

## Center Addresses the Diabetic Compliance Gap

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Imagine knowing there are certain foods you should avoid but being unsure where to turn for vital nutritional advice or a customized meal plan. Imagine having to check your blood glucose levels but not having the proper instruments or knowledge for conducting the tests. And, worst of all, imagine having a disease that has the ability to affect virtually every organ in the human body. Now imagine having to make a tough decision—either buying the medication necessary to control that disease or paying for your rent and food. It's a decision thousands of Americans must make every day.

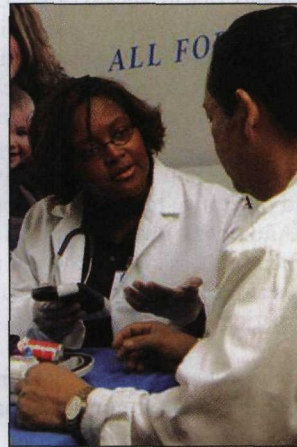
### DIABETES

The Centers for Disease Control and Prevention report that diabetes is the fifth deadliest disease in the United States. Nearly 21 million people have the illness.<sup>1</sup> The American Diabetes Association (ADA) estimates that an additional 41 million people are prediabetic.<sup>2</sup> One in three Americans will develop diabetes in his or her lifetime.

In addition, the ADA reports that one out of every 10 health care dollars is spent on diabetes and its complications. In 2002, the direct cost of diabetes in the United States was estimated to be \$92 billion. The indirect cost—defined as lost workdays, restricted activity days, mortality, and permanent disability—was estimated to be \$40 billion. The illness accounted for 88 million disability days and 176,000 cases of permanent disability.

Diabetes and its complications can be prevented or reduced by controlling blood glucose levels, blood pressure, and lipid levels and by teaching people the importance of routine preventive

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care practices. Yet, despite the effectiveness of prevention and control practices, and despite the benefits to be gained from them, there is poor compliance. *Healthy People 2010*, a federal initiative published in 1997, reported that:

- Only 61.4 percent of diabetics reported receiving annual eye exams.
- Only 54.6 percent reported receiving a foot exam.
- Only 51.5 percent reported receiving flu vaccine.
- Only 39.6 percent reported daily glucose checks.
- Only 18.4 percent reported having annual Hgb A1c (glycosylated hemoglobin) tests.<sup>3</sup>

It's no surprise that diabetes has the attention of health experts across the nation. On one hand, it is a disease whose cause is identified and understood. Medical technology exists to manage it. And education and supportive services are available to ensure that people with the disease have the ability to care for themselves and function at a high level of wellness. On the other hand, compliance is poor, especially in underserved populations, and the incidence of the disease and its related complications continues to escalate—costing billions of dollars each year.

### HEALTH DISPARITIES

Further complicating the management of diabetes are the problems of health disparity and limited access to care for the underserved. In 2002, the Chicago Midwest Latino Health Research, Training, and Policy Center at the University of Illinois identified four key health disparities experienced by minority diabetics:

- Underserved diabetics are less likely than

insured diabetics to have access to such subspecialty care services as ophthalmology and podiatry.

- Because of problems with language, access, and availability, fewer Latinos and African Americans receive education for diabetes self-management than do other Americans.

- There are fewer bilingual-bicultural certified diabetes educators or ADA-recognized centers in ethnic minority communities than there are in other communities.

- Existing clinical support services for diabetes are less likely to be located in underserved neighborhoods than in other neighborhoods and less likely to focus on a multicultural approach to patient care.<sup>4</sup>

These disparities tend to be coupled with other, more overarching health problems experienced by the underserved community. Among them are:

- Lack of access to primary care, medications, and equipment
- Cultural and gender differences
- Lack of finances and/or payer sources
- Lack of language proficiency
- Lack of transportation
- Stressors that impair readiness to learn
- Cognitive/developmental impairment
- Situational depression
- Failure of health care providers to take a more comprehensive and holistic approach to managing the disease

In 2003, a community needs assessment conducted by Provena Mercy Medical Center, Aurora, IL, revealed an ever-growing number of people in the ministry's primary service area who needed help managing their diabetes. Because the



assessment also noted that many people with diabetes were uninsured or underinsured, Provena officials knew that providing affordable services was essential.

In 2004, the medical center received start-up funding to address the issue of diabetes in the hospital's underserved community. Aurora, a suburb of Chicago, is a community of 143,000 residents, of whom 34,000 live in federally designated medically underserved areas. Sixty-eight percent of the underserved population is Hispanic, and 11 percent is African American; 52 percent are 25 years old or older.<sup>5</sup>

The Provena staff, after visiting many local hospital-based diabetes education programs, decided to adopt a community-health approach by developing a community-based diabetes facility. The facility is called the Center for Diabetic Wellness. Rooted in an interventions model, the center provides community education about diabetes, prediabetes, obesity, and associated risk factors, in addition to offering diabetes risk assessments and free blood glucose screening.

In planning the center-based services, the center's staff recognized that traditional diabetes education programs may not prove adequate when attempting to meet the needs of an underserved population. Among other things, many such programs have limited resources for addressing language and literacy barriers and offering evening hours for the working underserved.

As a result, staff developed a "wraparound" approach to the care offered at the center. The wraparound concept, borrowed from the social service field, allows for the provision of services



necessary to support an individual at risk. Wraparound services at the center include a bilingual staff, evening hours, case management, depression screening and counseling, readiness-to-learn/language and literacy assessments, individual and group classes in English and Spanish, support groups, and free subspecialty clinics. In addition, the center offers assistance with obtaining medical supplies and medications.

The center's services were badly needed by the community. When the center opened in 2005, more than 75 percent of the people served by it were either without insurance or had insurance that did not cover diabetes education.

Today the center has a resource team of six full-time staff members and two part-time community outreach education nurses. On the clinical staff are a registered dietician, nurse case manager and educator, certified diabetes educator, counselor, and clinical coordinator. The clinical staff makes daily rounds at the medical center, working collaboratively with staff nurses to provide a seamless continuum of care. Along with a volunteer medical director, the center's specialty staff comprises an endocrinologist, ophthalmologist, hospital pharmacist, and chaplain, who are also volunteers. All share the same goal—to educate and equip patients to live well with diabetes.

### LIVING WELL WITH DIABETES

A key component of learning to live well with diabetes is understanding and accepting the lifestyle changes that accompany the disease. Denial and depression are two major barriers to attaining an optimum state of wellness. More than 43 percent of the clients served by the center in 2005 showed evidence of either depression or denial about the disease. The center's staff believes that having counseling services available to its clients plays a vital part in their accepting and managing the disease.

People who turn to the center do so in order to learn the skills necessary in achieving an optimum state of wellness. At a special graduation program for those who complete the center's "Life with Diabetes" self-management education program, participants receive a bag of articles designed to remind them of the importance of continuing their diabetes management. Among these articles are a rubber band intended to remind participants to be flexible and a paper clip

to "keep things together."

After they graduate, each patient is asked to come back for a follow-up visit. Blood samples are collected to compare their pre- and post-program blood results. A recent study, conducted in collaboration with Rush University Health Systems Management Program, found that the center's underserved population demonstrated a significant drop in hemoglobin A1C levels. The drop translated to a 40 percent decrease in the risk of developing microvascular complications associated with the side effects of diabetes.

The center takes a team approach to educating its clients, and graduation brings a sense of accomplishment for all involved in the process. The father of one of this article's authors, Maria Aurora Diaz, was one of the program's first students. As a result of participating in the program, he has his blood glucose levels under control for the first time in more than 20 years.

### LOOKING TO THE FUTURE

Although grant funding will run out this year, Provena's administration is committed to ensuring the continuation of these most needed services.

"We will continue to support the center because programs like these are an extension of our ministry's mission, vision, and values," says the center's chaplain, Ed Hunter, who is also Provena's regional vice president for mission services. "It's what Catholic health care is all about." ■

### NOTES

1. V. Narayan, "Diabetes Care Better than 10 Years Ago, but More Improvement Needed," *Centers for Disease Control and Prevention*, Atlanta, 2006 ([www.cdc.gov/diabetes/news/docs/diabetescare.htm](http://www.cdc.gov/diabetes/news/docs/diabetescare.htm)).
2. American Diabetes Association, "Pre-diabetes" ([www.diabetes.org/diabetes-prevention/pre-diabetes.jsp](http://www.diabetes.org/diabetes-prevention/pre-diabetes.jsp)).
3. See U.S. Department of Health and Human Services, *Healthy People 2010* ([www.healthypeople.gov/document/html/volume1/05diabetes.htm](http://www.healthypeople.gov/document/html/volume1/05diabetes.htm)).
4. See A. L. Giachello, et al., "Reducing Diabetes Health Disparities through Community-Based Participatory Action Research: The Chicago Southeast Diabetes Community Action Coalition," *Public Health Reports*, vol. 118, July-August 2003, pp. 309-323.
5. Illinois Department of Public Health, *Illinois Project for Local Assessment of Needs* (go to <http://app.idph.state.il.us/data/countylevel.asp?menu=1> and select "Kane County" and "2003").

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