Literature Review
Guamanian/Chamorro: Culture and Care Needs

1. Diabetes-related preventive-care practices--Guam, 2001-2003:
(ABSTRACT) Persons with diabetes are at risk for serious complications, such as blindness, kidney failure, non-traumatic lower-extremity amputations, and cardiovascular disease. Preventive-care practices have been determined effective in reducing both the incidence and progression of diabetes-specific complications. Despite the benefits of these practices, their level of use has been lower than recommended in the United States. To emphasize the importance of preventive-care practices, national health objectives for 2010 for persons with diabetes, include the following targets: have an annual dilated eye examination (75%; objective 5-13), have an annual foot examination (75%; objective 5-14), perform self-monitoring of blood glucose (SMBG) at least once daily (60%; objective 5-17), and have a glycated hemoglobin (HbA1c) measurement at least twice per year (65%; objective 5-12 [revised]). In the U.S. territory of Guam (2004 population: 166,090), no previous population-based assessment of the use of diabetes-related preventive-care practices has been conducted. For this report, data from the 2001-2003 Guam Behavioral Risk Factor Surveillance System (BRFSS) were analyzed to determine the prevalence of preventive-care practices among persons with diabetes in Guam, which is the southernmost and largest of the Marianas Islands, located approximately 3,300 miles west of Hawaii and 1,550 miles south of Japan. Results of the analysis indicated that Guam residents with diabetes remain below the national targets for 2010 for four preventive-care practices, most notably SMBG. The preventive care programs and surveillance activities of the Guam Diabetes Prevention and Control Program (DPCP) should be continued, with emphasis on SMBG recommendations, to prevent poor health outcomes in persons with diabetes and achieve the national health objectives.

Diabetes-related preventive-care practices--Guam, 2001-2003. Center for Disease Control and Prevention.
http://www.ncbi.nlm.nih.gov/pubmed/15815564?ordinalpos=6&itool=EntrezSystem2.PentrezPubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum

2. Amyotrophic lateral sclerosis and diabetes on Guam: changing patterns of chronic disease in an island community:
(ABSTRACT) Amyotrophic lateral sclerosis (ALS) occurred on the island of Guam with unusually high incidence rates for many years but began to disappear with the island's westernization after WW II. The authors document these changes and suggest that they support a hypothesis that cultural changes could be responsible for both the virtual disappearance of this chronic degenerative neurological disease as well as a concurrent surge in the prevalence of diabetes.

Haddock, R. L., Chen, K, M, Amyotrophic lateral sclerosis and diabetes on Guam: changing patterns of chronic disease in an island community. 2003.
http://www.ncbi.nlm.nih.gov/pubmed/15115147?ordinalpos=9&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum

3. Diabetes mellitus as an emerging public health problem on Guam:
(ABSTRACT) The magnitude and impact of diabetes mellitus as a public health problem on Guam was assessed by retrospective analysis of birth and death certificates, as well as chart review of hospital deaths for complications. Non-insulin-dependent diabetes is common on Guam; insulin-dependent diabetes is rare. Diabetes and diabetes-associated mortality rates were similar to those of the general United States population; however, the age-specific rates in persons aged 45 yr and over were two to three times greater. The mean age of the Guam population is only 18.9 yr, about 10 yr younger than the United States mainland. These circumstances could result in the number of persons aged 45 yr and over increasing disproportionately in the future, increasing dramatically the number of persons at risk to develop non-insulin-dependent diabetes. The population found to have the highest rates for diabetes and related complications was the Chamorro (indigenous Guamanian), who comprise the major population

group of the Territory. This population experienced most of the complications associated with diabetes, heart disease and hypertension being important causes of morbidity and mortality on Guam. It is likely that many of the complications of pregnancy associated with diabetes go unrecognized. The cost of diabetes to the Territory was estimated to be at least 3 million dollars per year.

Kuberski, T.T., Bennett, P.H., Diabetes mellitus as an emerging public health problem on Guam. 1980. http://www.ncbi.nlm.nih.gov/pubmed/7389543?ordinalpos=26&itool=EntrezSystem2.Pentrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum

4. Diet and obesity among Chamorro and Filipino adults on Guam:
(ABSTRACT) The purpose of this study was to compare the body mass index (BMI) and dietary intakes of Chamorro (n=66) and Filipino (n=61) adults, ages 25-65 years, living in Guam. Participants were recruited via community-based sampling; however, recruitment was targeted to ensure approximately equal numbers from each ethnic group, equal numbers of men and women within each ethnic group, and proportional representation of the main geographic areas of the island. In addition, subjects were recruited and stratified based on the 2000 Guam Census Data to assure proportional distribution by age. Dietary energy density (ED) was calculated as kcal/g and compared by gender, ethnicity, and obesity status. Mean BMI for Chamorro was significantly higher than for Filipinos, and a significantly higher proportion of Chamorro (49%) were obese compared to Filipinos (20%). Chamorro reported higher ED than Filipinos (1.9 kcal/g versus 1.6 kcal/g), although the difference was significant among males only. Non-obese subjects had a lower ED than obese subjects (1.9 versus 2.3 kcal/g). Overweight and obese subjects both reported significantly higher % energy consumed as sugar-sweetened beverages than healthy weight subjects (8% and 9% versus 3%). Differences in ED may contribute to differences in obesity rates between Chamorro and Filipinos in Guam, particularly among men, and lowering ED may be an appropriate goal for nutrition interventions.

Guerrero, R.T., Paulino, Y.C., Novotny, R., Murphy, S.P. Diet and obesity among Chamorro and Filipino adults on Guam. 2008. http://www.ncbi.nlm.nih.gov/pubmed/18586639?ordinalpos=1&itool=EntrezSystem2.Pentrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_TitleSearch&linkpos=2&log$=pmtitlesearch4