

News From NACCHO

Local Health Departments' Response to the Diabetes Epidemic

Jessica Carda-Auten, MPH; Julie Nelson Ingoglia, MPH

The National Association of County and City Health Officials (NACCHO) is the national organization representing local health departments. It supports efforts that protect and improve the health of all people and all communities by promoting national policy, developing resources and programs, seeking health equity, and supporting effective local public health practice and systems.

From 1980 to 2008, the number of Americans who have been diagnosed with diabetes has more than tripled (from 5.6 million to 18.1 million).¹ In addition to the 18.1 million Americans who have been diagnosed with diabetes, it is estimated that 5.7 million Americans suffer from undiagnosed diabetes and 57 million American adults have prediabetes, a condition in which individuals have blood glucose levels higher than normal but not high enough to be classified as diabetes.²

While the prevalence of diabetes and other chronic diseases has increased in the United States, improved sanitation and hygiene and the wide adoption of antibiotic use and vaccination have made infectious disease less common.³ Accordingly, public health agencies, including local health departments (LHDs), are playing an expanded role in chronic disease prevention and control in addition to their traditional role in infectious disease prevention.⁴

● National Association of County and City Health Officials' Response

The National Association of County and City Health Officials (NACCHO) has taken a number of steps to learn more about what LHDs are doing to address the diabetes epidemic in their jurisdictions and to share

this information with the public health community. Every 2 years, NACCHO conducts the National Profile of Local Health Departments (Profile) study, with the purpose of developing a comprehensive and accurate description of LHD infrastructure and practice. This Web-based questionnaire is distributed to the top agency executive of each LHD. One component of the survey includes questions about the types of diabetes prevention and control services administered by LHDs. The most recent data available is from the 2008 study, which had a response rate of 83%, with 2332 of 2794 LHDs completing the questionnaire.

In the 2008 Profile study, 700 LHDs indicated that they provided some type of diabetes prevention or control services. The NACCHO program staff administered an additional survey to these 700 LHDs in January 2010 to learn more about these diabetes-related activities. The response rate for this survey was 35%, with 250 LHDs submitting either completed or partially completed surveys.

In November 2009, NACCHO released a call for programs to identify examples of LHD diabetes prevention and control programs. Of the LHDs that responded, project staff chose 9 LHDs for in-depth interviews. The information obtained from these interviews was used to develop case studies that were compiled for the *Building Healthy Communities: Diabetes Compendium*, which was released in June 2010.

● Local Health Department Activities

According to the 2008 Profile study, nearly half (45%) of the 2794 LHDs in the country were providing

Author Affiliation: National Association of County and City Health Officials, Washington, District of Columbia.

Correspondence: Jessica Carda-Auten, MPH, National Association of County and City Health Officials, 1100 17th St, NW, Seventh Floor, Washington, DC 20036 (jcarda-auten@naccho.org).

screening for diabetes. Sixty-eight percent of LHDs were providing population-based primary prevention services related to nutrition, 53% related to physical activity, and 53% for the prevention of chronic diseases. In addition, many LHDs were applying the 10 essential public health services to their obesity programs. During the year preceding the study, for their obesity programs, 69% of LHDs were providing health education and risk reduction activities; 51% were using community engagement, 33% were involved in planning and policy development; 52% were providing outreach, referral, or services; 32% were engaged in workforce training and development; and 14% were conducting research.⁵

Of the LHDs that were identified in the 2008 Profile survey as providing some type of diabetes prevention or control service and who also participated in the January 2010 follow-up survey, 51% reported that they provided diabetes prevention services. The LHDs indicated that they provided a range of preventive services, including primary, secondary, and tertiary diabetes prevention services.

Primary prevention services provided by LHDs include nutrition education and counseling, policy development for worksites and schools that allow and promote physical activity and improved nutrition, the removal of soda-vending machines from worksites and schools, and environmental changes in the community that support active living, such as the creation of walking paths. Secondary prevention services provided by LHDs include the provision of blood glucose screening and media campaigns to encourage blood glucose screening and nutrition and physical education and counseling programs for individuals at high risk for developing diabetes or with a recent diagnosis. Tertiary prevention services provided by LHDs include education on foot care, vision and foot examinations, assistance for accessing medications, and diabetes self-management education.

The call for programs and resulting compendium highlight various LHD diabetes prevention and control programs, with the goal of assisting LHDs in designing new or enhancing existing diabetes prevention and control programs and assisting LHDs in identifying additional resources and peer assistance for the development and implementation of these programs. For each of the 9 case studies presented, general information provided about the community and the program, including information on collaborations, evaluation, successes, challenges, and future plans, is described and funding streams for the program are identified. Examples of highlighted programs include the following:

- The Men's Health League of Cambridge, Massachusetts, which involves a partnership with a local

community-based organization and several fitness facilities to encourage men of color to exercise more by using a social support model;

- Kids Growing Healthy of Tarrant County, Texas, which introduces fifth graders to information about a healthy lifestyle, nutrition, and physical activity to reduce their risk of preventable chronic diseases, including diabetes; and
- The Latino Diabetes Prevention and Management Program of Long Beach, California, which is a diabetes education and support program for Spanish-speaking individuals with diabetes and their family members. The program includes classes on diabetes complications, nutrition, physical activity, medication, stress management, diabetes standards of care, the importance of self-monitoring, and working with one's health care team.⁶

● Bringing *Diabetes Today* to Local Health Departments

In addition to the development of the compendium, NACCHO is engaged with the Centers for Disease Control and Prevention (CDC) in an effort to get more LHDs working on diabetes prevention and control.

In July 2010, with support from the CDC Division of Diabetes Translation, NACCHO issued a request for applications to all LHDs, inviting submission of an application for training in *Diabetes Today* curriculum. NACCHO selected 8 LHDs to fund for travel to Washington, District of Columbia, for participation in the training. Each LHD chose a community partner engaged in diabetes prevention and control to join it for the training and in future collaborative efforts.

In October 2010, 16 participants (8 LHD representatives and their 8 community partners) completed the 3-day *Diabetes Today* training. By the time they left District of Columbia, each team had begun to work on an implementation and follow-up plan, which they brought back to their local community. By November 2010, participants started moving toward accomplishing a number of the objectives established in their plans. Examples of activities that have been conducted by participants since the *Diabetes Today* training include the following:

- The planning of a focus group to assess the health risk behaviors and beliefs of the community's African American population. This has included hiring a facilitator, recruiting focus group participants, and scheduling a date for the first focus group;
- The identification of current services and resources in place for people with diabetes and prediabetes. This has included conducting surveys of health care

- providers and potential community partners; and
- The establishment of a diabetes coalition, which has involved planning meetings with the county health officer and contacting potential members for recruitment.

The National Association of County and City Health Officials has committed to providing technical assistance and support for each of the LHDs that completed the October 2010 *Diabetes Today* training. This may include providing additional information on evidence-based practices and data sources, connecting participants with LHDs that have successfully used the *Diabetes Today* training to reduce the burden of diabetes in their community and providing tips for coalition development and maintenance. For the first 6 months after the training, LHDs are expected to track their activities and progress and report back to NACCHO on a monthly basis. This will help LHDs monitor their progress and move toward their objectives. It will also provide NACCHO with information on successful practices that can, in turn, be shared with other LHDs that are working to improve their diabetes prevention and control programs.

With the support of CDC, NACCHO released a second request for applications in December 2010 that will provide 12 additional LHDs with the opportunity to participate in the *Diabetes Today* training program in March 2011. As more LHDs are trained to plan and implement community-based programs to prevent and

control diabetes, we can hope to, little by little, regain control over the diabetes epidemic in the United States.

REFERENCES

1. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics. Data from the National Health Interview Survey. <http://www.cdc.gov/diabetes/statistics/prev/national/figpersons.htm>. Accessed November 22, 2010.
2. Department of Health and Human Services, Centers for Disease Control and Prevention. *National Diabetes Fact Sheet: General Information and National Estimates on Diabetes in the United States, 2007*. Atlanta, GA: Centers for Disease Control and Prevention; 2008.
3. Brownson RC, Bright FS. Chronic disease control in public health practice: looking back and moving forward. *Public Health Rep*. 2004;119(3):230-238.
4. Frieden TR. Asleep at the switch: local public health and chronic disease. *Am J Public Health*. 2004;94(12):2059-2061.
5. National Association of County and City Health Officials. *2008 Profile of Local Health Departments*; 2009.
6. National Association of County and City Health Officials. *Building Healthy Communities: Diabetes Compendium*. 2010.
7. Thompson-Reid PE. Engaging and mobilizing community members to prevent obesity among adolescents. *Prev Chronic Dis*. 2009;6(3). http://www.cdc.gov/ped/issues/2009/jul/08_0259.htm. Accessed November 23, 2010.
8. Jack L, Jr, Venkat Narayan KM, Satterfield D, Lanza AP. Public health approaches in diabetes prevention and control. *J Public Health Manag Pract*. 2003;(suppl):S5-S7.

Call-out Box

In 1993, the CDC launched *Diabetes Today*, a training program that has a primary goal to build health care professionals' skills in planning and implementing community-based programs for people with diabetes. The main tenets of the training program are community participation, empowerment, and program development and planning. The training is interactive, enabling participants to learn through the use of case studies, practice exercises, role playing, and sharing information and experiences in group discussions. By the end of the course, participants have developed plans for a community intervention that they are expected to bring back to their communities and implement by collaborating with other community leaders.⁷

Diabetes Today has been implemented among adults of all ages in several communities throughout the United States and its territories, including the Appalachian region, US-associated Pacific and Caribbean islands, and both sides of the Mexican border.⁸