

Special Focus: Research

## No One Left Behind: Focusing Research on Health Disparities

Health is a basic need of all people, and as we find better ways to prevent and treat illness, no group should be left behind. This conviction is at the heart of public health. For the past century, the good news on the nation's health is that remarkable improvements have been enjoyed by all, regardless of race, ethnicity, sex, education, income, or geographic location.

"The groups with poorer health in 1900 or 1950 have experienced great improvements, as have the groups that started out with better health," explained James S. Marks, MD, MPH, Director, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). "Every group now has better health. But the disparities remain."

## National Health Agenda Makes Eliminating Disparities a Priority

The persistence of health disparities among various racial and ethnic groups has been highlighted in *Healthy People 2010*, the nation's public health blueprint. One goal of that initiative is to eliminate health disparities. "Public health studies have tended to look not at the sources of disparity but at the causes of the disparate health conditions," said Dr. Marks. "We have assumed that finding the causes of conditions will lead us to eliminating the disparities. And it just hasn't happened. The *Healthy People 2010* commitment makes disparity itself the object of study."

Two of NCCDPHP's 10 priority research areas involve health disparities: identifying the underlying determinants of health disparities and developing and evaluating interventions to eliminate them. The center's research in these areas will provide a scientific foundation for community-directed programs that can boost immunization rates and reduce the disproportionately high rates of breast and cervical cancer, cardiovascular disease, diabetes, HIV/AIDS, and infant mortality among low-income and minority populations. Key examples of some of the center's ongoing disparities research include the activities of the

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## Commentary

## Science-Based Policies Designed to Address Today's Health Problems

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The world has changed for all of us since the last issue of *Chronic Disease Notes & Reports*. The terrorist attacks of September 11, 2001, and the anthrax-tainted letters that followed presented unprecedented challenges for public health. We at the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) have been part of CDC's response. Our Epidemic Intelligence Service Officers, writers and editors, communication specialists, health educators, statisticians, epidemiologists, and informatics specialists have worked in affected communities and staffed CDC's public response unit on anthrax and other biologic and chemical agents. Our reproductive health scientists ensured that the drug regimen recommended for possible or confirmed anthrax exposure would not harm pregnant women or their babies. We are proud to have been part of these activities, which are critical to safeguarding the public's health. All the while, we have continued our day-to-day work to prevent and control chronic diseases—through surveillance, education, funding, and research that stand to benefit millions of communities across the globe.

This issue of *Chronic Disease Notes & Reports* focuses on research that promises to improve people's lives, particularly those populations hardest hit by chronic diseases. Prevention research is not an academic pursuit at CDC. We actively seek to translate research findings into programs, to move from data to action. To maintain its focus on the future, the center has developed a chronic disease research agenda to guide funding decisions for the next 3–5 years. This agenda is based on two priorities:

- (1) focusing on diseases and conditions that most affect health, longevity, and quality of life; and
- (2) eliminating health disparities.

“Science is an integral part of culture,” wrote natural scientist Stephen J. Gould. In other words, the results from science are not just for scientists, and this insight is essential to chronic disease research at CDC. We work hard to make communities full partners in determining what to study and how to study it, illustrated by Project DIRECT, the Racial and Ethnic Approaches to Community Health (REACH) 2010 project, and CDC's Prevention Research Centers across the country, all of which are highlighted in this issue. Working closely with communities, we can direct our research toward finding practical solutions that can be immediately applied to pressing health problems.

CDC works to address the challenges in chronic disease prevention and health promotion by practicing science in service to the public; using scientific evidence to drive our policies; working in a culture of collaboration; and striving to treat all persons with dignity, honesty, and respect. These principles guide CDC's community-based participatory research and all our collaborative activities.

We must insist on science-based policies to address today's health problems. Without a strong science base, our policies and programs would develop through trial and error and threaten the credibility of public health. With a strong science base, we can be confident that we are promoting effective public health programs and policies. We must lose neither our passion for public health nor our commitment to science as the basis for public health action. In this we stand firm, no matter how the world changes. 

No One Left Behind

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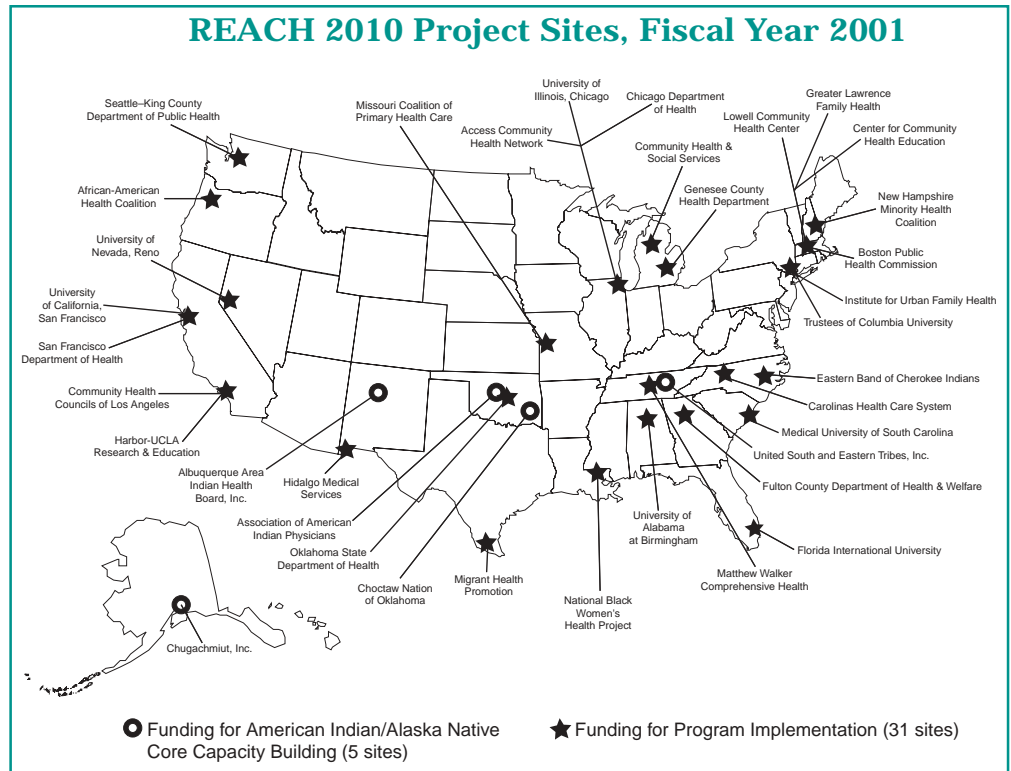
REACH 2010 project, the Preterm Delivery Research Group, and the TRIAD project.

## REACHing for Equity in Community Health

Racial and Ethnic Approaches to Community Health (REACH) 2010 is the cornerstone of CDC's efforts to eliminate racial and ethnic disparities in health. This demonstration program supports 31 community coalitions in designing, carrying out, and evaluating strategies to eliminate health disparities.

"REACH 2010 exemplifies participatory research," observed Dr. Marks, "which is where the researchers and the community get together, clarify the problem, and determine the course of action. The community brings something to the table that the researchers need—it's not just the converse." The result is program planning that includes the people who will be served.

REACH 2010 projects have produced valuable baseline data on health disparities. For example, REACH 2010 investigators in Lowell, Massachusetts, were concerned about the high rates of illness and death from cardiovascular disease and diabetes among Cambodian residents of the city. Gaining access to, and trust from, shut-in Cambodian elders allowed them to document that this population has high rates of known risk factors for the conditions: low awareness of hypertension, failure to receive needed medica-



tion, low rates of contact with physicians, high-sodium and high-fat diets, and smoking.

The Seattle-King County REACH Coalition is also tackling the problem of disparate diabetes rates. But rather than focusing on a single group, the coalition is working with the area's African Americans, Hispanics, Latinos, and Asians and Pacific Islanders. The resulting multiethnic coalition has helped the project increase communication and trust among diverse stakeholders and create opportunities for them to work together on other community health concerns.

"We're expecting the REACH 2010 programs to develop new, community-driven strategies proven scientifically effective in eliminating health disparities," said Imani Ma'at, EdD, CDC's REACH 2010 director. "The strategies



*“If healthy foods are not sold in her neighborhood markets, or if her neighborhood is not safe, a pregnant woman will have a harder time improving or protecting her health.”*

will be disseminated widely to communities across the nation.” To help ensure that the coalitions deliver useful results, CDC has developed an evaluation logic model to help guide programs in building capacity, developing targeted interventions, promoting protective behaviors, and improving health outcomes.

## Seeking to Identify Social Determinants of Preterm Delivery

Babies who are born preterm (before the 37th week of gestation) are at higher risk for illness, disability, and death than infants born at full term. Despite continuing declines in rates of preterm births among African American women, they are still twice as likely to have preterm deliveries as non-Hispanic white women. Even when studies control for known markers for preterm delivery—such as low socioeconomic status, low prepregnancy weight, smoking, and less than high school education—the causes of this disparity remain unexplained. “The twofold difference is found even among African American women who are college graduates and had received timely prenatal care,” said CDC epidemiologist Cynthia Ferre, MA.

In response to this public health puzzle, CDC established the Preterm Delivery Research Group (PDRG). Rather than focus on individual risk factors for preterm delivery, the PDRG supports research that seeks to link risk behaviors with social, cultural, environmental, and psychological factors. These factors can affect how easily a pregnant woman can follow her doctor’s recommendations. For

example, “if healthy foods are not sold in her neighborhood markets, or if her neighborhood is not safe, a pregnant woman will have a harder time improving or protecting her health,” explained CDC’s Vijaya Hogan, DrPH, lead epidemiologist for the PDRG.

This past fall, the *Maternal and Child Health Journal* published an entire issue on findings from PRDG-funded studies examining the social context of pregnancy for African American women. “The results from these and other PDRG studies are bringing us closer to identifying what is unique about being an African American woman in America that puts her at higher risk for having a preterm delivery,” said Ms. Ferre. Also published last fall was *Stress and Resilience*, a book arising from a study conducted by the PRDG-funded Harlem BirthRight project. This community participatory study of women living in Central Harlem included detailed community surveys and 3 years of ethnographic fieldwork. The book documents how economic circumstances, environmental problems, and social conditions expose African American women to the kinds of stress and chronic strain that could be increasing their risk for preterm delivery.

## TRIAD Study Examines Diabetes Health Services

Translating Research into Action for Diabetes (TRIAD), a CDC-funded project, is a six-center, prospective study of the quality of treatment, costs, and outcomes among more than 10,000 patients with diabetes in managed care settings in the United States. The largest study of its kind, TRIAD enlists the efforts of research centers in

Hawaii, New Jersey, California, Indiana, Texas, and Michigan. The six centers, which together provide a diverse geographic and racial/ethnic representation of the U.S. population, use a consensus-based protocol to assess current diabetes treatments among different racial and ethnic groups. The National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health is supporting TRIAD, and the Veteran's Administration has a parallel project using the TRIAD study protocol.

“Current science has offered many efficacious treatments for diabetes, but they are not being used as much as they should be,” said Venkat Narayan, MD, CDC’s project leader for this CDC-funded project. “It is our challenge to see that they reach patients as soon as possible.” Because effective diabetes care is a complex process that requires close working relationships between the person with diabetes and a team of health care and support service workers, the environment where this care occurs is important. TRIAD will examine factors that might affect diabetes care and perhaps explain why certain racial and ethnic minority populations have higher diabetes rates.

Having collected baseline data on education and income levels of the 10,000 participants, the six TRIAD centers are now gathering data on the participants’ social status, particularly as reflected in where they live, work, and receive care. “The six centers are addressing three research questions,” said CDC visiting scientist Gloria L.A.



Beckles, MBBS, MSc. “Are the socioeconomic status and social class of people with diabetes and the ecological features of where they live related to their health status and disease severity? Are observed associations between diabetes care and social position due to differential access, quality of care, or health behaviors? Lastly, what characteristics of individuals, their neighborhoods (such as how safe or attractive they are), and their health care systems mediate those observed associations? Ecological studies like this have been done in Europe, but seldom here, and never for a chronic disease.”

The TRIAD study, together with various other CDC-funded investigations, could shed new light on these questions—and could thereby reveal answers to the troubling question of why health disparities between various demographic groups continue to exist. 🌻

The TRIAD study is helping to explain why certain racial and ethnic groups, including African Americans, have higher diabetes rates.

## CDC's Research Agenda Strives to Build Foundation for Public Health Action

*“Our commitment to translation research grows out of our responsibility to develop and implement effective public health programs.”*

Although significant progress has been made in preventing chronic disease and improving reproductive health, CDC continually seeks new approaches that will further these missions. But any new interventions must be rooted in research that clearly identifies problems and solutions. Establishing and promoting science-based interventions are primary missions of CDC, and researchers work every day to translate their findings into programs that will improve health in the real world.

“Our commitment to translation research grows out of our responsibility to develop and implement effective public health programs,” said NCCDPHP Director James S. Marks, MD, MPH. “The needs of public health programs require an emphasis on applied research with practical implications.”

By using research to establish effective programs, CDC can enhance people's health-related quality of life, protect new mothers and babies, and reduce the rates of heart disease, stroke, cancer, diabetes, and other debilitating chronic diseases. The center's chronic disease research agenda, which will guide funding decisions for the next 3–5 years, is based on two priorities: (1) focusing on diseases and conditions that most affect people's health, longevity, and quality of life; and (2) eliminating health disparities among racial and ethnic populations. The center emphasizes research that is participatory, includes social and ecological determinants of health, and cuts across risk and disease categories.

When conducting its research, CDC sometimes partners with other

organizations to share resources and expertise. CDC is also in a unique position to coordinate and catalyze chronic disease research because of its direct connections with the public health community and populations at risk for disease, injury, and disability.

### Landmark Study Shows Diet and Exercise Can Prevent Diabetes

One partnership that resulted in a major research finding is the Diabetes Prevention Program (DPP) study, which proved that a healthy diet and exercise can actually prevent or delay diabetes. Although smaller studies in China and Finland had reported that a healthy diet and exercise can delay development of type 2 diabetes in people at risk, the DPP trial was the first to find that diabetes can be prevented or delayed in a diverse U.S. population of overweight people with impaired glucose tolerance (IGT), a condition that often precedes diabetes.

The study was sponsored by the National Institutes of Health's National Institute of Diabetes and Digestive and Kidney Diseases. Several other federal, private, and nonprofit organizations were involved, including the Indian Health Service, the American Diabetes Association, and many pharmaceutical companies and other corporations.

The 27-center clinical trial was designed to determine whether a healthy diet and regular exercise could help at least 10 million Americans at high risk for type 2 diabetes sharply

lower their chances of getting the disease. The study, in which 3,234 people with IGT participated, compared the effects of a healthy diet and regular exercise with the effects of treatment with the drug metformin. The trial actually ended a year early because the data clearly demonstrated that the lifestyle changes were more effective than metformin.

The DPP study came at a critical time. During the past 30 years, the prevalence of type 2 diabetes has tripled, largely because of the dramatic upsurge in obesity. The study also helped increase knowledge about disproportionately high rates of type 2 diabetes among certain minority groups, including African Americans, Hispanics, Asians and Pacific Islanders, and American Indians and Alaska Natives. Forty-five percent of the study's participants were from these populations.

“In view of the rapidly rising rates of obesity and diabetes in America, this good news couldn't come at a better time,” said Tommy G. Thompson, Secretary of the U.S. Department of Health and Human Services, at a press conference announcing the findings. “So many of our health problems can be avoided through diet, exercise, and making sure we take care of ourselves. By promoting healthy lifestyles, we can improve the quality of life for all Americans and reduce health care costs dramatically.”

The DPP study also demonstrates CDC's commitment to achieving its research priorities by addressing health disparities among racial and ethnic populations, examining established and emerging risk factors, and looking for ways that people can manage their own health.

## CDC's Research Agenda in Chronic Disease Prevention and Health Promotion

### Research Priorities

Health promotion, reproductive health, and chronic disease prevention and control.

### Research Criteria

- Societal burden of chronic diseases and conditions and reproductive health outcomes that most affect health, longevity, and quality of life.
- Disproportionate burden related to sex, age, race, ethnicity, geography, sexual orientation, socioeconomic status, disability, and special needs.

### Priority Research Areas

- Develop new measures and research designs to strengthen the quality of research in priority areas.
- Identify the underlying determinants of racial and ethnic health disparities.
- Develop and evaluate interventions to eliminate health disparities.
- Examine established and emerging risk factors for chronic disease and investigate their potential for public health interventions.
- Assess the effectiveness of policy and environmental interventions to promote health.
- Improve the processes and outcomes of health care systems.
- Develop effective communication strategies to promote health.
- Examine methods for helping people manage their own health.
- Develop and evaluate the effectiveness of population-based health promotion and disease prevention policies and programs at the local, state, national, and international levels.
- Examine approaches for effectively translating successful community interventions into widespread practice.

*“So many of our health problems can be avoided through diet, exercise, and making sure we take care of ourselves. By promoting healthy lifestyles, we can improve the quality of life for all Americans and reduce health care costs dramatically.”*

“This study addresses several of NCCDPHP’s research priorities,” said Michael M. Engelgau, MD, MS, a CDC epidemiologist in the Division of Diabetes Translation. “Preventing disease and reducing its burden on society clearly are high on the list of goals for both the center and CDC as a whole.”

For more information on this project, see <http://www.cdc.gov/diabetes/news/docs/dpp.htm>.

## Helping Other Countries Identify and Eliminate Micronutrient Deficiencies

Another important research project that examined how diet affects health is CDC’s International Micronutrient Malnutrition Prevention and Control (IMMPaCt) Program. Deficiencies of micronutrients such as iron, iodine, vitamin A, and folic acid affect the health and well-being of nearly 2 billion people in the world, primarily in developing countries. These deficiencies hinder the mental and physical development of children, cause poor pregnancy outcomes, diminish the work capacity of adults, and raise the rates of illness and premature death in many populations.

Effective and low-cost interventions such as food fortification, vitamin supplementation, and dietary improvements have virtually eliminated most micronutrient deficiencies in developed countries. For example, the World Bank estimates that it costs only about 10 cents per person per year to eliminate iodine deficiency through iodization of salt and 20 cents per person per year to prevent iron deficiency through flour fortification. Although the effects of

micronutrient deficiencies are well known, the effectiveness of national prevention programs is not. Few national public health agencies are capable of assessing the extent of micronutrient deficiencies in their populations or of monitoring the adequacy and impact of their intervention strategies. In 2000, CDC led development of the IMMPaCt Program to strengthen the epidemiologic and laboratory capacity of countries to conduct these activities.

“CDC’s expertise in designing rapid field surveys and public health surveillance methods, as well as its laboratory excellence, makes it uniquely suited to help other countries develop and sustain the infrastructure needed to prevent and control micronutrient deficiencies,” said Ibrahim Parvanta, MS, Director of the IMMPaCt Program.

Through collaborations with the United Nations Children’s Fund (UNICEF), the World Health Organization (WHO) and the United States Agency for International Development (USAID), CDC provides funding and technical assistance to selected countries to conduct sound nutrition surveys and establish sustainable nutrition surveillance systems. For example, personnel from the IMMPaCt Program and UNICEF helped public health authorities in Malawi conduct a national survey of iron, iodine, and vitamin A deficiency. In Nicaragua, USAID and IMMPaCt staff members are helping plan and implement a national surveillance system to monitor programs that fortify sugar with vitamin A and flour with iron.

Through the IMMPaCt Program, CDC is developing innovative data collection strategies that strengthen the quality of studies needed to improve



health. This program also helps public health officials develop and evaluate the effectiveness of (1) interventions to eliminate health disparities; (2) policy and environmental interventions to promote health; and (3) population-based policies and programs at local, national, and international levels.

## Examining Arthritis Risk Factors

Another project that seeks new ways to gather necessary public health information, particularly as it relates to racial and ethnic health disparities, is the Johnston County Osteoarthritis Project (JCOP) in North Carolina. Arthritis is the most frequent cause of disability in the United States. The JCOP is a unique community-based, longitudinal study of approximately 3,200 white and black rural residents aged 45 years or older. The study seeks to determine the prevalence, incidence, and risk factors associated with the occurrence and progression of hip and knee osteoarthritis—the most common and disabling types of arthritis.

The JCOP was initiated on the basis of information from the National Health Interview Survey (conducted by CDC's National Center for Health Statistics) that indicated that although whites and African Americans have a similar prevalence of self-reported arthritis, African Americans report a 50% greater activity limitation because of arthritis. Although the JCOP is intended as a long-term follow-up study, initial analyses have already indicated that the rate of osteoarthritis among African Americans is higher than previously thought and that being overweight is an important risk factor.

“The results of this study will allow us to better understand hip and knee osteoarthritis and what modifiable factors can help reduce their racially disparate impacts,” said Charles Helmick, MD, CDC medical epidemiologist.

In this regard, Helmick pointed out, the JCOP addresses another CDC research priority—examining emerging risk factors and investigating their potential for public health interventions.

## School Study Seeks to Promote Effective Interventions

Two other important goals of CDC's research agenda for chronic disease are to develop effective communication strategies to promote health and to examine approaches for effectively translating successful community interventions into widespread practice. Both goals are supported by the national School Health Policies and Programs Study (SHPPS), conducted periodically since 1994 to assess school health policies and programs at the state, district, school, and classroom levels. This information can then be used to implement and support programs that promote healthy behaviors at earlier ages.

“School health policies and programs can play a vital role in encouraging healthy behavior among young people,” said CDC Director Jeffrey P. Koplan, MD, MPH. “It's important for public health and education officials to work in partnership with schools and communities to help implement effective programs.”

*Arthritis is the most frequent cause of disability in the United States.*



Less than 1 in 10 elementary, middle/junior, and senior high schools require students to participate in daily physical education.

The most recent survey, SHPPS 2000, examined policies and programs at state, district, school, and classroom levels for elementary, middle/junior, and senior high schools. Researchers then assessed the extent to which policies and programs that promote the health of school-aged children are in

place in schools nationwide. The results, which were published in the *Journal of School Health* 2001;71(7), indicated that approximately 80% of states and districts required schools to teach some health education. Although this percentage increased during elementary school—from 33% in kindergarten to 44% in grade 5—it decreased from 27% in grade 6 to 2% in grade 12. In addition, only 8% of elementary schools and 6% of middle/junior and senior high schools required daily physical education or its equivalent for all grades; only about half of schools had the recommended nurse-to-student ratio; and most schools had vending machines or school stores that sold foods high in fat and sugar.

“We hope that health and education officials and school health professionals will use SHPPS 2000 as a road map to understanding the nature of school health programs nationwide,” said Dr. Marks. “The success of this assessment will really be determined by how much it stimulates improvement in school health policies and programs around the country.”

Throughout these projects and the dozens of others conducted each year, CDC researchers always keep one goal in mind—to use the information they gather to improve public health. The knowledge gained can then be used to implement, evaluate, or improve programs; issue new recommendations to the public and to public health practitioners; and help national, state, and local decision makers allocate funding and other resources where they are most urgently needed. ☀

## Translating Science into Action Means Better Health for Everyone

For some scientists, research is a theoretical exercise designed mainly to further the body of knowledge on a particular topic. But for scientists at CDC, research is a means to a specific and practical end—to develop and implement national and international programs that improve public health.

That’s why CDC’s research agenda for chronic disease prevention and health promotion focuses on applied research. Specifically, the agenda states that “research and practice are interdependent and cyclical; program needs help define research questions, and research findings are translated back into improved programs and policies.”

“Our research seeks to learn what works in terms of community interventions and how to translate those findings into day-to-day practice,” said NCCDPHP Deputy Director Janet L. Collins, PhD.

Applied research can be used for several purposes, including

- Examining how various risk and protective factors affect health so interventions can be more effective (determinant research).
- Identifying or developing promising programs and examining their effectiveness in reducing disease and promoting health (intervention research).
- Examining strategies for promoting widespread adoption and maintenance of effective programs (dissemination research).

In addition, researchers are continually working to improve their methods through advances in measurement, research design, and analytic approaches. All of these types of applied research are practiced at CDC.

One important example of determinant research is the Pregnancy Risk Assessment Monitoring System (PRAMS), developed in 1987 as part of a CDC initiative to reduce rates of infant mortality and low birth weight. This ongoing, population-based surveillance system monitors selected self-reported behaviors and experiences that occur before, during, and after pregnancy among women who deliver a live-born infant.

PRAMS data are collected in 32 states and New York City and are used to generate statewide estimates of important perinatal health conditions among pregnant women.

A key objective of PRAMS is to translate results from analyses into usable information for planning and evaluating public health programs and policy. To achieve this goal, CDC documents how participants use the data—to conduct needs assessments, obtain resources, guide policies, or develop or modify programs. Data have been used to get contraceptive coverage added to companies’ employee insurance plans and to convince state legislatures to appropriate funds for contraceptive coverage for the uninsured.

*“Our research seeks to learn what works in terms of community interventions and how to translate those findings into day-to-day practice.”*

## Identifying, Promoting Programs That Work

*Providing dental sealant programs in all high-risk schools could reduce or eliminate gaps in who receives these preventive tools.*

Once researchers have identified what factors affect health, the next step is to look for ways to modify or eliminate these factors through effective interventions. A recent example of intervention research is a study of a model dental sealant program promoted by the Ohio Department of Health. Dental sealants are plastic materials applied to the pits and fissures of the back teeth to prevent tooth decay. School-associated dental sealant programs can be effective in targeting vulnerable populations less likely to receive private dental care, such as children eligible for free or subsidized lunch programs.

The Ohio study reported that for both white and African American children at every income level, those who attended elementary schools with sealant programs had met or exceeded the national *Healthy People 2010* objective that 50% of children have dental sealants.

Previous studies have reported that poor children and those of some ethnic and minority groups are significantly less likely to receive these protective materials. Although 23% of U.S. children surveyed during 1988–1994 had sealants, only 3% of low-income children had them, according to the Third National Health and Nutrition Examination Survey. Among children aged 5–17 years, Mexican American and African American children were one-third less likely than white children to have sealants.

In contrast, the Ohio study reported that 57.2% of students in schools with sealant programs had sealants, compared with 28.2% of students attending schools without such

programs. Seventy percent of students who had sealants and were in schools with sealant programs had received their sealants at school. The study, conducted among 11,191 third-grade students during the 1998–99 school year, compared sealant prevalences in 335 schools in 87 of Ohio's 88 counties.

“Providing dental sealant programs in all high-risk schools could reduce or eliminate gaps in who receives these preventive tools,” said William R. Maas, DDS, MPH, director of CDC's oral health program. “State and local health departments should consider this approach to effectively reach children at high risk for dental decay.”

Although intervention research seeks to identify and develop effective programs, dissemination research takes the next logical step—examining strategies that promote widespread adoption and maintenance of such programs. An example of a project that could be considered dissemination research is the *Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations (Community Guide)*.

The *Community Guide* reports multiple systematic reviews of current evidence on the effectiveness and cost-effectiveness of population-based interventions to promote health and prevent disease, injury, disability, premature death, and exposure to environmental hazards. Under the guidance of a nonfederal, independent panel of experts called the Task Force on Community Preventive Services, reviews have been translated into recommendations for or against specific interventions. Reviews are published as they are completed and are available at <http://www.thecommunityguide.org>.

## CDC Recommends Programs Through the *Community Guide*

CDC researchers have participated in *Community Guide* reviews on several topics, including physical activity, diabetes, tobacco, and oral health. Physical activity recommendations included conducting communitywide campaigns and point-of-decision prompts to encourage the use of stairs; supporting school-based physical education, social support interventions in community settings (e.g., buddy systems), and individually adapted health behavior change programs; and creating or enhancing people's access to places for physical activity, combined with activities promoting these places (*MMWR* 2001;50[No. RR-18]).

“We hope that public health practitioners in the field will see these recommendations as a menu of intervention strategies that have been proven to work and that they can use to promote physical activity in their community,” said Greg W. Heath, DHSc, MPH, a CDC health scientist in nutrition and physical activity. “They don't have to use trial and error.”

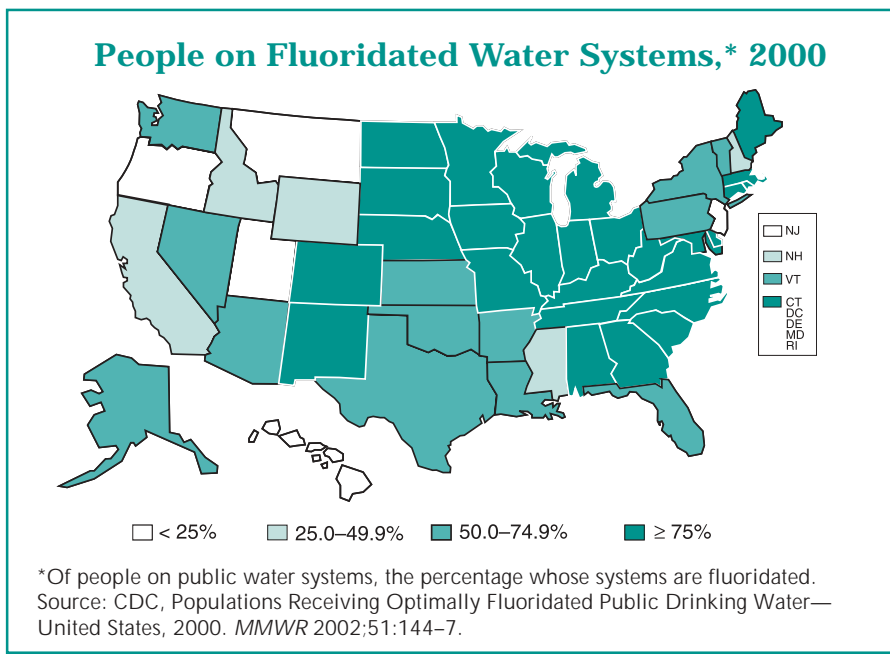
In the *Community Guide* chapter on diabetes, the Task Force reviewed seven interventions related to persons with diabetes, health-care systems, families, and public policies (*MMWR* 2001;5[No. RR-16]). The Task Force strongly recommended disease and case management in health care settings and recommended diabetes self-management education in community gathering places for adults and in the home for children and adolescents with type 1 diabetes.

In the chapter on tobacco use, the Task Force recommended or strongly

recommended 9 of the 14 strategies evaluated (*MMWR* 2000;49[No. RR-12]). Recommended strategies include (1) instituting smoking bans and restrictions to reduce people's exposure to environmental tobacco smoke, (2) increasing the price of tobacco products, (3) conducting multicomponent mass media campaigns to reduce tobacco-use initiation, and (4) reducing patient out-of-pocket costs for effective cessation therapies.

In the chapter on oral health, the Task Force strongly recommended community water fluoridation and school dental sealant programs to prevent and control tooth decay (*MMWR* 2001;50[No. RR-21]). “These two strategies are particularly useful for reaching entire communities, especially groups at high risk for decay, and they are essential to achieving the national objectives of *Healthy People 2010*,” said Dr. Maas.


The Task Force did not make recommendations (either for or against) for all of the interventions examined because some did not have sufficient



published evidence to determine their effectiveness. This lack of evidence indicates the need for further research, to which the Task Force hopes researchers will respond.

“We don’t just put the recommendations out and sit and wait,” said Dr. Heath. “The *Community Guide* people

brought us up to the mountain, and the summary publication is where they leave us. It’s up to us as a program to keep it going.”

This commitment to move beyond the research is the cornerstone of CDC’s mission—to translate science into practice. 

## Surveillance Provides Knowledge and Understanding to Support Effective Prevention Research

Conducting public health surveillance is critical to understanding and preventing public health problems. Surveillance gives public health practitioners a wealth of knowledge about the risk factors and behaviors that lead to diseases, the number of people affected by specific diseases, the health problems that often disproportionately affect minority populations, and changes in health trends over time. The data also allow health officials to monitor prevention efforts, make more timely and effective public health decisions, and evaluate programs to make sure their goals are being met.

“Public health surveillance is a cornerstone of efforts to eliminate health disparities, allocate resources, and administer programs with the ultimate goal of reducing illness and death and improving quality of life,” said Donna F. Stroup, PhD, MSc, Associate Director for Science, NCCDPHP. “Surveillance tells us that the dual epidemics of diabetes and obesity are growing in the United States, with young people disproportionately affected, and that 5 million children who are alive today will die

prematurely of tobacco-related illness unless our prevention efforts are more effective.”

One of the main ways that CDC conducts surveillance is through surveys of personal health behaviors, some of which have been strongly linked to premature illness and death. Researchers have developed surveys to monitor such “health-risk behaviors” among adults at state and local levels. Because the surveys are designed to collect data on participants’ actual behaviors (as opposed to their attitudes or knowledge), they are considered useful for planning, starting, supporting, and evaluating health promotion and disease prevention programs.

The world’s largest system of telephone health surveys of adults is the Behavioral Risk Factor Surveillance System (BRFSS), which began in 1984. In 2001 alone, more than 200,000 U.S. adults were interviewed. States conduct BRFSS surveys to collect information on health risk behaviors, clinical preventive health practices, and health care access. The system is a unique source of risk behavior data for many states and is used to measure progress

*“Surveillance tells us that 5 million children who are alive today will die prematurely of tobacco-related illness unless our prevention efforts are more effective.”*

toward *Healthy People 2010* national objectives. Data are collected in all 50 states, 3 territories, and the District of Columbia.

States use standard procedures to collect data through a series of monthly telephone interviews with adults. Questions address behaviors and other risk factors related to chronic diseases, injuries, and infectious diseases, such as tobacco and alcohol use, diet and exercise, lack of health insurance or use of preventive services, violence, and risky sexual behaviors. States also can add their own questions. To help states make the best use of BRFSS data, CDC offers information and products through the Internet (<http://www.cdc.gov/nccdphp/brfss>), including a template for creating a state-specific fact sheet on selected health behaviors.

States use BRFSS data in many ways, including (1) establishing and tracking state health objectives, (2) planning and evaluating health programs, (3) justifying the need for funding, and (4) educating the public about health risks. In addition, public health officials in nearly two-thirds of states use BRFSS data to support health-related legislative efforts. For example, Delaware officials used BRFSS data to support the creation of a Healthy Lifestyle and Tobacco-Related Disease Prevention Fund; Illinois officials used BRFSS data to help pass two legislative initiatives (one banning smoking areas in public buildings and the other requiring that mammography screening be included in all health insurance coverage); and Nevada officials used BRFSS data to document the state's high rates of chronic and binge drinking and help pass legislation for a wholesale per-gallon tax on distilled alcohol. These efforts succeeded because the data were state-specific.

## Surveillance Data: Gold Mine for Researchers

Researchers use surveillance data to conduct many new studies. Here are a few examples.

### CONCORD Study Examines Cancer Survival

Data from the National Program of Cancer Registries (NPCR) are being used in the international CONCORD study of survival rates from breast, prostate, and colorectal cancers among people in the United States, Europe, and Canada. NPCR data are being linked first with data from the U.S. National Death Index, and then with clinical data from medical records from these three countries. The goal is to determine the extent to which national and regional differences in disease stage at diagnosis and quality of treatment are associated with differences in cancer survival rates.

### New Research Assesses Quality of Cancer Care

Building on the CONCORD study, NCCDPHP is using cancer registry data to study the patterns of medical care for prostate, colon, and breast cancers. Researchers are assessing the quality of treatment and stage of disease data from NPCR by comparing them with data re-abstracted from medical records. They are using population-based samples to estimate the proportion of patients in each state who received the recommended standard of care. In addition, patterns of care for localized breast and prostate cancers and stage III colon cancer are being analyzed according to patient and disease characteristics, including patients' history of other illnesses and insurance coverage. The findings will help improve the quality of care provided to cancer patients.

### Study Projects Future Diabetes Burden

Researchers are using surveillance data to project the prevalence of diabetes over the next 50 years. If recent trends continue, the number of Americans with diagnosed diabetes is expected to more than double in the next half century, from 11 million in 2000 (prevalence: 4.0%) to 29 million in 2050 (prevalence: 7.2%), according to 1980–1998 data from the National Health Interview Survey and U.S. Bureau of Census population demographic projections. The number of people who actually have diabetes will likely be even higher because about one-third of Americans with diabetes today do not know they have the disease. As diabetes strikes more people and technological advances make treatment more expensive, health care costs for this preventable disease will skyrocket. Surveillance data will help health officials more effectively target their finite resources for diabetes prevention and care.

*“Over the years, the YRBSS has proven to be a valuable tool for providing vital information about the behaviors affecting the healthy development and academic attainment of our nation’s youth.”*

“The BRFSS is essential to our public health efforts to protect and improve the health of communities,” said Kathleen E. Toomey, MD, MPH, the BFRSS coordinator for Georgia. “It provides data for planning and policy, an infrastructure for behavioral surveillance, and a focus for collaboration with other health organizations. The data have often surprised policy-makers and have been used to get support for chronic disease prevention and other public health activities.”

To keep the BRFSS viable, researchers are evaluating the current use of telephone interviews. As more questions are added, interviews can become unreasonably long, and changes in telephone technology (e.g., cell phones, caller ID) and competition from telemarketers have created obstacles for interviewers. To address these challenges, CDC will need input from its many partners to decide what future changes are needed.

## Surveys Highlight Risky Behaviors by Youth

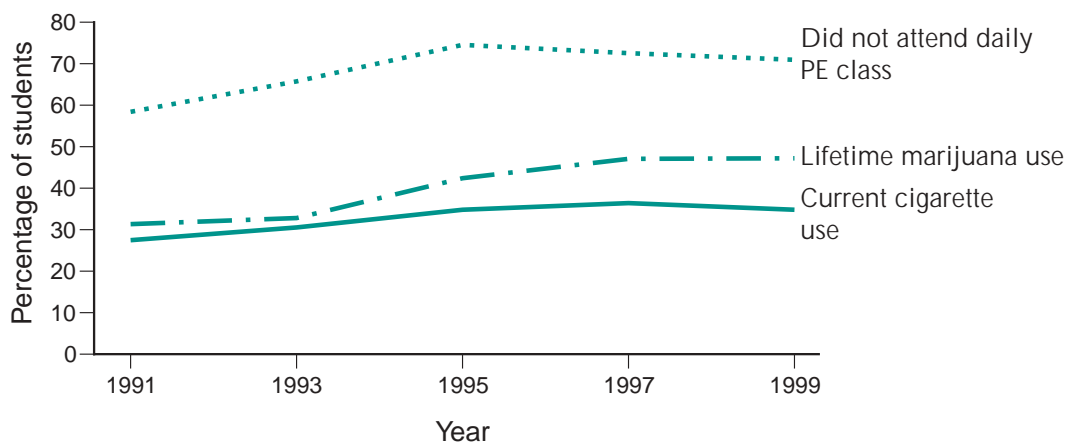
The health of young people, like that of adults, is critically linked to the health-related behaviors they choose to adopt. Unfortunately, little was known about the prevalence of health-risk behaviors in this age group before 1990. To gather such information, CDC implemented the school-based Youth Risk Behavior Surveillance System (YRBSS), which is designed to collect vital information on health-related practices among students in grades 9–12 nationwide. In 1999, the YRBSS queried schoolchildren in 42 states, 4 territories, and 16 major cities. The resulting data give states and school jurisdictions information they need to better target health promotion efforts to young people.

“Over the years, the YRBSS has proven to be a valuable tool for providing vital information about the behaviors affecting the healthy

development and academic attainment of our nation’s youth,” said Brenda L. Welburn, Executive Director of the National Association of State Boards of Education.

The 1999 surveys of high school students showed that most did not eat the recommended five servings of fruits and vegetables per day, attend daily physical education classes, or routinely participate in vigorous physical activity. In addition, 16% of

**Health Risk Behaviors Among U.S. High School Students, 1991–1999**



Source: CDC, Youth Risk Behavior Surveillance System.



students were at risk for becoming overweight, and 10% were already overweight. About one-third had smoked cigarettes, 8% had used smokeless tobacco, and 27% had used marijuana during the previous month. Seventeen percent of students had carried a weapon at least once during the previous month, and nearly half of sexually active students had not used a condom during their last intercourse.

## National Registries Compile Data from Multiple Sources

In addition to being collected in national surveys, surveillance data can be collected by registries that compile data from health care sources. One example of this type of surveillance is the National Program of Cancer Registries (NPCR), which collects cancer data in central statewide registries from various medical facilities, including hospitals, physicians' offices, therapeutic radiation facilities, freestanding surgical centers, and pathology laboratories. This fundamental tool for data collection was mandated by Congress in 1992 to help states assess the cancer burden in their jurisdictions.


The NPCR reports cancer data by patients' age, sex, race/ethnicity, and geographic area. Because this system provides comprehensive, timely, and accurate data about cancer incidence, stage at diagnosis, and first course of treatment, researchers and health care

providers are better equipped to evaluate the success of efforts to prevent and control cancer.

States have applied their data in diverse ways. In Kentucky, for example, where 35% of women diagnosed with breast cancer in the early 1990s had late-stage disease, registry data were used to identify areas of the state with high rates of late-stage breast cancer, and mammography outreach activities were extended in these communities. By 1996, the percentage of Kentucky women diagnosed with late-stage breast cancer had declined to 30%, and state officials estimated that \$4.7 million in treatment expenditures has been saved.

In Minnesota, cancer registry data revealed a persistent excess of mesothelioma in the northeastern portion of the state. This rare type of cancer has only one known cause— asbestos exposure. This observation resulted in legislative funding for investigations to look for cases of occupational respiratory disease.

These examples illustrate the urgent need to conduct surveillance and use the findings to promote the health of U.S. residents. These data will only become more important as the nation's population ages and the burden of chronic disease escalates.

“To fail to support surveillance activities is to abandon accountability and evaluation,” Dr. Stroup emphasized. “Public health surveillance is critical to achieving CDC's mission.” 

*These data will only become more important as the nation's population ages and the burden of chronic disease escalates.*

## Research at State and Local Levels Benefits Communities Nationwide

Prevention research in one state or community often produces valuable findings that can be used nationwide. By sharing knowledge and lessons learned, state and local health departments can help others pursue the most successful approaches to preventing chronic disease. Several recent studies show how such research depends on the active involvement of health departments.

### State Collaboration Can Pinpoint Problems

Maryland, New York, Ohio, and Texas participated in a CDC study to find out why many women eligible for free follow-up mammograms were not getting these routine screening tests. The screenings are covered under CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP). Researchers tested the following research questions:

- Do NBCCEDP records correctly reflect the percentage of women who are actually returning for routine rescreening?
- Are women going outside the program for mammography screening?
- Are many women neglecting to return for follow-up screening after their initial mammogram?

The four states were selected for the study because the racial and ethnic makeup of their participants was similar to that of participants in the overall program. Researchers used

NBCCEDP data files to identify 625 eligible participants in each state (a total of 2,500 women). The women were placed in two cohorts—those who received enhanced interventions and those who received minimal interventions. Researchers selected only women who received a negative/benign or “probably benign” result and were aged 50–69 years at the time of the index screening in 1997. They interviewed the women by telephone at least 30 months after their index mammogram and then obtained records for mammographies reported during the interview.

The final results, which will be reported later this year, will help all states improve their methods of tracking women in the NBCCEDP and identifying women who might need additional support to ensure that they receive routine mammograms.

The four states were quite willing to participate after researchers addressed their concerns about patient confidentiality. “Good cooperation from the states made it possible to locate 90% of the women in each state, an unusually high rate of success,” said Janet Bobo, PhD, the study's principal investigator.

### Targeted Programs Help Find What Works

By evaluating interventions, researchers can expose gaps in care and reveal surprising strengths of interventions. A recent North Carolina study that compared two intervention groups did both. Heart disease, the leading cause

of death in the United States, affects one in five people in North Carolina. Uninsured women are especially vulnerable because they are less likely to be screened for high blood pressure and cholesterol levels or to be counseled on healthy eating and smoking cessation. Changing the health-related behaviors of financially disadvantaged people can be especially difficult because such populations have other priorities, including money and transportation. In addition, local food sources may be limited, and they may not have access to safe public spaces for physical activity.

The CDC-funded WISEWOMAN programs provide preventive services to NBCCEDP participants. To help determine whether the cardiovascular disease (CVD) risk factor screening and intervention services offered under WISEWOMAN are effective, CDC researchers compared two groups of underserved and uninsured women. One group received enhanced interventions; the other received minimal interventions. Investigators found that 91% of the women screened in North Carolina were at risk for CVD and thus were eligible for the interventions. Risk was defined as having high blood pressure, taking medication for high blood pressure, or having abnormal cholesterol levels. After 1 year, lipid and blood pressure values of both groups improved and their risk for death from heart disease and stroke declined. However, the differences between the group that received enhanced interventions and the group that received minimal interventions were insignificant.

Because few intervention studies have been conducted in such populations, the WISEWOMAN evaluation

## WISEWOMAN Programs Improve Health

WISEWOMAN programs are an excellent laboratory for innovative approaches because the programs are tailored to meet the needs of specific populations. The intervention used in the North Carolina study is called New Leaf...Choices for Healthy Living, and is based on the Food for Heart Program, which was developed for a southern, multiethnic, low-literacy population. Programs are now tailored to meet the needs of Alaska Natives, Hispanics, Native Americans in South Dakota, and rural women in Vermont.

Project staff in various states have shown ingenuity and compassion in finding ways to make the program work. In Vermont, telephone contact is being tried as a way to encourage rural women to get out and walk in wintry weather. In South Dakota, which has a large Native American population, a culturally sensitive intervention is being tried. Some programs are offering stress reduction classes to help women cope with difficulties that keep them from focusing on healthy behaviors. Because longer sessions and more contacts have proven to be more effective, Iowa now offers 12 sessions. "A high intervention 'dosage' seems to work better," said Rosanne Farris, PhD, RD, WISEWOMAN project officer.

The positive effects of WISEWOMAN programs studied recently show that the health of underserved women can be greatly improved by such interventions.

was an opportunity to learn what might work not just in North Carolina, but in other states as well. "Changing health behaviors associated with CVD in low-income populations may require different strategies from those used in high-income populations," said Julie Will, PhD, CDC WISEWOMAN team leader. "More intervention research is needed. We need to keep looking for effective interventions for underserved women and work more on getting women to adopt the behavior changes." States involved in the WISEWOMAN evaluations will give health agencies nationwide the knowledge they need to reach more women with these life-saving strategies. ☀

## Public Health Benefits When Communities Participate and Help to Guide Research

The best solutions to public health problems are produced when communities and researchers work together. Community members can pinpoint health problems that are important to them, warn about obstacles, and suggest practical solutions. “Such engagement with communities is essential if we are to understand and eliminate the root causes of health disparities,” said Donna F. Stroup, PhD, MSc, Associate Director for Science, NCCDPHP. The following examples show how public health benefits when communities are involved in research from the start.

### Project DIRECT Tackles Diabetes Disparities

African Americans are far more likely than whites to develop type 2 diabetes, suffer from its disabling complications, and die. In southeast Raleigh, North Carolina, researchers are working closely with the African American community to reduce these disparities by testing diabetes interventions and finding strategies that will be effective throughout the country. Project DIRECT (Diabetes Intervention Reaching and Educating Communities Together) has these goals:

- Reduce African Americans’ risk factors for developing diabetes.
- Identify African Americans who already have diabetes.
- Improve the quality of diabetes health care provided to African Americans.

Raleigh was chosen as the project site because of its large African American community (about 40,000) and diabetes rates that are higher than the national average. “We knew from the pilot study that the African American community was well established, with identified leaders and highly effective networks. The community was also willing, capable, and interested in the study,” said CDC epidemiologist Michael M. Englegau, MD, MS.

Specific interventions conducted by Project DIRECT include the following:

- **Promoting good nutrition.** Churches have been involved in several interventions, including a successful program to improve nutrition among African Americans. Project DIRECT staff trained members of church food preparation committees to plan and prepare healthier meals. A registered dietitian gave brief presentations, demonstrated healthy cooking techniques, and offered samples of the prepared foods. Churches also allowed Project DIRECT staff to attend events where food was served so they could gather information from food preparation staff and the congregation.
- **Encouraging people to be active.** Health education campaigns have also proven effective in helping African Americans with diabetes. For example, Ready, Set, Walk is a 6-week class that prepares people with diabetes to increase their physical activity level by walking

regularly and making healthier food choices. The classes are promoted through churches and community health centers. Some participants are trained as lay exercise leaders to keep the groups going. More than three-fourths of participants said the program helped them start walking. CDC study coordinator Betty Lamb, RN, MSN, reports that the community has now adopted walking as a lifestyle: “You see people of all ages in parks and on trails.”

- **Improving diabetes self-management.** More than 400 people have attended diabetes self-management classes, which are offered at community health centers, a senior center, the YMCA, and Project DIRECT’s community office. Tests before and after the program show that the classes are helping patients better control their blood glucose levels. Community members are also more likely to acknowledge that they have diabetes. One physician remarked, “When my patients are telling me they need a support group, I don’t need a survey to know we’ve made progress.”
- **Improving quality of care.** Audits of medical charts showed that primary care providers needed to improve diabetes care. Patients saw their primary care physicians regularly but went for long periods without foot and eye exams. Some patients had conditions such as high blood pressure that were being monitored but not adequately addressed. Getting health care providers to participate in this program focused their attention on indicators of care. Trend data

show that since the program began, participants are more likely to be referred for eye exams and tested for early signs of kidney disease.

Project DIRECT has been extremely effective because “community involvement and ownership have been outstanding,” said Ms. Lamb. Partners include the community of southeast Raleigh; the Division of Public Health in the North Carolina Department of Health and Human Services; Wake County Human Services; and CDC. Despite staff turnover (each intervention had its own coordinator), the community has kept the project active. “Community members involved with the project are now urging other communities to adopt similar strategies,” noted Ms. Lamb.

Building this kind of relationship with a community does not happen overnight. “It takes a lot of work and effort to organize the community,” said Dr. Engelgau. “It then takes a lot of time to get it going. But we would not have seen such dramatic changes without those efforts. Patience is necessary.”

## Community Advisory Boards Help Guide CDC’s Prevention Research Centers

To effectively change health behaviors, researchers must work with—not on—communities. This is the philosophy that drives CDC’s 26 Prevention Research Centers (PRCs), based in schools of public health and medicine across the United States. These centers are dedicated to conducting research and education that promotes the health of communities. The PRCs focus on

*“When my patients are telling me they need a support group, I don’t need a survey to know we’ve made progress.”*

*“We firmly believe that no one who is affected by the outcome of a study or intervention should be excluded from the process of planning, conducting, and evaluating it.”*

populations with the highest rates of morbidity and mortality, especially those in which health disparities are related to adverse social and economic conditions (<http://www.cdc.gov/prc/>).

One way the PRCs involve local people is by working with community advisory boards, which are generally a diverse group of community members, volunteers, health and education professionals, and representatives of local and state service organizations. Their role is to help PRC staff understand community values and plan research and interventions that reflect these values. Elleen M. Yancey, PhD, Director of the Morehouse School of Medicine PRC in Atlanta, especially appreciates the cultural perspective provided by Morehouse’s board. “Our board chairman, a retired school-teacher who taught in the local schools, is familiar with the history of the neighborhoods we work with,” she noted.

“Community advisory board members bring us a knowledge of the community and help us frame questions in ways that are relevant,” said Marc Zimmerman, PhD, Director of the University of Michigan PRC. “I can tell you we have a better product because the community is involved.”

LuAnn White, PhD, Co-Director of Tulane University’s PRC in New Orleans, agreed. “They’ve been very helpful to us in interacting with the community and sharing what we’re doing with their various community-based organizations,” she said.

Community advisory board members also recognize the value of their role. “We firmly believe that no one who is affected by the outcome of a study or intervention should be excluded from the process of planning, conducting,

and evaluating it,” said E. Yvonne Lewis, a member of the community advisory board at the University of Michigan PRC.

The Johns Hopkins University’s PRC, which focuses on adolescent health, has a youth advisory committee of Baltimore youth aged 13–19 years co-facilitated by one adult PRC staff member and a youth advisory committee alumnus (the center also has a community advisory board of adult professionals and other community members). The young people on the committee have the same responsibilities and standards as adult members: they provide feedback on surveys and publications targeted to young people, suggest strategies for recruiting young people into studies, participate in training workshops, plan and conduct youth retreats, recruit new members, and contribute to the PRC newsletter. Over the years, they have worked with project investigators to make substantive changes to numerous surveys and other research projects. For example, when the Baltimore City Health Commissioner wanted to determine the impact of needle exchange programs on adolescent perceptions of drug use, members of the youth advisory committee reviewed a draft questionnaire and provided feedback. “Involving young people in the work of the center through this committee helps researchers to better understand the challenges and concerns of urban youth while providing a unique opportunity to develop positive adult-youth relationships,” says PRC staff member Lisa Hohenemser, MPH.

Community advisory boards can also bring projects to the table or participate in grant writing, data collection, or administrative responsibilities. They

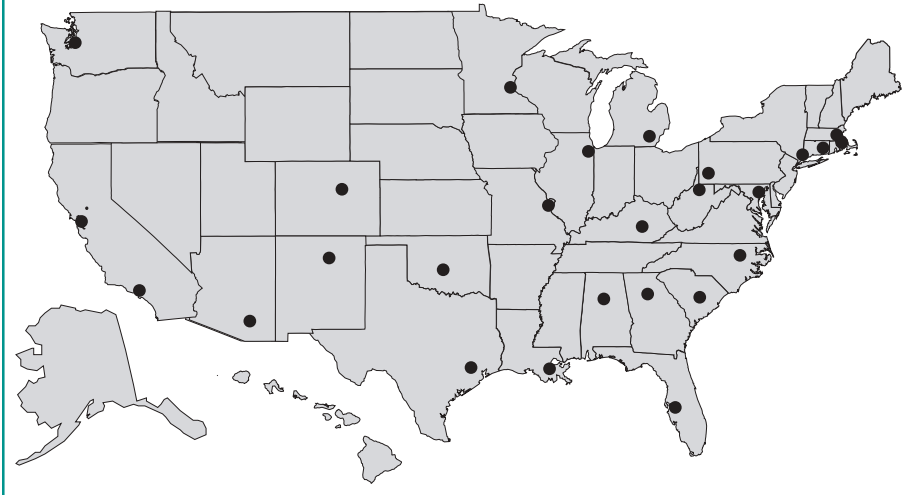
often help PRC staff identify and focus on concerns important to the community. At Tulane, a demonstration project began when community members came to the PRC with concerns about lead levels in a New Orleans housing project. One aim of the project was to see what mothers in the area could do to help lower their children's blood lead levels, which were extremely elevated. The PRC collaborated with the community to develop the project.

The community was also concerned about jobs at that time (1998) because of impending Welfare-to-Work laws. Thus, the project includes lay persons who carry out the intervention study with the community. Called "Lead Busters," these workers receive 6 months of training on basic lead information, professionalism, public speaking, outreach, and research concerns. Their duties include visiting people's homes, training them in how to reduce lead in their homes, and delivering health education messages.

"Now, as we design a project dealing with lead, it's actually our Lead Busters who tell us how we ought to do things in a community," said Dr. White. "They help us set some of our goals and objectives for the studies—what's going to work and what's not, how we ought to design the study so that the community will be responsive to it and so it's something that the community actually needs and wants done."

Dr. Zimmerman noted that sometimes a community advisory board member, not the university, takes the lead in a project. At the University of Michigan PRC, a community advisory board member is the principal investigator of a project to reduce racial disparities in infant mortality. The University's role is to provide evaluation support. At

### CDC's Network of Prevention Research Centers, Fiscal Year 2001



Morehouse, the community advisory board helps set PRC policies. Such activities are why PRCs have come to view their community boards not as participants, but as partners.

"And it's extremely important for it to be a partnership," noted Dr. Yancey, Director of the Morehouse PRC. Communities must be involved in research early on. Before designing any study, PRCs must ask: What is the community's view of the problem, and what steps would they want to take to approach it? At many PRCs, community boards review research proposals before they are submitted to funding entities, and principal investigators have revised proposals based on their recommendations.

## Productive Tensions, Continuing Challenges

PRC directors acknowledge that this form of collaboration is not always easy. Communications are a constant challenge. The administrative burden of

*“Our goals are to bridge the gaps, highlight our similarities, and celebrate our differences.”*

planning meetings and retreats, recordkeeping, providing refreshments and reimbursement for travel, issuing reminders, preparing agendas and other materials, usually falls to the PRC. PRCs sometimes offer board members training in meeting facilitation or other management skills, with support from CDC.

Michigan’s Dr. Zimmerman notes that community boards and PRCs “definitely have different priorities,” which makes negotiation and dialogue necessary and sometimes difficult. Tension can also develop over the process or pace at which projects proceed. The need for timely publication might drive the PRCs’ timetables, while community advisory boards want to fine-tune the message. Dr. Zimmerman said that one of the community advisory board members he works with described the tension this way: “Sometimes the university partners want to go 75 miles an hour and the community wants to go 25.”


## Research Can Make Communities Stronger

Academic partners need to learn how to work with communities and take time to develop a relationship of trust and familiarity. They sometimes also must help community boards develop the necessary infrastructure. The Morehouse PRC operates four technology training centers, two of which teach adolescents how to retrieve health information from the Internet, and has also offered a series of

workshops on grant writing. The University of Michigan PRC has helped community advisory board members learn more about research methods; as a result, they are now better able to articulate questions about such matters as the selection of control groups for studies, said Dr. Zimmerman.

The PRC directors supported the formation of a steering committee of representatives from the community advisory boards to provide guidance to the PRCs at the national level, not just to each center separately (research and communication committees were also established). Through the PRC national community committee, CAB members can come together to help existing and new boards by sharing ideas, discussing common concerns, and finding ways to help each other. One idea in the works is to offer board members training in evaluation (as some PRCs already do) so they will better understand the process and be able to offer meaningful input when discussing evaluation projects with PRC staff.

PRC directors are enthusiastic about bringing community participation to the national level of their network. “Seeing how other community advisory boards function, particularly those that have been around for a very long time, will help us work together at a higher level and develop at a faster rate,” said Dr. White.

Ms. Lewis, who (with Ms. Ella Greene-Moton) co-chairs the national community committee of PRC community advisory board members, said, “Our goals are to bridge the gaps, highlight our similarities, and celebrate our differences.” 



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## Conferences

*Project DIRECT National Forum*

Project DIRECT (Diabetes Intervention Reaching and Educating Communities Together) will host a national forum April 2–4, 2002, in Raleigh, North Carolina, to disseminate the project's findings. This major community-based demonstration project is part of the comprehensive North Carolina Diabetes Control Program. For more information, contact Joyce Page, Project Director, North Carolina Diabetes Control Program, at [Joyce.Page@ncmail.net](mailto:Joyce.Page@ncmail.net).

*First Puerto Rican Conference on Public Health*

The first Puerto Rican conference on public health, Public Health Challenges for the New Century, will be held April 10–12, 2002, at the Caribe Hilton Hotel in San Juan, Puerto Rico. The conference will provide a forum for analyzing national and international public health concerns and evaluating public health's affects on society and policy-making. Plenary sessions will cover topics such as health reforms. Special sessions will address violence as a public health problem; economic development, health systems, and public health; ethics in public health; and public health in Latin America and the Caribbean. For more information, visit <http://www.rcm.upr.edu/PublicHealth/Conferencia2002.htm>.

*Cardiovascular Health for All*

Cardiovascular Health for All: Meeting the Challenge of *Healthy People 2010*—A National Conference will be held April 11–13, 2002, at the Marriott Wardman Park Hotel in Washington, D.C. The conference will address the cardiovascular challenges set forth in *Healthy People 2010* and the overarching goals of increasing quality and years of healthy life and of eliminating health disparities among minority populations. The conference is presented by the National Heart, Lung, and Blood Institute and is cosponsored by the Office of Disease Prevention and Health Promotion, the American Heart Association, CDC, the Centers for Medicare and Medicaid Services, and the Health Resources Services Administration. For more information, visit <http://www.cvh2002.net>.

*Aging in Emerging Countries*

On April 24–26, 2002, Hammamet, Tunisia, will be the site of the 14<sup>th</sup> annual meeting of REVES, an international, nonprofit, professional scientific organization that supports the study of life expectancy and its determinants. Sessions will address emerging and re-emerging infectious and noninfectious public health problems that affect health. The conference theme is the “Impact of Emerging Diseases on Life Expectancy,” and some sessions will focus on the study of aging in emerging countries, particularly in Latin America, Asia, Africa, and the Middle East. Cosponsors include the World Health Organization, the National Institute of Health-Tunisia, INSERM-France, and CDC. For more information, contact Dr. Shahul Ebrahim at [sebrahim@cdc.gov](mailto:sebrahim@cdc.gov) or 404/639-2006.

*National Oral Health Conference*

“Building a Framework for Improving Oral Health” is the theme of the next National Oral Health Conference, to be held Monday, April 29–Wednesday, May 1, 2002, at the Sheraton Ferncroft in Danvers, Massachusetts. This national meeting focuses on exchanging scientific and public health information on oral health. It also provides a forum for sharing innovative and successful oral health programs in various settings and promotes discussion of strategies for improving oral health through community, state, national, and foundation initiatives. The meeting is sponsored by the Association of State and Territorial Dental Directors, the American Association of Public Health Dentistry, CDC, the Centers for Medicare and Medicaid Services, and the Maternal and Child Health Bureau of the Health Resources Services Administration. For more information, visit <http://www.astdd.org> or <http://www.aaphd.org>.

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### *CDC Diabetes Translation Conference 2002*

The CDC Diabetes Translation Conference 2002 will be held May 6–9, 2002, at the Millennium Hotel, 200 South 4<sup>th</sup> Street, St. Louis, Missouri. This conference will celebrate the 25<sup>th</sup> anniversary of CDC's Division of Diabetes Translation. Local, state, federal, territorial, and private-sector diabetes partners will explore science, policy, education, and planning concerns related to reducing the burden of diabetes. For more information, visit <http://www.cdc.gov/diabetes>. Call 314/241-9500 for hotel reservations.

### *20th National Conference on Health Education and Health Promotion*

Strengthening America Through Health Education and Health Promotion Alliances will be held June 5–7, 2002, at the Hyatt Regency in New Orleans. The conference is cosponsored by CDC and the Association of State and Territorial Directors of Health Promotion and Public Health Education. For more information, visit <http://www.astdhppe.org/conf20/20confindex.htm>, or contact the Professional and Scientific Associates at [HEHP2002@psava.com](mailto:HEHP2002@psava.com) or 800/772-8232 (extension 220).

### *A Youth-Led Summit on Health and Education*

Turning the Tables of Hip-Hop Summit: A New School Agenda on Health and Education 4 America's Youth will be held October 31–November 3, 2002, at the Omni Shoreham in Washington, D.C. Health educators are becoming more aware of the importance of understanding youth popular culture, currently dominated by hip-hop, to reach America's young people with vital health messages. By using hip-hop culture as a focal point, health and education professionals and youth advocates can engage America's young people in innovative ways to reverse unhealthy trends and encourage leadership development, community involvement, healthy lifestyles, and academic excellence. Sponsors include the Youth Popular Culture Institute, Inc., the Bureau of Primary Health Care of the Health Resources Services Administration, CDC, and other public and private partners. For more information, visit <http://www.turningthetablesofhiphop.org>.

## Communications

### *New Initiative on Diabetes and Women's Health*

CDC recently published *Diabetes and Women's Health Across the Life Stages: A Public Health Perspective*, the first major report to address the unique and serious impact diabetes has on women throughout life and to address the public health implications of these problems. The publication presents trends in risk factors for diabetes and its complications during adolescence; the increased risk for diabetes among children with intrauterine exposure to hyperglycemia; the effect of menopause on women's health status; and the increase in poverty and disability among older women. The report is a product of the Initiative on Diabetes and Women's Health, sponsored by CDC, the American Diabetes Association, the American Public Health Association, and the Association of State and Territorial Health Officials. To order single copies of the report and get other information about diabetes from CDC, call toll free 877/CDC-DIAB, E-mail [diabetes@cdc.gov](mailto:diabetes@cdc.gov), or visit <http://www.cdc.gov/diabetes> (select Publications and Products).

### *Promoting Oral Health Through Recommendations and Education*

*Promoting Oral Health: Interventions for Preventing Dental Caries, Oral and Pharyngeal Cancers, and Sports-Related Craniofacial Injuries—A Report on the Recommendations of the Task Force on Community Preventive Services* summarizes the recommendations of this independent, nonfederal task force. As part of its *Guide to Community Preventive Services* (the *Community Guide*), the Task Force reviewed scientific evidence of the effectiveness of community interventions to prevent and control tooth decay, mouth and throat cancers, and sports injuries to the head, mouth, and face. It issued a strong recommendation that community water fluoridation and school-based or school-linked dental sealant programs be included as part of comprehensive, population-based strategies to prevent tooth decay in communities. For more information about the *Community Guide* chapter on oral health, visit <http://www.thecommunityguide.org/GUIDE/>

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Oral/Oralhealth\_f2.html. The full chapter will be published in a supplement to the *Journal of Preventive Medicine* in 2002. CDC has also developed a health education kit that contains pediatric oral health tips for parents of young children (from infancy to age 6 years). “Brush Up on Healthy Teeth: Simple Steps for Kids’ Smiles” provides information parents need to help children establish effective dental habits early, including information on the right amount of fluoride needed to protect teeth from decay. The kit includes a tip sheet and a true-or-false quiz for health care providers to give to parents, as well as a poster. Kits can be requested at [brushup@cdc.gov](mailto:brushup@cdc.gov). For more information on oral health and the benefits of fluoride, visit <http://www.cdc.gov/nccdphp/oh>.

### Information Sources

#### *CDC Epilepsy Program Announces New Web Site Link*

The CDC Epilepsy Program Web site (<http://www.cdc.gov/nccdphp/epilepsy.htm>) now has a link to its new Spanish-language epilepsy Web site (<http://www.cdc.gov/spanish/nccdphp/epilepsia.htm>). Both sites contain an overview of epilepsy and seizures. Additional information includes CDC’s role in improving epilepsy care, self-management, health communication, research, and information dissemination, as well as in strengthening partnerships to address the public health aspects of epilepsy.

#### *Three New Behavioral Risk Factor Surveillance System (BRFSS) Resources*

The **BRFSS Historical Question Database** includes all research questions from BRFSS surveys conducted during 1984–2001. The database includes exact wording of questions in the core survey and official module survey. A variety of topics are covered, including activity limitations, alcohol, arthritis, asthma, cardiovascular disease, cancer, demographics, health care access, immunization, exercise, and nutrition. Through a link, users can contact state BRFSS coordinators for information about state-based questions. Through an additional set of links, users can contact specialists at CDC to get information on questions specific to a program area, such as diabetes or cancer. For more information, visit <http://apps.nccd.cdc.gov/BRFSSQuest/>.

The **BRFSS Publication Database** should be completed soon. This database is a resource of topics covered by BRFSS. All professional publications that have used BRFSS data are included. Users can search by topic, title, author, and date of publication. Resulting reports include all reference information as well as abstracts of the articles. For more information, visit <http://www.cdc.gov/nccdphp/brfss/pubbrfdat.htm>.

The **BRFSS Data Systems Course** is an online training program for users who have little or no experience with data and statistics. Prevalence Training Modules introduce users to survey data, including the extensive information found in the BRFSS. In Module 1, users can explore data, learn how data can be used to estimate health risk behaviors and disease outcomes, and learn how to interpret the BRFSS prevalence reports generated each year. In Module 2, users can review BRFSS populations and samples, see how charts and tables depict surveillance data, and learn about basic statistical principles, category combining, and data standardization. For more information, visit <http://apps.nccd.cdc.gov/brfssdatasystems/>.

#### *Available Now on CDC’s Web Site*

The new Chronic Disease Prevention (CDP) Databases Web site, available at <http://www.cdc.gov/cdp>, features the following databases: the NCCDPHP Publications Database, the Health Promotion and Education Database, the Cancer Prevention and Control Database, the Prenatal Smoking Cessation Database, and the Epilepsy Education and Prevention Activities Database. These bibliographic databases provide useful information to health professionals responsible for supporting, planning, developing, conducting, and evaluating efforts to prevent chronic disease and reduce health risks. Updated monthly, the databases provide over 40,000 citations and abstracts of materials. Full text is provided for some publications. The databases also contain descriptions of chronic disease prevention and health promotion programs. For more information on the CDP databases, contact Reba Norman or Jan Stansell at 770/488-5080 or by E-mail at [rnorman@cdc.gov](mailto:rnorman@cdc.gov) or [jstansell@cdc.gov](mailto:jstansell@cdc.gov).

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