State Programs in action





Exemplary Work to Prevent Chronic Disease and Promote Health

2004

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLETM

State Programs in Action

Exemplary Work to Prevent Chronic Disease and Promote Health

2004

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Message From James S. Marks, MD, MPH Director, National Center for Chronic Disease Prevention and Health Promotion Centers for Disease Control and Prevention

As part of CDC's Futures Initiative, we have learned that chronic diseases such as heart disease, diabetes, cancer, and arthritis are a top concern for Americans. Also alarming are rising health care costs, an aging population, and climbing rates of obesity. At CDC, our mission is to promote health and quality of life. This includes stemming the devastating effects of some of the leading killers in the United States. It is a fight that we in the public health community must continue to wage every day, in every corner of our world.

And we are not alone in this fight. Together, with state and community organizations, faith-based groups, businesses, and many others who are committed to this cause, we are making a difference. Each year, we highlight exemplary state programs to show the various ways that public health professionals are addressing the epidemic of chronic disease. Some of these programs are in their early stages, while others have produced promising results with dramatic and far-reaching implications.

CDC funds a wide range of programs—for example, the Northwest Tribal Cancer Control Project, which is building the next generation of Native American cancer control specialists in three Pacific Northwest states, and the Nashville project, an exciting program that mobilizes many facets of the community to tackle heart disease and diabetes in Tennessee. CDC not only provides funding but also works with states to help them carry out these highly effective science-based interventions. At CDC's National Center for Chronic Disease Prevention and Health Promotion, we hope these exemplary programs will serve as a model for other states. We believe strongly that programs like these can boost the health of our citizens, provide a good health value, and slow the increases in medical care costs.

All of us must be resolved in our commitment to build awareness about these important issues, ultimately to ensure a better quality of life for everyone. We encourage you to join us in the fight against chronic disease, and we thank all of our partners for making these programs a success.

Wishing you a healthy 2004,

James 8 Minho

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Introduction

In every state, chronic disease programs are making a difference in the battle against deadly and debilitating chronic diseases such as cancer, diabetes, heart disease, and stroke. This book showcases some of the best state programs in the nation—programs that are using bold, creative, and highly effective strategies to prevent and control chronic diseases and to help people of all ages lead healthy, productive lives.

These model programs were selected by state chronic disease directors, state prevention program coordinators, and CDC staff. To be selected, programs had to be based on strong research, demonstrate innovative approaches, or yield positive, measurable outcomes. These examples showcase urban and rural programs as well as programs that reach diverse populations and those that give at-risk populations access to direly needed preventive care services.

Types of CDC-Funded Programs

These model programs differ, depending on the

the line at the top of most examples; those with blank lines are programs that receive CDC technical assistance and other support but not the type of funding described below). It is important to understand the differences between these funding categories:

type of CDC funding they receive (as noted in

- Capacity building funding strengthens the capacity of states through the development of a state team, a state plan, partnerships, and a program design to assess and reduce the burden of chronic diseases. These efforts also must address disparities in chronic diseases and associated risk factors, including the piloting of prevention and control interventions and delivery strategies.
- Basic implementation funding, through work with partners, helps states to establish public policies that support health promotion, systems changes, environmental interventions, and social marketing and communications efforts at the state and local levels. States can establish interventions in high-priority communities, reaching high-risk groups, and then share those valuable lessons learned throughout the state and with other states.
- Community demonstration project funding supports local, innovative interventions. These projects are evaluated to determine whether such interventions should be conducted broadly statewide or nationally.

CDC's Role With States

As the nation's prevention agency, CDC has a mandate to prevent unnecessary death, disease, and disability. CDC's National Center for Chronic Disease Prevention and Health Promotion works hard to ensure that advances in basic scientific and behavioral research are put into practice. Key scientific findings must be applied, evaluated, and reflected in state and local health policies and widely adopted as community practices across the country. CDC's goal is to apply

More than 90 million people in the United States live with a chronic illness.

Seven of every 10 deaths in this country are caused by a chronic disease.

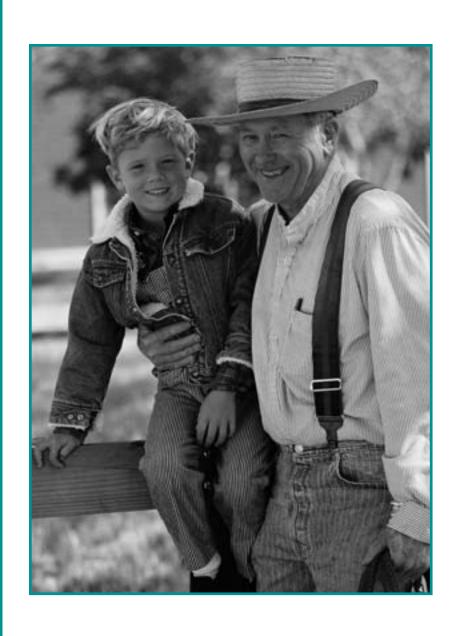
Chronic diseases can be prevented through lifestyle changes—for example, healthy eating, regular exercise, and living tobacco free—as well as screening programs to detect and treat these diseases early.

research findings in chronic disease prevention and control so that the public health benefits reach people in communities across the country.

CDC's mission is to help states develop comprehensive, lasting prevention programs that target the leading causes of death and disability as well as their risk factors. They also must focus on populations with the greatest need and build on a foundation of scientific evidence. Specifically, CDC provides states with

- Public health research data needed to measure the burden of chronic diseases, identify populations at risk, target program efforts, and evaluate program effectiveness.
- Scientific and technical expertise in such areas as epidemiology, program design, and evaluation.
- Public and professional education.
- Effective communications strategies to promote health.

By sharing these exemplary programs, CDC hopes that other states will adopt these unique strategies and strengthen chronic disease prevention efforts at the state and local levels.



For more information about CDC's healthy aging program, visit http://www.cdc.gov/aging/



Promoting the State's Healthy Aging Initiative, Encouraging Healthy Activities Among Seniors

Public Health Problem

In Arkansas, the fledgling healthy aging initiative had a visibility problem. Too few people were aware that it is never too late to take advantage of prevention. A growing body of evidence shows that programs that promote physical activity, regular immunizations, and safe environments designed to prevent falls can provide tangible benefits for older adults. For example, modest strength-building activities can increase muscle and bone strength even for people over age 90.

Program Example

The Aging States Project was a national assessment that highlighted the need for states to integrate the expertise and capacity of the public health and aging services networks to reach older adults with programs based on the best available science. Arkansas was 1 of 10 states that received a \$10,000 grant from CDC and HHS's Administration on Aging in 2003. Working with the Arkansas Division of Aging and Adult Services, the Arkansas Department of Health used the funding to bring visibility to the state's new Healthy Aging Coalition. The department also used the funds to organize the Hernando DeSoto Exploration Day, a 1-day event designed to increase physical activity, improve nutrition, and encourage smoking cessation among older Arkansas residents with low to moderate incomes.

Implications and Impact

The infusion of the minigrant funds into the state's fledgling healthy aging initiative catalyzed a groundswell of activities. For example, the Arkansas Division of Aging and Adult Services was awarded \$25,000 of tobacco-settlement funds to help cover the costs of Hernando DeSoto Exploration Day and to launch the Hernando DeSoto Society for Exploring a Healthier Lifestyle, which works to continue the Exploration Day activities. In addition, the state is creating a Healthy Aging Report Card to document the health status of older Arkansans. The health department also is crafting a chronic disease plan that will identify common goals and define how the state will manage crosscutting subjects such as aging.



Partnering to Extend the Reach of Activities to Promote the Health of Older Adults

Public Health Problem

Levels of physical activity decline with age in the United States. In fact, older adults are less active than any other age-group, and there is no current indication that activity levels among older adults are increasing. If this trend continues as the baby-boom generation ages, both chronic conditions and related costs for medical care will increase dramatically. Promoting regular physical activity is an effective way of reducing disease and disability and increasing both independence and quality of life for older adults. Regular physical activity reduces the risk for developing coronary heart disease, hypertension, colon cancer, type 2 diabetes, obesity, and osteoporosis. Physical activity can also be an effective treatment for older adults who have already developed arthritis, who have fallen, or who are depressed.

Program Example

The Training and Encouragement for Senior Activity (TESA) project, developed by the American Association for Active Lifestyles and Fitness, reached more than 650 Hawaiians in partnership with AARP Hawaii. The workshops promoted physical activity for older adults aged 50 years or older and provided older adults with the knowledge and tools needed to begin a physical activity program. The workshops covered goal setting and motivation, heart-healthy activities, strength-building activities, and nutrition education. AARP will continue to use TESA's existing workshop materials and expertise in physical activity for older adults as part of a statewide physical activity campaign named Shape-Up Hawaii.

Implications and Impact

The invitation to bring TESA to Hawaii has spurred a number of activities in the state. For instance, AARP's donation of program materials, including pedometers, allowed TESA to reach more participants than in previous workshops. TESA has continued to seek partners when presenting the workshops to extend the program's reach in other communities. In addition, the TESA workshops provided the kick-off for a statewide physical activity program, Shape-Up Hawaii, which promoted a number of activities for older adults to earn points in completing a virtual journey across the state. AARP will track changes in behavior of the participants in the TESA workshops over a 4-month period during the Shape-Up Hawaii campaign and will share the results with the TESA program. The TESA workshops have provided an opportunity for CDC and the AARP office in Hawaii to work together at the state level to promote the health of older Hawaiians.



For more information about CDC's arthritis program, visit http://www.cdc.gov/nccdphp/arthritis/index.htm



Reaching People With Arthritis in a Rural Community: Arthritis Self-Help Course

Public Health Problem

Arthritis is one of the most common health problems in the United States, with 49 million adults having doctor-diagnosed arthritis in 2001—nearly 1 of every 4 adults. An additional 21 million Americans reported chronic joint symptoms. In Alabama, 1 million adults reported doctor-diagnosed arthritis in 2001, and another 345,000 adults reported chronic joint symptoms. About 46% of these 1.3 million adults have household incomes of less than \$20,000, and 50% have less than a high school education. In addition, limited access to health care continues to be a problem outside of the major metropolitan area of Birmingham.

Program Example

Research has shown that pain and disability from arthritis can be minimized when the disease is diagnosed and treated early and when people know how to manage the disease and its effects, research has shown. The Arthritis Self-Help Course, developed at Stanford University, teaches people how to manage their arthritis and minimize its effects. This course, taught in a group setting, has been shown to reduce arthritis pain by 20% and physician visits by 40%. Alabama launched a project to improve quality of life for people with arthritis in Pine Apple, an underserved, rural, African American community. An existing program of community health advisors was used to deliver the Arthritis Self-Help Course. These advisors—lay people from the community trained to give health advice—actively encourage people with arthritis to attend the self-help course. When necessary, the advisors also provide assistance to make it easier for adults with arthritis to attend the group classes. Before this community project was launched, no citizens of Pine Apple had taken the self-help course. As a result of the efforts of the Alabama Arthritis Program and the community, 10 instructors have been trained in the 2-county area, and 80 people have taken the self-help course. The success in the Pine Apple area has also been reflected statewide. The number of Arthritis Self-Help Course leaders has increased 10-fold (more than 70 instructors), and there has been a 6-fold increase in the number of people who have taken the course (275 people with arthritis).

Implications and Impact

Nationwide, the Arthritis Self-Help Course has reached less than 1% of the population who could benefit from it. More widespread use of this course would save money and reduce the burden of arthritis. This project demonstrates the importance of identifying and using strategies to increase the use of this self-help course in rural, underserved communities. Community-based projects like the Pine Apple project are more likely than traditional public health projects to be responsive to the needs and culture of the community and can serve as a model for reaching undeserved populations in other states as well.



Promoting Physical Activity to Reduce the Burden of Arthritis in Rural and Underserved Populations

Public Health Problem

Arthritis is one of the most common health problems in the United States, with 49 million adults having doctor-diagnosed arthritis in 2001—nearly 1 of every 4 adults. An additional 21 million Americans reported chronic joint symptoms. Arthritis limits everyday activities for more than 8 million U.S. citizens, making it the leading cause of disability in the United States. In Illinois, 2.1 million adults had doctor-diagnosed arthritis in 2001, and an additional 940,000 adults reported chronic joint symptoms. Arthritis is more common in rural areas of Illinois, where 33% of adults have arthritis, compared with 24% in Chicago and 29% in other urban areas of the state.

Program Example

Illinois is increasing its efforts to reduce the burden of arthritis by offering more physical activity programs targeted to people with arthritis in five counties, representing rural and underserved populations. The programs—offered in partnership with county health departments and reaching more than 700 new participants—include the Arthritis Foundation's People With Arthritis Can Exercise (PACE®) program, aquatics physical activity programs, and the Arthritis Self-Help Course. Project coordinators in each county report that demand for the programs has exceeded expectations. To meet this demand, project coordinators are recruiting more course leaders and are looking for additional venues to offer these programs, which have been proven effective in reducing the effects of arthritis.

Implications and Impact

These programs are proven effective in reducing the impact of arthritis and chronic joint symptoms by improving people's function and reducing their pain and need for physician visits. Yet these programs are rarely offered in rural and underserved areas, where arthritis is more prevalent than in urban areas. This state's strategy to expand these community-based programs can be a model for other states that want to offer similar programs in rural and underserved areas. This program suggests that working through local health departments might be an efficient way to provide effective interventions to people with arthritis in rural and underserved areas.



Improving Quality of Life for People With Arthritis, Partnering With a Faith-Based Organization

Public Health Problem

Arthritis is one of the most common health problems in the United States, with 49 million adults having doctor-diagnosed arthritis in 2001—nearly 1 of every 4 adults. An additional 21 million Americans reported chronic joint symptoms. In Maryland, 865,000 adults reported doctor-diagnosed arthritis in 2001, and an additional 326,000 adults reported chronic joint symptoms.

Program Example

The Maryland Department of Health and Mental Hygiene is partnering with the Baltimore-Washington Conference of the United Methodist Church (BWCUMC) and the Maryland Chapter of the Arthritis Foundation to improve quality of life for people with arthritis. The BWCUMC has 210,000 members in 702 churches in Maryland, the District of Columbia, and West Virginia. The three organizations aim to make people more aware of arthritis and improve their access to effective physical activity and self-management interventions in communities. The Maryland Department of Health and Mental Hygene had an exhibit at the BWCUMC's annual convention, where more than 2,000 members attended in June 2003. The *United Methodist Connection*, a newspaper of the BWCUMC, is publishing articles to increase people's awareness and knowledge about arthritis. In addition, the Maryland Chapter of the Arthritis Foundation is providing speakers for a series of workshops to increase public awareness and knowledge of available programs and services to help people with arthritis become active partners in the management of their disease. The workshops will be promoted through *E-Connection*, an e-mail communication to BWCUMC members that provides news, notices, and reminders. To meet anticipated demand for these arthritis programs and services, the Maryland Department of Health and Mental Hygiene and the Arthritis Foundation, Maryland Chapter will train leaders for two programs: People with Arthritis Can Exercise (PACE®) and the Arthritis Self-Help Course. Both programs are proven effective in reducing the effects of arthritis.

Implications and Impact

In Maryland, only 13% of adults with arthritis have participated in arthritis education, self-help courses, or physical activity programs. More widespread use of these proven interventions could improve quality of life for people with arthritis and reduce both direct and indirect medical costs. The Maryland Department of Health and Mental Hygiene has partnered with a faith-based organization to expand the reach of these programs. This partnership can serve as a model for other states wanting to expand programs to reach people with arthritis, especially minority populations.



Using the Media to Reach People With Arthritis: Physical Activity. The Arthritis Pain Reliever Campaign

Public Health Problem

Arthritis is one of the most common health problems in the United States, with 49 million adults having doctor-diagnosed arthritis in 2001—nearly 1 of every 4 adults. An additional 21 million Americans reported chronic joint symptoms. In Oregon, 567,000 adults had doctor-diagnosed arthritis in 2001, and an additional 365,000 reported chronic joint symptoms.

Program Example

The Arthritis Program of the Oregon Department of Human Services pilot-tested the CDC-developed health communications campaign, *Physical Activity. The Arthritis Pain Reliever*, in Bend, Oregon (population 52,000). About 39% of adults in Bend have arthritis. The campaign used broadcast and print media: 258 radio spots were run; 2,300 brochures were mailed to Medicare enrollees of the local health plan; and 3,900 brochures were mailed to Medicaid enrollees. In addition, articles about arthritis and People With Arthritis Can Exercise (PACE®) were published in the health system newsletter. Two newspapers and one bulletin used the drop-in articles, resulting in nearly 40,000 print media impressions. Finally, a local morning TV talk show featured an interview with the Arthritis Program's manager, who discussed arthritis and the benefits of physical activity.

Implications and Impact

Oregon's campaign reached its targeted audience—people aged 45–64 years with low-socioeconomic status, both white and African American. After the campaign, a survey of 300 adults with arthritis revealed that 56% reported hearing a message about the health benefits of physical activity for arthritis. Of those who heard the message, 24% recalled the campaign theme, *Physical Activity. The Arthritis Pain Reliever*, and 71% recalled the message that "physical activity is good for arthritis." About 14% of people in the campaign target group reported increasing their physical activity in response to something they read or heard. Oregon's experiences are a model for other states wanting to conduct the *Physical Activity. The Arthritis Pain Reliever* campaign.



Increasing Participation in Arthritis Self-Management Programs, Partnering With Health Care Organizations

Public Health Problem

Arthritis is one of the most common health problems in the United States, with 49 million adults having doctor-diagnosed arthritis in 2001—nearly 1 of every 4 adults. An additional 21 million Americans reported chronic joint symptoms. Arthritis limits everyday activities for more than 8 million U.S. citizens, making it the leading cause of disability in the United States. In Utah, 291,000 adults had doctor-diagnosed arthritis in 2001, and an additional 180,000 adults reported chronic joint symptoms. Self-management programs, such as physical activity and self-management education, can reduce the pain and disability of arthritis, yet less than 1% of people with arthritis have participated in such programs.

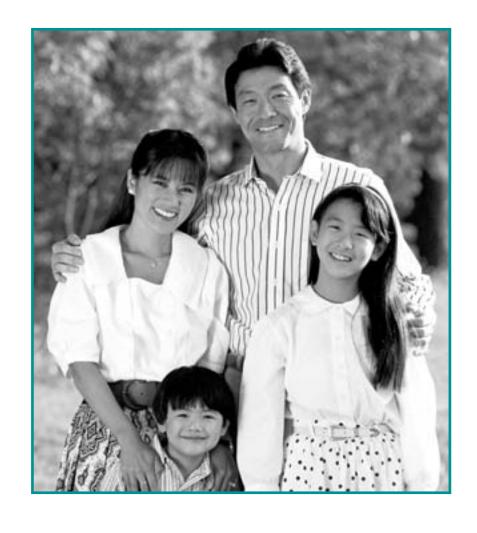
Program Example

Utah has increased the number of people who participate in arthritis self-management programs by working with health care providers to increase public awareness of the importance of self-management and the availability of self-management programs. The Utah Arthritis Program and The Orthopedic Specialty Hospital partnered to deliver free arthritis education seminars in communities. At these seminars, participants receive basic information about arthritis and self-management techniques as well as an opportunity to evaluate their own arthritis-related needs. Participants are then referred to arthritis programs, including the 6-week Arthritis Self-Help Course, the Arthritis Foundation's People with Arthritis Can Exercise (PACE®) program, and aquatics physical activity programs. Of the more than 300 people attending these seminars, 20% have taken another step to better manage their arthritis by enrolling in a physical activity or arthritis self-management education program. The Utah Arthritis Program has been approached by other clinical providers wanting to launch similar efforts.

Implications and Impact

Utah's efforts show how a successful partnership can increase participation in arthritis self-management programs that have been proven to improve quality of life for people with arthritis. Free community seminars increased people's awareness and use of physical activity and self-management education resources. Utah's experiences can be a model for other states wanting to improve quality of life for people with arthritis by increasing participation in these effective arthritis interventions.

Preventing Chronic Disease



For more information about CDC's block grant funding, visit http://www.cdc.gov/nccdphp/blockgrant/index.htm



Exercising Native Traditions in Alaska

Public Health Problem

Inactivity and poor dietary habits are responsible for extremely high rates of overweight in Alaska and lead to many health problems, including high rates of diabetes and cardiovascular disease. More than 63% of Alaskan adults are overweight or obese, according to the state's 2000 and 2001 Behavioral Risk Factor Surveys. More than 21% of Alaskan adults are not physically active, and more than 76% do not consume the recommended five servings of fruits and vegetables a day. Weight problems are especially a problem during youth, a critical time when diet and activity behaviors and patterns begin to form. About 44% of southeast Alaskan young people are overweight compared with 10% of U.S. young people, according to the SouthEast Alaska Regional Health Consortium (SEARHC).

Program Example

The Exercising Native Traditions program, funded by the Preventive Health and Health Services Block Grant, inspires Alaska Native adolescents and adults in Juneau to adopt a more active lifestyle and make healthy eating choices. The four-part program encourages activities that are an integral part of the traditional native lifestyle. The program has involved 300 Alaska Native young people and adults in Native canoeing as a traditional way to be physically active during the summers. The program has also involved Alaska Native young people and adults in a variety of culturally oriented physical activities and offers an educational and media campaign, based on cultural traditions, to promote physical activity among Alaska Natives. The program is increasing the number of young people and adults who eat at least five servings of fruits and vegetables a day.

Implications and Impact

The Exercising Native Traditions program is making a significant contribution to Alaska's efforts to increase physical activity and reduce overweight and obesity. SEARHC recently completed a survey to identify culturally appropriate physical activity preferences for targeted populations. Swimming and walking were identified as two top-preference activities. On the basis of the survey findings, SEARHC sponsored swimming pool sessions for 104 young people and adults, developed and sponsored native drumming and dance sessions for 27 young people and adults, and developed and conducted the Traditional Canoe Racing project. Elders have expressed how proud they are to see this traditional activity being revitalized. Moreover, during the 5 A Day media campaign, the program provided nutrition education and healthy snacks to 400 young people and 50 adults. Exercising Native Traditions is one of several programs that are helping the state achieve its *Healthy People 2010* goal of reaching at least 50% of the population with strong health promotion and health education programs by 2005.



Limiting the Sun, Not the Fun Through the SunWise Program

Public Health Problem

In Arizona, melanoma has increased 150% since 1973, and deaths from melanoma have increased 44%. Skin cancer is the most common type of cancer in America, and rates of skin cancer incidence in Arizona are triple the national average. Nationwide, children as young as 11 years old are being diagnosed with deadly skin cancers. Just one blistering sunburn during childhood is estimated to double the risk of getting melanoma later in life, according to the Skin Cancer Foundation.

Program Example

Arizona is the first state in the nation to provide a staff person to administer the SunWise program, funded by the Preventive Health and Health Services Block Grant. Presented in both English and Spanish, the SunWise curriculum is free to educators and teaches children in grades K–8 how to protect themselves from overexposure to the sun. The program increases student and teacher awareness of sun protective behaviors through activities such as the statewide poster contest. The goal is to increase students' ability to practice health-enhancing behaviors to further reduce their health risk for overexposure to the sun at home and at school. The program provides children with scientific knowledge and helps them to better understand environmental concepts related to sun protection.

Implications and Impact

More than 400 schools statewide have enrolled in the SunWise program since February 2003, and 12,000 children have completed SunWise activities. Program staff have met with more than 11,000 children to teach sun safety. In addition, extensive partnerships have been created throughout the state, and more than 3,000 students submitted entries in a statewide SunWise poster contest. Measuring the effectiveness of the SunWise program will be a challenge, given the long amount of time between overexposure to the sun and the onset of UV-related health effects; however, changes in children's attitudes and knowledge can be measured. In 2004, the state will release results of an evaluation involving 2,000 Arizona schoolchildren to determine their attitudes about a variety of factors, including sunscreen use, tanning practices, and knowledge of sun protection practices.



Expanding People's Access to Fluoridated Water to Prevent Dental Decay

Public Health Problem

More than half of all school-aged children in California have untreated tooth decay. The percentage of California children aged 6–8 years with untreated decay is more than twice as high as the national average. More than 1 of every 5 of California 10th graders urgently need dental care for extensive decay, pain, or infection. Dental decay is a problem that starts at an early age: almost one-third of California preschoolers and more than two-thirds of elementary and high schoolchildren have experienced dental decay. Just 3 years ago, with only 17% of its water fluoridated, California ranked 48th among the states in the percentage of its residents having access to fluoridated drinking water. Almost 1 billion dollars is spent annually in the federal Medicaid dental program, known as Denti-Cal, to restore teeth due to decay in children and adults.

Program Example

The California Fluoridation Implementation Project is administered by the California Department of Health Services. The program provides consultation and technical assistance to communities interested in fluoridating their drinking water and includes a public-private partnership to help communities obtain funds for these efforts. Preventive Health and Health Services Block Grant funds were used as leverage to obtain \$15 million dollars in funding from the California Endowment to carry out this program. Program goals are to improve youths' access to dental care and preventive dental programs, promote statewide fluoridation efforts, and strengthen the public sector's capacity to fluoridate water supplies. The program has been instrumental in fluoridating water in Los Angeles, Sacramento, Mountain View, and Pico Rivera. Program staff have worked with the second largest water wholesaler in California, the San Francisco Public Utilities Commission, to provide fluoridated water to an additional 400,000 people. In addition, the largest private water wholesaler in the United States, the Metropolitan Water District of Southern California, voted to fluoridate its 5 treatment plants, thus providing fluoridated water to an additional 18 million Californians.

Implications and Impact

Given this program's success, the percentage of Californians with access to fluoridated drinking water is projected to increase from 17% (6 million residents) to an estimated 66% (23 million residents) by early 2006. These fluoridation efforts will move California from 48th in the nation to the top third and will bring the state closer to the *Healthy People 2010* goal of 75% of Californians having access to fluoridated drinking water.



Applying Proven Methods to Increase Heart-Healthy Behaviors

Public Health Problem

In Ohio, rates of death caused by chronic diseases are among the highest in the nation. Rates of tobacco use, obesity, poor dietary habits, and lack of physical activity—all risk factors for chronic diseases—are also high in this state. Eighty-three percent of Ohio adults reported having at least one modifiable risk factor for cardiovascular disease, and nearly 80% reported having two or more modifiable risk factors. Data from the state's 2000 Behavioral Risk Factor Survey indicate that nearly 79% of people in Ohio have poor dietary habits, 60% have a sedentary lifestyle, more than 26% smoke cigarettes, and nearly 22% are obese.

Program Example

Healthy Ohioans, funded in part by Preventive Health and Health Services Block Grant funds, is a statewide health and wellness program that addresses lifestyle risk factors such as obesity, tobacco use, and lack of physical activity. The program uses proven social marketing methods to identify high-need communities: those communities that have heart disease death rates significantly higher than the national average and high concentrations of residents living in poverty. For example, 7 urban projects have populations of more than 250,000 and substantial numbers of impoverished people. In addition, 14 rural and suburban regional projects cover a total of 35 counties, including 22 high-need counties. Health communication tools and principles are used to disseminate health messages that encourage healthy behaviors by creating awareness, changing attitudes, and motivating individuals to adopt recommended behaviors.

Implications and Impact

The Heart Health project is one of the most successful projects within the Healthy Ohioans program. In 2003, the program reached 21 projects and covered 42 counties. As a result of the Heart Health project, seven communities have established new walking paths. One community has reclaimed and opened an urban park that had been closed for 20 years. A unique barbershop program in inner-city Cleveland targeting African American men has trained barbers to talk with customers about high blood pressure. Screenings are held monthly for barbershop patrons. The barbershops and the Heart Health messages were promoted to Cleveland residents via 361 media spots. In northwest Ohio, Henry County has established a partnership with a local food vending machine company that covers 11 counties and 100 work sites. The vendor has labeled appropriate items with 5 A Day or Heart Healthy stickers. To date, sales of the 5 A Day items have increased by 15% and the Heart Healthy items by 80%.



Changing Policy and the Environment, Using Prompts to Promote Healthy Eating and Physical Activity

Public Health Problem

In 2000, 17% of Rhode Island adults were obese, compared with 20% of adults nationally. These numbers are up from 10% in Rhode Island and 13% for the nation in 1991. Although poor nutrition is not the only factor contributing to overweight and obesity, it contributes to chronic diseases such as diabetes, heart disease, stroke, and some forms of cancer. Overweight and obese adults also are at higher risk for musculoskeletal disorders, work disability, and sleep apnea. Overweight and obesity cost Americans an estimated \$117 million per year, and this figure is expected to increase at 14% per year.

Program Example

To expand health promotion and disease prevention efforts statewide, the Rhode Island Department of Health formed the Rhode to Health Coalition, a partnership that includes the health department and 16 hospitals. The coalition created a powerful and practical idea—a chart known as the Fast Food Prompt, which compares high-calorie versus low-calorie items for seven national fast food chains. The chart is designed to fit neatly over the visor of an automobile or in the glove compartment. Participating hospitals and the health department are distributing more than 10,000 of these charts throughout Rhode Island. The Rhode to Health Coalition also is creating stairway prompts, to be posted in hospital buildings and community buildings, to encourage people to take the stairs for physical activity. In addition, the coalition is creating a pedometer campaign to encourage hospital workers and other community partners to use pedometers and promote physical activity.

Implications and Impact

The Rhode Island Department of Health and its partners have developed, conducted, and evaluated nutrition and physical activity programs that are changing policies and the environment to promote physical activity and healthy eating among high-priority populations in the state. The state also is developing partnerships through the Rhode Island Obesity Planning Council to create a state plan for preventing, reducing, and controlling obesity. In addition, public databases with information on nutrition, physical activity, obesity, diabetes, and heart disease will be assessed to identify gaps in data collection and compare data elements and common health trends.



For more information about CDC's cancer control program, visit http://www.cdc.gov/cancer

Cancer Programs



Promoting Awareness for Colorectal Cancer Screening

Public Health Problem

Colorectal cancer is the second leading cause of cancer deaths in the nation. The U.S. Preventive Services Task Force and other organizations have reviewed the evidence and recommend colorectal cancer screening for all adults 50 or older. Although screening has been proven to save lives and prevent cancer, screening rates for colorectal cancer continue to be low. In 2001, approximately 26% of Colorado adults aged 50 years or older reported having had a fecal occult blood test in the previous year, and approximately 37% reported having had a sigmoidoscopy or colonoscopy in the previous 5 years. Screening rates were similar for men and women, but non-Hispanic whites were twice as likely as Hispanics to report having had screening tests.

Program Example

Investigators at the University of Colorado collaborated with the Colorado Department of Public Health and Environment and Kaiser Permanente of Colorado to determine whether colorectal cancer screening rates could be increased among 1,100 Kaiser members aged 50–74 years, half of whom were Hispanic. One-third of the members received an educational brochure, tailored to their sex and race and ethnicity, along with a letter from Kaiser encouraging them to go for screening. One-third of the members received the brochure followed by a motivational telephone call. The remaining third of members received neither the brochure nor the call. All members were then contacted 4 months later to inquire about their colorectal screening practices, attitudes, and beliefs. Members who received educational materials, including Hispanic members, were more likely to be screened for colorectal cancer than those who did not. This 2001–2002 study supports earlier research findings, which show that encouraging people to request screening tests can increase rates of screening.

Implications and Impact

This effective intervention was the result of the collaboration and support from the state's Comprehensive Cancer Control Program. Outcomes from the project are being used to create, conduct, and evaluate a widely disseminated mail-delivered cancer awareness campaign. Materials developed in the project have been modified to reach more people throughout the state and have been tailored to sex and race and ethnicity. The materials, approaches, and evaluation methods developed in this project will be made available to other states as a model campaign for promoting colorectal cancer awareness and screening.



Using Client Navigators to Help Women Obtain Breast and Cervical Cancer Screenings

Public Health Problem

The faces of Georgia's cancer patients are changing as the communities become more racially and ethnically diverse: the percentage of African American, Hispanic, and Asian women more than 40 years of age in Georgia increased from 27.2% to 30.5%, between 1997 and 2000. Barriers to obtaining cancer screenings must be addressed so that these women can receive appropriate and timely screening, follow-up, and treatment.

Program Example

Georgia's Breast and Cervical Cancer Program (BCCP) began using client navigators, also referred to as lay health advisors or community health workers, to provide outreach, education, and case management services in underserved communities. The BCCP developed and piloted a training course to improve and support the skills of client navigators and the quality of service they provided. The course also provided skill-based training in communicating; understanding different cultural beliefs, values, and norms; and eliminating barriers to screening. Seventeen client navigators have been hired and trained through this program. The client navigators' duties are twofold: they help women get needed breast or cervical cancer screenings, and they help the case managers conduct follow-up with their patients. For example, when a client cannot be reached by telephone or mail, one Georgia BCCP provider sends a client navigator to visit the home to assess the situation, discuss needed care, and resolve barriers.

Implications and Impact

The use of client navigators has been effective in linking women with the health care system and with sources of ongoing, appropriate medical care. Using client navigators increases the number of women screened by focusing on and addressing their specific health care barriers. Client navigators create relationships that build trust between a client and the health care delivery system, and they make more economical use of available staff by permitting clinicians to focus on patient care. One success story shared by a client navigator was about a quadriplegic patient. This patient received her Pap test and clinical breast examination at her home and on a later day was taken to her mammogram appointment through transportation arrangements made by the client navigator. This is one example of how client navigators in Georgia are addressing barriers to breast and cervical cancer screening, follow-up, and treatment; dispelling myths about cancer; and helping women overcome their fears and go forward with their plan of care. Without such support, many women might not complete their screening and follow-up. Using client navigators who are trained to handle these situations is one way that public health can overcome major health disparities.



Monitoring Clinical Outcomes to Ensure High-Quality Breast Cancer Screenings

Public Health Problem

A mammography screening facility in the Bronx, New York, has provided more than 11,000 breast cancer screenings through the New York State Breast and Cervical Cancer Early Detection Program since 1995. Given the number of screenings, a diagnosis of approximately 60 cases of breast cancer would have been expected. Yet only 15 cases were detected—less than 25% of the expected cases of breast cancer. Furthermore, among women with normal mammograms, only 0.1% of clinical breast examinations reported from the facility showed a suspicious finding that warranted further evaluation. This rate was much lower than rates reported by other providers in the state program. These findings indicated that clinical breast examinations were not being performed or that they were of poor quality.

Program Example

These unusual findings at the Bronx screening facility prompted the New York State Department of Health to contact a random sample of 50 clients from the facility who were reported as having had a clinical breast examination in 1999. Only 3 of the 31 women interviewed reported that they had actually received a clinical breast examination during their visit. An emergency rescreening initiative was needed because the evidence indicated that women seen at this private radiology facility had received inadequate clinical care. CDC contributed emergency funding to the New York State Department of Health to conduct this large-scale rescreening effort. Beginning on June 1, 2000, more than 100 staff and volunteers attempted to contact by mail and telephone each of the 9,094 women seen at this facility since 1995 and found to be in potential need of a repeat comprehensive breast cancer screening. More than 25,000 telephone calls were logged as part of this process. Women received a minimum of 3 telephone contact attempts and as many as 10 calls in total.

Implications and Impact

Of the more than 9,000 women contacted, 3,125 were rescreened for breast cancer (8 of these women were found to have breast cancer). The remaining women were not rescreened for various reasons. For example, 1,160 of the women had already received another breast cancer screening at a different facility (15 of these women were found to have breast cancer). As a result of these findings at the Bronx facility, the attending physician's medical license was suspended for 1 year, and he was required to receive additional training in breast cancer screening, including reestablishing his mammography qualifications. The creation of an interdisciplinary quality assurance team to monitor clinical outcomes is essential to help ensure that women receive high-quality screening services. In addition, certain data must be collected to ensure there are no problems with the quality of clinical services that are provided at screening facilities. The ongoing analysis of clinical outcome data can result in the discovery and exploration of reasons for unusual data patterns. Ultimately, such analysis can help a program address any clinical deficiencies or data reporting problems in a timely manner.

Northwest Portland Area Indian Health Board

Building the Next Generation of Native American Cancer Control Researchers

Public Health Problem

Cancer is the second leading cause of death among American Indians and Alaska Natives in the Pacific Northwest, which encompasses Idaho, Oregon, and Washington. In these three states, 16% of deaths among American Indians and Alaska Natives are caused by cancer, according to the Indian Health Service. Research is needed to better understand the cancer burden in this population. However, American Indian and Alaska Native students face many challenges in obtaining the level of education needed to become cancer control researchers.

Program Example

In response to a priority identified in its comprehensive cancer control planning efforts, the Northwest Tribal Cancer Control Project has launched a training program to build the next generation of Native American cancer control researchers. The training program provides American Indian and Alaska Native students with the opportunity to explore cancer research as a career option. This project was based on a relationship between the Northwest Portland Area Indian Health Board and the Cancer Information Service of the Pacific Region. The Northwest Tribal Science Education Partnership: Building on Tradition and Community to Prepare the Next Generationof Researchers is the product of this collaboration. Staff of the Northwest Tribal Cancer Control Project consulted with tribes about the proposed program and then recruited American Indian and Alaska Native high school students to participate in two sessions of HutchLab, an intensive laboratory course designed by staff at the Fred Hutchinson Cancer Research Center. This training introduced students to cancer researchers, concepts of scientific research, and other Native American students who are successfully pursuing college careers in research. It also gave them hands-on experience in a laboratory.

Implications and Impact

The Northwest Tribal Cancer Coalition is a broad-based group that represents tribes and organizations with the common goal of reducing the cancer burden. By building strong relationships, members seek and learn about opportunities to coordinate and integrate their efforts. This collaboration has offered American Indian and Alaska Native students the opportunity to learn about cancer research. This program could be used as a model for other states and communities to educate and train future cancer researchers.



Using Lay Health Navigators to Improve Mammogram Appointment-Kept Rates

Public Health Problem

In Washington, D.C., an estimated 500 new cases of female breast cancer were diagnosed and approximately 100 women died of the disease in 2003. The District of Columbia Breast and Cervical Cancer Early Detection Program, also known as Project WISH (Women Into Staying Healthy), promotes the early detection of breast and cervical cancer among uninsured and underinsured women aged 18 years or older in the District of Columbia. Although Project WISH has been extremely successful in enrolling clients in the screening program, ensuring that women keep their appointments for screening examinations has been a challenge.

Program Example

Lay health navigators are often an effective link between health promotion programs and the community because they share the same language, culture, and beliefs as community members. Research shows that lay health navigator programs are particularly relevant for African American women because they often seek advice from female friends or relatives before making health-related decisions. To improve the appointment-kept rate for women with scheduled mammogram appointments, Project WISH began the Navigator Program in November 2001. To establish the Navigator Program, Project WISH identified women in the community who were familiar with the health care system in the District of Columbia. Lay health navigators were trained to focus on eliminating the fear and distrust that reduced the likelihood of women keeping their cancer screening appointments. The navigators then provided counseling, identified support services, and reminded clients about upcoming mammogram appointments.

Implications and Impact

Project WISH staff members evaluated the effectiveness of the Navigator Program and found that before the program began, 35% of women completed screening on the initial appointment date, compared with 70% of women after the program began. Furthermore, women served by the Navigator Program were five times more likely to complete breast cancer screening examinations on the scheduled appointment date than women who were not served by the program. Use of lay health navigators is an effective community outreach strategy for improving the appointment-kept rate because these navigators help reduce barriers to screening. As more women complete screening, more cancers will be detected in early stages, which may decrease breast cancer deaths.

Cancer Registries



Using an Internet-Based Query System to Provide Public Access to State and County Cancer Data

Public Health Problem

Each year in Colorado, more than 16,000 cancers are diagnosed, and an estimated 6,000 people die of cancer. In the United States, cancer data are regularly collected, analyzed, reported, and transferred at the state and national levels, but not always at the county level.

Program Example

The Colorado Central Cancer Registry collaborated with the Colorado Health Data Advisory Committee to develop an Internet-based query system called the Colorado Health Information Dataset (CoHID). CoHID's governing board, which includes representatives from both local and state health agencies, sets priorities for new modules and features to CoHID. Health providers and the public can use the system to access cancer incidence and death statistics as well as Behavioral Risk Factor Surveillance System data on health-related and screening behaviors. Tables of cancer counts and rates can be produced by year, county, age, sex, race, cancer site, and stage of disease at diagnosis. To allow easy analysis and customization of data queries, the site has a real-time help screen that allows users to better understand the data, interpret results, and make successful inquiries.

Implications and Impact

Access to population-based health data at the county level is crucial for monitoring health status and planning interventions for prevention and early detection of cancer. CoHID allows users to analyze the stage of cancer at diagnosis. In addition, CoHID complements routine publications of the Colorado Central Cancer Registry and serves a wide variety of data users. This system can be developed and used as a model by other state health departments. In addition, the data can also be used to identify cancer patterns among race, sex, and age-groups and lead to prevention and early detection measures that may save lives.



Understanding Why Rates of Bladder Cancer and Deaths Are High in Northern New England

Public Health Problem

Rates of bladder cancer deaths have increased among white adults in Maine, Vermont, and New Hampshire over the past three decades. Between 1996 and 2000, Maine men had the highest rate of bladder cancer deaths in the nation (10.7 per 100,000 U.S. standard population versus 7.7 in the nation). Cases of bladder cancer are also on the rise. In 2003, estimated incidence rates of bladder cancer were high among Maine men (45.5 per 100,000 versus 36.6 for men nationwide) and women (12.5 versus 9.6 for women nationwide).

Program Example

With support from the National Program of Cancer Control Registries, the state health departments in Maine, Vermont, and New Hampshire collaborated with the Dartmouth Medical School, the National Institutes of Health, and the U.S. Geological Survey on a case-control study of adults in these three states. Participants included about 1,200 adults aged 30–79 years with histologically confirmed bladder cancer and an equal number without a history of bladder cancer. Because the request for bladder cancer data needed for this study was outside of the standard reporting period for the state cancer registries, the participating health departments asked that the

hospitals and medical facilities review all cases to identify patients with bladder cancer and then report the requested information. A rapid data collection procedure was developed to allow timely personal interviews of residents with a diagnosis of bladder cancer. Residents were asked about their diet, previous residences and occupations, medical history (including family medical history), and medication and tobacco use. In addition, drinking water and biological specimens were analyzed.

Implications and Impact

Data from this study will be used to estimate the extent to which various lifestyle, occupational, and environmental exposures explain the increased incidence of bladder cancer and related deaths among residents of Maine, Vermont, and New Hampshire. Determining the importance of these potential risk factors will help guide the development of public health interventions and education programs to help residents lower their risk for bladder cancer.



Responding to Citizens' Concerns: Cluster Busting on a Shoestring

Public Health Problem

The Oregon State Cancer Registry (OSCaR) receives more than 200 requests for information each year. Many of the requests are from citizens concerned that cancer rates are high in their neighborhoods. Historically, several different state agencies and programs have responded to citizens' requests about possible cancer clusters, creating not only duplication of work but variability in the methods, responsiveness, and public health messages used to respond to citizens' concerns. Even though cancer data for Oregon have been available since 1996, agencies outside of the cancer registry have been unable to use the data because of concerns about analyses that have such small numbers of cases involved in cancer cluster reports.

Program Example

OSCaR developed a protocol to respond to cancer cluster concerns that focused on reducing overlap and inconsistencies in response, establishing clear guidelines, and addressing citizens' concerns by using local data. OSCaR's protocol follows reporting guidelines that call for responsibility, timeliness, and a specific methodology for addressing reports of cancer clusters within a community. A cross-agency Cluster Buster e-mail group was created to pass along citizens' concerns about cancer to researchers from the Oregon Department of Environmental Quality, the Drinking Water Program, and the Department of Environmental and Occupational Epidemiology. Telephone talking points were developed to enable general registry staff to answer broad questions about cancer concerns over the telephone. Citizen fact sheets and a template for an in-depth response letter were written to help citizens understand the burden and risk factors associated with specific cancers, recognize potential cancer clusters, and understand the difficulties of identifying a common cause for individual cancer cases. Templates were developed that allow staff to produce calculations of the observed versus expected number of cancer cases by county, city, or ZIP code and thus determine if the number of cancer cases is unusually high. Finally, a database was created to track all citizen requests for recurring areas of concern.

Implications and Impact

By developing and using this protocol to address people's concerns about cancer clusters, the state has reduced duplication of effort among state agencies as well as the number of cancer cluster requests that ultimately need investigation or follow-up. These tools give Oregon citizens a main point of contact when they have concerns about cancer rates in their neighborhood. They also ensure that results are communicated to citizens in a consistent, timely manner, ultimately reducing the number of potential clusters that the department must investigate.



For more information about CDC's diabetes program, visit http://www.cdc.gov/diabetes/index.htm



Improving Diabetes Care and Supporting Program Planning and Policy Changes

Public Health Problem

In Arkansas, an estimated 235,000 adults have diabetes, and about 78,300 of them are unaware that they have the disease. For the past 9 years, the prevalence of diabetes in Arkansas had been at or above the national average of about 6.5%.

Program Example

The Arkansas Diabetes Collaborative includes community health centers and health education centers working together to improve diabetes care and outcomes. Collaborators include the Arkansas Diabetes Prevention and Control Program, the University of Arkansas Medical Sciences, and the Arkansas Foundation for Medical Care. Nine community health centers and seven area health education centers participated in the collaborative through March 2003. Data from the Cardiovascular/Diabetes Electronic Management System were used to track health care issues such as the number of A1c blood glucose tests, dental examinations, foot examinations, influenza and pneumonia vaccinations, and microalbumin tests received by people with diabetes—services that are recommended for people with diabetes to detect problems early and prevent serious complications. The data were then used to improve the health care provided to people with diabetes, to recruit other clinics to participate, and to support program planning and policy changes.

Implications and Impact

Since the collaborative began, significant improvements have been made in several areas of diabetes care and management. From December 2002 through March 2003, the number of diabetes patients seen in the participating community health centers increased from 503 to 767, and the percentage of patients receiving A1c blood glucose tests in the previous year increased from 77% to 83%. Also encouraging were increases in the percentage of diabetes patients receiving dental examinations (from 10% to 13%), eye examinations (from 16% to 18%), influenza vaccinations (from 26% to 40%), and pneumonia vaccinations (from 12% to 16%).



Targeting Diabetes in Populations Hardest Hit by the Disease

Public Health Problem

More than 8% of Florida adults have diagnosed diabetes, data from the state's 2001 Behavioral Risk Factor Survey show, compared with about 6.5% of U.S. adults. The complications are disabling and costly. In Florida, about 16 of every 1,000 hospitalizations of people with diabetes resulted in amputation, according to 2000 data from the Agency for Health Care Administration. Moreover, 31 of every 1,000 hospitalizations that resulted in death involved people with diagnosed diabetes. The average age of patients with diabetes complications was 65 years in 2000, an increase of 2 years since 1992. However, African American and Hispanic patients hospitalized for diabetes complications have suffered from death and disability at earlier ages than people in other racial and ethnic groups.

Program Example

The Florida Diabetes Prevention and Control Program educated key decision makers about the need to allocate funds to reduce health disparities related to diabetes. More than \$900,000 was allocated to six community-based Closing the Gap projects in fiscal year 2002–2003 to target diabetes in populations disproportionately affected by the disease. The Diabetes Prevention and Control Program provided the projects with guidance, technical assistance, and contract managers. National Diabetes Education Program materials were recommended for use in the community, and use of lay health advisors was the recommended community education strategy. The Florida Diabetes Medical Practice Guidelines were the recognized set of protocols for disease management and patient self-management education. Project staff have worked hard in these six communities to provide education and to raise people's awareness and knowledge about diabetes.

Implications and Impact

Program evaluations show that since the projects began, people's knowledge about diabetes has increased while their average A1c blood glucose levels have declined. For example, the Closing the Gap project in Baker County reported that A1c levels for self-management participants averaged about 9.42% initially but then dropped to an average of 7.96%. Florida has made significant progress toward achieving the goal of increasing by 10% the percentage of people with diabetes who have ever heard of the A1c blood glucose test. In fact, the percentage has increased from 22.6% in 1994–1996 to 24.9% in 2000–2001, state Behavioral Risk Factor Survey data show. During the same period, the percentage of adults with diabetes who had their A1c checked at least once increased from 13.2% to 67.7%. Additionally, only about 7% of adults with diabetes in 2000–2001 indicated that they had never heard of hemoglobin A1c (included as a response option when asking the number of times they had their A1c checked). These data indicate that the Florida Diabetes Prevention and Control Program has exceeded the initial goal for this objective.



Providing Diabetes Self-Management Education and Support Through a Health Care Clinic Serving Homeless People

Public Health Problem

In Louisiana, an estimated 230,691 adults — 7.1% of the state's adult population — had diagnosed diabetes in 2002. Diabetes was the fifth leading cause of death for Louisiana residents in 2001, and diabetes-related medical care in Louisiana exceeded \$2 billion in 2000. Diabetes is of special concern for homeless people, who often are transient and lack financial resources and social supports. Because homeless people with diagnosed diabetes often lack access to routine health care and diabetes prevention and control programs, they usually end up in hospital emergency rooms in a crisis that could have been prevented. Education is direly needed for homeless people who have diabetes or prediabetes. Recent research shows that for people with prediabetes, who are at high risk for developing the disease, the onset of diabetes can be prevented or significantly delayed through modest changes in diet, weight, and exercise levels.

Program Example

The Louisiana Diabetes Prevention and Control Program partnered with the City of New Orleans Health Department's Healthcare for the Homeless Clinic to improve the clinic's ability to provide diabetes education to patients. This facility is the only full-service clinic in the area that serves homeless people, free of charge. Project Assist is a diabetes education program developed at the clinic to help patients manage their diabetes and improve their health status and quality of life. To be eligible to attend the sessions, individuals must be enrolled in a diabetes registry that monitors the health of homeless people. They can attend an individual or group session on glycemic control and complications of diabetes, self-monitoring, weight loss and exercise instruction, review of medications, diet instruction, or self-care questions. The program uses audiovisual aids (i.e., instructional pamphlets, personal care cards with a protective pouch, and a place mat with nutrition tips) and referrals to identified community resources. These interventions seek to improve patient compliance with treatment regimens, empower patients to take charge of their diabetes, and promote lifestyle changes. To determine how effective the sessions have been, patients' A1c levels are compared before entering the diabetes registry and after they complete the sessions.

Implications and Impact

By March 2003, the average A1c level for 153 project participants was 8.8%; this represents a 1% decrease for half of the homeless patients on the diabetes registry. In addition, 32% of these patients had at least one A1c check, and 38.6% had at least two A1c checks in the past year, compared with 15.75% and 25.5% in September 2001. Also in March 2003, more participants had had a foot examination and more had had an oral examination in the past year compared with the number in September 2001. By May 2003, 99% of participants had met diabetes management goals compared with 94.1% in September 2001. Project Assist is a successful example of how a state program can promote healthy behaviors and reduce needless disease and economic burden for homeless people with, or at risk for, diabetes.



Establishing a Statewide Diabetes Care Improvement Project to Improve Outcomes for People With Diabetes

Public Health Problem

In Michigan, an estimated 591,000 adults — or 7.6% of the state's adult population — had diagnosed diabetes in 2001. Diabetes was the sixth leading cause of death for Michigan residents in 2002, and diabetes-related medical care costs exceeded \$3.4 billion, with 60% of these costs attributed to hospitalization. Another 580,400 Michigan adults aged 40–74 years have prediabetes. These people are at high risk for developing diabetes, but recent research shows that for them, the onset of disease can be prevented or significantly delayed through modest changes in diet, weight, and exercise levels.

Program Example

The Michigan Diabetes Outreach Network includes six regional Diabetes Outreach Networks. The networks have a Diabetes Care Improvement Project and work with more than 150 agencies in the state, including physician offices, community health centers, home care agencies, and state-certified Diabetes Self-Management Education Programs. The networks work with the agencies to ensure that people with diabetes receive care according to current American Diabetes Association clinical practice recommendations. Data are collected at initial visits and follow-up visits to determine whether care has improved.

Implications and Impact

Results from the Michigan Diabetes Outreach Network show that working with health care agencies and providers through a statewide Diabetes Care Improvement Project can improve outcomes for people with diabetes. Trends in follow-up data from 1996–2002 show a significant improvement in the number of people with diabetes who have foot examinations and tests for glycosylated hemoglobin and microalbuminuria at least once a year. The percentage of people with diabetes who had glycosylated hemoglobin tests increased from 14% in 1996 to 80% in 2002; the percentage of those who had foot examinations increased from 58% in 1996 to 77% in 2002; and the percentage of those who had microalbuminuria tests increased from 22% in 2000 to 28% in 2002. Between 1999 and 2002, network patients had declines in their absolute glycosylated hemoglobin values of 1.15% (13% relative reduction). Network patients also have significantly improved their physical activity and nutrition planning.



Establishing Electronic Registries to Monitor Indicators of Health Behaviors

Public Health Problem

In Missouri, where nearly 400,000 adults have diagnosed diabetes, African Americans are more likely than others to be affected by this disease. One of every 14 adults in the overall population has diagnosed diabetes compared with 1 of every 10 African American adults, according to data from the 2002 Behavioral Risk Factor Survey. Improved health care is needed to decrease health disparities and prevent devastating diabetes complications for at-risk, medically underserved, and racially and ethnically diverse populations. Studies have shown that complications such as blindness, kidney failure, and amputations can be prevented or delayed by programs that help people with diabetes to improve nutrition, increase physical activity, improve blood glucose control, and have better access to preventive care, such as eye and foot examinations.

Program Example

Initially, the Missouri Diabetes Prevention and Control Program collaborated with five Federally Qualified Health Centers (FQHCs) and one National Health Service Corps site that participated in the Bureau of Primary Health Care's National Diabetes Collaborative. Currently, seven health centers participate in the collaborative. The centers formed teams of diabetes-related health-care specialists in clinics. Each center established an initial "population of focus" registry of patients with diabetes. Additional provider and site registries were added as the year progressed. The electronic registries were used to monitor indicators of health behaviors, health status, and services received. The Missouri Diabetes Prevention and Control Program provided the FQHCs with financial support, a local learning session, technical assistance on registry development, maintenance, health system redesign, monthly review of reports, and evaluation skills. The state diabetes program also evaluated aggregate data from the combined diabetes registries of the six health centers participating in the Midwest Cluster of the National Diabetes Collaborative. Preliminary results indicate that from June 2000 to May 2003, the health centers significantly improved 12 of 16 diabetes-related care measures, including increases in the prevalence of at least 2 A1c tests at least 3 months apart (15%), dilated-eye examinations (190%), foot examinations (47%), influenza vaccinations (76%), and setting of self-management goals (37%).

Implications and Impact

Participation in the National Diabetes Collaborative, patient monitoring with a diabetes registry, and the formation of teams of health care specialists have improved the level of diabetes-related care and services. Future efforts will focus on maintaining these improvements and extending the collaborative's activities to other health care sites.



Establishing a Community Coalition to Prevent Diabetes in East Harlem by Educating and Empowering Residents to Improve Their Nutrition

Public Health Problem

In New York, East Harlem's residents, who are 50% Latino and 40% African American, are faced with limited resources and a disproportionate burden of chronic diseases, such as diabetes. Compared with people in New York City, East Harlem residents have the highest prevalence of obesity, and nearly double the prevalence of diabetes (14.9%) vs. New York City overall (7.9%). One effective way to treat and prevent diabetes and related complications is to consume foods containing carbohydrates from whole grains, fruits, vegetables, and low-fat milk.

Program Example

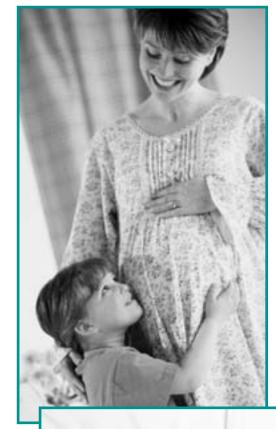
The New York State Diabetes Prevention and Control Program funds a community coalition for diabetes prevention in East Harlem (1 of 13 regional coalitions statewide). The Community Advances in Nutrition for Diabetes through Education and Empowerment coalition, with leadership from the Mt. Sinai School of Medicine, includes community-based organizations, advocates, health care providers, and researchers. One of the coalition's foremost community-based participatory research projects has been the completion of a food availability survey of local grocery stores and "bodegas" (small Hispanic grocery stores) to document the availability and cost of foods recommended for people with diabetes in East Harlem compared with the more affluent neighboring Upper East Side neighboring community.

Implications and Impact

Survey results indicate a lack of basic low-fat, high-fiber, low-carbohydrate, and low-calorie food items in East Harlem (18% of survey foods available) compared with the Upper East Side (58% of survey foods available). The disparities in food availability could be a barrier to diabetes self-management. Data from this community-based participatory research will help clinicians and community leaders educate their constituents and capitalize on local assets to devise strategies that improve food availability. Future activities include plans to evaluate whether differences in food availability are due to supply or demand and how availability correlates with food consumption and diabetes control.

Phone: (518) 474-1222 • Fax: (518) 473-0642 • Web site: http://www.health.state.nv.us/nvsdoh/consumer/diabetes/condiab.htm

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For more information about CDC's reproductive health program, visit http://www.cdc.gov/nccdphp/drh/index.htm



Linking Data to Expand Medicaid Coverage for Maternal Health Services, Promote the Health of Mothers and Babies

Public Health Problem

Louisiana women who have no private or public insurance are at increased risk for inadequate or late entry into prenatal care, and their infants are at increased risk for low birth weight and death. Economic research has shown that health care financing policies can provide uninsured women with greater access to clinical prevention services (including prenatal care), increase their use of such services, and improve their health care outcomes.

Program Example

Louisiana's Maternal Child Health and Medicaid programs collaborated on a project that linked Medicaid and birth record files to search for economic reasons why adverse maternal and child health outcomes occur. Women without access to Medicaid or private insurance were found to be at higher risk for adverse pregnancy outcomes, including delivery of an infant with low birth weight. Louisiana's Medicaid officials used results from this analysis to brief state legislators and policy makers and to propose that the state expand its Medicaid coverage. The state legislature used the results of this analysis to support an expansion of the Medicaid program to include those women below 200% of the poverty level. This change in eligibility criteria will give more uninsured mothers access to much-needed preventive services during pregnancy and delivery.

Implications and Impact

Louisiana's experience demonstrates how linking Medicaid and birth record data can provide the evidence needed to modify programs so that women at highest risk for adverse maternal outcomes receive access to the health care services they need. In this case, results from these analyses were used to support policy changes that lifted financial barriers so that more uninsured women could receive maternal and child health care services.



Strengthening Reproductive Health Surveillance Systems to Prevent Maternal Deaths

Public Health Problem

Women in Mississippi are at higher risk for death than U.S. women overall, according to state maternal mortality data. The state needs a surveillance system that identifies and interprets factors related to maternal mortality because such information could be used to develop targeted prevention interventions and programs for women of reproductive age.

Program Example

A public health work group oversaw the evaluation of Mississippi's maternal mortality system. CDC's surveillance system guidelines were used to identify weaknesses and opportunities for expansion. Results from the evaluation revealed that the current system's design limited the state's ability to identify opportunities for prevention activities. The findings also highlighted the potential benefits of creating a linkage to the state's infant death surveillance system. Mississippi is now developing a new maternal mortality surveillance system, which includes features recommended by CDC's guidelines. The system features components that strengthen maternal and infant mortality investigations, reporting, and risk factor identification. The state department of health hopes to use the expanded system to better inform programs involved in the delivery of maternal and infant health services.

Implications and Impact

Mississippi's experiences are a model that can be replicated in other states seeking to improve the effectiveness and efficiency of their reproductive health surveillance systems.



For more information about CDC's adolescent and school health program, visit http://www.cdc.gov/nccdphp/dash/index.htm



Using Innovative Approaches to Improve the Health of Students and School Staff

Public Health Problem

In Maine, an estimated one of every four high school students is a current cigarette smoker, a fourth are either overweight or at risk of becoming overweight, and three-fourths do not eat at least five servings of fruits and vegetables each day, according to the 2001 Youth Risk Behavior Survey.

Program Example

Funded largely by the tobacco Master Settlement Agreement, Healthy Maine Partnerships is an innovative community-school initiative launched in early 2001 to support community-based efforts to reduce tobacco use and increase physical activity and healthy eating. Schools play an integral role in Healthy Maine Partnerships, thanks to the impressive work of the state coordinated school health program, jointly managed by the Maine Department of Education and the Department of Human Services. Healthy Maine Partnerships supports a school health coordinator and school health advisory councils in all of the state's 54 School Administrative Units. As a result, CDC's model of coordinated school health and guidelines for tobacco use prevention, physical activity, and healthy eating are being followed statewide.

Implications and Impact

In just 3 years since Healthy Maine Partnerships was launched, the state has seen profound environmental and policy changes such as a tightening of tobacco-free school regulations and bans on the sale of soda and candy during the school day in all Maine schools. In addition, the state has observed dramatic increases in the number of schools engaging staff and students in walking programs, opening their buildings for after-school physical activity, developing fitness facilities, leveraging grants and local funds to support physical education and other programs, conducting evidence-based health education and smoking cessation programs, providing health promotion services for school staff, adding health teachers, and increasing time for nursing and guidance services. The state's coordinated school health program has provided training and technical assistance to local school health coordinators and generated support for their work among key decision makers, such as school superintendents. Maine's extraordinary success with its coordinated school health program illustrates how schools and communities can come together to improve the health of young people.



Promoting Good Health Through Curricular and Policy Changes

Public Health Problem

Nearly a fourth of Michigan's high school students are overweight or at risk for becoming overweight, while only a little more than a fifth of students eat at least five servings of fruits and vegetables each day and nearly a third do not get enough physical activity, according to the 2001 Youth Risk Behavior Survey.

Program Example

Michigan's Coordinated School Health Program, managed by the Michigan Departments of Education and Community Health, has been nationally recognized as a leader in promoting the health of young people through innovative curricula and strong state and local policies. Michigan has developed state-of-the-art, research-based curricula in health education and physical education as well as a sophisticated regional dissemination, training, and technical assistance system. In addition, Michigan's Coordinated School Health Program has led efforts to develop *The Role of Michigan Schools in Promoting Healthy Weight:* A Consensus Paper, which has guided school health policy changes in the state and influenced similar efforts throughout the nation. The consensus paper and a supporting initiative have actively promoted policy changes at the local level by supporting the use of CDC's School Health Index in 50 pilot schools, delivering a comprehensive training workshop for School Health Index facilitators, and developing an innovative, online version of the School Health Index.

Implications and Impact

Michigan's regional dissemination, training, and technical assistance system has led to widespread use of the health education and physical education curricula not just across the state but nationwide as well. For example, the health education curriculum is now used in 94% of Michigan's school districts and in school districts in 42 states; moreover, use of the School Health Index in Michigan schools has resulted in many changes in physical activity and nutrition policies including establishment of daily salad bars, taste testing to identify healthier choices that students will like, limitations on the days that fried potatoes are offered in school cafeterias, daily fitness activities in the classroom, and staff health promotion programs. The Michigan Coordinated School Health Program has strong support from the state Board of Education, which in 2003 recommended that every Michigan school district adopt its own coordinated school health program with a school health council to guide it and school health teams in each school to carry out the program. The board also passed a policy recommending that physical education programs in every Michigan school offer at least 150 minutes per week of physical education for elementary school students and 225 minutes per week for middle and high school students.

North Carolina

Taking Coordinated School Health Programs Statewide

Public Health Problem

An estimated 27% of North Carolina's high school students are overweight or at risk for becoming overweight, less than 20% eat the recommended five or more servings of fruits and vegetables each day, and less than 50% attend physical education classes at least once a week, according to 2003 state data.

Program Example

The North Carolina Healthy Schools Initiative was formed by the Department of Public Instruction and the Department of Health and Human Services to improve the health of all North Carolina young people by addressing overweight, obesity, cardiovascular disease, and diabetes through school health programs. Working closely with the state Board of Education, the initiative has enacted the Healthy Active Children policy, requiring every school district in the state to establish and maintain a school health advisory council and to carry out action plans that incorporate CDC's model of coordinated school health. The policy, passed by the state Board of Education in 2003, also ensures that appropriate amounts of physical activity and recess will be provided for all students and that recess cannot be taken away from students as a punishment. North Carolina Healthy Schools has also played a key role in developing and launching individual diabetes care plans for all students with diabetes enrolled in state schools. The initiative is now developing nutrition standards for all school foods, including food served in school cafeterias and at school fundraisers. In addition, the state Board of Education recently renamed one of its strategic priorities to "Healthy Students in Safe, Orderly, and Caring Schools." This change represents a shift in the board's attention and renewed recognition that North Carolina students need schools to support their efforts to be healthier.

Implications and Impact

The passage of the Healthy Active Children policy in North Carolina underscores the importance of coordinated school health programs in addressing and reducing the prevalence of health risk behaviors among young people. North Carolina can now serve as a model for other states that want to launch statewide school health programs.



For more information about CDC's cardiovascular health program, visit http://www.cdc.gov/nccdphp/cvh/index.htm



Improving Quality of Care and Health Outcomes by Providing Cardiovascular Disease Guidelines to Physicians and Patients

Public Health Problem

Heart disease is the leading cause of death in Arkansas, and the state ranks second in the country in deaths from stroke. Arkansas has a higher rate of heart disease than the rest of the nation, and this high rate might, in part, be because the state has higher-than-average rates of risk factors: 30% of people in Arkansas have high blood pressure (versus 26% in the nation); 26% smoke cigarettes (versus 23% in the nation), and 27% are physically inactive (versus 24% in the nation), 2001 Behavioral Risk Factor Survey data indicate. These risk factors significantly increase the potential for heart disease and stroke.

Program Example

The Arkansas Cardiovascular Health Program collaborates with partners on the Arkansas Wellness Coalition to improve health outcomes by promoting nationally recognized peer-reviewed guidelines for physician care and patient self-management. Other coalition members include the American Heart Association, Arkansas Department of Health's Diabetes Control Program, Arkansas Quality Improvement Organization, Arkansas Medicaid, University of Arkansas for Medical Sciences, managed care organizations, and pharmaceutical companies. The coalition's first goal is to consolidate efforts between health care providers and advocacy organizations to improve quality of care and health outcomes for targeted diseases. The second goal is to improve the consistency and efficiency of care by providing common core principles, and the third goal is to put in place recognized standards of care. The Arkansas Cardiovascular Health Program has played a key role in developing a tool kit of resources to promote these quality improvement goals. The tool kit includes chart tracking forms as well as principles for the primary and secondary prevention of heart disease and stroke, based on the American Heart Association and the American College of Cardiology guidelines. The coalition has distributed toolkits to 3,600 primary care providers in the state.

Implications and Impact

This intervention is evidence of how public health leadership within a state cardiovascular health program can promote health system changes that support the prevention of heart disease and stroke. The intervention is being evaluated by using Health Plan Employer Data and Information Set data, which are collected by health plans that are members of the Arkansas Wellness Coalition.



Working With Partners to Address the Secondary Prevention of Death and Illness Among People With Coronary Artery Disease

Public Health Problem

In Kentucky, heart disease and stroke accounted for 37% of all deaths in 2000, with 11,936 (30%) people dying of heart disease and 2,637 (7%) dying of stroke. In addition, about 40% of all hospitalizations in the state were due to cardiovascular disease, resulting in hospital costs exceeding \$863 million, according to the *Kentucky State* of the Heart 2000 report.

Program Example

The Kentucky Department of Public Health's Cardiovascular Health Program partnered with the American Heart Association Kentucky Affiliate, the Kentucky Hospital Association, Healthcare Excel, and the American College of Cardiology to improve quality of care and patient care management. The partners used the American Heart Association's Get With the Guidelines—Coronary Artery Disease to improve patient outcomes in acute care settings. In April 2003, a statewide training program was launched in Lexington, with 142 people from 57 hospitals across the state participating. The state Cardiovascular Health Program provided funds to cover the training costs and the annual Patient Management Tool fee for hospitals starting the program by June 2003. Twenty-five hospitals in major metropolitan and rural areas in all five regions of Kentucky are conducting this secondary prevention program. Regular technical assistance is provided through telephone conference calls to the participating hospital teams by the American Heart Association, the state Cardiovascular Health Program, and the project's information technology manager.

Implications and Impact

These partners shared the vision of reducing deaths, disability, and recurrent heart attacks among patients with coronary artery disease and successfully collaborated to put in place secondary prevention guidelines in hospitals across Kentucky. By uniting and leveraging their strengths and resources, each organization contributed to the development of a hospital-based quality improvement infrastructure that focuses on protocols to ensure patients are treated and discharged with appropriate medications and risk counseling. The impact of this intervention is being evaluated by assessing compliance with secondary prevention measures. As more acute care hospitals across the state launch quality improvement programs, reductions in illness and death from heart disease and stroke are expected.



Reducing Deaths Following Heart Attacks and Strokes Through High-Quality Secondary Prevention

Public Health Problem

Cardiovascular diseases, mainly heart disease and stroke, are the leading cause of death for both men and women in Maine. Each year in this state, about 29,000 hospitalizations are due to heart disease and stroke. About \$437 million was spent for heart disease and stroke-related hospital charges in 2000 alone—a figure that represents 26% of all hospital charges.

Program Example

The Cardiovascular Health Program in the Maine Department of Human Services, Bureau of Health, collaborates with the Maine Cardiovascular Health Council and the American Heart Association New England Affiliate to address secondary prevention. The state's Cardiovascular Health Program is partnering with the American Heart Association to provide regular training for health care providers to improve patient care. The American Heart Association's hospital quality assurance program, Get With the Guidelines, is being used. Nine hospitals now participate in the project, which improves patient treatment and follow-up after a heart attack or stroke. The Maine Taskforce on Cardiovascular Disease Prevention, the medical advisory arm of the state Cardiovascular Health Program, has created a system of enrolling patients in cardiac rehabilitation programs. Another partner, the Maine Cares Coalition, a network of provider-sponsored community-based support programs, is working to ensure that treatment for patients with coronary heart disease and congestive heart failure follows national guidelines. To date, more than 2,000 patients have enrolled in the Maine Cares Coalition program.

Implications and Impact

Maine's efforts demonstrate the importance of using recognized guidelines for primary prevention as well as for secondary prevention, which leads to reduced deaths following heart attacks and strokes. Already, statewide improvements have been observed in the increased use of lipid-lowering medication and reductions in cholesterol levels.



Partnering With Federally Qualified Health Centers to Prevent Heart Attacks and Strokes

Public Health Problem

Missouri has one of the nation's highest rates of cardiovascular disease, mainly heart disease and stroke. It ranks second in the nation in deaths from coronary heart disease. Heart disease and stroke claimed 174,640 lives in Missouri between 1990 and 1997, and cardiovascular disease accounted for nearly 41% of all deaths in 1998. Nearly 211,000 hospitalizations in Missouri were attributed to heart disease and stroke in 2000, and direct medical costs exceeded \$3 billion.

Program Example

The Missouri Cardiovascular Health Program is partnering with the Missouri Diabetes Prevention and Control Program and Federally Qualified Health Centers (FQHCs) to administer and evaluate a comprehensive approach to improving standards of care for patients with cardiovascular disease, diabetes, and hypertension. The partners are using a registry of clinical data on patients, thus making it possible to aggressively follow up on and monitor patients. The FQHCs offer a unique opportunity to reach Missouri's high-risk minority and low-income residents, many of whom live in rural areas. Nearly 185,000 Missourians used FQHCs as their source of primary health care in 2001. In addition, the Missouri Cardiovascular Health Program has partnered with the Missouri Patient Care Review Foundation, the American Heart Association, and the Missouri Hospital Association to promote the American Heart Association's guidelines for the primary and secondary prevention of cardiovascular disease. Together, these partners are working with health care systems, including FQHCs, medical schools, and insurance organizations.

Implications and Impact

This intervention shows how people benefit when state heart disease and stroke prevention programs provide leadership and partner with organizations that provide, monitor, and pay for primary and secondary prevention services. The state's participation in this collaborative with FQHCs is enhancing efforts to aggressively prevent heart disease and stroke, eliminate disparities, and increase people's access to quality care in these health care settings.



Improving Blood Pressure Control in High-Risk Populations

Public Health Problem

High blood pressure affects one of every four adults in South Carolina. Left uncontrolled, high blood pressure significantly increases a person's risk for stroke, heart attack, heart failure, and kidney disease. Only about 34% of people with diagnosed high blood pressure have it under control, national data show, and related hospitalization costs are high. In South Carolina, hospitalization costs for stroke alone totaled more than \$222 million in 2000.

Program Example

In South Carolina, many collaborators are working together to support the Hypertension Initiative, which aims to improve blood pressure control, especially in underserved, high-risk populations. The South Carolina Cardiovascular Health Program provides support to increase hypertension expertise among primary care providers statewide, particularly providers in rural areas and those with substantial numbers of Medicaid patients. Strategies include peer-led training on best practices for providers, quality-of-care monitoring, and feedback. The Carolina Medical Review, the state's quality improvement organization, is analyzing the South Carolina Medicaid database to determine how these strategies are affecting quality of care. About 50% of hypertensive patients have controlled blood pressure, according to baseline data from participating providers who are reporting on patients under active care. The Hypertension Initiative's goal is to increase this to 70% of patients. Collaborators include the Medical University of South Carolina, the Duke Foundation, the Agency for Healthcare Research and Quality, and the pharmaceutical industry.

Implications and Impact

More than 300 participating providers from 38 of the state's 46 counties are involved in these quality improvement efforts, which will affect about 70,000 hypertensive patients statewide. Data on quality improvements are being shared with the South Carolina Cardiovascular Health Program. In addition, this approach for improving quality of care has been adopted by the American Society of Hypertension.



Promoting High-Quality Cardiovascular Care by Promoting the Adoption of Secondary Prevention Guidelines

Public Health Problem

Heart disease is the number one cause of death in Texas, and stroke is close behind at number three. Together, heart disease and stroke are the number one drain on health care resources in the state. Hospital charges in Texas for ischemic heart disease, hemorrhagic stroke, ischemic stroke, and congestive heart failure were an estimated \$7.5 billion in 2002.

Program Example

In February and April 2003, the Texas Cardiovascular Health and Wellness Program held forums with representatives of major health systems to develop strategies for improving quality of care for the secondary prevention of heart disease and stroke. Participants were from health plan organizations, the Texas Medical Association, the American Heart Association Texas Affiliate and its national office, hospitals, business groups, the state's quality improvement organization, and other health care systems. Three strategies were identified as a result of this collaborative effort, known as the Texas Cardiovascular Quality and Patient Safety Initiative: promote the adoption of the American Heart Association and the American College of Cardiology secondary prevention guidelines, identify physicians who can be leaders and champions in promoting adoption of these guidelines, and develop a program to recognize hospitals and providers that adopt and follow the guidelines. The initiative covers primary and specialty care and hospital settings.

Implications and Impact

The Texas initiative shows how state cardiovascular health programs can provide the leadership needed to bring together key health care organizations to develop system interventions that promote the adoption of secondary prevention guidelines. Universal adoption of these guidelines can help to eliminate health disparities and help people with heart disease and stroke have better health outcomes, including improved quality of life and reduced risk for recurrent events.



Improving Health Outcomes Through Partnerships With Health Plans

Public Health Problem

Cardiovascular disease, mainly heart disease and stroke, is the leading cause of death in Wisconsin. Cardiovascular-related hospitalization charges topped \$1.6 billion in the state in 2000 alone. High blood pressure is a major risk factor for both heart disease and stroke. One of every four Wisconsin adults report they have been told by a health professional that they have high blood pressure. An estimated 30% of people who have high blood pressure are unaware of it, according to a national report. Although 59% of people with high blood pressure receive treatment, only 34% of them have their blood pressure under control.

Program Example

Wisconsin's Cardiovascular Health Program collaborated with many public and private health organizations to increase the percentage of patients who have their high blood pressure under control. In just 1 year, these partners increased by 10% the number of health maintenance organization (HMO) patients with their high blood pressure under control. In 2000, the Wisconsin Cardiovascular Health Program joined the Wisconsin Collaborative Diabetes Quality Improvement Project, which has numerous collaborators, including a statewide group of HMOs and health systems. Participating HMOs represented 84% of the people enrolled in HMOs in the state in 2000 and more than 98% of those enrolled in 2001. The Cardiovascular Health Program asked that the 20 participating health plans with commercial enrollees collect 4 Health Plan Employer Data and Information Set (HEDIS) cardiovascular-related measures. These data provided a baseline assessment for planning quality improvement strategies within health plans. Among participating health plans, only 48% of patients were found to have their high blood pressure controlled. On the basis of this information, the health plans put into place strategies to improve blood pressure control. As a result, by 2001, 58% of patients had their high blood pressure controlled. The Cardiovascular Health Program is currently coordinating the development and launch of a cardiovascular risk reduction initiative among project partners. The initiative will address high blood pressure and high cholesterol.

Implications and Impact

Wisconsin's experiences demonstrate the opportunity for state programs to serve as catalysts for health system improvements that lead to the prevention of heart disease and stroke. Public health programs accomplish this by serving as a neutral entity for convening health system organizations, sharing quality improvement data, providing a population-based perspective, and promoting health system changes that lead to better health outcomes.

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Reaching Out, Enrolling More Women in Heart-Healthy Activities

Public Health Problem

Nearly 65 million people in the United States have cardiovascular disease, and more than half of them are women, according to 2001 estimates from the American Heart Association. Cardiovascular disease is the nation's leading cause of death. In Connecticut, more than a third (10,560) of the state's 29,816 deaths in 2001 were due to cardiovascular disease; 55.4% of these cardiovascular disease deaths were among women. Some minority women are affected more by cardiovascular disease than other women. For example, African American women in Connecticut were hospitalized for cardiovascular disease at a higher rate (1,356 per 100,000) than were white women (1,229 per 100,000).

Program Example

WISEWOMAN (Well-Integrated Screening and Evaluation for Women Across the Nation) projects across the country screen uninsured women for risk factors for heart disease and other chronic diseases, deliver nutrition and physical activity interventions, and provide referrals to medical care as needed. The Connecticut WISE-WOMAN project wanted to enroll more uninsured women and encourage greater participation in the lifestyle intervention portion of the project, Stay Healthy for Life. The goal was to ensure that the project was using effective community outreach strategies for enrollment and to identify barriers that prevent women from engaging in heart-healthy lifestyle behavior changes. To achieve this goal, the project conducted focus groups with women in the Connecticut Breast and Cervical Cancer Early Detection Program who were eligible for WISEWOMAN services but chose not to participate in the program. Focus groups allowed project officers to understand respondent's attitudes, feelings, beliefs, and experiences. Women in the focus groups suggested strategies for how the WISEWOMAN staff could improve patient communication, health care provider outreach, and attendance in the lifestyle intervention activities. The staff used this information to refine outreach efforts and tailor messages for women in the targeted community.

Implications and Impact

One community health center in Middletown, Connecticut, used the focus group feedback to promote outreach with affiliated health care staff in five satellite sites. As a result of the outreach, the number of enrollees in the WISEWOMAN project increased by 20–25%. Information from focus groups with participants from the targeted population can be used to improve a program's design and operation. The information from the Connecticut WISEWOMAN project is being shared with all the sites providing WISEWOMAN services to help them develop effective strategies for outreach activities and boost enrollment in the WISEWOMAN project.



Promoting the Cardiovascular Health of Uninsured Women

Public Health Problem

Heart disease is the leading cause of death among women in Iowa. Uninsured women can be especially vulnerable because they are less likely than insured women to have their blood pressure and cholesterol levels checked or to have information and skills on how to eat healthy foods and be physically active. Nearly half of Iowa's residents live in rural areas, which makes it challenging for them to access preventive health services. In addition, Iowa's population is aging more rapidly than populations in most other states, with nearly 30% of Iowa women being in the 40–64-year-old age-group targeted by the state's WISEWOMAN (Well-Integrated Screening and Evaluation for Women Across the Nation) Program. Iowa WISEWOMAN participants are at high risk for heart disease: more than 75% of the women screened are overweight or obese, 33% smoke cigarettes, and 40% have either high cholesterol or high blood pressure.

Program Example

WISEWOMAN programs across the country provide additional preventive services to women already participating in the National Breast and Cervical Cancer Early Detection Program. States use this established system and other partnerships to screen women for risk factors for heart disease and other chronic diseases, deliver nutrition and physical activity interventions, and provide referrals to medical care as needed. Iowa WISE-WOMAN staff, through a partnership with the Iowa State University Extension, have developed Iowa Care for Yourself, a 12-session health promotion program that includes healthy eating information based on the Dietary Approaches to Stop Hypertension diet trial. Each session is designed like a magazine, with multiple interactive segments including a featured topic, skill building, physical activity, goal setting, and healthy snacks. Extension nutrition and health field specialists are particularly well suited to deliver the Iowa Care for Yourself intervention because they have the knowledge and skills needed to discuss health topics, are familiar with the local populations' needs for health education, and have experience working in local community settings. Lifestyle intervention sessions are held in familiar, easy-to-access locations such as community centers and libraries.

Implications and Impact

Cardiovascular disease screening and lifestyle interventions can improve the health of low-income women. Collaboration with health professionals in agencies such as the cooperative extension service can expand resources needed to carry out complex health promotion programs. Careful selection of persons and places to deliver the program can improve access to care for rural women and boost participation as well as the overall success of the program.



Reaching Youth Through Health and Education Partnerships: 5-2-1 Go!

Public Health Problem

One of every four Massachusetts high school students is overweight or at risk for becoming overweight, according to the state's 2001 Youth Risk Behavior Survey.

Program Example

The Massachusetts Partnership for Healthy Weight has started integrating nutrition and physical activity messages at the individual, environmental, and local policy levels to promote healthy weight changes among children. For example, the partnership has developed 5-2-1 Go!, a school-based intervention in 13 public and parochial middle schools across the state. While attending math, science, language arts, social studies, and physical education classes, about 1,800 students in grades 6–8 learn knowledge and skills related to the 5-2-1 Go! messages: eat at least five servings of fruits and vegetables each day; reduce TV time to 2 hours or less a day; and participate in at least 1 hour of physical activity each day. In addition, schools conduct environmental scans using the School Health Index and search for opportunities to modify policies and practices in ways that will boost school support for healthy eating and regular physical activity. The Massachusetts Partnership for Healthy Weight also leads statewide efforts to encourage healthy eating and physical activity among students. For example, the partnership is promoting legislation to improve the nutritional content of foods offered to students via vending machines, a la carte, and school stores during the school day. To improve the school environment, the partners have launched educational activities as well as state funded minigrants that encourage schools to use assessment tools to create healthier environments that foster good nutrition and physical activity. Finally, the partnership supports state policy changes that would mandate daily physical education classes in schools and supports statewide media campaigns that promote the 5-2-1 Go! messages.

Implications and Impact

Health and education partners are essential to making healthy school-based policy and environmental changes. Massachusetts schools involved in the 5-2-1 Go! project have begun to modify their nutrition policies to eliminate the use of food as a reward, set up healthy snack times, train new staff in healthy food choices and the importance of physical activity, prohibit access to food low in nutritional value, and make milk more available in schools.

North Carolina

Focusing Statewide Efforts on Healthy Children

Public Health Problem

The prevalence of overweight rose by 36% among North Carolina's children aged 2–4 years, by 40% among children aged 5–11 years, and by 14% among adolescents aged 12–18 years between 1995 and 2000, according to data from the state's Nutrition and Physical Activity Surveillance System.

Program Example

In North Carolina, Moving Our Children Toward a Healthy Weight: Finding the Will and the Way is a plan developed by the 100-member Healthy Weight Initiative (HWI) task force. The plan has been marketed to a broad group of stakeholders, who have made some of the plan's recommendations part of their own agendas. For example, the Health and Wellness Trust Fund Commission, which administers part of the tobacco settlement funds in North Carolina, established a \$9 million, 3-year obesity prevention grant program and based its request for applications on the HWI task force recommendations and the state's blueprints for policy and environmental changes to support physical activity and healthy eating. In addition, North Carolina Action for Healthy Kids selected two HWI recommendations as their objectives: policy standards for all foods available in schools and policies to establish adequate physical activity and physical education opportunities in schools. The HWI also includes efforts to promote the health of preschool children. For example, parents of preschool children, staff with the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and Child and Adult Care Food Program staff provided feedback to determine policy changes that would provide opportunities for more physical activity and healthy eating patterns for preschool children through WIC and child care. To support healthy environmental changes for preschool children, the Nutrition and Physical Activity Self Assessment for Child Care was developed and pilot tested in collaboration with the Center for Health Promotion and Disease Prevention at the University of North Carolina-Chapel Hill. Child care centers were assessed, and center staff members attended training sessions on nutrition, physical activity, and childhood overweight. North Carolina linked the HWI with the North Carolina Healthy Child Care Initiative to carry out the program, which aims to make healthy environmental changes in 19 child care centers in 6 counties. Finally, to support changes in interpersonal behaviors, HWI partnered with North Carolina Cooperative Extension, Eat Smart, Move More, and the WIC program to provide consistent physical activity and healthy eating messages to young children and their parents in preschools and clinics. HWI helped train 85 county teams, who received Color Me Healthy materials and are now training local child care center staff. Use of these materials in WIC programs is now being pilot tested in six counties.

Implications and Impact

Continuous input from partners has made the North Carolina leadership plan more successful through every step of its development. Various partners already have stepped forward to carry out portions of the plan, expanding the reach of the state program beyond what it could have accomplished with its own resources. Involvement with partners has enhanced the preschool intervention's strength and its dissemination potential.



Supporting Environments to Promote Active Lifestyles and Healthy Food Choices

Public Health Problem

Obesity has risen in Pennsylvania at an epidemic rate during the past 20 years. An estimated 60% of adults in this state are overweight or obese, and 24% of adults are physically inactive, responses from the 2002 Pennsylvania Behavioral Risk Factor Survey indicate. One study of Pennsylvania youth found that in 2001, 18% of young people were overweight, a percentage that is higher than the national average.

Program Example

The Pennsylvania Department of Health worked with many public and private partners to develop the Pennsylvania Nutrition and Physical Activity Plan to Prevent Obesity and Related Chronic Diseases. The health department was the catalyst for the development of a statewide, multisector coalition, the Pennsylvania Advocates for Nutrition and Activity (PANA). PANA's mission is to build an environment to support and promote active lifestyles and healthy food choices through collaboration and coordinated communication. Using the statewide plan as a guide, PANA's efforts include education, advocacy, and evaluation to support the work of PANA's three major work groups. These groups aim to increase statewide capacity for designing healthy communities, mobilize schools and communities to adopt a coordinated approach for school health programs and services to support active lifestyles and healthy food choices, and prepare health care professionals to respond to the growing demand for prevention and treatment of overweight and obesity among young people. The Pennsylvania Department of Health and PANA have used existing networks and built partnerships in communities across the state. New funds supply resources to provide minigrants for training to offer a preschool curriculum. The funds also provide training that brings public health, community design, and development professionals together to learn how to communicate and create healthy community designs. In addition, the funds are used to coordinate a campaign to increase the number of school districts that put into place CDC's coordinated school health model.

Implications and Impact

State, coalition, and community partnerships and resources are being mobilized to create a state where individuals, communities, and public and private entities share the responsibility for developing an environment that supports and promotes active lifestyles and access to healthy food choices. Because of new funding, more school districts are following CDC's coordinated school health model, more health care professionals are being trained to identify and treat overweight, and public health professionals and community design and development professionals are learning how they can work together to design healthy communities. Ongoing efforts are measuring the effectiveness of this plan.



Involving Communities When Planning for Prevention

Public Health Problem

Nearly 60% of adults in Washington are either overweight or obese. The obesity rate among adults has increased by 127% from 1990 through 2002. More than one in five of Washington's high school students were overweight or at risk for becoming overweight in 1999.

Program Example

Washington's Nutrition, Physical Activity, and Obesity Prevention Program addresses the obesity and overweight problem on multiple levels: individual, interpersonal, institutional and organizational, community, and public policy. Washington began its initiative by empowering a community to decide how it wanted to make its environment healthier. To develop policy and environmental efforts that promote nutrition and physical activity, the Washington Department of Health focused on Moses Lake, a small community in rural Washington. The health department convened experts to provide input into a state action plan that called for promoting good nutrition and physical activity through policy and environmental approaches. The health department and its partners, National Park Service and the University of Washington, then worked in the community to mobilize a group of citizens, organizations, and businesses to form the Healthy Communities Moses Lake Advisory Committee. The committee identified three priority projects from the state action plan and created a Healthy Communities Moses Lake Action Plan to Promote Nutrition and Physical Activity. The projects have included community gardens; support for breastfeeding; and creation of a series of paths for exercise, recreation, transportation, and tourism.

Implications and Impact

Washington's efforts to build its capacity have shown how the process of community mobilization can activate members of a community to address nutrition and physical activity issues. Washington's experiences also illustrate that community members from different disciplines can work together to address community health and attract other state-based groups to invest in the community.



For more information about CDC's oral health program, visit http://www.cdc.gov/oralhealth/index.htm



Reducing the Burden of Oral Diseases by Tracking Diseases and Targeting Programs

Public Health Problem

Cavities have declined in the United States because of preventive strategies such as community water fluoridation, use of fluoride toothpaste and mouth rinses, and application of dental sealants. Despite this progress, dental decay remains a significant problem among all age-groups and is particularly a problem among people with low incomes and some racial and ethnic groups. In Colorado, 62% of third grade children have already had a cavity, and 26% have untreated dental decay.

Program Example

The Colorado Department of Public Health and Environment's Oral Health Program is establishing a surveillance system that will track oral health information on people of all ages in the state. The system is being developed through a cooperative agreement with the CDC. The state has developed a surveillance plan to identify which oral diseases, conditions, and age-groups to track and how often the data will be collected. By collecting data on people's oral health and access to care, Colorado will be able to monitor trends over time and document improvements in oral health among state residents. These data also will allow the state to target the populations most in need of oral health services and direct funds to programs that will reduce disparities and the burden of oral disease in the state. Because much of the data will be represented in the National Oral Health Surveillance System, Colorado will be able to compare state data with national findings. In addition, the Oral Health Program enhanced its Web site to make data on disease levels available to state and local policy makers as well as the public. The program also is producing a document that will describe the status of oral health in Colorado and the economic impact of oral health disparities in the state.

Implications and Impact

The new surveillance system will provide Colorado's Oral Health Program with data to help plan and evaluate the state's primary and secondary prevention programs. This information can be used to engage policy makers, communities, and other stakeholders interested in addressing oral health disparities in the state. These data also will be essential when the state sets priorities for programs to further address the burden of oral disease.



Promoting Better Oral Health Through a Statewide Coalition

Public Health Problem

Although prevention and treatment for oral disease have improved significantly over the past 50 years, thousands of people in Illinois continue to experience dental pain and dysfunction. Illinois mirrors the nation in that oral disease remains pervasive among some populations, and cavities continue to be a major problem for some children. The Project Smile statewide survey, conducted in 1994, revealed that 38% of children aged 6–8 years in the state had untreated cavities, and the figure was even higher in the Chicago area, where 54% of children had untreated decay. Only 29% of Hispanic and 40% of black children aged 8–12 years were free of obvious decay, compared with 52% of white children.

Program Example

Illinois communities have been assessing their oral health needs since the late 1990s and have used this information in local planning efforts. These community assessments have provided a growing database of information about disparities in oral health, challenges that block access to care, and actions that could improve oral health at the community level. One direct outcome of these efforts was the formation of the IFLOSS Coalition, a community collaborative with more than 50 member organizations whose mission is to improve oral health for Illinois residents. Since its formation in 1998, this grassroots coalition has continued to flourish. The IFLOSS Coalition has played a key role in the 2001 Illinois Oral Health Summit and the subsequent development of the state oral health plan, Roadmap to the Future: Oral Health in Illinois. Town hall meetings about the plan were held in 7 communities across the state, and the plan incorporates input from more than 300 stakeholders. The Roadmap addresses the five policy goals contained in the Surgeon General's 2000 report, *Oral Health in America*, as well as state priorities for improving oral health. A 5-year cooperative agreement with CDC is allowing Illinois to conduct some of the activities called for in the oral health plan.

Implications and Impact

A broad-based, state coalition such as the IFLOSS Coalition can support and strengthen statewide planning efforts to promote oral health. The oral health plan developed for Illinois can be used as a framework for eliminating oral health disparities and improving oral health. A strong planning process can attract other related state and community coalitions to incorporate a focus on oral health (e.g., diabetes or tobacco control coalitions). With key partners and an oral health plan now in place, the Illinois Division of Oral Health is prepared to lead efforts to develop oral health infrastructure in the state and provide a model for other states and territories.



Preventing Tooth Decay Through Water Fluoridation

Public Health Problem

Cavities have declined dramatically in the U.S. population because of preventive strategies such as community water fluoridation, the use of fluoride toothpastes and mouth rinses, and the application of dental sealants (plastic coatings placed in the pits and grooves of molar teeth to prevent decay). Despite these gains, dental decay remains a significant problem for all age-groups, particularly for poor people and those of some racial and ethnic groups. Water fluoridation is the most cost-effective way to use fluoride to protect people from dental decay, with the average annual cost ranging from \$0.50 per person in communities with populations of 20,000 or more to \$3.17 in communities with fewer than 5,000 residents. The *Healthy People 2010* goal is for 75% of the U.S. population to receive fluoridated water. Currently, water fluoridation reaches about 66% of the U.S. population on community water supplies, or about 162 million Americans. About 100 million people in the United States were not receiving optimally fluoridated water as of 2000. In 1992, only 2% of Nevada's population on public water supplies received fluoridated water.

Program Example

Nevada has made significant progress in increasing the level of fluoride in drinking water to a level effective in preventing tooth decay. Clark County, which includes Las Vegas and Henderson and has a population of about 1 million people, began water fluoridation in 2000. This measure increased the fluoridation coverage in Nevada from about 28,000 to approximately 1 million residents, or two-thirds of the population on public water. Nevada is also strengthening its capacity to monitor oral diseases, extend water fluoridation, and provide school-based dental sealants.

Implications and Impact

Nevada's water fluoridation program demonstrates the importance of increasing people's access to fluoridated water as an effective means of decreasing tooth decay and its related pain and suffering, costs for treatment, and lost school and work days.



Improving Oral Health by Building Infrastructure and Developing School and Community Partnerships

Public Health Problem

In 1998, Rhode Island did not have an oral health program within the state department of health. Without a state dental director or program, Rhode Island had limited capacity to plan, conduct, and evaluate oral disease prevention programs for at-risk children or gather surveillance information. In 1996, only 28% of children under age 14 years in Rhode Island's Medicaid program had received dental sealants (plastic coatings placed in the pits and grooves of molar teeth to prevent cavities). In 1998, 35% of children screened in 10 Providence inner-city elementary schools had unmet oral health needs.

Program Example

The Healthy Schools! Healthy Kids! Oral Health Initiative is a statewide effort supported by CDC to improve the oral health of Rhode Island children through school and community partnerships. The program is a collaborative effort by the Rhode Island Department of Education and the Rhode Island Department of Health. Activities have included the formation of the statewide Healthy Schools! Healthy Kids! Steering Committee, made up of members from more than 30 state, public, and private agencies, foundations, and organizations. The state also has hired a dental director, a health promotion specialist, and an oral health program coordinator. The oral health staff, in conjunction with the Rhode Island Department of Education, worked to change state regulations and to carry out these changes beginning with the 2000–2001 school year. Schools are now required to provide standardized oral health screenings each year for children in grades K–5 and once for those in the grades 7-12. Parents of children requiring follow-up treatment are notified and given a list of community-based oral health providers. A standardized screening form is used to collect data on children's oral health to define current needs and guide future oral health programs.

Implications and Impact

Rhode Island has been successful in expanding and enhancing its state oral health programs because it has in place the three components of oral health infrastructure mentioned in the Association of State and Territorial Dental Directors report, Building Infrastructure and Capacity in State and Territorial Oral Health Programs: leadership to address oral health problems, development and promotion of policies for better oral health, and improvement of oral health systems.

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For more information about CDC's Prevention Research Centers program, visit http://www.cdc.gov/prc



Offering Smokers a Variety of Options to Help Them Quit

Public Health Problem

Heart disease is the leading cause of death among both men and women in the United States, and smokers have three times the risk for heart disease than nonsmokers. This risk, however, can be substantially reduced when smokers quit. About 25% of residents in Connecticut's Lower Naugatuck Valley smoke, and this raises their risk for heart disease and other tobacco-related conditions.

Program Example

Preventing heart disease is a priority at the Yale–Griffin Prevention Research Center, a partnership between Yale University and Griffin Hospital. The center's researchers developed a specialized approach to helping smokers quit smoking and tested it among a subset of smokers in the Lower Naugatuck Valley. The researchers aimed for a 40% quit rate among study participants rather than the 25% goal of most smoking cessation programs. They reviewed the literature on smoking cessation and identified seven factors that interfere with a smoker's ability to quit smoking: nicotine addiction, depression, anxiety, stress, chemical dependency, weight control, and living with another smoker. Study participants completed questionnaires to rate the importance of each factor. The researchers then used the results to refer participants to one or more appropriate interventions. All participants were assigned to group counseling sessions. Some participants attended weight management or exercise groups, while other participants invited friends and family members to educational dinners where they were encouraged to quit smoking. Other participants were referred for medication or individual counseling.

Implications and Impact

Connecticut's results show that offering multiple approaches is effective in promoting smoking cessation. After 1 year, the results exceeded expectations—42% of the participants had quit smoking. Similar interventions are now being offered to high school students and worksite groups, and eventually they will be offered to all of Lower Naugatuck Valley. Plans are under way to make this Prevention Research Center's questionnaire available to primary care physicians to help them prescribe smoking cessation plans appropriate for their patients.



Promoting Physical Activity Through Environmental and Policy Supports

Public Health Problem

Almost three fourths of U.S. adults are not active enough; in fact, almost a third of U.S. adults are inactive, despite recommendations for 30 minutes of physical activity at least 5 days a week. Not getting enough physical activity puts people at risk for chronic diseases such as diabetes, heart disease, and some cancers. Many community environments discourage physical activity because they do not have sidewalks for walking, facilities for bicycling, or places to safely play outdoors.

Program Example

The Prevention Research Center at the University of South Carolina is striving to help Sumter County adults get the recommended amount of physical activity. County residents were encouraged to form a community coalition, which now receives technical assistance, training, and other resources from the Prevention Research Center. Residents are learning how to make policy and environmental changes that support physical activity. The center guided the community coalition in setting goals and objectives, which led to activities such as walking programs and National Trails Day events. The community's heightened awareness and advocacy led to more sidewalk projects, bike lanes, share-the-road projects, and local trails. It also spurred the launch of worksite walking and Adopt-a-Park programs as well as the printing and distribution of 24,000 maps identifying walking routes in the area. In addition, a worksite wellness policy was established by one of the county's largest employers. The researchers helped the community with the initial assessment, through surveys and focus groups.

Implications and Impact

The University of South Carolina Prevention Research Center is expanding knowledge about how to organize and encourage coalitions. The center also is helping county residents gain support from local parks and recreation departments as well as recognition by other community and governmental organizations. The researchers have prepared reports and made presentations to community leaders and shared information at state and national meetings of physical activity professionals. The center will prepare additional reports to educate government officials and will publish scientific papers describing the process of this community's participation in the project.

Racial and Ethnic Approaches to Community Health



For more information about CDC's REACH program, visit http://www.cdc.gov/reach2010/index.htm



Removing Barriers to Increase Cervical Cancer Screening Among Vietnamese American Women

Public Health Problem

Vietnamese American women have the highest incidence rate of cervical cancer of any ethnic group in the United States—43 cases per 100,000, which is 5 times as high as rates among non-Latina whites. In addition, cervical cancer is the second most common cancer among Vietnamese American women. More than 25% of Vietnamese American women living in Santa Clara County reported in 2000 that they had never had a Pap test, compared with less than 5% of all women in the United States.

Program Example

The Vietnamese Community Health Promotion Project organized the Vietnamese REACH for Health Initiative Coalition to prevent cervical cancer among Vietnamese American women in Santa Clara County. The coalition has held community forums, meetings, and retreats to develop an action plan. Community members identified multiple barriers to Pap testing: lack of information, concerns resulting from traditional beliefs, and absence of culturally and linguistically appropriate screening services that are affordable. To address these barriers, the coalition developed and launched a community action plan to promote Pap screening by creating change among community leaders, the health care system, Vietnamese American medical providers, and Vietnamese American families. The coalition's integrated strategy uses six approaches: 1) a media education campaign; 2) outreach efforts using lay health workers; 3) patient navigation and a low-cost Vietnamese-language Pap clinic staffed by a female Vietnamese American physician; 4) continuing medical education; 5) mailed reminders; and 6) advocacy to reestablish a Breast and Cervical Cancer Control Program in the county.

Implications and Impact

Preliminary results from the outreach efforts show that 46.8% of Vietnamese American women who had never had a Pap test obtained a Pap test after meeting with lay health workers. The patient navigator has received calls from more than 1,214 Vietnamese American women seeking information and assistance. As a result, 724 women have registered to receive a Pap test. In addition, 50 Vietnamese American physicians have been educated about cervical cancer screening, diagnosis, and treatment, and 29 physicians have registered 4,187 women in a reminder system. A cancer information Web site established for this program has received more than 1,200 visitors and 10,600 hits per month. Moreover, the Breast and Cervical Cancer Control Program has been reestablished in Santa Clara County, with two clinics and three providers.



Building Tribal Communities' Capacity to Raise Awareness About Cancer, Improve Screening Behaviors, and Establish Lasting Partnerships

Public Health Problem

All types of cancer are on the rise among Native Americans, recent studies show, and Native Americans have the poorest cancer survival rates of any group in the United States. One critical public health problem facing tribes is Native American women's lack of sufficient knowledge about breast and cervical cancer screening practices, including the age when a woman should begin having mammograms and Pap tests and how often these screening tests should be performed.

Program Example

The Albuquerque Area Indian Health Board has launched a culturally appropriate pilot plan to build capacity in a tribal community. By building public health capacity within the community, the board aims to reduce health disparities by improving health outcomes for Native American women with breast or cervical cancer. Additional goals are to enhance the capacity of tribes to conduct cancer surveillance activities, collect and analyze cancer data, identify health concerns and disease trends, evaluate cancer programs, and work effectively with researchers and outside organizations. The project will achieve these goals by building relationships, building skills, promoting interdependence, and promoting sustainability. For example, a culturally appropriate curriculum for training to improve public health skills has been developed and delivered to members of seven Southwestern Tribes. Additionally, a comprehensive public health needs assessment has been completed in the pilot tribal community. The results of this assessment have been used as part of a strategic planning process to bolster the local public health infrastructure to respond to pressing health issues. Interdependent partnerships between tribes and relevant public health entities have also been established. In addition, a health promotion video specific to the pilot community is being developed to raise people's awareness about breast and cervical cancer.

Implications and Impact

This project is developing and conducting tribal-specific preventive interventions that aim to raise Native Americans' awareness about cancer and improve screening behaviors. The project aims to boost the tribe's capacity to gather and apply cancer data and create a model for developing public health capacity within tribes. The project is also working to establish sustainable networks and partnerships within tribal communities as well as between tribes and relevant outside programs.



Changing Community Norms to Address Cardiovascular Disease

Public Health Problem

For African Americans living in Oregon, rates of cardiovascular disease deaths are alarmingly high, considering the small size of the population. Cardiovascular disease trends in Oregon parallel national trends, except that the black-white gap between rates of cardiovascular disease deaths is greater in Oregon than in the nation. In fact, Oregon's African Americans are 51% more likely to die of stroke than whites.

Program Example

To target the root causes of this black-white gap in cardiovascular disease and stroke, the African American Health Coalition developed a program that promotes physical activity and other heart-healthy behaviors among African Americans. The program "Lookin' Tight, Livin' Right" uses existing relationships between beauty shop and barbershop operators and their clients to assess readiness to change and promote healthy behaviors. In addition, "HOLLA!" is a project that trains high school students to educate their peers about cardiovascular disease and related risk factors. Another program uses educational mailings to low-income African Americans enrolled in Oregon's Medicaid program to raise their awareness and promote use of cardiovascular disease preventive services. Finally, the "Wellness Within REACH" program offers free physical activity classes to African Americans, helping reduce some of the barriers to healthy, active lifestyles.

Implications and Impact

For example, almost a third of people attending the "Wellness Within Reach" classes reported being told by a physician that they have high blood pressure, 21.8% reported being obese, and 14% reported having diabetes. Preliminary data show that 76% of participants in these exercise classes are now exercising more. These programs have become movements in the local community, changing the community's norm about physical activity and nutrition to the extent that community members have come together to raise funds to support and sustain these classes.



Bringing Together Community Partners to Improve Diabetes Care and Control for African Americans

Public Health Problem

African Americans in South Carolina have a greater risk for developing diabetes than whites. They also have a greater risk for diabetes complications, such as heart disease, stroke, blindness, renal failure, and amputations. Diabetes is the sixth leading cause of death in this state, claiming more than 1,600 lives each year. One of every seven patients in a South Carolina hospital has diabetes. The American Diabetes Association reports that the average costs of expenditures for diabetes in 2002 totaled \$13,243 per person with diabetes, compared with \$2,560 per person without diabetes.

Program Example

The REACH 2010: Charleston and Georgetown Diabetes Coalition's goal is to improve diabetes care and control for more than 12,000 African Americans with diabetes. The Diabetes Initiative of South Carolina and more than 40 partner organizations are supporting the Coalition as it develops and carries out a comprehensive community action plan to reach out to African Americans where they live, worship, work, play, and seek health care. The plan aims to decrease the tremendous burden of diabetes and link people with needed services. Strategies include establishing walk-and-talk groups, providing diabetes medicines and supplies, and creating learning environments where health professionals and people with diabetes learn together. In addition, the plan calls for establishing library learning and resources, offering advice on how to buy and prepare healthier foods, and improving the quality of diabetes care.

Implications and Impact

Just 2 years after the program began, African Americans in South Carolina are more physically active, are being offered healthier foods at group activities, and are getting better diabetes care and control. In addition, some disparities have been greatly reduced for African Americans with diagnosed diabetes. For example, more African Americans are undergoing the recommended annual A1c testing, annual lipid profile, annual kidney testing, referral for dilated eye examinations, and blood pressure control. By 2007, the coalition's goal is to eliminate all disparities in diabetes care and control.



Working Together to Reduce the Burden of Cardiovascular Disease and Diabetes

Public Health Problem

Nearly 42,000 African Americans living in North Nashville were at greater risk for early death and disability from cardiovascular disease and diabetes than white residents, according to data from the Nashville Metropolitan Public Health Department. African Americans also had much higher death rates than white residents: more than 215 African Americans per 100,000 in North Nashville died of heart disease vs. 141 whites per 100,000 (rates are age-adjusted). There was also a significant disparity for stroke, with 54.8 deaths per 100,000 for North Nashville residents vs. 29.9 deaths for their white neighbors. Rates were no better for complications of type 2 diabetes: 54.3 African Americans per 100,000 died of diabetes vs. only 14.1 of the county's white residents.

Program Example

The Nashville project has mobilized four action teams focusing on specific risk factors, and a Community Action Plan that stresses that teams—in conjunction with community leaders, residents, health professionals and others—promote community readiness to address environmental supports and barriers in North Nashville. All activities are designed to promote healthy behavior changes including healthy eating, regular exercise, no smoking, accessing quality care, and getting screened for cardiovascular disease and diabetes. Team members are trained and motivated to instigate changes in procedures, practices, and systems so healthy behavior changes are achieved and maintained over time. Community-based interventions include nutrition and exercise classes, walking clubs, Tai Chi demonstrations, cook-offs, and smoking cessation classes. In addition, local health clinics have expanded their hours, local agencies have offered residents new opportunities for disease screenings, and team members have helped neighborhoods improve the physical environment. Also under way are several faith-based interventions, including the Faith and Health course offered through the American Baptist College and work with individual congregations in North Nashville.

Implications and Impact

The Nashville project is designed to increase people's readiness to change important lifestyle behaviors including nutrition, regular exercise, no smoking, and screening. In addition, environmental barriers to change are being addressed. The program also is working with groups to develop support systems that will help to maintain these healthy changes over time. The project has developed and launched a Web-based data collection system that will help health officials to evaluate and analyze the process, community actions, and capacity-building activities.



For more information about CDC's tobacco program, visit http://www.cdc.gov/tobacco/index.htm



Preventing Tobacco Use Among Youth People, Promoting Comprehensive Tobacco Control

Public Health Problem

Smoking among teenagers is a major public health problem in Arizona, where 26.6% of people are aged 18 years or younger and an estimated 21.5% of adults smoke. If current tobacco-use patterns persist in Arizona, one-third of tobacco-using teenagers aged 18 years or younger will die prematurely of a smoking-related disease during adulthood.

Program Example

Arizona's Tobacco Education and Prevention Program (TEPP) is a comprehensive program, launched in 1996, to prevent and reduce tobacco use. Arizona uses 23% of revenues from the state's cigarette excise tax to fund TEPP. TEPP currently funds 15 county and 10 tribal community-based projects as well as the Intertribal Council of Arizona. TEPP also funds statewide programs including the American Cancer Society Worksite Outreach Program, the University of Arizona Healthcare Partnership, the Arizona Interscholastic Association, the Attorney General Compliance Check Program, and a statewide campaign to reduce tobacco use and exposure to secondhand smoke. In addition, TEPP administers the statewide tobacco use cessation helpline for both English and Spanish speakers. TEPP also has worked with the Coalition for Tobacco-Free Arizona Policy Education Subcommittee and the Arizona Department of Education to develop a checklist to assess schools' progress toward adhering to the new tobacco-free schools guidelines and to help schools adopt and enforce their own policies.

Implications and Impact

Arizona's Tobacco Education and Prevention Program has been highly successful and recognized as one of the best in the nation. Because almost all smokers begin smoking during their teenage years, preventing tobacco use among young people is critical to the overall goal of reducing the prevalence of smoking. In 2002, the excise tax was increased by 60 cents a pack to \$1.18 a pack. Programs like these play pivotal roles in reducing and eliminating tobacco use among state residents.



Combining Efforts to Promote Comprehensive Tobacco Control, Progressing Toward a Tobacco-Free State

Public Health Problem

Of the more than 33 million people living in California, 27.3% are aged 18 years or younger, and an estimated 16.4% of adults smoke. If current tobacco-use patterns persist, one-third of tobacco-using teens currently aged 18 years or younger will die prematurely of a smoking-related disease during adulthood.

Program Example

California became the first state to launch a comprehensive tobacco control program after voters approved legislation in 1988. Over the past decade, the program has made significant progress toward a tobacco-free California through the efforts of local health departments, community-based organizations, a statewide media campaign, and other statewide support systems. Activities are diverse and include a toll-free telephone service to help smokers, their families, and friends; a smoke-free workplace law; and increases in the state cigarette excise tax.

Implications and Impact

The California Smokers' Helpline has helped more than 255,876 tobacco users, friends, and family from its inception in 1992 through December 2002. Because of the statewide smoke-free workplace law, virtually all indoor workplaces in the state are now smoke free, including restaurants, bars, and gaming clubs. In 1999, the state cigarette excise tax rose from 37 cents a pack to 87 cents a pack. These efforts have made a difference for both adults and young people. In 2002, 16.4% of California adults smoked cigarettes, down from 18.6% in 1996, according to the state's Behavioral Risk Factor Surveillance System. Youth rates of tobacco use are well below national rates: 27.8% of California high school students used any tobacco product (vs. 34.5% nationally), and 21.6% smoked cigarettes (vs. 28.0% nationally), according to data from the 2000 Youth Tobacco Survey. Between 1990 and 2000, per capita cigarette consumption declined by 51% and was the lowest of any state in 2000 and 2001. California's tobacco control program demonstrates an effective tobacco control program supported by adequate resources and sustained over time.



Collaborating to Form a Successful Partnership for a Tobacco-Free Maine

Public Health Problem

Of the more than 1.3 million people living in Maine, 23.6% are aged 18 years or younger, and an estimated 24% of adults smoke. If current tobacco-use patterns persist, one-third of tobacco users aged 18 years or younger will die prematurely of a smoking-related disease when they reach adulthood.

Program Example

Maine's tobacco control program is one of the few state programs funded at the minimum level recommended by CDC's Best Practices for Comprehensive Tobacco Control Program. In 1997, the state legislature raised the excise tax on cigarettes and used a portion of that money to establish the Partnership for a Tobacco-Free Maine. The partnership implements CDC's Guidelines for School Health Programs in schools and establishes tobacco use prevention and control programs in communities. In addition, excise tax funds are used to support statewide media campaigns, a quit line, evaluation efforts, and training and technical assistance contracts for community programs.

Implications and Impact

Since the Partnership for a Tobacco-Free Maine was established, the prevalence of cigarette smoking among high school students has declined dramatically. Nearly 40% of students smoked cigarettes in 1997, but this figure dropped to 20.5% of students by 2003, according to the state's Youth Risk Behavior Survey. Moreover, the state cigarette excise tax increased from 74 cents per pack to \$1 per pack in 2001. The Healthy Maine Partnerships initiative is a promising example of how collaboration between a state tobacco control program and state chronic disease program can be mutually beneficial. This state program has been successful in working with state and local partners, including other public health programs.



Changing Community Norms, Promoting Comprehensive Tobacco Control

Public Health Problem

More than 6 million people live in Massachusetts, and nearly 1 of every 4 are aged 18 years or younger. An estimated 19% of adults in Massachusetts smoke cigarettes. If current tobacco-use patterns persist, one-third of tobacco users aged 18 years or younger will die prematurely of a smoking-related disease when they reach adulthood.

Program Example

The Massachusetts Tobacco Control Program has developed and established Targeted Community Smoking Intervention Programs, which use innovative strategies to involve groups at high risk for tobacco use in changing community norms that support tobacco use. The program also works with health care providers to ensure delivery of smoking cessation services. In addition, the program has developed a quit line that allows people to request smoking cessation information that can be automatically faxed to them.

Implications and Impact

The percentage of Massachusetts adults who smoke cigarettes declined from nearly 23% in 1991 to 19% in 2002, according to the state's Behavioral Risk Factor Surveillance System. Nearly 35% of high school students smoked cigarettes in 1997, but this percentage declined to an estimated 26% of high school students in 2001, according to the state's Youth Risk Behavior Survey. In 2001, the state cigarette excise tax increased from 76 cents per pack to \$1.51 per pack. Since Massachusetts launched the Targeted Community Smoking Intervention Programs, tobacco product sales and tobacco use in Massachusetts have declined dramatically. Total per capita cigarette purchases in Massachusetts fell 30% between 1992 and 1998. These accomplishments are examples of how a tobacco control program, when supported by adequate resources and sustained over time, can have substantial public health accomplishments.



Reaching Out to Youth and Adults as Part of Comprehensive Efforts to Reduce Tobacco Use

Public Health Problem

More than 5 million people live in Minnesota, and more than 26% of them are aged 18 years or younger. An estimated 21.7% of adults in Minnesota smoke cigarettes. If current tobacco-use patterns persist, one-third of tobacco users aged 18 years or younger will die prematurely of a smoking-related disease during adulthood.

Program Example

In 2000, the Minnesota Department of Health created the Minnesota Youth Tobacco Prevention Initiative, a program that included advertising, public relations, and a grassroots movement to educate Minnesota teenagers about tobacco use and the targeting of young people by tobacco companies. After just 1 year, the program had a significant effect on teenagers' attitudes, which are often precursors to changes in smoking behavior. Also working to reduce tobacco use in this state is the Minnesota Partnership for Action Against Tobacco (MPAAT), an independent, nonprofit organization that improves the health of Minnesota residents by reducing the harm caused by tobacco. MPAAT serves Minnesota residents through its grant-making program as well as QUITPLAN individual stop-smoking services, community outreach, and an advertising campaign.

Implications and Impact

Results from Minnesota's Youth Tobacco Survey show that current use of any tobacco product declined by 11% among high school and middle school students between 2000 and 2002. During the same period, current cigarette use declined by 21% among middle school students and by 11% among high school students. Programs like the Minnesota Youth Tobacco Prevention Initiative and MPAAT have made Minnesota's comprehensive tobacco prevention and cessation program a model for reducing and eliminating tobacco use among state residents.



Preventing Tobacco Use Among Young People, Reducing and Eliminating Tobacco Use Across the State

Public Health Problem

More than 18 million people live in New York, and 22.4% of them are aged 18 years or younger. An estimated 22.4% of adults in New York smoke cigarettes. If current tobacco-use patterns persist, one-third of tobacco users aged 18 years or younger will die prematurely of a smoking-related disease during adulthood.

Program Example

The New York State Tobacco Control Program has provided extensive public education around the state's recently expanded smoke-free workplace law, including presentations to community and business groups across the state. The program released a tool kit containing resources and information on how to build public support for the law and reach out to businesses and employers to provide resources and information to effectively transition to a smoke-free environment. An extensive plan has been developed to evaluate the health and economic impact of this landmark law. Youth groups in New York have joined national efforts to raise awareness among both young people and adults about the prevalence and promotion of smoking in movies. This plan, referred to as the Hollywood Initiative, encourages young people across the state to take action to reduce the normalization of smoking by the movie industry. In addition, the New York State Smokers Quitline partnered with the New York City Department of Health to promote cessation services to smokers.

Implications and Impact

New York City became the first community in the nation to meet the *Healthy People 2010* objective of increasing the cigarette excise tax to \$2 per pack. As a result, the combined federal, state, and local taxes total \$3.39 on each pack of cigarettes. Moreover, the state's cigarette excise tax is one of the highest in the country. These efforts are making a difference, as reflected in declining rates of cigarette smoking among high school students. Nearly 33% of high school students smoked cigarettes in 1997, but this percentage declined to 26.8% by 2000, according to the New York State Youth Tobacco Survey. Because most cigarette smokers begin smoking during their teenage years, preventing tobacco use among young people is critical to the overall goal of reducing the prevalence of smoking. Programs like the New York State Tobacco Control Program play pivotal roles in reducing and eliminating tobacco use among state residents.



Controlling Tobacco Use Among Young People Through Peer Outreach, Media Campaigns, Laws, and Policies

Public Health Problem

More than 600,000 people live in Vermont, and nearly a fourth of them are aged 18 years or younger. An estimated 21.2% of Vermont adults smoke cigarettes. If current tobacco-use patterns persist, one-third of tobacco users aged 18 years or younger will die prematurely of a smoking-related disease during adulthood.

Program Example

The Vermont Department of Health's Tobacco Control Program supports Vermont Kids Against Tobacco, which reaches out to young people in schools and other sites statewide to form groups of young people devoted to keeping themselves and their peers tobacco free. The tobacco control program also sponsors media campaign programs targeting young people, including an ongoing prevention campaign targeting young people aged 10–13 years and a social norms campaign that aims to correct misconceptions about the prevalence of cigarette smoking among young people. In addition, the Vermont legislature has passed laws and policies to help reduce tobacco use by restricting smoking in the workplace, prohibiting the sale of tobacco products to people under the age of 18, and banning smoking in the common areas of all enclosed indoor places with public access, including restaurants.

Implications and Impact

Within the past decade, rates of cigarette smoking have declined significantly among Vermont's young people: 23.7% of high school students smoked cigarettes in 2001 versus 38.3% in 1997, according to data from the state's Youth Risk Behavior Survey. Vermont's state cigarette excise tax also increased from 38 cents per pack to \$1.19 per pack in 2002. The continued success of Vermont's tobacco control efforts will require programs and policies that address the needs of state residents of all ages and all racial, cultural, and ethnic backgrounds. The program staff at the Vermont Department of Health will conduct special outreach training on tobacco control and prevention for members of low-income and minority groups.

