departments electronically to other responders in the community is a first step in assuring a rapid and effective response to public health emergencies. The Health Alert Network (HAN), which is a component of the CDC Public Health Information Network (PHIN), is an informatics program designed to advance the communications and information technology capacity of state and local public health departments. HAN enables high-speed communication, including early-warning broadcast alerts among CDC and state and local health departments. HAN has achieved a remarkable increase in the proportion of health departments that are connected to Internet communications. An additional focus of HAN is to develop and expand redundant communication capacity to include the use of satellite cell phones, wireless data, and high-frequency radio systems. Additionally, HAN provides technical assistance and training to frontline public health practitioners in using these technologies.

II. Program Performance Analysis

Goal. Enhance the capacity of CDC and state and local health departments to communicate rapidly and accurately critical information about biological and chemical terrorism events

Measure. Expand the connectivity and functionality of HAN

HAN provides resources for three primary capacities:

- High-speed Internet connectivity.
- Broadcast capacity for emergency communication.
- Distance-learning infrastructure for real-time training.

The efforts of HAN will work to ensure effective communications connectivity among state and local public health departments, healthcare organizations, public officials, and others.

In FY 2003, 89% of fully functional health departments have achieved high-speed, continuous Internet connectivity. CDC expects to continue increasing the percentage of local health jurisdictions that meet this standard in FY 2004, and will also ensure that communications are monitored 24/7 and that messaging capability is extended to other community partners. CDC will also ensure that redundant communications are in place as back-up systems. Other accomplishments relative to communication for state and local grantees include

- 98% systems in place to provide needed health/risk information to the public and key partners during a terrorism event.

- 76% developed interim plan for risk communication and information dissemination to support emergency response.
- 27% completed an assessment of communication and information needs for public health emergencies.

In addition to these accomplishments, CDC is continuing efforts to develop event- and agent-specific risk communication information. Specifically, CDC's Office of Communication is working with the Association of Schools of Public Health (ASPH) to develop and pilot-test risk communications for various audiences regarding plague, botulinium, and nuclear and chemical events. Results were expected in September 2003 and will help CDC's communication and technical experts develop appropriate information for the public in the event of a terror-related emergency.

CDC estimates that its connectivity and communications efforts, including HAN comprise a large part of its terrorism budget at 26.4%.

G. Workforce Development

I. Program Description and Context

People are public health's most important asset and the workforce they form is the foundation for our public health system. Estimated to include 500,000 physicians, nurses, and public health specialists supplemented by many others such as first responders and volunteers, the nation's preparedness and response workforce will drive public health's ability to prevent, detect, respond to and recover from terrorist emergencies. CDC/ATSDR is working across it partners at the federal, state and local levels to improve the capacity of the workforce. Additionally, CDC/ATSDR launched the Terrorism Training and Education Workgroup to assess, coordinate, and lead all terrorism preparedness and response educational offerings across the agency.

II. Program Performance Analysis

Goal. Increase the number, type, and distribution of health professionals that comprise a preparedness and response workforce

Measure 1. By 2005, increase the number of CDC professionals that are trained responders in the field to 500

Measure 2. Ensure that all clinicians in the United States 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

While CDC does not maintain an FY 2003 performance measure relative to workforce development, CDC's newly developed National Public Health Strategy for Terrorism Preparedness and Response identifies a competent and sustainable workforce as a strategic imperative.

In FY 2003, CDC's efforts to develop the workforce include initiatives such as Project Public Health Ready, a pilot program to develop a certification program for public health workers in local agencies who have been trained in the core competencies of terrorism preparedness and response. One outcome of the pilot project is to develop certification criteria for local public health agency readiness. The Public Health Training Network (PHTN) provides distance learning curricula and opportunities to improve the practice of public health by frontline providers. PHTN develops and

delivers both synchronous training opportunities, such as classroom trainings, conference calls, and satellite broadcasts, as well as asynchronous training curricula that include self-study courses, CD-ROMs, and videos.

Additionally, CDC provided FY 2003 funding in support of the Centers for Public Health Preparedness (CPHP), a national system of academic, practice, and specialty centers focusing on improving the capacity of frontline public health and healthcare workers to respond to all forms of terrorism. CDC guides CPHPs to assess training needs, develop appropriate training material and deliver programs through various modalities (e.g. classroom, satellite broadcast, e-learning, CD-ROM, video archive). In FY 2003, CDC increased the number of research centers, one segment of the CPHP network, from 19 to 21. Two of the CPHPs are affiliated with two schools of public health, thus 21 CPHPs exist in 23 accredited schools of public health. This expansion brings the number of CPHPs to 34 nationwide. In FY 2004, CPHPs will evaluate the impact on the preparedness of frontline public health practitioners resulting from education and training programs implemented in 30% of states. It is anticipated that in FY 2004 the academic centers network will expand beyond the current complement of 21 centers and will maintain and expand geographic coverage of the network to more than 80% of states.

In FY 2003, CDC invested approximately 2% or the terrorism preparedness and emergency response budget on workforce development through initiatives like Project Public Health Ready and the CPHP.

H. Information Systems and Connectivity

I. Program Description and Context

CDC is working to define standards that describe the Public Health Information Network (PHIN). PHIN is an initiative that will substantially improve the life cycle of health data and information between clinical healthcare and all levels of public health (federal, state, and local) through national standards-based approaches to information technology (IT), health data and systems integration. PHIN will integrate and coordinate existing and new public health information systems to perform five primary functions that contribute to terrorism preparedness and response and greater public health:

1) Detection and monitoring to support disease and threat surveillance, and to measure national health status indicators.
2) Analysis that facilitates real-time evaluation of live data feeds while turning data into information for people at all levels of public health.
3) Information resources and knowledge management for reference information, distance learning, and decision support.
4) Alerts and communications for the transmission of emergency alerts, routine professional discussions, and other electronic collaboration.
5) Response for the management support of recommendations, prophylaxis, vaccination, and adverse events.

II. Program Performance Analysis

Goal. Implement a comprehensive network to exchange information across response partners

Measure. 100% of state and local public health agencies will comply with CDC recommendations for using standards-based, public health information network systems for appropriate routine public health information collection, analysis, and reporting to public health authorities

Ultimately, PHIN will enable the real-time exchange of critical health information among partners across public health and build on the technical standards and infrastructure established through other CDC initiatives including the National Electronic Disease Surveillance System (NEDSS), HAN, Epidemic Information Exchange (Epi-X), LRN, Environmental Health Tracking Network (EHTN), and National Health Care Safety Network (NHSN).

While no measure is associated with the PHIN effort specifically, CDC does dedicate significant resources to this effort, both through terrorism funding as well as CDC's primary appropriations. CDC estimates that through internal efforts as well as Focus Area E of the state and local cooperative agreement, 13.3% of terrorism monies support PHIN development in FY 2003 and FY 2004. Parts of the previous CDC initiatives such as HAN and NEDSS will be integrated into PHIN.

I. Program Efficiency

I. Program Description and Context

The State and Local Preparedness Cooperative Agreement Program is currently the largest public health program outside of Medicare. The size, scope, and importance of the program demands effective and efficient management that will facilitate the delivery of services and guidance to grantees.

II. Program Performance Analysis

Goal. Create program efficiencies that improve services and conserve resources for mission-critical activities

Measure. By 2005, fully automate the application, work plan and semi-annual reporting for cooperative agreement grantees to achieve greater program efficiencies

In FY 2003, the cooperative agreement program initiated development of a system to automate the application process for grantees. With the FY 2003 funding cycle set to start, grantees will be able to supply their grant applications for review in a secure, electronic format. Benefits of the system and new supporting processes are expected to improve timeliness of applications, ease of processing and production for review as well as elimination of paper processing. Additionally, development of the system addresses e-government provisions of the President's Management Agenda.

III. OMB PART Review of the State and Local Preparedness Program

In 2003, the largest portion of the CDC terrorism preparedness and response program, the State and Local Preparedness Program, underwent PART review with the Office of Management and

Budget (OMB). The program manages the state and local preparedness cooperative agreement and has made several changes in the management of the cooperative agreement as a result of the review.

The most visible change in the program's management is the development of new performance long-term goals and measures that are displayed in this document. The goals and measures are designed to demonstrate a greater public health impact in the preparedness and response capacity of the grantees.

The measures revised during the PART review are provided for FY 2005 reporting. Currently, these measures lack defined baselines and annual targets. However, the program is working to develop the baselines and targets for inclusion in this plan by January 2004.

All previous measures for FY 2004 have been aligned with the FY 2005 measures. This has been done to reflect full scope of services and outcomes funded through the CDC terrorism preparedness and response program, inclusive of the State and Local Preparedness Program as well as other efforts.

IV. Goal-by-Goal Performance Measurement

A. Deterrence/Prevention

Goal. Administer the Select Agent Program to regulate the storage, use, and transfer of designated biological agents			
Performance Measure	Targets	Actual Performance	Ref.
1. 100% compliance in federal regulation in biological agents and toxins registration and tracking through increase lab inspection	**FY 05:** 100% compliance	**FY 05:** 12/2005	B-205
2. Inspect public health laboratories in accordance with the Select Agent Rule	**FY 04:** 300 labs **FY 03:** 200 labs **FY 02:** 90 labs **FY 01:** 65 labs **FY 00:** 50 labs	**FY 04:** 12/2004 **FY 03:** 211 **FY 02:** Exceeded/103 **FY 01:** 60 (correction) **FY 00:** 36 **FY 99:** 14	B-205

B. Preparedness and Response Capacity

Goal 1: Rapidly investigate and respond to public health emergencies involving CBRN agents			
Performance Measure	Targets	Actual Performance	Ref.
1. Properly equipped public health emergency response teams will be onsite within 4 hours of notification by local public health officials, to assess the public health impact and determine the appropriate public health intervention in response to Category A agents	**FY 05:** 25% (16) of grantees	**FY 05:** 12/2005	B-205

2. 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 professional firefighters **FY 03:** Increase the availability of CBRN-certified respirators for use during a CBRN event to 3% of professional firefighters **FY 02:** Establish the baseline availability of CBRN-certified respirators for use during a CBRN event by professional firefighters (revised target)* * Target modified to more accurately reflect respirator certification outcomes Previous Target: Establish baseline of CBRN trained professional firefighters equipped with CBRN-certified respirators	**FY 04:** 11/2004 **FY 03:** Met target **FY 02:** Issued first approval of self-contained breathing apparatus (SCBA) respirators for occupational use by emergency responders against CBRN agents (baseline). Additional approvals are expected early in 2003	B-205
3. 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 03:** Increase the number of CBRN respirator standards to 3 classes of respirators: SCBAs, APRs, and Escape APRs **FY 02:** Establish baseline of CBRN respirator standards	**FY 04:** Fall 2004 **FY 03:** Exceeded target **FY 02:** A NIOSH CBRN SCBA standard was implemented in January 2002; approval applications from five manufacturers have been processed (baseline); 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	B-205

Goal 2: Rapidly control, contain, and recover from public health emergencies involving CBRN agents			
Performance Measure	Targets	Actual Performance	Ref.
1. 100% of state public health agencies improve their capacity to respond to exposure to chemicals or category A agents by annually exercising scalable plans and implementing corrective action plans to minimize any gaps identified	**FY 05:** 25%	**FY 05:** 12/2005	B-205
2. Conduct at least one internal and one 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:** Exceeded/5	B-205
3. Enhance preparedness by ensuring 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-205
4. 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-205
5. Enhance preparedness by ensuring written plans for multi-state/multi-jurisdiction public health preparedness coordination are in place for all grantees and these plans include signed agreements between jurisdictions and conform to 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-205
6. 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/62 **FY 02:** Achieved/62 **FY 01:** Achieved/11 **FY 00:** Achieved/11 **FY 99:** Exceeded/11	B-205

C. Surveillance and Epidemiology Capacity

Goal: Rapidly detect public health emergencies involving CBRN agents			
Performance Measure	Targets	Actual Performance	Ref.
1. 100% of state and local public health agencies will be in compliance with CDC recommendations for using standards-based electronic disease surveillance systems for appropriate routine public health information collection, analysis and reporting appropriate public health authorities	**FY 05:** 100% (62)	**FY 05:** 12/2005	B-205

2. 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:** Maintain 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:** Achieved/62 **FY 02:** Achieved/62 **FY 01:** Achieved/55 **FY 00:** Exceeded/55 **FY 99:** 34 **FY 98:** 0	B-205
3. Support terrorism preparedness and emergency response training for EIS officers and CFOs assigned to state and local public health departments	**FY 04:** 55 **FY 03:** 41	**FY 04:** 12/2004 **FY 03:** 62	B-205
4. 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	**FY 03:** 1,300 **FY 02:** 750 **FY 01:** 230	**FY 03:** Exceeded/1,886 **FY 02:** Exceeded/1,000 **FY 01:** Exceeded/650	B-205
5. Increase the number of reports of disease outbreaks and other emerging health events posted on Epi-X	**FY 03:** 800	**FY 03:** Exceeded/1,286 **FY 02:** 599 (baseline)	B-205
6. Increase the number of states and major metropolitan areas with access to Epi-X	**FY 03:** 75	**FY 03:** Exceeded/79 **FY 02:** 56 (baseline)	B-205

D. Laboratory Capacity

Goal: Rapidly detect public health emergencies involving CBRN agents			
Performance Measure	Targets	Actual Performance	Ref.
1. 100% of LRN labs will pass proficiency testing for *bacillus anthracis, yersina pestis, francisella tularensis, clostridium botulinum toxin, Variola major, vaccina,* and *varicella*	**FY 05:** 100%	**FY 05:** 12/2005	B-205
2. 100% of LRN labs will report routine public health testing results through standards-based electronic disease surveillance systems and have protocols for immediate reporting by telephone for Category A agents (*bacillus anthracis, yersina pestis, francisella tularensis, clostridium botulinum toxin* and *variola major*) for which they conduct testing	**FY 05:** 100%	**FY 05:** 12/2005	B-205 O
3. 100% of states will have level 1 chemical lab capacity, and have agreements with and access to (specimens arriving within 8 hours) a level-three chemical lab equipped to detect exposure to nerve agents, mycotoxins, and select industrial toxins	**FY 05:** 100%	**FY 05:** 12/2005	B-205
4. Increase the number of labs in LRN	**FY 05:** 250 labs **FY 04:** 235 labs **FY 03:** 140 labs **FY 02:** 120 labs **FY 01:** 100 labs **FY 00:** 43 labs	**FY 05:** 12/2005 **FY 04:** 12/2004 **FY 03:** 113 **FY 02:** Achieved/120 **FY 01:** Achieved/100 **FY 00:** Achieved/43 **FY 99:** 43	B-205
5. Increase the capacity of state and major city labs to provide or gain access to rapid testing for potential bioterrorism agents	**FY 04:** 100 labs **FY 03:** 60 labs **FY 02:** 54 labs **FY 01:** 54 labs **FY 00:** 40 labs **FY 99:** 2 labs	**FY 04:** 12/2004 **FY 03:** 60 **FY 02:** Achieved/54 **FY 01:** Achieved/54 **FY 00:** Exceeded/43 **FY 99:** Exceeded/43 **FY 98:** 0	B-205

6 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:** Exceeded/39 **FY 02:** Achieved/10 **FY 01:** Exceeded/7	B-205
7. Increase the number of labs qualified to provide surge capacity for analysis of chemical agents	**FY 04:** 5 labs **FY 03:** 5 labs **FY 02:** 5 labs **FY 01:** 5 labs **FY 00:** 4 labs	**FY 04:** 12/2004 **FY 03:** Maintained/5 **FY 02:** Maintained/5 **FY 01:** Achieved/5 **FY 00:** Exceeded/5 **FY 99:** 4	B-205
8. Increase the number of toxic substances likely to be used in chemical terrorism that can be rapidly measured in blood and urine	**FY 04:** 250 substances **FY 03:** 250 substances **FY 02:** 150 substances	**FY 04:** 12/2004 **FY 03:** 1/2004 **FY 02:** Achieved/150 **FY 01:** Achieved/120 **FY 00:** 90 **FY 99:** Achieved/50 **FY 98:** 0	B-205
9. Enhance lab 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; test for agents on the Category A list, and refer hemorrhagic fever agents to CDC for analysis	**FY 04:** 12/2004	B-205 O

E. Strategic National Stockpile

Goal: Rapidly control, contain and recover from public health emergencies involving CBRN agents			
Performance Measure	Targets	Actual Performance	Ref.
1. 100% of state public health agencies are prepared to use material contained in the SNS as demonstrated by evaluation of standard functions as determined by CDC	**FY 05:** 70% certified **FY 04:** 60% certified	**FY 05:** 12/2005 **FY 04:** 12/2004	B-205 O

2. Maintain an SNS 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 HHS Bioterrorism Strategic Plan **FY 02:** Maintain a stockpile as per the FY 02 HHS Bioterrorism Strategic Plan **FY 01:** Maintain an SNS 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:** Same as FY 01 **FY 99:** Create a stockpile, including the ability to protect 1 million–4 million civilians from anthrax attacks	**FY 03:** Maintained SNS IAW DHS/HHS guidance **FY 02:** Exceeded/including increasing the number of push packages from 8 to 12 **FY 01:** The SNS continued to develop throughout the year **FY 00:** Exceeded/12-hour push package and VMI components provided capacity beyond targets **FY 99:** Achieved	B-205
3. Increase the number of state and local health departments to be funded to create guidance for the receipt, breakdown, and distribution of the SNS	**FY 03:** 62 **FY 02:** 62	**FY 03:** Maintained/62 **FY 02:** Achieved/62	B-205
4. Maintain the number of 12-hour push packages	**FY 03:** Maintain/12 **FY 02:** 12 **FY 01:** 8	**FY 03:** Maintained/12 **FY 02:** Achieved/12 **FY 01:** Achieved/8	B-205
5. Create training, education, and demonstration packages that can be used during exercises as a tool to help understand the concept of a push package	**FY 03:** Maintain/2 **FY 02:** 2	**FY 03:** Maintained/2 **FY 02:** Achieved/2	B-205

F. Information and Risk Communications

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	Ref.
1. By 2005, maintain 24/7 communications capability to disseminate information to the public during emergency events	**FY 05:** 24/7 capacity **FY 04:** 24/7 capacity	**FY 05:** 12/2005 **FY 04:** 12/2004	B-205
2. Expand the connectivity and functionality of HAN	**FY 03:** Extend HAN to local public health agencies to cover 90% of the U.S. population	**FY 03:** 89% of the U.S. population currently lives in local health jurisdictions that have high-speed Internet connectivity **FY 02:** 86% of local health counties/ jurisdictions have high-speed Internet connectivity (baseline)	B-205

CDC is currently gathering additional data to assess high-speed Internet connectivity; this statistic will be updated when new data is aggregated.

G. Workforce Development

Goal: Increase the number, type, and distribution of health professionals that comprise a preparedness and response workforce			
Performance Measure	Targets	Actual Performance	Ref.
1 By 2005, increase the number of CDC professionals that are trained responders in the field to 500	**FY 05:** 500	**FY 05:** 12/2005	B-205
2 Ensure 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-205

H. Information Systems and Connectivity

Goal: Implement a comprehensive network to exchange information across response partners			
Performance Measure	Targets	Actual Performance	Ref.
100% of state and local public health agencies will be in compliance with CDC recommendations for using standards-based, public health information network systems for appropriate routine public health information collection, analysis, and reporting to public health authorities	**FY 05:** 100%	**FY 05:** 12/2005	B-205

I. Program Efficiency

Goal: Create program efficiencies that improve services and conserve resources for mission-critical activities			
Performance Measure	Targets	Actual Performance	Ref.
By 2005, fully automate the application, workplan and semi-annual reporting for cooperative agreement grantees to achieve greater program efficiencies	**FY 05:** 62 grantees report using system	**FY 05:** 12/2005	B-205 E

V. Summary of Full Cost of Performance Program Area

Full Costs and Goals/Annual Measures	FY 2003 Actual*	FY 2004 Final Conference	FY 2005 Estimate
Estimated Full Cost	**$1,248.7**	**$1,122.7**	**$1,114.2**
Efficiency Measure	$0.0	$0.0	$0.0
Deterrence/Prevention	**$12.5**	**$11.2**	**$11.1**
Measure 1	N/A	N/A	$11.1
Measure 2	$12.5	$11.2	N/A
Preparedness and Response Capacity	**$233.5**	**$209.9**	**$207.2**
Goal 1 – Measure 1	N/A	N/A	$104.7
Goal 1 – Measure 2	$59.3	$53.3	N/A
Goal 1 – Measure 3	$59.3	$53.3	N/A
Goal 2 – Measure 1	N/A	N/A	$102.5
Goal 2 – Measure 2	$23.0	$20.7	N/A
Goal 2 – Measure 3	$23.0	$20.7	N/A
Goal 2 – Measure 4	$23.0	$20.7	N/A
Goal 2 – Measure 5	$23.0	$20.7	N/A
Goal 2 – Measure 6	$23.0	$20.7	N/A
Surveillance and Epidemiology Capacity	**$122.4**	**$110.0**	**$135.9**
Measure 1	N/A	N/A	$135.9
Measure 2	$24.5	$55.0	N/A
Measure 3	$24.5	$55.0	N/A
Measure 4	$24.5	N/A	N/A
Measure 5	$24.5	N/A	N/A
Measure 6	$24.5	N/A	N/A
Laboratory Capacity	**$307.2**	**$276.2**	**$274.1**
Measure 1	N/A	N/A	$36.8
Measure 2	N/A	N/A	$142.6
Measure 3	N/A	N/A	$57.9
Measure 4	$78.7	$70.7	$36.8
Measure 5	$84.3	$50.5	N/A
Measure 6	$84.3	$50.5	N/A
Measure 7	$30.0	$26.9	N/A
Measure 8	$30.0	$26.9	N/A
Measure 9	N/A	$50.5	N/A
Strategic National Stockpile	**$329.7**	**$296.4**	**$279.7**
Measure 1	N/A	$296.4	$279.7
Measure 2	$82.4	N/A	N/A
Measure 3	$82.4	N/A	N/A
Measure 4	$82.4	N/A	N/A
Measure 5	$82.4	N/A	N/A

Information and Risk Communications	**$52.4**	**$47.2**	**$44.6**
Measure 1	N/A	$47.2	$44.6
Measure 2	$52.4	N/A	N/A
Workforce Development	**N/A**	**$22.5**	**$21.2**
Measure 1	N/A	N/A	$21.2
Measure 2	N/A	$22.5	N/A
Information Systems and Connectivity	**N/A**	**N/A**	**$140.4**
Measure 1	N/A	N/A	$140.4

*Dollars in millions

The 14% - 16% of the remaining funds in FY 2003 and FY 2004 supported Public Health Information Network which has a measure beginning in FY 2005.

II-R. Program Management and Support

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.
Note: Program Management is not a budget line item activity; however, it represents cross-cutting activities at CDC.

Overarching Program Description and Context

CDC's program management goals, performance measures, and initiatives are directly supportive of all five areas of the PMA and additional initiatives 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.

To achieve the PMA 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. Strategic management of human capital is a priority for CDC, which has established specific and measurable goals to address these issues. Specifically, CDC's goals are to

- Reduce the number of organizational layers to four.
- Implement the CDC business services consolidation plan.
- Consolidate all budget execution functions.
- Increase supervisory ratios.

See Appendix E for more details on CDC's efforts to fulfill the five PMA goals.

A. Information Access, Security, and Reliability, Competitive Sourcing, Financial Assistance, and Performance-Based Contracting

I. Program Description and Context

CDC's program support goals, performance measures, and initiatives are directly supportive of the PMA 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 5-year Enterprise Information Technology Plan resource commitments, program management, and technical expertise. CDC has also ensured that its efforts in these areas directly align with the "One HHS" theme embodied in the HHS enterprise architecture business model.

CDC awarded over $4 billion in extramural funds in FY 2002 through grants, approximately 70% of which went to states. CDC consolidated and streamlined its grants programs in chronic diseases, resulting in a 79% reduction in program announcements over FY 2002 and FY 2003.

Other CDC activities that reinforce the administration's emphasis on E-Government and citizen-centered services include the following:

- Re-engineering the CDC website to serve as a public health portal for information.
- Meeting the Government Paperwork Elimination Act goals and deadlines.
- Conducting E-Commerce business through E-Procurement and E-Grants.

Information Access, Security, and Reliability

CDC is an information-intensive organization whose 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 crucial to CDC, its 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 depend on information technology and systems.

Competitive Sourcing

CDC has developed and is implementing a Competitive Sourcing Plan that aligns with the competitive sourcing goals in the PMA. 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.

Financial Assistance

CDC is establishing a higher degree of accountability in its financial assistance programs by developing performance measures for all programs and streamlining programs through appropriate consolidations.

Service Contracting

CDC is improving service contracting effectiveness by increasing use of performance-based contracting for service contracts in alignment with administration and HHS goals.

Information Access

CDC's success in developing and providing useful data and information for a wide range of uses (e.g., personal health choices, medical practice, public policy, health research) 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 public health programs to the public, health professionals, and others: CDC's 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 gives callers 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 is popular for accessing information, VIS remains an

important method to ensure access by persons without Internet access or convenient access at the time of need. VIS is toll-free, multilingual, and serves persons with hearing disabilities. CDC's website is one of the most popular government websites and provides trusted health information to consumers and health professionals.

Information Technology (IT) infrastructure services are 13 common IT functions that support users throughout the agency and are defined as desktop computing, e-mail, level 1 helpdesk support, IT security, networking, data center services, office automation, server management, videoconferencing, and telecommunications. CDC will increase the cost efficiency of providing IT infrastructure services across the agency by 15% in FY 2004.

Information Security
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 continues to increase, CDC has concomitantly increased its focus on prevention, detection, and response capabilities.

Information Systems Reliability
Information systems that are critical to the CDC mission and the underlying information technology infrastructure that supports those systems must 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 to minimize loss of service.

Competitive Sourcing
At present, CDC does not have a competitive sourcing plan beyond FY 2004. In collaboration with HHS and consistent with competition plan guidance detailed in OMB's most recent Competitive Sourcing report of July 2003, HHS is in the process of building a customized competition plan by which the requested projections can be made at a future date.

B. Financial Management Processes and Internal Controls

I. Program Description and Context

The Chief Financial Officers' Act requires federal agencies to audit 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.

II. 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 five consecutive unqualified opinions for FY 1998, FY 1999, FY 2000, FY 2001, and FY 2002. During FY 2003, HHS implemented an accelerated reporting

and auditing pilot to test HHS' capacity to meet the accelerated reporting deadlines mandated for FY 2004. This accelerated effort included the introduction of a new 'Top-Down' audit approach, which consolidated several individual HHS agency audits, including CDC's audit, into a single review process. In FY 2003, CDC contributed to HHS' unqualified opinion under this approach. 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.

C. Recruitment Timeliness

I. Program Description and Context

CDC's workforce is a critical strength of the agency. A top priority is to recruit highly qualified staff who represent the public.

II. Program Performance Analysis

CDC's time to refer increased from FY 2002 levels due to recurring hiring controls and loss of human resource specialists due to agency consolidation initiatives. The time to classify positions increased from 13.6 days to 13.7 days (as of August 2003) and the time to refer candidates increased to 64.7 days from 63 days in FY 2002. While these influencing factors remain, along with significant changes to the collection mechanism, CDC remains committed to this measure through FY 2004.

D. Workforce Planning: Restructuring, and Delayering

I. Program Description and Context

The CDC Restructuring and Delayering Plan and Business Services Consolidation Plan outline specific goals and timelines to achieve those goals. In brief, some of the goals are to

- Reduce the number of organizational layers to four.
- Consolidate all IT infrastructure activities.
- Consolidate all budget execution functions.
- Consolidate all travel, professional training, and graphics functions.
- Increase supervisory ratios.
- Re-engineer/restructure to support the centralization of HR and financial systems.

II. Program Performance Analysis

CDC has made substantial achievement in restructuring and delayering initiatives. For example, CDC's supervisory ratio improved from 1:5.5 in FY 2001, to 1:6.8 in FY 2002, to 1:10 as of December 2003. At this rate of progress, we believe the FY 2005 objective will be accomplished potentially during FY 2004. The goal to reduce the number of mission support positions by the end of FY 2005 is 573 with performance targets indicated for FY 2004 and FY 2005. The goal of reducing the number of organizational layers to four has been met, as all of CDC's sections

were eliminated by December 31, 2003. Progress in these areas is attributable to CDC's aggressive strategic management of human capital efforts, which includes delayering, position management, and consolidation.

E. SES Performance Contracts

I. Program Description and Context

As part of the PMA, agencies were 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.

II. Program Performance Analysis

The FY 2003 goal of using SES performance contracts for appraisal and pay decision and revising contracts to enhance accountability was accomplished.

F. Recruitment and Retention Strategies

I. Program Description and Context

CDC/ATSDR uses 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, which 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 using 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.

CDC/ATSDR also uses 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.

II. Program Performance Analysis

CDC/ATSDR uses current human resource compensation authorities to help recruit and retain, such as "above the minimum" appointments, recruitment bonuses, and retention allowances.

III. Goal-by-Goal Performance Measurement

A. Information Access, Security, and Reliability, Competitive Sourcing, Financial Assistance, and Performance-Based Contracting

Goal 1: Provide various standardized and integrated means for access to CDC information resources by health practitioners and the public			
Performance Measure	Targets	Actual Performance	Ref.
1. Enhance CDC's information content and technology infrastructure to increase public access to CDC information resources through the CDC website and CDC's VIS	**FY 03:** 20% increase	**FY 03:** 8.8 M website visitors/month; 36,000 VIS calls/month (combined 60% increase) **FY 02:** 5.49 M website visitors/month; 41,000 VIS calls/month (combined 51.5% increase) **FY 01:** 3.6 M website visitors/month; 54,000 VIS calls/month (combined 29% increase) **FY 00:** 2.8 M website visitors/month; 46,000 VIS calls/month (combined 47% increase) **FY 99:** 1.9 M website visitors/month; 51,000 VIS calls/month (combined 171% increase) **FY 98:** 0.7 M website visitors/month; 45,000 VIS calls/month	B-199 #4
2. Increase the cost efficiency of providing IT infrastructure services across CDC	**FY 05:** $7,245/ user/year	**FY 05:** 12/2005 **FY 03:** $8,454/user/year	E

Information Security and Reliability, Competitive Sourcing, Financial Assistance, and Performance-Based Contracting Measures to be phased-out after FY 2003

Goal 2: Enhance CDC's information security program			
Performance Measure	Targets	Actual Performance	Ref.
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	**FY 03:** No serious losses, alterations, or releases (NSLAR)	**FY 03:** NSLAR **FY 02:** NSLAR **FY 01:** NSLAR, one limited and contained system compromised **FY 00:** NSLAR **FY 99:** NSLAR **FY 98:** NSLAR	B-199 #4

Goal 3: Ensure that critical information systems and infrastructure operate reliably			
Performance Measure	Targets	Actual Performance	Ref.
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)	**FY 03:** 99.5% continuous availability	**FY 03:** 99.91% continuous reliability **FY 02:** 99.89% continuous availability (78% better than goal) **FY 01:** 99.94% continuous availability (89% reduction in service unavailability) **FY 00:** 99.46% continuous availability	B-199 #4

Competitive Sourcing, Financial Assistance, and Performance-Based Contracting

Goal 1: Implement competitive sourcing for analyzing and conducting program activities that are commercial in nature			
Performance Measure	Targets	Actual Performance	Ref.
Directly convert to contract and/or conduct cost comparison studies of CDC staff performing commercial functions listed in the CDC FAIR Act inventory	**FY 03:** 423 FTEs **FY 02:** 217 FTEs	**FY 03:** 303 direct conversions and 160 FTEs studies under competitive sourcing **FY 02:** All 217 FTEs were directly converted in FY 02	B-199 #2

Goal 2: Establish performance measures for grants and cooperative agreements			
Performance Measure	Targets	Actual Performance	Ref.
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 03:** Achieved/100% **FY 02:** Achieved/100%	B-199 #2

Goal 3: Streamline financial assistance programs (grants and cooperative agreements) through consolidation			
Performance Measure	Targets	Actual Performance	Ref.
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	**FY 03:** 79% reduction in program announcements achieved for chronic diseases **FY 02:** 22% of competitive program announcements reviewed result in 72% consolidation in the chronic diseases area	B-199 #2

Goal 4: Enhance the effectiveness of service contracts through performance-based contracting			
Performance Measure	Targets	Actual Performance	Ref.
Increase the use of performance-based contracting	**FY 03:** 20% of eligible service contracting dollars are awarded as performance-based contracts	**FY 03:** Achieved **FY 02:** 29% of new service contracting awards were made as performance-based contracts	B-199 #2

B. Financial Management Processes and Internal Controls

Goal: Ensure the proper preparation and presentation of CDC's financial statements			
Performance Measure	Targets	Actual Performance	Ref.
Achieve 100% audited financial statements with no qualifications	**FY 03:** 100% with no qualifications **FY 02:** 100% with no qualifications **FY 01:** 100% with no qualifications **FY 00:** 100% with no qualifications	**FY 03:** Achieved as part of HHS' new "Top-Down" audit approach **FY 02:** Achieved **FY 01:** Achieved **FY 00:** Achieved **FY 99:** 100% with no qualifications **FY 98:** 100% with no qualifications	B-199 #3

C. Recruitment Timeliness

Goal: Decrease the time needed to classify positions and refer candidates for vacancies			
Performance Measure	Targets	Actual Performance	Ref.
Decrease the time needed to refer candidates to fill positions	**FY 03:** < 55 days to refer	**FY 03:** 13.7 days to classify; 64.7 days to refer **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-199 #1

Data are collected through various automated mechanisms and manual logs.

D. Workforce Planning: Restructuring, and Delayering

Goal: Enhance workforce planning efforts at CDC			
Performance Measure	Targets	Actual Performance	Ref.
1. Improve supervisory ratio	**FY 04:** Increase supervisory ratio to 1:9 **FY 03:** Increase supervisory ratio to 1:8	**FY 04:** 9/2004 **FY 03:** 1:10 **FY 02:** Supervisory ratio is 1:6.8 **FY 01:** Supervisory ratio is 1:5.5 (baseline)	B-199 #1
2. Increase 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	**FY 03:** 12/2003 **FY 02:** CDC guidance requires a minimum of 10 FTEs per branch and a minimum of 5 FTEs per section **FY 01:** CDC guidance requires a minimum of 9 FTEs per branch and a minimum of 5 FTEs per section (baseline)	B-199 #1
3. Reduce the number of organizational units	**FY 03:** Reduce the number of organizational units to 499	**FY 03:** CDC/ATSDR has 456 organizational units **FY 02:** CDC/ATSDR has 520 organizational units **FY 01:** CDC/ATSDR has 555 organizational units	B-199 #1

E. SES Performance Contracts

Goal: Develop and implement SES performance contracts			
Performance Measure	Targets	Actual Performance	Ref.
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	**FY 03:** Met/contracts used for appraisals and modified as required to enhance accountability **FY 02:** Met/SES performance contracts were put in place for all 26 SES members	B-199 #1

F. Recruitment and Retention Strategies

Goal: Recruit and retain a highly qualified workforce			
Performance Measure	Targets	Actual Performance	Ref.
1. Use of above the minimum appointments to attract superior candidates	**FY 03:** 87 **FY 02:** 81	**FY 03:** 52 **FY 02:** 40 **FY 01:** 78	B-199 #1
2. Use of recruitment bonuses for hard-to-fill positions	**FY 03:** 32 **FY 02:** 29	**FY 03:** 28 **FY 02:** 22 **FY 01:** 25	B-199 #1
3. Use of retention allowances to retain essential employees	**FY 03:** 12 **FY 02:** 9	**FY 03:** 18 **FY 02:** 3 **FY 01:** 9	B-199 #1