

American Indians and Alaska Natives and Diabetes

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 becomes 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 complications of CVD 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 the number of 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).

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).

- **Incidence and Mortality**
- **Complications**
- **Traditional Health Beliefs and Practices**
- **Risk Factors and Challenges**
- **Strengths and Protective Factors**
- **Adherence Factors**
- **Diet**
- **Complementary and Alternative Medicine**
- **Service Interventions**
- **References and Resources**

Traditional Health Beliefs and Practices

- **Enduring spirit.** The impact and durability of the practice of prevention and intervention for thousands of years should engender respect for American Indians' enduring spirit. They are stubborn in holding on to what they believe is important, and they discard what they do not feel they need—often with community consensus. There is no argument that Indian Native peoples have survived for thousands of years under all kinds of conditions and circumstances. (Sage, 2001).
- **Holistic approach to life.** Concepts that are key to the cultural context, identity, adaptability, and perseverance of American Indians and Alaska Natives include a holistic approach to life, a desire to promote the well-being of the group, an enduring spirit, and a respect for all ways of healing. (MSH, 2003a).
- **Communal ceremonies.** There are many systems of healing among American Indians and Alaska Natives. Nearly all of them share the belief that large, communal ceremonies promote the well-being of the entire tribal group. (Sage, 2001).
- **Role of elders as advisers.** In many tribes, extended families (and particularly elders) are very important to the lives of individual members and will be part of a patient's medical experience. (MSH, 2003).

Religion, Philosophy, and Spirituality

- **Spiritual belief** is a pervasive aspect of Indian culture, although belief systems vary widely among tribes or nations and among geographic areas. Most Indians teach that the interconnectedness of all things leads to a relationship among man, Creator/God, fellow man, and nature. In many Indian traditions, healing, spiritual belief or power, and community are not separated, and often the entire community is involved in healing ceremonies and in maintaining the power of Indian "medicine." (Hendrix, 2002).
- **Healing is considered sacred work** and in many Indian traditions cannot be effective without considering the spiritual aspect of the individual. Many contemporary Indians use "white man's medicine" to treat "white man's diseases" (e.g., diabetes, cancer, gallbladder disease) and use Indian medicine to treat Indian problems (e.g., pain, disturbed family relationships resulting in physical symptoms, sicknesses of the spirit). (Hendrix, 2002).
- **Religion permeates all aspects of life** and is an integral part of the American Indian and Alaska Native holistic worldview. Religious concepts influence both the physical and the emotional well-being of the individual. (Kittler and Sucher, 1998).
- **Duality.** Spiritually, American Indians and Alaska Natives may be Christian and at the same time follow traditional spiritual practices and beliefs.
- **Illness means imbalance.** In American Indian and Alaska Native culture, health reflects a person's relationship to nature, broadly defined as the family, the community, and the environment. Every illness is due to an imbalance, with supernatural, spiritual, or social

implications. Treatment focuses on the cause of the imbalance, not just the symptoms, and is holistic in approach. Traditional American Indian medicine is concerned with physical, mental, and spiritual renewal through health maintenance, prevention of illness, and restoration of health.

- **Shared beliefs.** In spite of the enormous diversity in tribal cultures, languages, and religious beliefs among American Indian and Alaska Native tribes, they share some fundamental beliefs related to health, illness, and prevention.
 - √ All healing begins with the Great Spirit (or Supreme Creator). Illness is an opportunity to purify one's soul.
 - √ Humanity is made up of body, mind, and spirit, and health is maintained by preserving harmony among the body, heart, mind, and soul. Illness affects the mind and spirit as well as the body. Spirituality and emotions are just as important as the body and the mind are.
 - √ Plants and animals, as well as humans, are part of the spirit world that exists alongside, and is intermingled with, the physical world.
 - √ Death is not an enemy but a natural phenomenon of life. The spirit existed before it came into a physical body and will exist after the body dies.
 - √ One's relationships with others and with the earth are essential components of health. Disease is felt not only by the individual but also by the family. (Diversity Resources, Inc., 2001).

Specific Traditional Illness

- **Ghost sickness.** Ghost sickness manifests as a preoccupation with death. Symptoms include weakness, bad dreams, feelings of danger, dizziness, hallucinations, and anxiety. (Mutha et al., 2002).

Traditional Healers

- **Connect culture and context.** Traditional healers do not separate the culture from the context, and they view the connection and dynamic interaction between them as necessary for the healing process. (Sage, 2001).
- The **role of the healer**, as traditional practitioner, is to reaffirm cultural values, integrate all the pieces into the cultural context, and consider all those involved in the community. (Sage, 2001). In addition to administering cures, medicine men and women are often seen as **culture brokers**, preserving American Indian and Alaska Native identity in the midst of rapid social change. (Kittler and Sucher, 1998).
- Many American Indian and Alaska Native individuals may have **more respect for and rely more on traditional healers** than on Western medicine providers.

Specific American Indian and Alaska Native Groups

Inuit

- In traditional Inuit (also called Eskimo) culture, **an *angakut*, or shaman, is the spiritual leader** of each tribe. He interprets the causes of sickness or hunting failure, determines

personal or family responsibility, and isolates the broken taboo. Similar to shamans from other cultures, the *angakut* goes into a trance so that his soul can leave his body and travel long distances to discover the causes of illness and other community problems. (Robinson, 1995–2002).

Navajo

- **Extended family.** Navajo society is matriarchal, built on the belief that a goddess known as First Woman, Spirit Woman, Whiteshell Woman, Thinking Woman, or Changing Woman created the universe. In Navajo society, the extended family, often called a “camp,” generally comprises the senior married couple, their unmarried children, their married daughters, and the daughters’ husbands. (Diversity Resources, Inc., 2001).
- **Leading female elder controls health decision-making.** Traditional Navajos must obtain the permission of the leading female elder before entering a hospital or undergoing surgery. (Diversity Resources, Inc., 2001).

References and Resources

Association of American Indian Physicians. (2001). *Yakama tribal WIC program and Washington State Department of Health WIC Program*. Oklahoma City, OK: Association of American Indian Physicians.

Centers for Disease Control and Prevention (CDC). (1999). Trends in diabetes prevalence among American Indian and Alaska Native children, adolescents, and young adults, 1990–1998. <http://www.cdc.gov/diabetes/pubs/pdf/aian.pdf>. Cited September 12, 2003.

Centers for Disease Control and Prevention (CDC). (2002). Diabetes projects. <http://www.cdc.gov/diabetes/projects/cda2.htm>. Cited September 12, 2003.

Department of the Interior. (2002). Indian entities recognized and eligible to receive services from the United States Bureau of Indian affairs; Notice. *Federal Register*, Friday, July 12.

Diversity Resources, Inc. (2001). *Culture sensitive health care: American Indian*. Blacksburg, VA: Virginia Tech, Office of Multicultural Affairs, Diversity and Work/Life Resource Center. <http://www.multicultural.vt.edu/divresources/indian.html>. Cited July 8, 2003.

Fagot-Campagna, A., Burrows, N.R., and Williamson, D.F. (1999). The public health epidemiology of type 2 diabetes in children and adolescents: A case study of American Indian adolescents in the southwestern United States. *Clinica Chimica Acta* 286(1–2):81–95. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10511286&dopt=Abstract. Cited September 12, 2003.

Glanz, K. (2003). *Cancer in women of color monograph*. Bethesda, MD: US Department of Health and Human Services, National Cancer Institute. <http://cancercontrol.cancer.gov/womenofcolor/index.html>. Cited August 27, 2003.

Ghodes, D. (1995). Diabetes in North American Indians and Alaska Natives. In *Diabetes in America*, 2nd ed. NIH Publication No. 95-1468. Bethesda, MD: National Diabetes Data Group, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. <http://diabetes.niddk.nih.gov/dm/pubs/america>. Cited August 27, 2003.

Good Tracks, J. (1973). Native American non-interference. *Social Work* 18(6):30–35.

Hendrix, L.R. (2002). *Health and health care of American Indian and Alaska Native elders*. Stanford, CA: Stanford University. <http://www.stanford.edu/group/ethnoger/americanindian.html>. Cited August 14, 2003.

Human Resource Services Administration (HRSA). (2003b). *Culture*. Module 3, in draft. Washington, DC: Bureau of Primary Health Care, Institute for Healthcare Improvement, Cultural Competence in the Clinical Care Model Project.

Human Resource Services Administration (HRSA). (2003c). *Complementary and alternative medicine: Issues in serving diverse populations*. Module 5, in draft. Washington, DC: Bureau of Primary Health Care, Institute for Healthcare Improvement, Cultural Competence in the Clinical Care Model Project.

Human Resource Services Administration (HRSA). (2003d). *Pharmacological treatment issues in diverse populations*. Module 6, in draft. Washington, DC: Bureau of Primary Health Care, Institute for Healthcare Improvement, Cultural Competence in the Clinical Care Model Project.

Indian Health Service. (2000). *Trends in Indian health 1998–1999*. Rockville, MD: US Department of Health and Human Services, Indian Health Service. <http://www.ihs.gov/publicinfo/publications/trends98/trends98.asp>. Cited October 21, 2003.

Indian Health Service. (2001). Diabetes. <http://info.ihs.gov/Health/Health4.pdf>. Cited August 26, 2003.

Kittler, P.G., and Sucher, K.P. (1998). *Food and culture in America: A nutrition handbook*, 2nd ed. Belmont, CA: West/Wadsworth.

Management Sciences for Health (MSH). (2003a). The provider's guide to quality & culture. www.erc.msh.org. Cited July 31, 2003.

Management Sciences for Health (MSH). (2003b). Reducing health disparities in Asian American and Pacific Islander populations: An interactive virtual seminar for providers.

May, P.A., and Gossage, J.P. (2001). New data on the epidemiology of adult drinking and substance use among American Indians for the northern states: Male and female data on prevalence, patterns, and consequences. *Journal of the National Center for American Indian and Alaska Native Mental Health Research* 10(2):1–26. [http://www.uchsc.edu/ai/ncaianmhr/journal/10\(2\).pdf](http://www.uchsc.edu/ai/ncaianmhr/journal/10(2).pdf). Cited August 22, 2003.

Minnesota Department of Health. (2001). *Health fact sheet*. November 19.

Mutha, S., Allen, A., and Welch, M. (2002). *Toward culturally competent care: A toolbox for teaching communication strategies*. San Francisco: University of California, Center for the Health Professions.

National Diabetes Education Program. (1999). The diabetes epidemic among American Indians and Alaska Natives. <http://ndep.nih.gov/materials/mediakits/am-ind/diabetesamind.pdf>. Cited August 27, 2003.

National Diabetes Information Clearinghouse (NDIC). (2002). *Diabetes in American Indians and Alaska Natives*. NIH Publication No. 02-4567. Bethesda, MD: National Institute of Diabetes and Digestive and Kidney Diseases.
<http://diabetes.niddk.nih.gov/dm/pubs/americanindian/index.htm>. Cited August 26, 2003.

National Heart, Lung, and Blood Institute. (2001). *Strong heart study data book: A report to American Indian communities*. NIH Publication No. 01-3285.
http://www.nhlbi.nih.gov/resources/docs/shs_db.pdf. Cited August 26, 2003.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). (2002). Diabetes prevention study benefits American Indian participants.
<http://www.niddk.nih.gov/welcome/releases/02-06-2002.htm>. Cited August 26, 2003.

National Women's Health Information Center. (2003). Health information for minority women: American Indian/Alaska Native women: Diabetes.
<http://www.4woman.gov/minority/index.cfm?page=181>. Cited August 26, 2003.

Native American Diabetes Project. (2003). Strong in body and spirit.
<http://www.laplaza.org/health/dwc/nadp/index.htm>. Cited August 27, 2003.

Noe, T., Fleming, C., and Manson, S. (2003). Healthy nations: Reducing substance abuse in American Indian and Alaska Native communities. *Journal of Psychoactive Drugs* 35(1):15–25.
<http://www.uchsc.edu/ai/hni/>. Cited August 25, 2003.

Office of Minority Health. (2002). National forum on health disparity issues for American Indians and Alaska Natives, September 22–26.
http://www.omhrc.gov/omh/tribal%20colleges/2pgtcu/plans_tcu_002.htm. Cited February 13, 2003.

Oropeza, L. (2002). *Clinician's guide: Working with Native Americans living with HIV*. Oakland, CA: National Native American AIDS Prevention Center (NNAAPC).
<http://ewebs.realtimesites.net/ds-Southwestern/sout-j-1/ImagesCust/970037646-10-01-2002-10-56-57e.pdf>. Cited August 25, 2003.

Rainbow Nations. (2003). Smudging. <http://www.rainbownations.com/>. Cited September 12, 2003.

Robinson, B.A. (2002). *Native American spirituality*. Ontario, CA: Consultants on Religious Tolerance. <http://www.religioustolerance.org/nataspir.htm>. Cited July 14, 2003.

Sage, G.P. (2001). Worldview, identity, and prevention in American Indian communities. In Trimble, J.E., and Beauvais, F. (eds.). *Health promotion and substance abuse prevention among American Indian and Alaska Native communities: Issues in cultural competence*. DHHS Publication No. SMA 99-3440. Washington, DC: US Department of Health and Human Services, pp. 67–80.

Smedley, B.D., Stith, A.Y., and Nelson, A.R. (eds.). (2003). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academies Press, Institute of Medicine.

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. <http://www.bphc.hrsa.gov/quality/HealthyPeople2010.htm>. Cited August 26, 2003.

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.

Weaver, H.N. (1998). Indigenous people in a multicultural society: Unique issues for human services. *Social Work* 43(3).