Chronic Disease Prevention

Chronic diseases—such as heart disease, stroke, diabetes, and cancer—cause 70% of all deaths in the United States each year. A large proportion of these deaths, affecting millions of Americans and their families, are preventable. For example, 430,000 deaths each year (or about 20% of all deaths) are linked to tobacco use, which causes not only lung cancer and emphysema but also one-fifth of all cardiovascular disease deaths.

To help prevent the onset of chronic diseases, CDC conducts research and promotes programs that encourage physical activity and healthier diets and that reduce tobacco use, especially among teenagers. CDC also works to prevent the serious (and costly) complications of diseases like diabetes. Diabetes has increased at an alarming rate during the past decade, and the number of people facing potential but preventable complications—such as blindness; foot and leg amputations; and kidney disease—has increased as well.

Although research has unlocked many hidden features of various chronic diseases, much remains to be learned. CDC studies diseases by conducting survey research on people's behavior; supporting national surveillance systems and other data collection methods to track newer diseases (such as Chronic Fatigue Syndrome); and bringing a new public health perspective to well-known conditions such as epilepsy. In addition, CDC's laboratories help deepen our understanding of chronic diseases' causes and progression by designing and improving sophisticated measures of cholesterol, glucose, vitamin and mineral levels, as well as other critical markers.

From specific laboratory measures to more complex studies of behaviors and risk factors, CDC's efforts are designed to understand the causes and consequences of chronic diseases and to place the powerful tools of prevention within the reach of more people every day.

ARTHRITIS

WHAT IS THE PUBLIC HEALTH ISSUE?

- Arthritis and/or chronic joint symptoms affect almost 70 million Americans—nearly 1 of every 3 adults—making it among the most common health problems in the United States.
- Arthritis is the most frequent cause of disability in the United States; more than 7 million people are limited in some way because of arthritis.
- Arthritis is costly to society and individuals. In 1995, arthritis cost more than $22 billion in direct medical costs and over $82 billion in total costs, according to the American Academy of Orthopedic Surgeons.
- Effective interventions exist, but are underused.

WHAT HAS CDC ACCOMPLISHED?

Funds from CDC's Chronic Disease Prevention and Health Promotion appropriations support CDC's arthritis program by improving the quality of life for people affected with arthritis. In 2002, CDC funded 36 states to work toward this goal. These CDC-funded states are building arthritis programs, developing action plans with their partners, and conducting pilot projects to improve the quality of life among people affected by arthritis. Many states are increasing the availability of the *Arthritis Self-Help Course* (a self management education program that has been shown to decrease pain and reduce the number of physician visits) and physical activity programs so more people can be reached. CDC is also working with state health departments and the Arthritis Foundation to implement a health communications campaign that promotes physical activity among people 45 to 64 years of age who have arthritis and who are members of lower socioeconomic levels. The campaign consists of taped radio spots, radio scripts, brochures, and print pieces with the theme line "Physical Activity: The Arthritis Pain Reliever." This campaign was rolled out in January 2003. In addition, CDC supports research to better determine why arthritis occurs and progresses and to find the best strategies for dealing with it.

Example of Program in Action

With CDC support, California is enhancing efforts to address arthritis among diverse populations. For example, to reach Hispanic farm and transient workers, the California State Health Department worked with the Southern California Chapter of the Arthritis Foundation to disseminate a Spanish language version of the *Arthritis Self-Help Course.* Hispanics participating in the course have reported improvements in their general health, sleep, depression, and activities of daily living. The program sponsors are expanding this successful program to other underserved areas.

WHAT ARE THE NEXT STEPS?

CDC will work with funded states and national partners to increase the number of people reached by existing arthritis programs and to develop and evaluate culturally appropriate programs to better serve diverse populations. CDC will conduct critically needed prevention research to develop and evaluate intervention programs and other strategies that help people better manage their symptoms and improve their quality of life.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*

CHRONIC FATIGUE SYNDROME

WHAT IS THE PUBLIC HEALTH ISSUE?

- Chronic fatigue syndrome (CFS) affects about 800,000 Americans, mostly women.
- CFS is a long-lasting, debilitating disorder, yet fewer than 20% of those affected receive medical care.
- CFS appears to disproportionately affect racial/ethnic minorities, socially disadvantaged persons, and rural populations, but knowledge in these areas is incomplete.
- Despite more than a decade of research, the cause and pathophysiology of CFS remain unknown and no diagnostic tests have been developed, so control and treatment strategies have yet to be developed.

WHAT HAS CDC ACCOMPLISHED?

CDC's CFS program aims to develop control and prevention measures for CFS by

1. Estimating the magnitude of CFS as a public health problem.
2. Determining if CFS represents a single illness or a common response to a variety of physiologic and psychologic insults.
3. Defining the natural history, clinical parameters, and pathophysiology of CFS.
4. Identifying etiologic agents, risk factors, and diagnostic markers associated with CFS.
5. Providing current and appropriate technical information on CFS to various audiences.

An integrated approach (i.e., applying cutting-edge epidemiologic, clinical, and laboratory methods to studies of representative US populations) is used to achieve this goal.

Example of Program in Action

CDC has published studies on the burden of disease and its occurrence in the United States, the natural history and clinical parameters of CFS in persons identified with the illness, and the use of healthcare and medications by these persons. In 2003, CDC conducted a clinical evaluation study of 227 subjects with CFS and other fatiguing illnesses identified from the general population of Wichita, Kansas. No integrated study of this magnitude to elucidate the pathophysiology of CFS had been conducted before. CDC has developed a state-of-the-art molecular epidemiology laboratory program including the use of gene chip microarray assays.

WHAT ARE THE NEXT STEPS?

CDC is beginning a major surveillance study of CFS in various racial/ethnic groups of defined metropolitan, urban, and rural populations to identify the causes, risk factors, diagnostic markers, natural history, and economic impact of CFS. CDC will continue to lead international efforts to derive and evaluate an empiric case definition for CFS by analyzing data from 31,000 patients in 15 countries. CDC will complete analysis of data from the Wichita clinical study, which was designed to evaluate neuroendocrine and immune function, sleep characteristics, cognitive function, and psychiatric co-morbidity of persons identified from the community with CFS. CDC will also continue to develop plans for a national registry of CFS patients and to support and expand national efforts to train primary healthcare providers in the diagnosis and management of CFS.

EPILEPSY

WHAT IS THE PUBLIC HEALTH ISSUE?

- Epilepsy is a chronic neurological condition affecting an estimated 2.3 million people in the United States. Of these, more than one third continue having seizures despite treatment.
- Each year, an estimated 181,000 people in the United States are diagnosed with epilepsy, with the very young and the elderly the most likely to be affected.
- Persons of lower socioeconomic status, residents of urban areas, and minority populations bear a disproportionate burden.
- Delayed recognition of seizures and inadequate treatment greatly increase the risk of subsequent seizures, brain damage, disability, and death from injuries incurred during a seizure.

WHAT HAS CDC ACCOMPLISHED?

With funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, CDC is developing a resource kit to support and empower parents of teens with epilepsy. A partnership with the national Epilepsy Foundation is underway to develop and implement programs to enhance epilepsy public awareness and promote partnership, education, and communication. CDC funded *Living Well with Epilepsy II: A Conference on Current Issues and Future Strategies,* the second national conference on public health and epilepsy. CDC collaborated with the Chronic Disease Directors to examine issues and expectations for the role of states in addressing public health issues related to lower prevalence chronic conditions. CDC completed extramural research to enable studies of epilepsy incidence and prevalence in managed care organization populations. CDC is investigating healthcare issues that relate to health outcomes in those with epilepsy and is reviewing national data sets and state survey data to analyze trends in access to care, levels of care, and other demographic variables related to epilepsy. CDC is supporting population-based epidemiologic studies of epilepsy prevalence, incidence, and healthcare needs in the Navajo nation, northern Manhattan, New York City, and South Carolina. CDC is conducting population-based studies of neurocysticercosis, an identifiable and preventable cause of epilepsy.

Example of Program in Action

Because combating stigma is a priority area for the epilepsy program, the goal of the communication project, "Development and Testing of a Tool to Assess the Public's Perception about People with Epilepsy," was to develop a valid and reliable measurement tool to assess the public's perception of epilepsy and seizure disorders using a representative sample of the U.S. population. This instrument will provide greater understanding of the public's awareness and level of acceptance of epilepsy.

WHAT ARE THE NEXT STEPS?

CDC will expand the study of the prevalence of self-reported epilepsy in selected state populations using state surveillance data. CDC will continue intramural and extramural research activities to better understand the epidemiology of epilepsy, specifically prevalence and incidence of epilepsy; patterns of care and healthcare needs of people with epilepsy; associated health conditions; disability; and quality of life. CDC will also continue collaborating with the Epilepsy Foundation to include a program focus on Hispanics, African Americans, and the elderly, in addition to continuing a public education and awareness campaign for teens and adolescents with epilepsy and their peers.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*

HEART DISEASE AND STROKE

WHAT IS THE PUBLIC HEALTH ISSUE?

- Heart disease and stroke, principal components of cardiovascular disease (CVD), are our nation's first and third leading causes of death for both women and men, and account for nearly 40% of all deaths.
- Almost 90% of middle-aged Americans will develop high blood pressure in their lifetime. Nearly 70% of Americans with high blood pressure do not have it under control.
- Ten million Americans are disabled as a result of stroke and heart disease. Heart disease is a leading cause of premature, permanent disability in the U.S. labor force.
- In 2004, the cost of cardiovascular disease in the United States is estimated to be $368 billion.
- Cardiovascular diseases are the leading cause of black/white life expectancy disparities, and account for one third of this disparity.

WHAT HAS CDC ACCOMPLISHED?

In 1998, with funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, CDC launched the country's first nationwide state-based public health program to address the leading cause of death in our nation—heart disease and stroke. Today, 11 states are funded for basic implementation of this program. Twenty-two states and the District of Columbia are funded for planning and capacity-building processes, which prepare them for program implementation. These programs are attacking the major risk factors of high blood pressure and high blood cholesterol which contribute to heart disease and stroke. People die or are disabled unnecessarily every day because they delay getting medical help when experiencing symptoms of a heart attack or a stroke. Many people do not receive proper preventive care because, often, the medical care system does not fully adhere to national guidelines for the prevention and control of high blood pressure, high blood cholesterol, heart disease, and stroke.

CDC and state programs are working to promote education about the early signs of a heart attack or stroke, develop policies for universal 911 coverage, and improve access to quality care to prevent and manage high blood pressure, high blood cholesterol, stroke, and heart disease. CDC is also developing state-based registries to measure and improve the quality of acute and long-term care received by stroke survivors. Improving care for stroke survivors can significantly reduce the severity of disabilities, improve quality of life, and reduce deaths from stroke. In 2003, CDC released *A Public Health Action Plan to Prevent Heart Disease and Stroke* that charts a course for CDC and collaborating public health partners and other agencies for heart disease and stroke prevention over the next two decades. States funded in 2003 include: Basic Implementation—Florida, Georgia, Maine, Missouri, Montana, New York, North Carolina, South Carolina, Utah, Virginia, and West Virginia; Capacity Building—Alabama, Alaska, Arkansas, Colorado, Connecticut, District of Columbia, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Minnesota, Mississippi, Nebraska, North Dakota, Ohio, Oklahoma, Oregon, Tennessee, Texas, Washington, and Wisconsin.

Example of Program in Action

Montana's program is using the *Guidelines Applied in Practice,* developed by the American College of Cardiology, to help hospitals develop systems to implement acute care guidelines and secondary prevention practices. Missouri's program is partnering with the Diabetes Control Program and Federally Qualified Health Centers to administer and evaluate a comprehensive approach to improving standards of care for patients with cardiovascular disease, hypertension, and diabetes. Kentucky's program is addressing quality improvement and patient care management using the American Heart Association *Get with the Guidelines for Coronary Artery Disease.*

WHAT ARE THE NEXT STEPS?

CDC will continue as a national leader to strengthen state programs; identify populations at the highest risk for heart disease and stroke; and design programs for those populations. CDC will enhance monitoring and evaluation systems for measuring and improving program impact. CDC will also continue to build collaborations with national partners to promote policy and environmental changes to improve adherence to national guidelines and access to quality care.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*

NATIONAL DIABETES PREVENTION AND CONTROL

WHAT IS THE PUBLIC HEALTH ISSUE?

- More than 18.2 million Americans have diabetes, including nearly 5.2 million who do not know they have the disease.
- Since 1991, the national prevalence among adults of diagnosed diabetes (including gestational diabetes) increased 61% and is projected to increase 165% from 2000 to 2050.
- Diabetes is the leading cause of non-traumatic, lower-extremity amputations; chronic, irreversible kidney disease; and blindness among working-age adults.
- Diabetes contributes to over 200,000 deaths each year.
- Diabetes increases the risk of heart disease and stroke two to four times.
- Diabetes costs nearly $132 billion annually; $92 billion in direct and $40 billion in indirect costs.
- Type 2 diabetes, once considered an adult chronic disease, is now found in children and teenagers.

WHAT HAS CDC ACCOMPLISHED?

Funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, support Diabetes Prevention and Control Programs in all 50 states, Washington, D.C., and 8 territories to reduce the complications associated with diabetes. The programs identify high-risk populations, improve the quality of diabetes care, involve communities in improving diabetes control, and increase access to diabetes care by improving and expanding services. The programs also educate health professionals and people with diabetes about the disease and its complications.

Example of Program in Action

The Missouri Diabetes Prevention and Control Program (MDPCP) participated in the National Diabetes Collaborative. Through the collaborative, the state program used the Chronic Care Model to form teams of diabetes-related healthcare specialists. These teams established and initial "population of focus" registry of patients with diabetes to monitor indicators of health behaviors, health status, and services received. MDPCP provided the health centers participating in the collaborative with financial support, technical assistance with registry development, health system redesign, and evaluation skills.

Over a 3-year period, 12 of the 16 diabetes-related care measures improved significantly. These improvements included increase in the prevalence of at least two A1c blood sugar tests 3 months apart (15%), dilated-eye exams (190%), foot exams (47%), flu vaccinations (76%), and setting of self-management goals (37%). Participation in the collaborative has improved the level of diabetes-related care and service delivered by MDPCP.

WHAT ARE THE NEXT STEPS?

Diabetes incidence is increasing at an alarming rate, and more people are getting diabetes at a younger age. A multifaceted national diabetes program implementing surveillance; prevention research; community and health system interventions; and communication strategies through state and national partners is needed to control this serious public health challenge. In support of HHS' *Steps to a Healthier U.S.* prevention initiative, CDC plans to increase the number of basic implementation diabetes prevention and control programs; expand prevention research and surveillance activities to address the unique needs of women and children with diabetes; develop and implement a national public health strategy to address type 2 diabetes in children; and expand the educational activities of the National Diabetes Education Program.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*

NUTRITION, PHYSICAL ACTIVITY, AND OBESITY

WHAT IS THE PUBLIC HEALTH ISSUE?

- Obesity has reached epidemic proportions. In the past 20 years, the prevalence of obesity has increased by more than 60% among adults and tripled in children and adolescents. Fifteen percent of children and adolescents are overweight and more than half of these children have at least one cardiovascular disease risk factor, such as elevated cholesterol or hypertension.
- The cost of diseases associated with obesity has been estimated at $117 billion per year.

WHAT HAS CDC ACCOMPLISHED?

CDC has expanded the national nutrition and physical activity program for preventing obesity and other chronic diseases. A comprehensive program design was developed to help states improve the effectiveness of their efforts to improve nutrition, increase physical activity, and prevent obesity and other chronic diseases. A new program announcement, published in the January 2003 *Federal Register,* produced 58 applications. Twenty applications were selected for funding in 2003. Seventeen of the approved programs are funded to build capacity, and three programs are funded for basic implementation activities. All 20 state programs will include activities aimed at primary prevention of obesity by providing the population with knowledge, skills, stronger intention, and greater self-efficacy. The programs go beyond individual-level efforts to address the need for supportive environments that provide opportunities for healthy eating and more physical activity. The interventions are designed to foster behavior change by mobilizing multiple levels of the social structure through individual and environmental strategies to affect and sustain a healthier lifestyle.

Example of Program in Action

With funding from CDC, the state of Washington is battling the obesity epidemic on multiple levels, from the behavior of individuals to the public health policies of communities and the state. This multi-faceted approach is being piloted in the small rural community of Moses Lake. The Moses Lake Healthy Communities Advisory Committee initially targeted three areas for immediate attention—creating a community garden open to all citizens; promoting, protecting, and supporting breast-feeding; and creating a network of linked trails and paths throughout the community. These projects have brought the community together to address a broad range of environmental and policy issues. The success of these initial efforts has spawned a second generation of initiatives and gone a long way toward justifying the Advisory Committee's motto: "Happy and Proud to Live Healthy in Moses Lake."

WHAT ARE THE NEXT STEPS?

CDC plans to increase assistance to the existing 20 state programs through translating science to programs by

- Building a coalition to join public health and medical systems around patient self-management for obesity.
- Developing a research-to-practice series of briefs intended for public health practitioners. The first in the series will feature the relationship between fruit and vegetable consumption and weight.
- Implementing further guidance for applying physical activity interventions based on recommendations in *The Guide to Community Preventive Service,* for communities diverse in culture, ethnicity, and socioeconomic status.

THE PAUL COVERDELL NATIONAL ACUTE STROKE REGISTRY

WHAT IS THE PUBLIC HEALTH ISSUE?

- Stroke is a leading cause of serious, long-term disability in the United States.
- An estimated 4.8 million Americans and their families live with the disabling effects of stroke.
- Only 3% to 10% of eligible stroke victims get the emergency therapy that can lead to recovery.
- Only a fraction of stroke patients are getting to the hospital in time to receive a treatment that may make the difference between disability and full recovery.

WHAT HAS CDC ACCOMPLISHED?

With funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, CDC's Paul Coverdell National Acute Stroke Registry measures and improves hospital delivery of emergency care for stroke victims in order to reduce death and disabilities from stroke. The registry was launched through university-based prototypes which tested methods in eight states between 2001 and 2003. CDC will begin funding state health departments to establish registries in 2004.

CDC worked closely with representatives from the Brain Attack Coalition, the National Stroke Association, the American Heart Association/American Stroke Association, the National Institute for Neurologic Disorders and Stroke, and the Centers for Medicare and Medicaid Services to identify what quality improvement data should be collected by the Paul Coverdell Registry. Data from the initial prototypes (California, Georgia, Illinois, Massachusetts, Michigan, North Carolina, Ohio, and Oregon) show that large gaps exist between recommended treatment guidelines and what is actually being practiced in hospitals. The prototypes have implemented various quality improvement interventions to address these acute care gaps. Interventions were designed in collaboration with state health departments and hospitals and focus on improvements in emergency room diagnosis, in-patient management, and secondary stroke prevention (i.e., control of high blood pressure and high cholesterol, and smoking cessation). These data will be useful for designing and developing state efforts to reduce death and disability from stroke and to improve the quality of life for stroke survivors.

WHAT ARE THE NEXT STEPS?

Based on evaluation of the eight prototypes, CDC will design a model for a national registry and will begin funding registries in state health departments in 2004. The long-term goal is to establish state registries nationwide to reduce death and disability associated with stroke and to improve quality of life among stroke survivors.

PREVENTION RESEARCH CENTERS PROGRAM

WHAT IS THE PUBLIC HEALTH ISSUE?

- The behavioral and environmental factors that cause many chronic diseases, injuries, poor pregnancy outcomes, and some infectious diseases need to be addressed and changed.
- Prevention research makes a critical contribution to keeping people free from disease and helping them alter risk factors in their lives and in their communities.
- Gaps that exist between known research findings and the translation of those findings into public health practice and policy need to be eliminated.
- As the nation's population ages and as healthcare costs increase, prevention is an even more critical part of the national healthcare agenda.

WHAT HAS CDC ACCOMPLISHED?

The Prevention Research Centers (PRC) program is a national network of 28 academic research centers committed to prevention research and the translation of that research into programs and policies. The centers work with members of their communities to develop and evaluate community-based interventions that address the leading causes of death and disability in the nation. Linking university researchers, health agencies, community-based organizations, and national nonprofit organizations facilitates the translation of promising research findings into practical, innovative, and effective programs. CDC's PRC program places special emphasis on improving quality of life among special populations (e.g., youth, elderly, underserved), and curbing the nation's excessive healthcare costs.

Example of Program in Action

Long-term, community-based research can help analyze how children's health behaviors including physical activity, eating habits, and substance abuse may put them at risk for disease as adults. In *Healthy Passages,* three PRCs (University of Texas Health Science Center, University of Alabama, and University of California at Los Angeles) are following a group of children from various ethnic and economic backgrounds for 12 years and periodically thereafter. By interviewing children and their parents and observing neighborhoods and schools, the researchers are assessing the role of the environment, cultural values, and other factors in influencing health. As data are gathered, they are shared with local community organizations that can put the information to immediate use in determining the types of intervention programs to offer locally.

WHAT ARE THE NEXT STEPS?

Through Project DEFINE (Developing an Evaluation Framework: Insuring National Excellence), CDC developed evaluation strategies for the PRC program in collaboration with the PRCs' faculty, staff, partners, and community members. The strategies ensure that each center can promote community health and contribute to the national program. All centers will report on performance indicators, which will allow for consistent tracking of outcomes over time.

PREVENTIVE HEALTH AND HEALTH SERVICES BLOCK GRANT

WHAT IS THE PUBLIC HEALTH ISSUE?

The Preventive Health and Health Services Block Grant (PHHSBG) is a critical public health resource used in states and communities to

- Respond rapidly to emerging health problems, including foodborne infections and waterborne diseases.
- Provide states with flexible funds to meet individual state and community needs.
- Fund critical prevention efforts in those states where categorical funding does not exist for health problems such as skin cancer, child safety seats, and untreated dental decay.
- Support the efforts and increase the effectiveness of categorically funded programs such as diabetes, cardiovascular health, and tuberculosis.
- Leverage small amounts of funds to make major impacts on health problems.

The flexibility of PHHSBG has become even more vital to sustaining our national public health system as states face the pressures of decreased resources for public health services.

WHAT HAS CDC ACCOMPLISHED?

CDC funds 61 grantees (50 states, the District of Columbia, 2 American Indian Tribes, and 8 U.S. territories). About 43% of funds are distributed directly to communities. In 2003, 67% were used to fill-in gaps to support critical public health needs, 27% provided the only funding available to address important health problems, 4% were used to start up new projects, and 2% went toward rapid response to emerging public health problems.

Example of Program in Action

In West Virginia, where deployment of emergency vehicles and certified Emergency Medical Services (EMS) personnel is stretched thin, CDC provided 62% of EMS funds for the state's 282,019 children under 12 years of age. Ohio's chronic disease mortality rates are among the highest in the nation. In 2003, $1.92 million in funds were used to implement 21 projects covering 42 counties and 7,356,215 residents to educate and motivate individuals to increase heart healthy behaviors. The California Department of health leveraged $263,775 in funds to obtain $15 million from the California Endowment. The program is expected to increase access to fluoridated water from the current 17% (6 million residents) to 66% (23 million residents) by 2006, a major step towards increasing dental health in California. In Arizona, $80,000 in funds provided the sole source of funding in the state's highly successful Environmental Protection Agency's *SunWise* program. More than 400 schools enrolled in the program and 12,000 children participated in *SunWise* activities taught in English and Spanish. Rhode Island implemented an innovative program wherein prompt cards comparing fast foods for seven national chains were developed to fit snugly over automobile visors.

WHAT ARE THE NEXT STEPS

State health departments and CDC are embarking on a 3-year plan to implement an application and reporting rating system. The system will improve the quality of application and report information; identify needs and opportunities for technical assistance to states; and increase workforce competency. Additionally, an electronic compliance review system that will retain important institutional knowledge is under development.

STEPS TO A HEALTHIER U.S.

WHAT IS THE PUBLIC HEALTH ISSUE?

- In the United States, chronic diseases such as obesity, diabetes, and asthma, take a huge health and financial toll, with 7 out of 10 deaths caused by a chronic disease and more than 75% of the total healthcare budget spent on these diseases.
- Obesity rates have increased by more than 60% among adults in the last 10 years, doubled among children, and tripled among adolescents since 1980.
- Self-reported diabetes has increased by 50% since 1990.
- More than 31 million people in the United States have diagnosed asthma.
- The cost of obesity in the United States was $117 billion in 2000; in 2002, average medical expenditures for a person with diabetes were $13,243, that is 2.4 times greater than the cost for a person without diabetes; and the estimated cost of asthma was $14.5 billion in 2000.
- Underlying these serious conditions are risk factors such as physical inactivity, poor nutrition, and tobacco use; all of these can be modified years before they contribute to illness and death.

Steps to a Healthier U.S. is a 5-year initiative that combines the strengths and resources of the Department of Health and Human Services agencies and programs to improve the lives of Americans through innovative, community-based programs that are proven effective in preventing and controlling chronic disease. With funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, CDC supports states, cities, and tribal entities to implement chronic disease prevention efforts focused on reducing the burden of diabetes, overweight, obesity, and asthma and addressing three related risk factors—physical inactivity, poor nutrition, and tobacco use.

WHAT HAS CDC ACCOMPLISHED?

In 2003, CDC supported 4 states representing 15 small cities or rural communities, 1 tribal consortium, and 7 large cities. These 23 communities will implement community action plans that build on existing local, state, and federal programming efforts related to obesity, diabetes, asthma, and their risk factors. It will also include a special focus on populations with disproportionate burden of disease and disparities in access to preventive services. Organized community, environmental, educational, media, and policy interventions will be implemented in school, community, healthcare, and workplace settings.

Example of Program in Action

The *Philadelphia Steps* program will support local, governmental, and community initiatives that address crime and safety in areas where people exercise. New Orleans will collaborate with farmers markets, produce sellers, and community gardens to increase neighborhood accessibility of fruits and vegetables. Seattle and King County, Washington, will promote environmental changes to encourage physical activity such as a bike-to-school program and point-of-decision prompts to encourage people to use the stairs instead of elevators at workplaces.

WHAT ARE THE NEXT STEPS?

CDC will continue to support and evaluate community efforts to reduce health disparities and promote quality healthcare and prevention services in obesity, diabetes, and asthma. CDC will focus on increasing physical activity and good nutrition, and reducing tobacco use.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*

TOBACCO CONTROL

WHAT IS THE PUBLIC HEALTH ISSUE?

- Tobacco use, the single most preventable cause of death and disease in the United States, causes more than 440,000 deaths and costs at least $75 billion in medical expenses and $80 million in indirect costs each year.
- An estimated 46.5 million adults in the United States smoke cigarettes. Nearly 70% of smokers want to quit, but only 2.5% per year are able to quit smoking permanently.
- Each day, about 4,400 young people try their first cigarette. Of these teens, one in three eventually will die from smoking.

WHAT HAS CDC ACCOMPLISHED?

With funds from CDC's Chronic Disease Prevention and Health Promotion appropriations, CDC has expanded the science on the effectiveness of comprehensive tobacco control programs and the value of sustaining state tobacco control funding; met the 2003 Government Performance and Results Act goal of reducing to 26.5% the percentage of youth (grades 9–12) who smoke; facilitated production of a report outlining aggressive, science-based action steps to encourage tobacco use cessation; and produced a manual assisting state programs with the planning, implementation, and evaluation of their counter-marketing programs.

CDC provides federal leadership in tobacco control by strengthening tobacco-use science for public health action and by working with partners to create comprehensive tobacco programs nationally and globally. CDC funds the development, implementation, and evaluation of comprehensive tobacco control programs in all 50 states, the District of Columbia, 7 U.S. territories, 7 tribal support centers, and 8 national networks. CDC also supports state-based media activities to educate the public on the health hazards of tobacco use. CDC conducts tobacco surveillance and research to strengthen the science behind tobacco control, including expanding knowledge of the health risks of nicotine, additives, and other potentially toxic compounds in tobacco through laboratory research. CDC also provides support for global tobacco control by expanding the science-base through surveillance and research, building capacity, promoting information exchange, and sharing expertise.

Example of Program in Action

Dramatic results are evident in states where comprehensive programs consistent with CDC's guidelines have been implemented. As many states continued to cut funding for tobacco control due to fiscal crises, a 2003 study found double the decrease in cigarette sales among states that spent more on comprehensive tobacco control programs than in the United States as a whole. Between 1990 and 2000, sales fell an average of 43% in four key states with large program expenditures—Arizona, California, Massachusetts, and Oregon—compared with 20% for all states. Program funding levels accounted for a substantial portion of the difference, above and beyond the effect of cigarette excise tax hikes, with increasing expenditures producing bigger and faster declines in sales.

WHAT ARE THE NEXT STEPS?

Reaching the *Healthy People 2010* objective of cutting in half the smoking rates for youth and adults will require substantial national commitment to implement and sustain effective tobacco use prevention and control programs employing educational, clinical, regulatory, economic, and comprehensive approaches. If current trends continue, tobacco will be the leading cause of preventable and premature death worldwide by 2030. Cohesive strategies and concerted action at both national and international levels are needed to help curb the global tobacco epidemic.

For additional information on this or other CDC programs, visit www.cdc.gov/program *January 2004*