

# Two Outstanding Dietitians Serving Nontraditional Roles as Certified Diabetes Educators

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The recent work of Betty Krauss, RD, CDE, (below in photo) and Sandra (Sandy) Parker, RD, CDE, with individuals with diabetes in the Republic of the Marshall Islands is anything but traditional for dietitians. Their innovative approach to diabetes diagnosis, treatment and self-management earned them the 2007 State Outstanding Achievement Award from the Michigan Organization of Diabetes Educators. It may have also earned them the respect and admiration of an entire country that has suffered tragic health and environmental crises since the mid-20th century.

The Marshall Islands, located in the Pacific Ocean about halfway between Hawaii and Australia, consists of a small group of atolls or volcanic land formations. Formerly under American occupation, the United States (U.S.) government conducted 67 nuclear weapons tests on the islands between 1946 and 1958. Evidence suggests that the detonation of these atomic and thermonuclear bombs decades ago still affects the health, social structure and local economy of the islands today. Due to the radiological contamination of soil and water, residents of the islands have received supplementation with U.S. Department of Agriculture (USDA) foods since 1986, including white rice and other processed goods. According to congressional testimony by Neal A. Palafox, MD, in July 2005, the adoption of a Western diet, which is “high in fat, high in carbohydrates, low in fiber, and lacks vitamin A and iron,” has exacerbated “diseases such as diabetes, atherosclerotic diseases, and hypertension” (<http://energy.senate.gov>). While exact statistics are difficult to ascertain, Sandy estimates that “30% to 40% of the adult population has type 2 diabetes.”

The Marshall Islands became self-governing in 1979, and in 1983 its government signed a Compact of Free Association with the United States. Included in this agreement was section 177, a series of compensatory and relief programs to be implemented by the United States for the benefit of island residents who had been exposed to nuclear radiation and their descendants. Since 1987, Trinity Health International (THI), a Michigan-based nonprofit organization, has administered the health plan component

of section 177. In January and February 2007, THI organized a four-week mission to assess medical care and diabetes self-management on Mejjatto, one of the outer lying atolls in the Marshall Islands.



Linda DeLand, a nurse and diabetes educator working with THI, was given the responsibility of organizing the mission and creating a team of diabetes specialists to lead it. Recognizing the need for dietitians to be part of the team, she contacted St. Mary’s Health Care in Grand Rapids where Betty and Sandy both work. Both were excited about this opportunity, and immediately contacted THI and were invited to join the team. Betty, who describes diabetes as her “second love,” has served as legislative chair for DCE in the past; she currently works as the Manager of Nutrition Services at Mary Free Bed Rehabilitation Hospital in Grand Rapids, Mich. Sandy, past DCE chair and the Program

Coordinator of St. Mary’s HealthLink Diabetes Team, also in Grand Rapids, “always wanted to do something like this.” What initially impressed her about this project, she notes, “was that they knew that registered dietitians as assessment team members would be critical to the success of the project.”

After one conference call with project coordinators and time spent gathering teaching materials, the duo left their jobs, families, and comfort of their home life behind to embark on a mission that took them halfway around the world—one they would never forget. Their first stop was Hawaii, where they met with leaders of other U.S.-sponsored public health programs in the Pacific region. The importance of community assessment and working with local leaders and community members for the success of health projects was strongly emphasized.

Shortly thereafter, they began their journey to the Marshall Islands. With the priority of community assessment at the forefront of their minds, the team made it a point to become educated about the culture and customs of the residents, and identify their wants and needs. This was facilitated by the translation services of a community health worker. When they arrived, they met face-to-face with 177 Health Care Plan staff, Ministry of Health leaders, local politicians, community organizations (such as one entitled Youth to Youth), newspaper staff, doctors and nurses, as well as local clergy. They determined areas of concern, such as medical record keeping and foot care for those with diabetes. They also learned what was already available to the Marshall Islanders including foot care educational brochures, in both English and the local language of Marshallese.

Reliance on an interpreter was only one of many challenges faced by Betty and Sandy throughout the mission. Betty describes the atoll as “very primitive,” with most residents living in makeshift huts, using rainwater as drinking water. As a person with diabetes herself, Betty was nervous that her insulin would be out in the heat too long (she made do with two insulin pumps and extra batteries). Dehydration was a concern because of the hot and humid climate, as was an inadequate clean water supply. Limited supplies of medications, health care

staff, and up-to-date clinical knowledge left much to be desired. Thus, Sandy attributed some of the health conditions on Mejjatto to “the fact that it is so remote, with so little of the conveniences that we are used to...you have to be very sparing.”

They came to the conclusion that they needed to immediately establish a diabetes treatment plan that included a diabetes care flow sheet, microfilament testing, and a comprehensive physical examination and history of all patients. Pilot testing of “A1c NOW” test kits was also required, which would provide physicians with immediate results during clinic visits. These could then be used to make adjustments in diabetes care plans, and to counsel patients about their diabetes self-management. A nutrition education element, emphasizing use of local nutritious foods, and a screening for diabetes and prediabetes in those considered at risk, were additional measures to undertake.

To accomplish these objectives, the team organized a diabetic clinic at the atoll’s health center. There, patients’ history and clinical and anthropometric measures were all recorded in individual files. Evaluations of the data obtained revealed that most patients were not taking their oral medications or testing their blood glucose. They also identified two individuals with critical blood glucose values, and 18 people who had lost feeling in their feet.

As part of the nutrition education component of the plan, Betty and Sandy arranged a cookout, which was conducted by local women, to learn more about Mejjatto cuisine and method of food preparation. The team observed a lack of portion control with starchy foods such as rice. In the days following the cookout, they administered group diabetes classes, during which they demonstrated the “plate method,” as a tool for portion control, encouraged use of locally grown foods and gardening techniques, in addition to foods provided by the USDA program.

Throughout their time in Mejjatto, the partners realized the importance of listening to the residents of the island about their concerns and needs, before making any proposals. As Sandy illuminates, many of the island’s inhabitants “told us that we were different from any other group that



had come out to them, because we talked to them, and we asked them for their opinions on what they thought was important. They really appreciated that we did not come in with a preconceived intervention or agenda; we came in with a very open mind.”

Betty and Sandy left Mejjatto in early February, but before doing so, made a number of recommendations based on their assessment. These included obtaining a complete history and physical examination for all patients with diabetes, regular blood sugar tests, routine A1c tests, foot examinations using the microfilament, and

tracking standards of care on the diabetes flow sheet.

The duo is currently applying for grants that would enable them to return to the Marshall Islands. Their future goals include creating a “train the trainer” program using Youth to Youth and partner agencies; providing patients with incentives, such as gardening kits, for reinforcement of positive self-care behaviors; and implementing diabetes care and education activities on all of the islands.

Most of all, Betty and Sandy (above in photo) hope the approach they used to evaluate conditions on Mejjatto can serve as a model for chronic disease assessment and management in other countries with limited resources, and thwart the global epidemic of diabetes on a local level. “There is so much more we can do besides individual counseling and teaching classes,” Sandy explains. “We can actually go in as experts, and help health care providers and governments improve the situation with diabetes.”

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## 2007 DCE Educational Stipend Award Recipient

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### Report on 34th Annual Meeting of the American Association of Diabetes Educators August 1–4, 2007 St. Louis, MO

This year’s American Association of Diabetes Educations (AADE) meeting in St. Louis was fun and informative. St. Louis was the location of the first chapter chartered by the AADE in 1978. Donna Rice, AADE President, opened the ceremony as Sacagawea in the video, “Louis and Clark Meet Sacagawea, and Intro to Diabetes Education.” Mike Huckabee, Governor of Arkansas, was the keynote speaker. He had been diagnosed as having type 2 diabetes and was motivated to make changes in his life after his doctor described the progression of the disease. With the help of certified diabetes educators, registered dietitians and an endocrinologist, he made changes in his diet and lifestyle, and proceeded to lose 110 pounds. He has run four marathons and is now training for his fifth.

Huckabee described our healthcare system as a “sick care” system. Eighty percent of healthcare expenditures is for sick care. We need to move toward a culture of health rather than a culture of disease; otherwise, we will collapse under our own weight. Governor Huckabee pointed out the extent

of the problem and expressed the need to do something about it.

Dr. Eduardo Sanchez spoke on changing health systems to improve health. He explained that what worked 30 years ago

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