



CDC's Prevention Research Centers take a comprehensive approach to diabetes prevention and control.



The Prevention Research Centers are a network of academic health centers, partner communities, and public health practitioners that conduct community-based participatory research to prevent disease and disability.

FACING THE ISSUES

- *Diabetes is the sixth leading cause of death in the United States.*
- *More than 20.8 million Americans have diabetes and 6.2 million are unaware that they have the disease.*
- *African-American, Hispanic, American Indian, and Alaska Native adults are two to three times more likely to have diabetes than white adults.*
- *Early detection, improved delivery of care, and better education on diabetes self-management help prevent the burden of diabetes and its complications.*

Helping Communities Reduce the Burden of Diabetes

Several Prevention Research Centers' (PRCs) partner communities comprise large racial and ethnic minority groups at high risk for diabetes. For example, in one PRC community in Chicago, 75% of residents are at high risk of developing the disease. Researchers at the PRCs are working to increase the capacity of communities to deliver comprehensive programs for preventing and controlling diabetes.

The PRC in Connecticut trains community health advisors (CHAs) in a faith-based project for low-income African-American residents. The CHAs learn about diabetes prevention, diagnosis, and treatment and about how to spread their knowledge through their churches. Researchers are measuring changes in participants' health status, health-risk behaviors, dietary patterns, physical activity levels, social support, and confidence to improve personal health.

In Chicago, researchers took an effective clinic-based diabetes prevention intervention and tailored it to a mostly Latino and African-American community. The program, which focuses on weight loss and lifestyle changes, is offered in English and Spanish in churches, schools, work sites, and health-care facilities. Evaluators are measuring participants' changes in health-promoting behaviors.

The PRC in New Mexico designed Healthy Path to help Navajo elders make healthy dietary and physical activity choices, specifically for preventing diabetes. Researchers collaborated with the Navajo Area Agency on Aging, the Indian Health Service, tribal health educators, and other community and service organizations to develop culturally relevant materials that promote healthy living among older adults. The project incorporates the traditional beliefs, values, and foods of the Navajo culture. The partners are preparing to expand the program to the entire Navajo Nation, and to other American Indian communities in the Southwest.

In rural, medically underserved areas of upstate New York, physical activity levels among people with diabetes are particularly low. Researchers from the PRC in Albany discovered multiple barriers to participation in physical activity in that region. The center and its community committee are helping make public school buildings available for walking after school hours during cold months and recreational trails available during warm months. Researchers use surveys to assess the program's effects and identify characteristics of trails and schools associated with increased use.

Diabetes and Depression

A comprehensive diabetes intervention in Arizona addresses depression as a complication of diabetes and a risk factor for heart disease. Participants are screened for diabetes and depression, referred for treatment, and encouraged to take part in interventions. Components include weekly small-group classes about diabetes management, training for family members wanting to support one another's efforts to increase physical activity and eat well, community walking groups, and policy advocacy.

In Washington, the PRC developed the Program to Encourage Active, Rewarding Lives for Seniors (PEARLS) to treat minor depression in older adults by using cognitive-behavioral therapy to help seniors address their problems. The city of

Spotlight on Success

Mexican Americans living along the U.S.-Mexico border have twice the risk of diabetes than other Americans, and deaths from diabetes are 50% greater. At the Arizona PRC, researchers collaborate with local health-care service organizations to provide "one-stop screening" so that women receive comprehensive chronic disease screening during a single medical visit. During the visit, lay health workers teach the women about diabetes control. The center involves extended families and community health workers in a comprehensive, culturally-sensitive diabetes intervention. The researchers also advise local community groups attempting to change policy and environmental factors that contribute to the high rate of diabetes. These factors include the lack of nutrition and physical activity policies, recreation and walking areas, and local availability of nutritious foods. Researchers have shared the prevention programs with other communities along the border and are now conducting evaluations.

Seattle offers PEARLS to older adults with diabetes and depression who are under the care of a city social worker.

Diabetes and Eye Health

Visual impairment is the second-leading cause of disability among American Indians in the Pacific Northwest. Only 2 of the 43 American Indian tribes in the region have an eye care provider, and most tribal members travel several miles for an eye examination.

A project of the Oregon PRC aims to increase residents' access to eye examinations and prescription eyeglasses, reduce the risk of blindness for residents who have diabetes, and determine the extent and possible causes of the community's visual impairments.

Participants with diabetes receive an in-depth eye examination in which photographs of the eyes are sent as digital images by computer to an ophthalmologist at a distant location. The doctor reviews the images, makes a diagnosis, and recommends treatment. The researchers will evaluate whether brief initial eye examinations are accurate and improve the population's accessibility to eye care. They will also determine whether telemedicine is a reliable and feasible method for detecting diabetic retinopathy and other eye ailments.