

Diabetes and AAPIs

Diabetes mellitus poses a significant public health challenge for the US. Some 800,000 cases are diagnosed each year, and changing demographic patterns in the US are expected to increase the number of people at risk for diabetes and who eventually develop the disease. Diabetes is a chronic disease that usually manifests as one of two major types. In type 1, which occurs mainly in children and adolescents, the body does not produce insulin, and insulin administration is required to sustain life. In type 2, which usually occurs in adults over 30 years of age, the body's tissues become unable to use its own limited supply of insulin effectively. (US DHHS, 2000).

Adult-onset diabetes also has **strong physiologic ties to cardiovascular disease (CVD)**. The majority of patients with diabetes mellitus die of CVD complications rather than of causes associated directly with glucose control. (US DHHS, 2003).

Diabetes is a major clinical and public health challenge among certain racial and ethnic groups in which both new cases of diabetes and the risk of associated complications are great. Vulnerable and high-risk populations include Asian Americans and Pacific Islanders, elderly persons, and economically disadvantaged persons. Factors that account for this chronic disease epidemic include behavioral elements (e.g., increased fat consumption, decreased physical activity, obesity), demographic changes (aging, increased growth of at-risk populations), genetics, cultural and community traditions, and socioeconomic status. The level of patient knowledge and empowerment has a great impact on the disease burden associated with diabetes. (US DHHS, 2000).

Diabetes and obesity have been established as major health problems among AAPIs. Whether residing on their home islands or the US mainland, Samoans, native Hawaiians, and Micronesians are frequently affected by obesity and type 2 diabetes. (Crews, 1988; Crews et al., 1991; Pawson and Janes, 1981; Zimmet, 1979). AAPIs appear to be at increased risk for both obesity and type 2 diabetes whether they migrate to or are born in the US or adopt Western lifestyles in their homelands. Their risk of diabetes is significantly greater than that of Europeans or European Americans. (Crews, 1994).

Overweight and Obesity

Overweight and obesity are major contributors to many preventable causes of death. On average, higher body weights are associated with higher death rates. Those who are overweight or obese have a substantially higher risk of developing high blood pressure, high cholesterol, type 2 diabetes, heart disease and stroke, gallbladder disease, arthritis, sleep disturbances and breathing problems, and certain types of cancer. (US DHHS, 2000).

References and Resources

Asian and Pacific Islander American Health Forum (APIAHF). (1991). Washington, DC: US Bureau of the Census, STF1A-1991, Magnetic Media.

Bindon, J.R., Crews, D.E., and Dressler, W.W. (1991). Life style, blood pressure, and blood glucose interrelations in American Samoan men [abstract]. *American Journal of Physical Anthropology* 73(Suppl. 12):51.

Crews, D.E. (1988). Body weight, blood pressure and the risk of total and cardiovascular mortality in an obese population. *Human Biology* 60:417–433.

Crews, D.E. (1994). Obesity and diabetes. In Zane, N.W.S., Takeuchi, D.T., and Young, K.N.J. (eds.). *Confronting critical health issues of Asian and Pacific Islander Americans*. Thousand Oaks, CA: Sage, pp. 174–208.

Crews, D.E., Bindon, J.R., McCuddin, C.R., and Puletasi, A. (1991). Associations of body habitus with diabetes, glucose, and glycated hemoglobin in American Samoans [abstract]. *Diabetes* 40(Suppl. 1):433A.

Diabetes in Asian and Pacific Islander Americans. (2002). National Diabetes Information Clearinghouse (NDIC). Bethesda, MD: National Institute of Diabetes and Digestive and Kidney Diseases. <http://diabetes.niddk.nih.gov/index.htm>. Cited July 24, 2003.

Dressler, W.A. (1991). Social class, skin color, and arterial blood pressure in two societies. *Ethnicity and Disease* 1:60–77.

Filipino women at high risk for diabetes. (2002). *Philippine Post Magazine*, March. <http://www.philpost.com/030202pages/diabetes0302.html>. Cited July 24, 2003.

Focus on Asian Americans. (2003). Joslin Diabetes Center. http://www.joslin.harvard.edu/api/why_common.shtml. Cited July 29, 2003.

Joslin Diabetes Center. (no date). *Staying healthy with diabetes: A guide for the Chinese American community*. In Chinese and English. http://www.joslin.harvard.edu/api/why_common.shtml.

Kaiser Permanente. (1999). *A provider's handbook on culturally competent care: Asian and Pacific Island American population*. Oakland, CA: Kaiser Permanente National Diversity Council.

Klatsky, A.L., and Armstrong, M.A. (1991). Cardiovascular risk factors among Asian Americans living in northern California. *American Journal of Public Health* 81:1423–1428.

*Reducing Health Disparities in Asian American and Pacific Islander Populations:
A Provider's Guide to Quality & Culture Seminar*
<http://erc.msh.org/quality&culture>

Najjar, M.F., and Rowland, M. (1987). *Anthropometric reference data and prevalence of overweight: United States, 1976–1980*. National Center for Health Statistics, Vital and Health Statistics, Series 11, No. 238, DHHS Publication No. PHS 87-1688. Washington, DC: US Government Printing Office.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2000). *National diabetes statistics fact sheet: General information and national estimates on diabetes in the United States*. Bethesda, MD: US Department of Health and Human Services, National Institutes of Health. www.niddk.nih.gov/health/diabetes/pubs/dmstats/dmstats.htm. Cited July 24, 2003.

Pawson, I.G., and Janes, C. (1981). Massive obesity in a migrant Samoan population. *American Journal of Public Health* 71:508–513.

US Census Bureau. (2002). Health insurance coverage: 2001. <http://www.census.gov/hhes/hlthins/hlthin01/hi01t3.html>. Cited July 21, 2003.

US Department of Health and Human Services (US DHHS). (2000). *Healthy people 2010: Understanding and improving health*, 2nd ed. Washington, DC: US Government Printing Office.

US Department of Health and Human Services (US DHHS). (2003). Demographics and health disparities. Draft curriculum module 2 for Cultural Competence in the Clinical Care Model Project. Washington, DC: Health Resources and Services Administration, Bureau of Primary Health Care.

Yu, D.D. (1999). *Clinician's guide to working with Asian and Pacific Islanders living with HIV*. San Francisco: Asian and Pacific Islander Wellness Center. <http://www.apowellness.org>. Cited July 29, 2003.

Zane, N.W.S., Takeuchi, D.T., and Young, K.N.J. (eds.). (1994). *Confronting critical health issues of Asian and Pacific Islander Americans*. Thousand Oaks, CA: Sage.

Zimmet, P. (1979). Epidemiology of diabetes and its macrovascular manifestations in Pacific populations: The medical effects of social progress. *Diabetes Care* 2:144–153.