

# Hospital-Community Collaborations to Address Diabetes

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Recent data indicate that 24 million Americans have diabetes, which is now the sixth leading cause of death in America (accounting for 200,000 deaths each year).<sup>1</sup> Even more alarming is that nearly one third of these individuals are unaware that they have diabetes. It is estimated that the annual cost of health care for a person with diabetes in 2007 was \$11,744.<sup>2</sup>

It has been well established that minority populations are disproportionately affected by type 2 diabetes,<sup>3,4,5</sup> based on both clinical factors (insulin resistance, impaired glucose tolerance, gestational diabetes, obesity) and social factors (lack of physical activity, and poverty).<sup>6,7</sup> Much of the burden associated with diabetes could be prevented with diabetes education, and vigilance in monitoring eating patterns and physical activity.<sup>8,9</sup> The Diabetes Prevention Program (DPP) was a large randomized clinical trial to prevent the development of type 2 diabetes in persons at high risk. It provided the most definitive evidence to date of the benefits of modest weight loss and increased physical activity.<sup>10</sup> Overweight participants with impaired glucose tolerance who lost approximately 7% of their initial weight and exercised 150 minutes a week decreased their risk of developing type 2 diabetes by 58% compared to control participants, and by 31% compared with metformin-treated individuals.

In order to translate research into practice, it is important to find ways to engage communities in collaborative efforts aimed at preventing diabetes and reducing risk for diabetes-related complications. Albert Einstein Health Network (AEHN) has initiated exactly this type of program, The Einstein Community Diabetes Working Group, to collaborate with community organizations in the Philadelphia area. The multi-disciplinary group is headed by Mary Beth Kingston, RN, MSN, Chief Nursing Officer for AEHN. Members of the working group are engaged in a number of projects that address diabetes in our communities. Below we highlight three projects underway:

• **Geographical Information Systems (GIS) mapping of diabetes-related data and resources.** This project, conducted by the Einstein Center for Urban Health Policy and Research, focuses on understanding the impact of diabetes on our home cluster area zip codes. De-identified hospital admission data with diabetes-related diagnoses are plotted out to create maps that allow us to compare density of patients with diabetes-related hospitalizations by zip code and to conduct further comparisons based on age and medical co-morbidities. The second phase of the project involves mapping of community resources, with a focus on physical activity and nutritional resources, religious and social centers, and other factors of the environment relevant to implementing diabetes-related intervention programs. Plans are underway to use the full mapping for a hospital-community forum on diabetes.

• **DiaBEATes Nurse Champions** is a joint Nursing/Gutman Diabetes Institute program designed as a proactive approach to deal with the large AEHN patient population with hyperglycemia. Gutman Diabetes Institute is headed by Nadine Uplinger, MS, RD, CDE, BC-ADM, LDN and Arthur Chernoff, MD, FACE. The Institute's primary focus is on educational efforts for inpatients, outpatients and Network staff members. This two-phased project provides intensive diabetes education to interested nurses that includes case studies representative of encounters that Certified Diabetes Educators have with inpatients on a daily basis. Nurses who receive this training then serve as a resource for their units and guide staff nurses in the daily glycemic management of their patients. It is expected that providing a diabetes resource nurse on each unit will result in better glycemic management of the patients with diabetes. We continue to explore opportunities where these nurses can utilize their diabetes knowledge in community settings to help individuals with diabetes manage their chronic disease and live better lives.

• **Church Collaborative** – In 2006, Einstein embarked on a partnership with Beloved St. John Church Evangelistic Church, a 2,800-member congregation in the Logan section of Philadelphia. The church embraces the idea of collaboration and understands the importance of good health, wellness and education. Over the past year, health initiatives conducted at Beloved by Einstein staff have included wellness, cholesterol, diabetes and blood pressure screenings. We are currently developing several diabetes-related interventions in collaboration with members of Beloved's Health Ministry team. Plans include programs dedicated to exercise, education, and healthy eating along with peer-to-peer support groups to increase awareness and change behaviors about diabetes and heart disease.

- Einstein is supporting a program to look at the effectiveness and outcomes for an on-going diabetes self-management support group vs. traditional diabetes self-management education. This collaboration between Gutman Diabetes Institute and St. Luke's Episcopal Church in Germantown began in September 2008. Following a series of diabetes self-management education classes, on-going support sessions will be held bi-weekly for a 10-month period. Anticipated outcomes are reductions in blood glucose levels (hemoglobin A1C), weight reduction as measured by lower body mass index (BMI), and improved emotional coping skills as measured by the Diabetes Distress Scale.

Einstein is continuing to build and explore potential relationships with other churches in the community in an effort to improve access to meaningful diabetes services. It is essential to offer diabetes education in the community where people gather, worship and solidify relationships. This also provides a unique forum for Einstein health professionals to see how their patients live and interact within their own community.

*Ms. Uplinger serves on the National Board of Directors for the American Association of Diabetes Educators (AADE) and is the Secretary for the Greater Philadelphia Diabetes Coalition. She is also on the American Diabetes Volunteer Leadership Council. For information about diabetes activities at Einstein, contact Nadine Uplinger, Director, Gutman Diabetes Institute, UplingerN@einstein.edu.*

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