

A Curriculum for Health Professionals

Mental Health Aspects of Diabetes in Elders from Diverse Ethnic Backgrounds

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Stanford Geriatric Education Center

Supported by a Grant from the Bureau of Health Professions
for a Supplement to the Stanford Geriatric Education Center
2004

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MENTAL HEALTH ASPECTS OF DIABETES¹ **IN ELDERLY FROM DIVERSE ETHNIC BACKGROUNDS**

OBJECTIVES

After completion of the curriculum, learners should be able to:

1. Identify the risks of depression and cognitive loss among elders with diabetes;
2. List the ethnic populations of elders among whom the risk of diabetes is higher than among older Americans as a whole;
3. Describe culturally appropriate assessment and screening protocols for cognitive loss and depression among elders with diabetes from at least three high risk populations;
4. Discuss specific nutritional interventions appropriate for elders with diabetes from at least three high risk populations;
5. Identify differences in treatment for diabetes, depression, or cognitive loss that might be appropriate for elders from high risk populations.
6. Discuss at least three risk factors for vulnerability in developing a personalized emergency preparedness plan for sensory impaired ethnic elders with diabetes.

RATIONALE AND DESCRIPTION

The proportion of older Americans from the populations considered “minority” or “elders of color” are projected to increase very rapidly during the first half of the 21st century, and almost all have a higher risk of diabetes than the non-Hispanic white population. Recent evidence suggests that diabetes carries with it not only the high risk of various neuropathies, kidney disease, cardiovascular complications, and vision loss, but also of increased risk of depression and cognitive loss. Providers need to be aware of these additional mental health risks as they are faced with the growing number of diabetic elders from diverse ethnic backgrounds and be prepared to assess and manage them in culturally appropriate ways.

The following curriculum reviews relevant published information for providers caring for older adults from African American, American Indian, Chinese American, Filipino American, Hmong American, Japanese American, and Mexican American backgrounds. After an overview of evidence related to depression and cognitive loss in diabetes, information is summarized for each ethnic population with emphasis on risk, culturally appropriate diagnosis and assessment, and culturally appropriate treatment and intervention for diabetes, depression, and cognitive loss and dementia. Interviews of two to four key informants from each ethnic population were conducted by members of the Stanford Geriatric Education Center faculty team for the Mental Health in Diabetes project to obtain insights into perspectives on diabetes and its mental health correlates within each ethnic population that might be helpful in training providers to deliver culturally appropriate care. Information from these interviews are summarized at the end of each ethnic specific section. In addition, because of the additional vulnerability of elders with sensory loss associated with diabetes in times of emergencies such as bioterrorism, especially those with limited English proficiency, content is included on emergency preparedness for these populations.

¹ Unless otherwise noted, the term “diabetes” is used in this curriculum to denote Type 2, or Non-Insulin Dependent Diabetes Mellitus.

CONTENT

OVERVIEW OF MENTAL HEALTH AND DIABETES

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Depression in Diabetes

Risk

After careful and critical review of published evidence, a committee of experts in diabetes from the American Geriatrics Society and California Healthcare Foundation released their *Guidelines for Improving the Care of the Older Person with Diabetes Mellitus (DM)* in May, 2003. In it they state (p.S273):

Depression is more common in persons with DM and may impede DM self- management. One recent retrospective study found that, controlling for age, sex, and race/ethnicity, older adults with DM were significantly more likely to develop major depression than other older adults and that depressed older adults with DM incurred higher non-mental health costs than those who are not depressed. Older adults have high rates of under diagnosis and under treatment of their depressive symptoms.

The *Guidelines* also note recent studies that demonstrated poorer outcomes of diabetes care for patients with unrecognized depression. In a comprehensive review of the relationship between depression and diabetes in adults, Talbot and Nouwen (2000) found that empirical studies strongly suggest that depression is more prevalent among adults with diabetes and that they have higher recurrence and longer duration of major depressive disorder and depressive symptoms. Since the *Guidelines* were published, a study of individuals with comorbid diabetes and depression found that these individuals had higher odds of functional disability compared to those with either diabetes or depression alone (Egede, 2004). While any chronic disease is associated with increased prevalence of mood disorders and depression, diabetes places the unique burden of invasive blood glucose monitoring, diet therapy and exercise programs, resulting in a greater prevalence for depression among diabetic versus non-diabetic people (Harris, 2003).

Several studies have addressed the relationship between diabetes and depression in order to examine whether diabetes predisposes the individual to depression, or the reverse. In a meta-analysis of 42 studies, the authors concluded that the presence of diabetes doubled the odds of comorbid depression, and that diabetic women had significantly higher incidence of depression than diabetic men (28% vs.18%) (Anderson, Freeland, Clouse, & Lustman, 2001). A meta-analysis of 27 studies found significant association between depression and complications of diabetes (De Groot, Anderson, Freedland, Clouse, & Lustman, 2001). A positive correlation between

diabetes and depression was also documented in a large retrospective study comparing 16,180 Kaiser patients with type 2 diabetes matched with an equal number of patients without diabetes (Nichols & Brown, 2003). On the other hand, a study out of Johns Hopkins University found major depressive disorder, but not milder forms of depression or other psychiatric disorders, predicted the onset of diabetes in a 13-year prospective analysis of 1,715 individuals at risk for developing diabetes (Eaton, Armenian, Gallo, Pratt, & Ford, 1996). The National Institute for Health (NIH, 2002) reported that “people with diabetes have twice the rates of depression seen in the general population: moreover, people with depression have increased prevalence of diabetes” (p. 96).

Screening and Treatment for Depression

Screening for depression, especially in ethnic populations, has been a challenging endeavor. For individuals with diabetes, the *Guidelines* recommend depression screening at the initial evaluation and with unexplained change in clinical status using a screen such as the Geriatric Depression Scale. If results are positive for depression, they should be referred or treated within two weeks and evaluated periodically. Some suggest using assessment scales based on observation of symptoms by the care giver or health care provider rather than self-report scales, particularly for nursing home residents and those with cognitive impairment.

Studies related to effective interventions for actual or potential co-morbid diabetes and depression have focused on social support, behavioral and drug treatment, and education. One of the most comprehensive reviews of self-management training in diabetes concluded there is significant evidence in support of the effectiveness of such training, particularly in the short term, based on 72 randomized controlled trials (Norris, Engelgau, & Narayan, 2001). Social support, being married and having accommodations that compensate for one’s functional limitations are cited in several carefully controlled studies to improve the chances of healthy coping and decrease the risk for comorbid depression. Medications alone may be adequate for long-term improvements in comorbid diabetes and depression; however in a review of over 63 papers from 1963 to 1993, serotonin selective reuptake inhibitors (SSRIs) were found to be preferable to tricyclic antidepressants due to the hyperglycemic and carbohydrate craving effects of the latter (Goodnick, Henry, & Buki, 1997). Drug therapy in combination with behavioral treatment has been found to be particularly effective in improving glycemic control and perceived quality of life (Norris et.al, 2001). Behavioral treatments cited vary considerably from psychotherapy to educational interventions. When education has been used, interactive, rather than didactic education, appears to be more effective. Positive outcomes from education tend to be limited by the degree of complications and co-morbidities, including obesity, retinopathy, neuropathy, microvascular and macrovascular effects, nephropathy, cognitive impairment, depression and other mental illnesses.

Cognitive Impairment and Dementia in Diabetes

Risk

The risk for comorbid cognitive loss with diabetes is greater than in years past due to the increased mean age of individuals with diabetes (Koro, Bowlin, Bourgeois, & Fedder, 2004). The CHF/AGS *Guidelines* (2003) identified eight published research studies in which type 2 diabetes was found to be associated with decreased cognitive function in older adults, manifesting as decreased memory, learning, or verbal skills. For example, Hewer et al. (2003) found significantly lower scores on cognitive tests among patients with diabetes. Mohammad et al. 2003 found a correlation between low cognitive function and diabetes only among patients with whom the disease is poorly controlled. Ott, Stolk, and Van Harskamp (1999) found that the diagnosis of diabetes significantly increases the risk of developing Alzheimer's disease and other types of dementia. Findings from the Rush Alzheimer's Disease Center's Religious Orders Study of over 1,000 nuns, priests, and brothers link diabetes and cognitive decline of the Alzheimer's type (Arvanitakis & Bennett, 2004).

Screening and Treatment of Cognitive Impairment

The *Guidelines* recommend assessing the cognitive status of older adults with diabetes at the initial evaluation and with significant change in clinical status, using a standardized screening instrument. There is some evidence that hyperglycemia may be a treatable cause of cognitive impairment (Stewart and Liolitsa, 1999). One prospective pre/post study found that older adults with untreated diabetes who were treated with an oral hypoglycemic agent for a minimum of 2 weeks had significantly improved scores on a variety of tests of cognitive function (Gradman, Laws, Thompson et al., 1993). In another prospective study with matched control subjects, cognitive function and mood declined after severe hypoglycemia but returned to baseline within 1.5 days, when treated promptly (Strachan, Deary, Ewing, & Frier, 2000).

Principles of Screening and Management of Diabetes, Especially with Ethnically Diverse Elders

The criteria for diagnosis of diabetes among older adults includes one or more of the following (Reuben, Herr, Pacala, et al. (2004):

- Symptoms of diabetes (e.g., polyuria, polydipsia, unexplained weight loss) plus casual plasma glucose concentration ≥ 200 mg/dl
- Fasting (no caloric intake for ≥ 8 hours) plasma glucose ≥ 126 mg/dl
- 2 hour plasma glucose ≥ 200 during an oral glucose tolerance test

In addition to the ethnic issues to be considered in assessment mentioned in the ethnic specific sections that follow, a comprehensive evaluation might include the following:

Social and economic history: age, educational level, scope and sources of health insurance, personal and home-based resources (diabetes care supplies, telephone, TV/VCR/DVD, hand held magnifiers, computer, refrigerator, etc), living arrangements, travel, acculturation level (degree to which elder has incorporated characteristics of the mainstream culture), language proficiency

Family health history: family members with diabetes and hypertension

Physical examination and lab tests: blood pressure, weight, abdominal girth (truncal fat), total cholesterol (HDL & LDL), sensory evaluation (hearing and vision) and assistive devices (hearing aid, glasses, magnifiers, special telephone with amplified sound and large numbers, other optical and hearing devices)

Physical activity: exercise program (type, frequency, & intensity), other aerobic activities within and outside home

Mental health: depression, memory changes, coping skills

Nutrition: (see ethnic specific sections)

Attitude towards diabetes treatment and management: utilization of formal medical care, complementary and alternative care, or other non-medical approaches (e.g. prayer, family/friends' advice, etc), trusted resource person(s) (e.g., family member, friend, provider), current and long-term personal goal for diabetes care, expectation about cure, lifestyle changes, willingness to monitor blood sugar

Emergency preparedness: basic knowledge and skills about public health emergencies (including those involving biological agents), their effect on older adults with diabetes, and community resources; quality of home-based emergency preparedness resources, attitude towards disaster type emergencies

The National Institute of Diabetes and Digestive, and Kidney Disease (NIDDK) began a Diabetes Prevention Program (DPP) in 1996, in which 3,234 participants with an average age of 51, 45% of whom were from minority groups who were at higher risk for developing diabetes, were given intensive lifestyle intervention. Participants reduced their risk of developing type 2 diabetes by 58%, utilizing weight loss (5-7% loss of body weight) and moderate exercise (approximately 30 minutes per day). Participants treated with Metformin reduced their risk of type 2 diabetes by 31%. In addition, results showed that treatment with lifestyle intervention successfully reduced the risk of development of diabetes in people age 60 years and older by 71% across the ethnic groups. The DPP reported that "diet and exercise can effectively delay diabetes in a diverse American population of overweight people with impaired glucose tolerance". (NIDDK, 2002)

Current guidelines for management of diabetes among older adults based on research evidence are provided in *Guidelines for Improving the Care of the Older Person with Diabetes Mellitus* developed by the CHF/AGS Panel on Improving Care for Elders with Diabetes (2003). In addition to the recommendations for screening for depression and cognitive impairment mentioned above, there are recommendations for management of aspirin therapy, smoking, hypertension management, glycemic control, lipids, eye care, foot care, nephropathy, polypharmacy, urinary incontinence, falls, and pain. Emphasis is on individualized goals to maintain hemoglobin A_{1c} (A1C) of 7% or lower (or 8% for frail elders or those with less than 5 years life expectancy or at high risk of hypoglycemia, polypharmacy, or drug interactions) and appropriate monitoring of medications. The *Guidelines* also include diabetes education, which needs to be provided via culturally and linguistically appropriate methods. This is especially important for individualized dietary education.

Based upon consultation with a Registered Dietitian (RD) or Certified Diabetic Educator (CDE), appropriate individual goals are needed to help attain and maintain blood glucose and A1C levels in the normal range in order to prevent or reduce the risk for complications of diabetes. Issues to address include: Obesity/weight loss; comorbidity considerations (for example, hypertension or heart disease); percentage of daily carbohydrate, fat, and protein intake; timing of meals and snacks; carbohydrate counting; food adjustments based on glucometer readings; and exercise recommendations. Resources to locate RD's or CDE's include: www.eatright.org and www.diabeteseducator.org.

Vulnerability of Sensory Impaired Elders with Diabetes

It is widely known that vascular involvement in diabetes can result in retinopathy which can progress to vision loss, and neurologic complications may lead to hearing loss (Kane, Ouslander, & Abrass, 1997; (Kakrapudi, Sawyer, & Staecker, 2003). Sensory deprivation is a serious impediment to the older person's ability to respond and navigate the environment and in an emergency situation; a safe and secure environment can potentially become confusing and threatening. Reporting the presence of infectious agents, including symptoms such as skin changes, may be difficult to observe due to low vision, or the absence of electricity could render a telephone assistive device (e.g., TDD) or computer driven device non-functional. Because the immune system of older adults with diabetes is at risk, any threat of infection can compromise the system so that immediate treatment would be necessary. For ethnic seniors with sensory loss and limited English proficiency, accessing services and resources could be delayed due to lack of knowledge, distrust, and/or past experiences with formal systems. (Strategies and resources for educating health care professionals on the importance of emergency preparedness for ethnic elder with diabetes is discussed in the section Sensory Loss and Emergency Preparedness Strategies with Elders with Diabetes from Diverse Ethnic Backgrounds.)

AFRICAN AMERICAN ELDERS

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Background²

The current cohort of almost three million older African Americans is very heterogeneous in their socioeconomic status, education, religion, urban/rural background, and living arrangements. Individuals classified as “black” in the U.S. census include relatively new immigrants from Africa and the Caribbean. The majority of the older adults classified as “black”, however, are American born. Many were born in the South and migrated with their families to urban areas in the Northeast and West. Most have grown up in the period when segregation was the norm in most parts of the country and have vivid memories of the discrimination they experienced in education, housing, retail establishments, and health care. Some may remember the violence of the Ku Klux Klan in the 1920s.

Current elders have seen major periods of change and accomplishments by African Americans in their lifetimes, such as the Harlem Renaissance, civil rights and desegregation, and leadership by African Americans in the arts, politics, the military, and education. Issues that may influence older adults’ trust of, and attitude toward, mainstream health care include negative early (and ongoing in some localities) experiences in segregated and poor quality health services, and very widespread knowledge of the Tuskegee Experiment from the 1930s to the 1970s in which a Public Health Service research program enlisted black men with syphilis and did not treat them for the disease.

Diabetes

Risk

According to the Center for Disease Control (2004), older African American women are more than twice as likely to have diabetes as older white American women. For men, the young old (age 65-74) African Americans have more diabetes, but for those age 75 and over, the rates are about the same. (See Table 1).

Data from the national “Second Supplement on Aging” indicate that 20.4% of African Americans aged 70+ have diabetes compared to 17.4% of Hispanic/Latino Americans and 10.9% of non-Hispanic Whites (Federal Interagency Forum on Aging Related Statistics, 2000). This information shows disparities between the different ethnic/racial groups, with African American elders more negatively affected than other groups, a conclusion which has been reached in research literature for several decades (Richardson, 1996).

² Information in this section is excerpted from the chapter on African Americans written primarily by Mary Edmonds from Yeo, G., Hikoyeda, N., McBride, M., Chin, S-Y, Edmonds, & Hendrix, L. (1998) *Cohort Analysis as a Tool in Ethnogeriatrics: Historical Profiles of Elders from Eight Ethnic Populations in the United States*. SGEC Working Paper #12. Stanford, CA: Stanford Geriatric Education Center.

Table 1
Age-Specific Prevalence of Diagnosed Diabetes per 100 Population,
by Race and Sex, United States, 2002

Population	Age	Rate
Black Female	45-64	15.65
	65-74	26.03
	75+	22.42
White Female	45-64	7.56
	65-74	13.63
	75+	11.66
Black Male	45-64	13.01
	65-74	26.22
	75+	16.38
White Male	45-64	9.60
	65-74	18.11
	75+	16.47

Source. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics, data from the National Health Interview Survey. U.S. Bureau of the Census, census of the population and population estimates. Data computed by the CDC's Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion

It is commonly acknowledged that African American elders, as other elders, typically present with two or three chronic illnesses, not just one. Patients in this targeted group usually present with diabetes and cardiovascular disease (CVD) or diabetes and hypertension. Ness et al. reported that African Americans have a higher prevalence of stroke than other groups, and that African American women and Mexican American women are at greater risk of CVD than other groups (Ness, Nassimiha, Feria, & Aronow, 1999). Sundquist, Winkleby, & Pudaric (2002) reported that 25% of African Americans aged 65-75 are obese, a major risk factor for diabetes. African Americans, and Hispanic/Latino Americans with diabetes have been found to have more microvascular (end-stage) complications than Whites, but the etiology of these differences is not yet fully understood (Harris, Klein, Cowie, Rowland, Byrd-Holt, 1998; Lavery, van Houtum, Ashry, Armstrong, & Pugh, 1999). A few prospective studies on the genetic risk factor for African American with diabetes aged 40-60 are ongoing, but no conclusive findings were published at the time of this writing (Garant, Kao, Brancati, et al, 2002).

Culturally Appropriate Management

A meta-analysis reported by McBride and Lewis (2004) has shown that health care access and utilization, and health status and outcomes differ by ethnic/racial groups. One factor influencing the ability for self care is poverty, and the poverty income ratio was found to have a higher correlation with diabetes prevalence in African American women than education or occupation. Better compliance with community based health promotion interventions occurs if barriers (transportation, costs, etc.) are removed (Rimmer, Silverman, Braunschweig, Quinn, & Liu, 2002).

Findings suggest that because of the multiple caregiving responsibilities interfering with daily diabetes management, negative influences of dietary changes, and fear of diabetic complications, family-centered and group-based interventions may be more appropriate and culturally relevant than one-on-one interventions. (Lewis & McBride, 2004; Samuel-Hodge, Headen, Skelly, et al., 2000). Studies show that obesity, dietary fat, dietary fiber, insulin sensitivity, and low-dose sulfonylurea play key roles in treatment outcomes for African American elders with diabetes (Chandalia, Garg, Lutjohann, et al, 2000; Mayer-Davis, Monaco, Carmichael, et al., 1997; Umpherrez, Clark, & Steen, 1997; Umpherrez, Woo, Hagopian, et al., 1999).

Nutrition Education for Treatment of Diabetes in African American Elders

Traditional Foods. The traditional diet of African American elders traces its roots back to their shared African ancestry. More importantly, it reflects the U.S. geographic destination to which their ancestors were transplanted, as a result of the forced migration of slavery. Initially, most African slaves lived in southern states where they worked on plantations. Thus, their food habits reflected food availability in that region, in addition to the economic reality of plantation life, i.e., making do with foods provided by the plantation owner and having little time to cook. The term “soul food” refers to southern African American cooking and is considered a symbol of ethnic identity. “Soul” food is a style of cooking in which frying, boiling, and stewing are the usual methods of food preparation. Certain items are considered the foundation of traditional “soul” foods including pork, pork products, corn, and greens. A further sampling of “soul” foods includes **fruits**: peaches, berries, apples, and watermelon; **vegetables**: greens (chard, kale, spinach, collard greens, mustard greens, and turnip greens), squash, sweet potatoes, yams, okra, and tomatoes; **grains**: corn and corn products (breads, grits, hominy), rice (used in stew type dishes) wheat flour biscuits and dumplings; **dairy products**: milk mostly used in desserts, buttermilk used in baking; **protein sources**: meats (pork and pork variety cuts), chicken, fish (catfish, crab, and crawfish), legumes (black eyed peas, kidney beans, pinto beans, red beans, and peanuts); and **fats**: (meat drippings or lard used for frying) and pork products (back fat, and bacon) used for flavoring ingredients.

Acculturation Issues. African Americans slowly began to move from the southern states to other regions of the U.S. as a result of emancipation. Thus, food availability changed accordingly. Over the years, African American food habits have evolved to reflect their current geographic location, age, education level, and income level and are not much different than the diets of comparable mainstream Americans. However, “soul” food continues to be in a symbol of ethnic solidarity and pride. Family gatherings and celebrations still feature these traditional foods, including the popular barbecued meats and sauces.

Strategies for Culturally Appropriate Dietary Interventions.

1. *Make Healthy Food Choices:* Choose foods that are low in total fat, especially saturated fat, cholesterol, and trans fats. Increase intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein, (for example, beans, lean meats, fish and poultry).
2. *Control Food Portions:* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the “Diabetes Meal Planning for the Southern Traditional

Client” food guide pyramid (see resource by Burke & Raia below) to discuss adequate servings and recommended choices from each food.

3. *Modify Recipes*: Recommend recipes that reformulate traditional “soul” foods to reduce fat, calories, and high sodium seasonings, particularly when hypertension is present. Also, emphasize low fat, healthy cooking methods like grilling, baking, and stewing. Use a teflon, non stick frying pan or try oven fried items, using a small amount of vegetable oil for both.

4. *Cooking Classes*: Group classes are recommended.

5. *Resources*:

In-depth information on African American cultural perspectives, traditional and contemporary food habits:

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning

For implementation of strategies listed above:

Burke, C.B., & Raia, S.P. 1995. Soul and traditional southern food practices, customs, and holidays: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, Illinois 60606-6995. (312) 899-0040. www.eatright.org

Gaines, F.D., & Weaver, R. 1999. The new soul food cookbook for people with diabetes: Available from American Diabetes Association, 1701 N. Beauregard St., Alexandria, VA 22311. 1-800-232-6733. <http://store.diabetes.org>

Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

Some Cultural Remedies Used for Treatment of Diabetes in African American Elders

<u>Selected Herbs</u>	<u>Dietary Practices</u>	<u>Spiritual Practices</u>	<u>Cultural Healers</u>	<u>Other</u>
Sage <i>Salvia officinalis</i>	Drinking large quantities of water may be used, as diabetes is sometimes thought of as “sugar,” which needs to be flushed out of the body.	Individual prayer is used to seek God’s intervention and healing.	Grannies and herbalists are healers who receive their power through learning.	Keeping the body clean, well fed, and warm in addition to proper behavior is believed to bring a person back into balance with nature.
Fenugreek <i>Trigonella foenum graecum</i>		Attending church services is also used for prayer and asking for God’s healing.		
Onion <i>Allium cepa</i>	Brewer’s yeast may also be used in an attempt to lower blood sugar.	Other religious practices/rituals are used to ask for God’s healing powers, such as “laying on of hands” and use of holy oil or water.	Spiritual healers are ministers and other faith healers who receive the gift of healing from God during a profound religious experience later in life.	Charms or amulets may be worn to ward off evil spirits that cause illness.
Garlic <i>Allium sativum</i>				
Ginseng <i>Panax quinquefolius</i>				

Resources

- Cuellar, N., Aycock, T., Cahill, B., & Ford, J. (2003). Complementary and alternative medicine (CAM) use by African American (AA) and Caucasian American (CA) older adults in a rural setting: a descriptive, comparative study [Electronic version]. *BMC Complementary and Alternative Medicine*, 3.
- Diversity Resources, Inc. (2000). Culture-sensitive health care [Electronic version]. *What Language Does Your Patient Hurt In?: A Practical Guide to Culturally Competent Care*. <http://www.diversityresources.com/rc21d/african.html>
- Natural Medicines Comprehensive Database. www.naturaldatabase.com
- Scott, V.J., Gordon, S., Hargreaves, M., Periyakoil, V.S., Perweiler, E.A., Lieto, J., Williams, M.P., Watson, W., Yeo, G., & Zulu, M. (2001). African American Elders. In G. Yeo (Ed.), *Ethnic specific modules of the curriculum in ethnogeriatrics: A project of the collaborative on ethnogeriatric education*. (pp.17-19). Funded by the Bureau of Health Professions, Health Resources and Services Administration, United States Department of Health and Human Services.
- Snow, L. (1983). Traditional health beliefs and practices among lower class Black Americans. *The Western Journal of Medicine*, 6, 820-28.

Depression

Risk

Despite numerous studies, it is not clear if, in the absence of diabetes, there are significant racial differences in levels of depression or psychological distress among African American elders compared to whites. Several investigators report that African Americans compared to white elders in mixed age groups more often endorse higher numbers of depressive symptoms (Blazer, Landerman, Hays, et al, 1998; Cochran, Brown & McGregor, 1999). Other studies report no difference in reported rates of depression or depressive symptoms (Gallo, Cooper-Patrick, & Lesikar, 1998; Landerman & Hays, 1998). A few investigators report that African American compared to white elders are at lower risk for clinically significant depressive disorders such as major depression (Blazer Hybels, Simonsick, & Hanlon, 2000; Unutzer, Katon, Callahan, et al., 2003). Research on unique risk factors for depression in African American elders has focused on numerous psychosocial factors including the following:

Socioeconomic levels: Some investigators have suggested that socioeconomic level is a significant predictor of depression (Frerichesh, Anesthensel, et al. 1982), while other studies found that socioeconomic level was not a major risk factor (Kessler & Neighbors, 1986).

Stress: Recent studies using the Stress Exposure Theory and Differential Vulnerability Theory have identified racially unique causes of depression. Stress Exposure Theory posits that African Americans are exposed to greater stress, which increases their risk of depression. The Differential Vulnerability Theory suggests that at equal levels of stress, blacks react more strongly to stress resulting in depressive symptoms (George & Lynch, 2003). Ulbrich (1989) suggested that blacks were more vulnerable to depression when confronting unfavorable life events, and whites were more vulnerable when facing chronic economic difficulties.

Gender: Brown, Milburn, & Gary (1992) report that there are no gender differences in the level of depressive symptomatology among African American elders. This pattern is quite different from the reported lifetime higher prevalence of depression among women in the general population. The lack of gender differences in depression rates among African American elders may be due to similar degrees of exposure to stressful life events and similar social roles associated with employment and child rearing responsibilities. (Feinson, 1987; Gibson, 1988). Child rearing responsibilities were predictive of depression in both older African American men and women, and the relationship between employment status and risk for depression was similar in both groups. Brown et al. (1992) reported that the role of being head of household was more predictive of depression among women but less predictive among men; men who were heads of households were likely to be married and served as financial mainstays.

Medical Comorbidity: Okowombua and colleagues reported that depression was associated with increased risk of hypertension, circulatory problems and arteriosclerosis, and was more common among African American elders with six or more chronic illnesses and taking four or more medications (Okowombua, Baker, Wong, & Pilgram, 1997).

Symptom Patterns: Some studies report that older African Americans were less likely to report dysphoric mood but were more likely to report somatic complaints (Baker, 1995; Baker, Okwumabua, Philipose, & Wong, 1996), and others suggest that older African Americans may underreport symptoms of depression because they may either deny or fail to recognize symptoms as part of depression (Baker, Velli, Freidman, et al., 1995; Koenig, Meadow, Cohen, & Blazer, 1992). Steffens and colleagues suggested the following explanations: minority elders may recognize depressive symptoms, but do not seek or cannot obtain medical treatment; depressive symptoms may be attributed to a crisis of the spirit (so help is sought through prayer and the church); the symptoms represent the normal “slowing down” process of aging; or the symptoms are part of life’s burden to be endured (Steffens, Artigues, & Orenstein, 1997). Gallo Cooper-Patrick, & Lesikar (1998) reported more frequent thoughts of death but not suicidal ideation among African American elders. The authors suggest that “thoughts of death may not be inherently depressive but could be part of one’s cultural world view and experiences.”

Culturally Appropriate Diagnosis and Assessment

Factors suggested to increase the likelihood of underdetection of depression and poorer quality diagnosis and treatment among African American elders include: reduced efficacy in identification of mental health problems at primary care visits; reduced access to mental health care for minority patients with recognized mental health problems; limited knowledge or sensitivity of mental health care concerns by physicians; severe time constraints and competing clinical demands in primary care encounters which leave clinicians with inadequate time to address mental health issues; financial barriers; mistrust of medical providers; stigma associated with having a mental illness;

and patient's perceptions of racism or discrimination (Borowsky, Rubenstein, Meredith et al., 2000; Unutzer et al., 2003).

Foley and colleagues noted that the true prevalence of depressive and other psychiatric symptoms maybe inaccurate when psychological measures (e.g., survey instruments) which have been tested and validated on middle aged whites are applied to minority populations which may have differences in language, culture or cultural framework that affect their understanding or response patterns on test items. These differences may compromise the reliability, sensitivity and utility of many standardized measures of depression. Though they found that the CES-D demonstrated adequate reliability and internal consistence, the response pattern of African Americans on individual items suggested that subjects merged depressive and somatic symptoms into one uni-dimensional factor. The authors noted that certain test items including statements of "failure" and "talk" appeared to have little meaning for respondents and have been so ambiguous that they did not significantly contribute to the accurate measurement of depressive symptoms (Foley, Reed, Mutran et al., 2001).

Culturally Appropriate Treatment and Intervention

Studies suggest that African American populations underutilize specialized mental health services, and may be less likely to receive guideline-concordant care (Borowsky, et al., 2000). The authors found that African Americans compared to white elders with depression reported substantially lower rates of lifetime and recent care for depression. The majority of subjects stated that they preferred treatment with psychotherapy to treatment with antidepressants, but only 8% reported any recent exposure to psychotherapy or counseling. The authors theorize that African American's limited exposure to psychotherapy may be due to lack of attentiveness of primary care providers to their patient's treatment preferences or due to limited access to psychotherapy for older adults. African American elders have also been found to be more likely to delay treatment (Zubenko, Mulsant, et al., 1994).

Several studies have noted the importance of religion and spirituality in the treatment of depression. Cooper and colleagues reported that African Americans were more likely than whites to believe that prayer can help heal depression and that spirituality was extremely important for depression care (Cooper, Brown, Vu, Ford & Powe, 2001; Cooper, Gonzales, Gallo et al, 2003).

Studies of tricyclic response performed in the 1970s on mixed age groups suggest that African Americans may respond to tricyclics more rapidly, and they may be more sensitive to medication side-effects due to higher plasma levels and slower metabolic rate (Raskin & Crook, 1975; Ziegler & Biggs 1977). In a study of depression in dementia, African Americans compared to whites appeared to have a better response to the SSRI sertraline (Steinberg, Munro, Samus, et al., 2004).

Though the efficacy of antidepressants for treatment of depression is well established, Cooper et al., (2003) in a study of non-geriatric African American, White and Hispanic patients, reported that African Americans were less likely to find

antidepressant medication acceptable. African Americans were more likely than whites to believe that antidepressants were addictive and that counseling brings up bad feelings. African Americans were more likely than whites to state a preference for seeing a health professional who belonged to their same race or ethnicity. Unfortunately African Americans including elders have limited access to mental health professionals, especially minority professionals in mental health treatment (U.S. Department of Health & Human Services, 2001).

Use of antidepressants is lower for African Americans than for whites (Brown, Salive, Guralnick, et al. 1995). A study by Blazer et al., (2000) noted that during the time period 1996-1997, white patients were 8 times more likely to be prescribed the newer antidepressants even after controlling for health coverage of medications and income. The suggestion was that the differential prescribing practices are the result of underdiagnosis of a treatable condition (depression) in African American elders coupled with prescribing practices determined in part by the race of the patient.

Cognitive Loss and Dementia

Risk

Several studies have compared the risk of cognitive loss and dementia in aging between African American and non-Hispanic white populations, and the results have been varied. Some have found a higher prevalence of cognitive impairment or dementia among African Americans, and other studies of comparable quality have not found differences (Froehlich, Bogardus, & Inouye, 2001).

Manly, Jacobs, Sano, et al. (1998) found that nondemented elderly African Americans obtained lower scores on measures of learning and memory, abstract reasoning, fluency and visual spatial ability compared to white elders and the discrepancies in test performance of the education-matched African Americans and whites could not be accounted for by occupational attainment or history of medical conditions such as hypertension and diabetes. Many researchers suggest that older African Americans perform more poorly on cognitive testing because of their lower levels of education. In an effort to investigate whether discrepancies in quality of education could explain differences in cognitive test scores between African American and White elders matched on years of education, Manly, Jacobs DM, Touradji, et al. (2002) analyzed data from non demented elders with no history of Parkinson's disease, stroke, mental illness, or head injury in their major Northern Manhattan study. Using the Reading Recognition subtest from the Wide Range Achievement Test-Version 3 as an estimate of quality education, differences in scores on word list learning and memory, figure memory, abstract reasoning, fluency, and visuospatial skill were greatly reduced, and racial differences became nonsignificant after controlling for quality of education. These findings suggest that years of education is an inadequate measure of the educational experience among multicultural elders, and that adjusting for quality of education may improve the specificity of certain neuropsychological measures.

Numerous studies suggest that psychotic symptoms such as hallucinations and delusions are more common among African American patients with dementia (Cohen and Carlin 1993; Hargrave, Stoeklin, Haan, & Reed 1998, Jeste 1996,) Bassiony, Warren, Rosenblatt, et al. (2002) report that African-American patients with Alzheimer's disease are more likely to have isolated hallucinations than Caucasian patients even after statistical adjustment for multiple confounding variables. This finding has implications for our understanding of the etio-pathogenesis of hallucinations in Alzheimer's disease and for meeting health service needs of African-American patients. Akpaffiong, Kunik, Hale, et al (1999) reported that African Americans and white patients with dementia presented similar prevalence rates of behavioral disturbances and demonstrated no difference in response to the type or dose of neuroleptics, or side-effect profile. Their findings support other reports that racial differences disappear when structured interviews and standard assessment scales are used instead of clinical diagnosis alone, which may be more likely to be subject to cultural bias.

Culturally Appropriate Diagnosis and Assessment

Psychological Screening and Testing. Properties of, and problems with, some of the brief scales that are commonly used to screen African Americans for dementia were reviewed by Lampley-Dallas, Mold, and Flori (2001), highlighting various biases. Whether or not the Mini-Mental State Examination (MMSE), the most widely known and utilized cognitive screening instrument in the U.S., is biased to race after adjusting the scores for educational attainment remains controversial. Some of the other commonly used tests have been found to misclassify many more African Americans as demented compared to the proportion of whites that are misclassified. Studies suggest that the reliability, sensitivity and validity of the Modified Mini-Mental State Examination (3MS) is superior to the commonly used MMSE. Brown, Schinka, Mortimer, & Graves (2003) administered 3MS to a group of older African Americans and developed normative tables for 3MS scores, stratified by age with adjustments for education and gender.

Genetic Testing. Screening and early diagnosis of dementia is the corner stone for the effective management of dementia. Since hereditary factors such as APOE 4 and genetic mutations in presenilin 1 and 2 are associated with Alzheimer Disease (AD), there has been increasing interest in the predictive value of genetic testing for dementia. In a meta-analysis of genetic studies from 40 research groups, Farrar, Cupples, Haines, et al. (1997) found that the presence of the Apolipoprotein E4 allele was much less predictive of Alzheimer's among African Americans than among Caucasians. Some researchers report significantly different perceptions about genetic testing between African Americans and whites; in one study, African American adults showed less interest in testing, endorsed fewer reasons for pursuing it, and anticipated fewer negative consequences from a positive test result (Hipps, Roberts, Farrar & Green, 2003). Their results suggest that cultural factors should be incorporated into the design of these services.

Neuroimaging. Nearly all published studies of magnetic resonance imaging measurements of hippocampal atrophy in Alzheimer's Disease have been performed on largely white populations. One study, however, reports that hippocampal atrophy is a

feature of AD in African Americans just as it is in white subjects (Sencakova, Graff-Radford, Willis, et al. 2001). Thus MRI measures are potentially useful in the diagnosis and characterization of disease severity in African American subjects.

Culturally Appropriate Treatment and Intervention

Since several studies suggest that African American patients with dementia may have a higher prevalence of hallucinations and delusions, some authors (e.g., Akpffiong et al, 1999) suggest that African Americans with dementia may be more likely to be treated with neuroleptics and may be more likely to receive typical neuroleptics as opposed to atypical neuroleptics for psychotic symptoms in dementia. In studies of non-geriatric schizophrenia patients, African Americans are more likely to receive typical neuroleptics at higher doses and are exposed to depot preparations of neuroleptics which are associated with increased risk of side-effects such as tardive dyskinesia.

Information from Interviews with Four African American Key Informants

People describe diabetes as “sugar” and they believe it comes from parents or from alcoholism, obesity, hypertension, or medication. They believe the cure is not to eat too many sweets. Besides their physicians, people may turn to friends who are in the health care field or a dietitian, but many do not turn to anyone. When they turn to friends, they do so because they “trust” the person. If they deviate from their diets, they take more medications. To feel better, people eat less candy and sweets. To elicit symptoms of diabetes, providers could ask, “*Do you get really thirsty? Do you pee a lot? Do you pass out?*” Or elders could be asked about “*high sugar*”, but words such as “glucose”, or “calories” should be avoided.

Depression is frequently still not discussed. There are no special words used. Some see it as acceptable and others as unacceptable, but not a form of mental illness. Some equate it as being sad or unhappy, maybe somebody has let you down. One respondent said depression was “*a form of being lazy, stigmatized. Things like post partum depression is a luxury for white women. Black women don’t have time to be depressed.*” Causes may be seen as unemployment, poverty, childhood traumas, death of spouse, but no connection with family. To get individuals to talk about depression, they could be asked, “*Do you live alone? Do you have sleeping problems? Do you go out for fun?*” “*Are you sad, unhappy, has somebody let you down?*” When depressed, they stay inside, alone. Some of the signs are “*don’t feel like getting up*” “*prefer being alone*”. They may see a possible link related to increased heart disease and obesity, especially in women. Depressed elders are frequently brought to their physician by their families since many do not want to go voluntarily, but some symptomatic elders may seek help from their primary care provider if they are not intimidated by him/her. Preferred treatments may be getting help in groups rather than individually. Antidepressant medications may be seen as effective, counseling somewhat helpful, and spiritual support and healing very helpful.

A common sign of “memory loss” is constantly losing things of value. Families believe that the changes in memory are not unusual. Dementia is feared. Many believe

the more intelligent you are, the greater the risk. Expressions used can be “*I have trouble finding my words*”, “*I keep forgetting things*” or terms such as “*absent minded, forgetful, brain is pickled from alcohol*” could be used. Sometimes individuals go to primary care physicians for evaluation. In other cases something serious has to happen at home before the family or police bring persons for treatment—incidents like fires, car accidents, or patients wandering and getting lost, which motivates them to go to primary care physicians for evaluations.

In response to questions concerning an of bio-terrorism event, interviewees suggested that for diabetic and/or sensory impaired elders, having been prepared is key. After the event, there is little that one can do.

AMERICAN INDIAN ELDERS

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Background

It has been estimated that there were between 5 and 10 million indigenous people inhabiting what is now known as the United States at the time of first European contact 500 years ago (Waldman, 1985). It was said that no spot of earth in America was unknown by some Indian Nation at that time. By 1900, the number of American Indians was reduced to 237,000, mainly due to infectious disease introduced by White colonizers, starvation, and deprivation (Hendrix, 1999). Many American Indians were killed by government troops during the 1800's, as White settlers pushed westward and demanded more Indian land.

The 1880's to 1934 found American Indians confined to "reservations" and was a time of suppression and repression of Indian cultures. In 1883, the practice of Native American religion became a federal offense, and Indians could not practice spiritual customs openly until the Wheeler-Howard Act was passed in 1934 (Mankiller, 1993). It was not until 1978, however, that the American Indian Freedom of Religion Act was passed by Congress. During these years, Indian children were forced to attend Christian boarding schools far from home, and Indian people were subjected to forced assimilation. Although many boarding school experiences were brutal, Indian children learned to read and write the English language, and to do European arithmetic. In addition, during the 1930's, many Indian children were removed from Indian families and given to Anglo families to raise, resulting in cultural and social deprivation. This practice was not stopped until the passage of the Indian Child Welfare Act in 1978 (Hendrix, 1999; Waldman, 1985).

Major factors affecting the current older American Indian cohort include: 1) Indian historical experience is different from other ethnic minority groups, in that, "they were here first", and did not immigrate from another place, (2) health care, education, and social programs were paid for with ceded land, and (3) many elders are intimately connected to the Tribe (or Tribes) to which he/she belongs and that Tribe's historical and contemporary relationship with the federal government (Hendrix, 1999). The older American Indian today has experienced a unique reality in that specific tribal, familial, and spiritual history affects the way the world is perceived and the reaction to it – including reaction to health care providers, to diabetes, to coping with depression, and to recognition of memory loss.

American Indian people have a unique relationship with the federal government. Those who live on-or-near reservations were provided health care by the Indian Health Service (IHS) in exchange for ceded land. The Indian Self-Determination and Education Assistance Act of 1975 and the Indian Health Care Improvement Act of 1976 provided authorization for the Indian Health Service to make grants directly to Tribes for planning, development and/or operation of health programs. These acts also authorize IHS to contract with local providers and agencies for health services, and affirms the eligibility

of Indian people for Medicare, Medicaid, and Veterans benefits on the same basis as other citizens, regardless of eligibility status with IHS. (John & Baldrige, 1996; John et al, 1996; Pevar, 1992). Some Tribes who have substantial income from gaming are able to develop and manage their own health care systems, while others have access to health care only through IHS. This complex system of health care delivery has many gaps in service, especially in providing long-term care services for elderly and disabled American Indian people.

The 1990 census showed that about 58% of Indians do not live on tribal lands or reservations, and are therefore not eligible for IHS service. Much of the available epidemiological data on the Indian population has been collected by the IHS, and therefore does not include over half of the older American Indians.

In the 1950's, the Bureau of Indian Affairs "relocation" programs moved Indians from reservations to cities such as Chicago, Seattle, and San Francisco, San Jose, and Oakland, California, with the promise of jobs, housing, and training. Also in the 1950's the Indian Health Service was transferred from the Department of the Interior in order to provide health care service to reservation-based Indians, but no health care services were designated to care for the relocated urban Indians. Currently, there are 28 non-governmental and non-tribal programs that provide direct clinical services to American Indian and Alaska Natives in urban areas. However, data are not routinely or systematically collected and analyzed by these organizations (Rhoades, 2003). Many of today's elderly American Indians came to urban areas on relocation, stayed to raise their families and establish themselves in metropolitan communities, and many are now aging in place. The number of older American Indians is expected to nearly double between 2000 and 2020 (Rhoades, 2003), many of whom live in urban areas.

Diabetes

Risk

Over 98% of diabetes in American Indian people, including children, is type 2 diabetes, and associated with insulin resistance. Other ethnic groups generally show 10-15% type 1 and 85-90% type 2 diabetes (Attico & Pauk, 1998). Johnson and Taylor (1991) reported that American Indian males over the age of 65 had 1.5 times the rate of diabetes of older men in the general population, and older American Indian women had 2.4 times the rate of older U.S. women, based on the 1987 Survey of American Indians and Alaska Natives (SAIAN). Attico & Pauk (1998) report the prevalence of diabetes in all ages as 3 to 5 times that of the general population. Rhoades (2003) reported that the most frequently diagnosed co-morbid conditions with hypertension were type 2 diabetes, alcohol abuse, and depression, with higher rates for diabetes and depression.

One of the largest studies, the Strong Heart Study (SHS), initiated in 1988 to look at cardiovascular disease, included community surveys and physical examinations of 4,549 American Indian men and women ages 45 to 74 on or near reservations, from 13 American Indian tribes in three geographically diverse areas -- Arizona, Oklahoma and South and North Dakota. A second examination was conducted four years later, and

then a third examination to see how risk factors changed over time (SHS, 2003). The most important finding reported is that the presence of diabetes overrides any protective factor that American Indians may have against cardiovascular disease (SHS, 2003, pg.2). Results from the SHS indicated that rates of diabetes in women were higher than in men in all three centers (See Table 2). These rates included known and newly diagnosed diabetes, with 8 to 11% of SHS participants having newly diagnosed diabetes. In addition, impaired glucose tolerance was predictive of a high risk of developing diabetes. Four years later, SHS participants with impaired glucose tolerance at the first examination developed diabetes at the rate of 30 to 50 percent.

Table 2
Rates of Diabetes from the Strong Heart Study
American Indians Aged 45-74

Centers	Men	Women
Arizona	65%	71%
Dakotas	32%	43%
Oklahoma	36%	41%

Source: SHS, Data Book, pg. 27

SHS data and other studies report that rates of kidney disease as a result of diabetes are much higher than in other ethnic populations, and that rates of dialysis treatment are much higher, but that very few American Indians receive kidney transplants (SHS, 2003).

Among urban Indians diabetes is the fifth highest cause of death for those ages 45 to 64, and fourth highest for those 65 years and older. Compared to death rates from diabetes for all races in the U.S. of 117 per 100,000 for individuals 65 and over, urban American Indian elders had a rate of 162.5 per 100,000 deaths. Among individuals aged 45 to 64, the death rates were 40.0 for urban American Indians compared to 20.7 for all races (*Urban Indian Health Institute Report*). Although there are few studies examining comorbidity of diabetes and depression or cognitive loss in urban Native American elders, one study at an urban health clinic serving American Indian and Alaska Natives in the Pacific Northwest focusing on hypertension suggested that patients with diagnosed hypertension were more likely to be obese, have diabetes mellitus, depression, heart disease, and/or renal disease than those patients without diagnosed hypertension. In addition, the number of health problems was the most important factor associated with end-organ disease screening (Rhoades, 2003).

Culturally Appropriate Diagnosis and Assessment.

The high risk of developing diabetes in American Indian people emphasizes the importance of screening blood sugar levels in the Indian community. (See criteria for diagnosis of diabetes in the Overview section of the Curriculum). Screening for diabetes in the elderly should be done at least every three years, and annually for elders at higher risk. High risk conditions include: family history of type 2 diabetes, impaired fasting glucose, impaired glucose tolerance, history of gestational diabetes, history of delivery of a macrocephalic infant > 9 lbs., obesity (excess of 125% ideal body weight),

hypertension, history of renal disease in parents, very high or very low birth weight (Attico & Pauk, 1998). Indian people with a family history of diabetes and who are overweight should get a fasting blood sugar level at least once every year. Regular retinal screening for retinopathy is also recommended (SHS, 2003).

Culturally Appropriate Management

In the Strong Heart Study more male and female participants with diabetes received oral medication for diabetes treatment than received insulin; only a very small proportion received both insulin and oral medication (less than 0.5%), and more women than men received treatment. There was also a large portion of SHS participants with known diabetes who did not receive insulin or pills (SHS, 2003).

Neligh (1990) cautions that while health promotion strategies can be more effective than disease models because of a "strength" approach (rather than a negative approach) for Native American people, caution should be used in evaluating the effectiveness of health education programs, both for cultural relevance and unanticipated negative effects. Multiple sources recommend community education in the areas of fitness and wellness programs, weight control programs (including indigenous nutrition and cooking classes), self-management programs, and kidney transplant options.

Interviews and informal focus group interaction suggests that American Indian elders prefer one-on-one counseling and education combined with education in Indian groups. Peer educators and Indian Community Health Representatives are currently being utilized in some areas for diabetes education

Nutrition Education for Treatment of Diabetes in American Indian Elders

Traditional Foods. Traditional American Indian foods reflect the balance and harmony with the natural environment in which a specific Tribe lived, i.e., Northeastern, Southern, Plains, Southwestern, and Northwest Coast/Alaska Natives. The organization and economic basis of a Tribal society, such as farming or migratory, also impacted food choices. Because regional food availability was a major determinant of traditional foods, there is great variation. Nonetheless, there are certain foods that are generally considered staples of American Indian diets, particularly corn, beans, melon, and squash. A further sampling of core foods includes **regional fruits**: wild berries (huckleberries, blueberries, strawberries), wild choke and black cherries, wild currents, and wild crab apples. These fruits were commonly dried for consumption during winter months. **Regional vegetables** include: wild greens, wild asparagus, turnips, and onions, squash (winter and summer), pumpkin, chile peppers, and potatoes. **Regional grains** include corn and corn products, wild rice, and wheat (which was brought to the U.S. by European colonists). **Regional protein sources** include varieties of beans, local nuts (pine nuts, black walnuts, chestnuts, and acorns), seeds (pumpkin, squash, and sunflower), regional wild game (deer, elk, moose, buffalo, rabbit, squirrel, raccoon, and opossum), wild birds (duck, goose, grouse, pheasant, quail, and turkey) and local fish/shellfish (e.g., salmon). Animal proteins were commonly dried into jerky to be

consumed during winter months. In traditional American Indian diets, there are no common **dairy products**, and many American Indians are lactose intolerant.

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including current location, age, education level, and income level. However, in general, with integration and acculturation, eating habits and food choices have changed from healthy traditional low fat, high fiber, and low sugar foods to a high fat, refined carbohydrate, and high sugar diet, which includes fried and fast foods, snack foods, white bread, processed food, cakes, pies, cookies, candy, and sodas. These dietary changes are postulated as risk factors for a number of diseases, including type 2 diabetes. In addition, contemporary food choices have been influenced by the Federal Food Assistance Program which provides “commodity foods” to low income American Indians. These “commodity foods” usually include such items as cheese, peanut butter, canned meats, and evaporated or powdered milk. Many of these foods are high in fat and calories, which can pose health issues including overweight and diabetes.

Strategies for Culturally Appropriate Dietary Interventions:

1. *Make Healthy Food Choices.* Choose foods that are low in total fat, especially saturated fat, cholesterol, and trans fats. Emphasize intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein (for example, beans, lean meats, poultry, and fish). Focus on a return to healthy traditional foods. Many Tribes are developing programs that focus on a return to healthy traditional foods. Gardening, a traditional activity, is encouraged to increase consumption of fresh fruits and vegetables.
2. *Control Food Portions.* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Native American food guide pyramid to discuss adequate servings and recommended choices from each food. (See resource listed below from Association of American Indian Physicians).
3. *Modify Recipes.* Recommend recipes that reformulate traditional foods to reduce fat, cholesterol, and calories. Emphasize low fat cooking methods like grilling, roasting, stewing, and using small amounts of vegetable oil for frying.
4. Group cooking classes are also recommended.
5. To locate a nutrition professional familiar with diabetes education among older American Indians, one might contact the Indian Health Service (<http://www.ihs.gov>) for assistance.
6. *Resources.*

Information on American Indian cultural perspective, traditional food habits, and contemporary food habits:

Kittler, P.G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning

Implementation of strategies listed above:

Association of American Indian Physicians, *Native American food guide*.

<http://www.aaip.com/tradmed/tradmedfoodguide.html>

Carter-Bachman, K. et al. 1998. *Navajo food practices, customs, and holidays* (2nd ed): Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, IL 60606-6995. 1-800-877-1600. www.eatright.org

Hunt, D. 1997. *Native Indian wild game, fish, and wild foods cookbook: Recipes from North American native cooks*. Lancaster, Pennsylvania: Fox Chapel.

Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

Woolf, N. et al. 1999. *Northern Plains Indian food practices, customs, and holidays*: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, IL 60606-6995. 1-800-877-1600. www.eatright.org

Some Cultural Remedies Used for Treatment of Diabetes in American Indian Elders

<u>Selected Herbs</u>	<u>Spiritual Practices</u>	<u>Cultural Healers</u>	<u>Other</u>
Salvia-Sage <i>Salvia officinalis</i> <i>Salvia lavanduloides</i>	Some healing ritual is based on restoration of balance of a person's body, mind, spirit, and relationship with fellow humans beings. Christian, Native American Church, or Traditional American Indian religious ceremony may also be used.	The role of the healer and that of the spiritual leader varies from Tribe to Tribe. Some are chosen by family lineage, & some are chosen by Divine intervention, but healing is usually a life-long calling, and can take many many years of practice and apprenticeship.	"Talking Circles"-community support groups- are also used as contemporary cultural interventions to provide information on diabetes, sharing of healthy meals, and discussion of recipes for diabetics. Prayer is used to open and close these sessions, and smudging with sage or sweetgrass may be used to purify negativity and promote healing. (See resource by Struthers, et al. listed below).
Cranberry <i>Vaccinium oxycoccos</i>	Healing may also be based on restoration of balance and harmony of the individual to family, community, and nature.	There are varied titles for healers and medicine people within each American Indian cultural tradition Herbalists may prescribe plant remedies.	
Thistle <i>Carduus silybum</i>	Healing rituals/ceremonies are sacred, and may involve prayers, chants, fasting, singing, special medicinals, body painting, dancing, exorcisms, or sand painting. Fetishes , amulets, medicine pouches may be worn.		
Wild Carrot <i>Daucus carota</i>			
Devil's Club <i>Oplopanax horridus</i>			
Aloe <i>Aloe vera</i>	Sweat lodges may be used to purify and cleanse the body in a sacred manner.		
Huckleberry (<i>Vaccinium</i> species)			

Resources

Fielder, M. (1975). *Plant medicine and folklore*. New York, NY: Winchester Press.
 Kittler, P.G., & Sucher, K.P. (2004). *Food and culture (4th ed.)*. Belmont, CA: Wadsworth/Thomson
 Napoli, M. (2002). Holistic health care for Native women: An integrated model. *American Journal of Public Health*. 92(10):1573-1575.
 Natural Medicines Comprehensive Database: www.naturaldatabase.com
 Struthers, R., Hodge, F.S., Geishirt-Cantrell, B., & De Cora, L. (2003). Participant experiences of talking circles on Type 2 Diabetes in two Northern Plains American Indian tribes. *Qualitative Health Research*. 13(8):1094-1115.

- Tilford, G. (1997). *Edible and medicinal plants of the West*. Missoula, MT: Mountain Press.
- Weiner, M. (1972). *Earth medicine: Earth food*. New York, NY: Fawcett Columbine.
- Zastany, J. (1996 November-December). Food for thought: That old time nutrition. *Sierra Magazine*. 81(6):16-18.

Depression

Risk

Although there is limited research concerning depression in American Indians, studies from the 1970's and 1980's reported a higher prevalence of depressive symptoms than in the general population (Kraus & Buffler, 1979; Shore and Manson 1981). "Acculturation stress" is hypothesized by several authors to be a causative factor in the development of depressive symptoms (Kunitz & Levy, 1986; Leighton, 1971). LaFromboise (1988) reported excessive prevalence of depression and adjustment problems in three community-wide studies, and hypothesized that forced acculturation is a major causative factor among American Indians. Baron, et al (1989) reported that depression is more common in American Indian women than men, and that greater depression (as measured by CES-D scores) are associated with higher levels of perceived pain and more activities affected by chronic illness.

Although little is known about the specific mental health status of older American Indians and little survey information is available in tribal or community populations (Manson, Walker, & Kivlahan, 1987; Vega & Rumbaut, 1991), depression has been reported as a commonly occurring problem in the older American Indians (Baron, Manson, Ackerson & Brenneman, 1989; LaFromboise, 1988). Prevalence and expression of symptoms of depression in older American Indians may vary widely depending upon cultural values, Tribal or Indian Nation values and traditions, and personal experience of forced assimilation and acculturation, as well as geographic areas of residence. Cultural labeling of different emotions, conceptual language differences, and cultural incongruence with the DSM IV criteria for the diagnosis of depression all lead to difficulty with collection of risk data (Hendrix, 1999; Manson, Shore, & Bloom, 1985).

Lichtenberg, Chapleski, & Youngblade (1997) studied the frequency of depression among older American Indians in rural and urban communities, focusing on the effects of depression on functional abilities. Results suggested a strong link between the burden of medical illness and disability in rural and urban Indians age 55 years and older.

Culturally Appropriate Diagnosis and Assessment

Chapleski and colleagues examined differences in depressive symptomatology among urban, rural off-reservation, and reservation-residing American Indians aged 55 years and older in the Great Lakes region. Findings from this study indicated that the 12-item version of the Center for Epidemiological Studies Depression Scale (CES-D) adapted by Liang, Van Tran, Krause, & Markides (1989) for use with Mexican Americans, was a better conceptual fit for use with American Indians than the 20-item version (Chapleski, Lamphere, Jankowski, Dwyer, & P.A.Lichtenberg, 1997). Liang et

al. (1989) suggested that cultural differences can affect how depression is presented and how it is reported.

Shore and Manson (1981) cautioned that the DSM III, III-R, or IV criteria for depression does not necessarily translate into American Indian culture and expressed concern about the validity of using standardized Western assessment tools as measures of depression with Indian elders due to differences in cultural concepts and literal language translation. Chapleski et al. (1997) noted that the Minnesota Multiphasic Personality Inventory (MMPI) and the Cornell Medical Index have been found to be culturally invalid for American Indian groups.

Anecdotal experience of the author and Miller (2001) suggest that the Geriatric Depression Scale (GDS), in common usage, may be offensive to older American Indians, and may result in withdrawal from the relationship. Family members may provide information about their concerns for the elder within a behavioral framework. Behaviorally based assessment in a conversational format may be more acceptable, even though results may not then be compared between subjects or interviewers.

Culturally Appropriate Treatment and Intervention

Kramer (1991) found that elders in the Los Angeles Urban American Elders Outreach Project were unwilling to discuss mental illness, and removed the direct question from the comprehensive needs assessment interview. Mental disorder carries a stigma in many Indian cultures, and is not talked about openly. However, Kramer (1991) was able to illicit some information by discussing specific symptoms (e.g., loneliness, sleep problems, gastro-intestinal disturbance, eating problems, sadness).

Duran & Duran (1995) state that depression, alcoholism, violence and anxiety are functional reactions to the real experiences of genocide, oppression, racism, and cultural alienation, and strongly recommend looking at the problem as a form of cultural Post Traumatic Stress Disorder (PTSD).

Depression may be experienced as a spiritual imbalance as well as a physical one in some Native American cultures. The Navajo Healing Project is an ethnographic documentation of the "experience" of depression from 95 religious healers and patients describing contemporary Navajo religious healing, including Traditional, Native American Church (NAC), and Christian forms. Of the 84 Navajo patients with diagnoses of depression at the time of the interviews, 33 utilized primarily Traditional healing ceremonies, 21 used NAC meetings, and 30 participated in Christian healing ceremonies to promote self-healing and spiritual strength. (Storck, Csordas, & Strauss, 2000). Engel (1980) posits that even if psychiatric diagnoses can be made reliably and validly in a cross-cultural context, the healer must be able to utilize somatic, psychological, cultural and historical perspectives gained from the patient.

Cognitive Loss and Dementia

Risk

Even less is known about cognitive loss among older American Indians than is known about depression. The very scant literature that exists suggests that dementia, especially Alzheimer's Disease may be less common among American Indians (Jervis & Manson, 2002). One published study specifically concerned with Alzheimer's Disease found that as Cherokee ancestry increased, the risk of Alzheimer's Disease decreased (Rosenberg, Richter, Risser et al., 1996). However, the small non-representative sample makes findings difficult to generalize (Jervis & Manson, 2002). A study of Cree and English elders in Manitoba found that the Cree elders with dementia were more likely to have vascular and alcohol related dementias and they were much less likely to have Alzheimer's Disease (Hendrie, Hall & Pillay, 1993), but there were also methodological problems with this study as well (Jervis & Manson, 2002).

As the American Indian population continues to live longer, it is expected that dementia will become an increasingly prevalent problem due to extremely high rates of diabetes and possibly depression. American Indians have seen a dramatic increase in life expectancy, from 51 years in 1940 to 70 years of age in 1992 (John, 1996). It is also postulated that Indians show physical manifestations of aging at a much earlier age (estimated 10 years earlier), than do age matched Whites. Because of these changes, it is anticipated that dementia will become more pronounced in this group, most likely the vascular dementias associated with multi-infarct dementia and stroke.

In a review article on dementia in the Native American population, Jervis & Manson (2002) emphasize that because Native American populations are so diverse, common measurement and generalization across the populations about dementia is extremely difficult.

Culturally Appropriate Diagnosis and Assessment

Cognitive impairment may present differently in older American Indians due to cultural values and differences in traditional activities. It is not likely that an older American Indian would present to a health care provider complaining of "memory loss". The most common presenting complaints of American Indians with dementia in one study were 1) difficulty understanding instructions, and 2) "recognizing people they know". One third of the participants exhibited restlessness and agitation all the time, and the two least common behaviors were 1) wandering/getting lost and 2) dangerous behaviors to self or others (John, Hennessey, Roy, & Salvini, 1996).

No measure of cognitive functioning currently exists that has been demonstrated to be culturally appropriate for a variety of Native groups. Major problems with developing an instrument include: translation into different languages without altering the meaning; relevance of diagnostic criteria to the various tribal cultures; and educational biases in measures (Jervis & Manson, 2002).

The *Guide to Comprehensive Geriatric Assessment in Indian Country*, developed by the New Mexico Geriatric Education Center in collaboration with the Indian Health Service, suggests that the Mini Mental Status Exam (MMSE) is not necessarily appropriate as a cognitive screen for older American Indians, especially for elders for whom English is the second language (Miller, 2001). The Manitoba study used the Community Screening Interview for Dementia (CSI-D), designed for use with non-literate populations (Hendrie, Hall, & Pillay, 1993; Hall, Hendrie, Britain et al., 1993).

Culturally Appropriate Treatment and Intervention.

Due to extreme diversity of Indian culture (there are 585 federally recognized Tribes, all with unique cultures), there is no single cultural tradition. Some Indian cultures tend to normalize forgetfulness and confusion as a part of the aging process, and therefore no intervention may be needed or welcomed (Kramer, 1996; Hendrix, 2001). Other American Indian cultures treat these symptoms as a part of the spiritual preparation for crossing from this world to the next. In some American Indian cultural belief systems death is feared and spirits of the deceased may hang around to cause trouble, while in others death is viewed as the next stage of this life (Ogrocki, Welsh-Bohmer & Allen, 1997; Kramer, 1996; Hendrix, 2001).

Indian families tend to value the interdependence of family and community as much as the autonomy of the individual, in decision-making and caregiving roles and responsibilities. Some cultural values that may affect the way that American Indian elderly with cognitive loss are cared for in the community can include non-interference, individual freedom, non-directive communication, and non-infantilization of elders (Hendrix, 2001). (For further discussion see: American Indian Ethnic Specific Module, Curriculum in Ethnogeriatrics on line at <www.stanford.edu/group/ethnoger>.)

Orientation to the present, acceptance of life as it comes, and general acceptance of physical and cognitive decline as a part of aging may be contributing factors in caring for American Indians with cognitive loss (Ogrocki, Welsh-Bohmer, & Allen, 1997; Hendrix, 2001). Strong (1984) describes a coping mechanism of “passive forbearance” utilized by the American Indian community in caregiving to a cognitively impaired elder, which was not found in the Anglo community which tends to be more “control” oriented in caregiving roles. In this study the American Indian caregiver did not expect to be able to gain control of the caregiving situation, whereas the White caregivers did expect to gain control, leading to anger and frustration. However, studies of caregiver “burden” in a southwest American Indian community by Hennessey and John (1996) indicated that while the concept of “caregiver burden” was culturally unacceptable, caregiver stress was felt significantly by the respondent caregivers. Culturally appropriate caregiver training, respite care, and family support programs become increasingly important resources for development by health care systems as the American Indian populations age.

Information from Interviews with Four Urban American Indian Key Informants

The term “diabetes” is used by American Indians, and there is general recognition that diabetes was unknown until contact with Europeans. Diabetes is seen as a relatively new disease in the Indian community, caused in large part by diet. It is seen partially as a result of changes in diet that occurred when Indian people had to rely on commodities furnished by the U.S. government after they were consigned to reservations, and now their diet contains too many starches. There is some blaming of the U.S. government for diabetes. Diabetes is also perceived as being related to lack of exercise; one respondent stated that “big belly societies” developed as activity decreased and cultural value shifted away from warrior societies.” It is so prevalent now that having diabetes was referred to as being “a real Indian.” The first resource an American Indian elder with newly diagnosed diabetes is likely to turn to is family members and “other Indians with diabetes.” A “cure” is not anticipated, “you learn how to live with it”, and, “the cure is really the healing and the healing is in the mind”. A more positive educational approach, taught by trained peer-educator Indians is recommended. Faith in God, spirituality, and religious faith may be used in acceptance of diabetes. Denial may be used as a coping strategy, “until that doesn’t work anymore”, and social contact, outings, and activities are used to help the older American Indian feel better.

Depression is talked about as “feeling down”, “feeling blue” or “not feeling good”. Indians who are depressed may feel “overwhelmed”, that they “have no control over their lives”, and “may develop a meanness”. Some Indian people self-medicate with alcohol or drugs to make themselves feel better. However, some also visit family, increase social activities, increase their participation in religious services or in traditional ceremonies such as “taking the pipe.” “Older Indian people and younger people go to the elders”, and some will “turn to Indian religious leaders” for pastoral counseling. It is generally difficult for Indian elders to talk about depression or other feelings as it is not currently a cultural value, but recommendations included: explaining that “others are going through the same thing”, starting with indirect approaches (for example, talking about symptoms to draw out and educate), having small groups called , for example, “clearing of the spirit” (instead of support group), and beginning talking circles with a prayer that makes talking circles “safe”, and end with sage (smudging) that “releases negative energy talked about so that they can start fresh”. Education and counseling should include the entire family, and counselors should “see where the individual is coming from – “the physical and spiritual in transformation”.

The term “dementia” was reported as “not used” or “not known”, and “forgetfulness” is normalized as “you lose your memory when you get old”. Cognitive loss is recognized by American Indian families when elders become confused or begin forgetting important events, not recognizing relatives, or forgetting medications. The families will likely become more watchful, helpful, and patient, and may approach the issue of memory loss by asking, “Is there something bothering you?” Elders with cognitive loss were described as consistently expressing feelings of “fearfulness” and “loneliness”, and that they were not likely to talk to others about their fears, especially a

young person. The term “dementia” carries stigma and is seldom used, and there is not much specific knowledge about the disease in the community. In some cases, dementia is perceived as normal aging, or “Grandma’s getting glimpses of the other side”, “getting ready to leave”, or “time to go home,” in which case death is not viewed as negative.

Recommendations for health care providers included: it is important for American Indians to teach American Indians and/or facilitate a talking circle for community education, and; a “non-fear based” educational approach should be used.

CHINESE AMERICAN ELDERS

Kellie Takagi, PhD, Caroline Fee, MA, and Gwen Yeo, PhD

Background³

Older Americans from Chinese ancestry are the largest subgroup of Asian American elders and number over 236,000. Since immigration from China has occurred in many waves beginning in the 1860s and is still occurring, elders are extremely varied in their acculturation level to the mainstream U.S. culture, as well as in their income, education, religion, and living arrangements. Although the majority live on the West or East Coast, there are Chinese American communities in many urban areas.

Common historical influences on the lives and experiences of Chinese American elders include:

- Severe discrimination against the overwhelmingly male Chinese immigrants in the late 1800s and early 1900s which forced the population to move from rural areas to urban Chinatowns;
- The Chinese Exclusion act which prohibited immigration of laborers from China from 1883 to 1943, except sons of naturalized Chinese American men fathered while they were in China;
- Divided families with men in the U.S. and wives in China until 1946 legislation allowed 9,000 wives to immigrate from 1946-52;
- Post World War II “Two Chinas” with communist China on the mainland and anti-communists in Taiwan, with 2000 refugees from Taiwan admissible to U.S.
- Decrease in discrimination, although some continued to exist through the 1960s, and more positive images of Chinese Americans
- Post 1965 family reunification immigration allowing parents of adult children to immigrate as “followers of children”;
- Immigration of families including older adults from Hong Kong prior to the transfer of authority from Britain to mainland China in 1997.

The current cohort of Chinese American elders is still heavily foreign born, although there are some third generation Americans as well. In insular Chinatowns, some elders are isolated, living alone in poverty with limited English proficiency. On the other hand, there are extremely wealthy suburban living Chinese American elders.

There is considerable religious heterogeneity among Chinese American elders, with some being active in Protestant or Catholic churches, some as Buddhists, and many maintaining the traditional Confucian and Taoist beliefs without connections to religious organizations. It is important for health care providers to recognize the importance of family members other than the older Chinese American patient in making decisions about his/her care. It is common for Chinese American families to resist using formal long term care services if possible, viewing the care as a family responsibility.

³ Information in this section is excerpted from the chapter on Chinese Americans from Yeo, G., Hikoyeda, N., McBride, M., Chin, S-Y, Edmonds, & Hendrix, L. (1998) *Cohort Analysis as a Tool in Ethnogeriatrics: Historical Profiles of Elders from Eight Ethnic Populations in the United States*. SGEC Working Paper #12. Stanford, CA: Stanford Geriatric Education Center.

Diabetes

Risk

Diabetes mellitus is becoming a health challenge in Asian and Pacific Islander communities in the United States, but there is limited data available on the prevalence of impaired fasting glucose and type 2 diabetes in Chinese Americans (Saad, Sampson, & Bertoni et al., 2003). In the Multi-Ethnic Study of Atherosclerosis (MESA) with 2612 Caucasian, 1902 African American, 1497 Hispanic, and 800 Chinese American subjects, impaired fasting glucose was found to be twice as high in Chinese Americans as Caucasians, but lower than in African Americans and Hispanics. In a study of 346 non-institutionalized Chinese Americans aged 60-96 in Boston, 13% of both Chinese men and women reported a history of diabetes, higher than the 8.8% for older women in the U.S. but similar to that of older men (Choi, McGancy, Dallal, et al, 1990).

Epidemiologists have predicted that by the year 2010 there will be over 200 million people with diabetes, and a majority of these individuals will reside in Asia. Prevalence rates of diabetes in the Chinese population varies from <1% in rural areas in Mainland China, to 6-12% in Hong Kong, Singapore, and Taiwan (Chow, Chen, & Hsiao, 1992; Dowse & King, 1993; Tai, Yeo, Lun et al., 1987). In mainland China and Taiwan the predictive risk factors for diabetes include aging, obesity and a positive family history (Chou, Chen, & Hsiao, 1992; Pan, Hu, & Li 1993). In a stratified random population sample of 988 Hong Kong subjects, abnormal glucose tolerance was associated with being female, increased age, lower education, and higher body mass index (BMI). Dietary habits were not found to be a risk factor for the development of glucose intolerance (Woo, Ho, Sham et al., 2003).

Culturally Appropriate Assessment and Diagnosis

It appears that the gold standard for diagnosis, the oral glucose tolerance test (OGTT), has poor reproducibility in Chinese (Ko, Chan, Woo et al., in press).

Culturally Appropriate Management

Some Cultural Remedies for the Treatment of Diabetes in Chinese American Elders

<u>Selected Herbs</u>	<u>Dietary Practices</u>	<u>Theory</u>	<u>Cultural Healers</u>	<u>Other</u>
In Traditional Chinese Medicine, herbs are most often used in combination. These formulations usually contain a mixture of many herbs. Below are some common individual components.	Illness is considered an imbalance of a person's <i>yin</i> (cold) and <i>yang</i> (hot) equilibrium. Since diabetes is considered a <i>yang</i> (hot) condition, to restore balance in the body, increase in <i>yin</i> (cold) foods is recommended. (Some examples of yin foods are cooked vegetables and bean products). Avoidance of <i>yang</i> (hot) foods is also recommended. (Some examples of <i>yang</i> foods are sweets, fatty foods, oils and fats, spicy foods, and alcohol).	Traditional Chinese Medicine remedies seek to bring the <i>yin</i> and <i>yang</i> qualities of the body back into equilibrium and to restore or unblock <i>Qi</i> (the vital life force/energy in the body).	Traditional Chinese Medicine (TCM) Practitioners: TCM Doctors Herbalists Acupuncturists <i>Qigong</i> Masters	Acupuncture Moxibustion Meditation <i>Qigong</i>
Ren Shen <i>Panax ginseng</i>				
Dan Shen <i>Salvia bowleyana</i>				
Huang Qi <i>Astragalus membranaceus</i>				
Ku Gua Zi <i>Momordica charantia</i>				
Sheng Di <i>Rehmannia glutinosa</i>				
Shan Yao <i>Dioscorea opposila</i>	Diabetes also reflects an imbalance between <i>yin</i> and <i>yang</i> in the body's organs. Thus, the person's specific symptoms are used to make further individualized dietary recommendations.			

Resources

Dharmananda, S., (2003), January. Treatment of diabetes with Chinese herbs and acupuncture. <http://www.itmonline.org/journal/arts/diabetes.htm>

Kittler, P.G., & Sucher, K.P. (2004). *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Natural Medicines Comprehensive Database. www.naturaldatabase.com

TCM Hospital: Chinese Medicine Hospital for Chronic and Difficult Diseases. (n.d.) Diabetes and Traditional Chinese Medicine in China. <http://www.tcmhospital.com/images/diseases/diabetes.htm>.

Tsujiuchi, T., Kumano, H., Yoshiuchi, K., He, D., Tsujiuchi, Y., Kuboki, T., Suematsu, H., Hirao, K. (2002). The Effect of Qi-Gong relaxation exercise on the control of type 2 diabetes mellitus. *Diabetes Care*, 25, 241-242. <http://care.diabetesjournals.org/cgi/content/full/25/1/241>.

Nutrition Education for Treatment of Diabetes in Chinese American Elders

Traditional Foods. The traditional diet of Chinese American elders reflects the diverse regional influences of their Chinese ancestry. In China, there are four geographic regions (northern, western, central and southern). Each of these has their own regional style of cooking: Mandarin, Szechwan, Hunan, Shanghai, and Cantonese. Custom and food availability in each region determines specific ingredients, including seasonings. Nonetheless, there are certain foods that form the foundation of traditional Chinese cuisine including long grain rice, wheat (popular as noodles, dumplings wheat flour wrappers), vegetables, soybean products, bite size pieces of meat and poultry, fish, and tea. A further sampling of these core foods includes: **fruits:** oranges, melons, mango, litchi; **vegetables:** bamboo shoots, bean sprouts, bok choy, Chinese broccoli, Chinese long beans, garlic, ginger, mushrooms; **grains:** long grain rice, wheat (noodles, dumplings and flour wrappers); **dairy products:** These are not part of the traditional Chinese diet; **protein sources:** meats (bite size pieces of pork, beef, chicken, and duck), fish (often prepared whole), eggs, legumes (mung beans, red beans, soybeans including tofu, bean paste, peanuts) and **tea.** A typical meal includes soup, rice and two or three mixed (vegetables with small amounts of protein) dishes. Another traditional food selection criteria is balancing the opposing forces of yin and yang. The forces of yin are cooling, and those of yang are heating. This classification of cold and hot is not based on the temperature of foods, but on the type of energy they possess. For example, if a person's body is imbalanced in a yin direction, he/she may have a condition including advanced age or tiredness; thus consumption of yang foods (ginger, garlic, meat, eggs) is a way of gaining equilibrium. Imbalance in a yang direction may be caused by conditions such as diabetes or hypertension; thus, consumption of yin foods (most vegetables, melons, fish) is a way of gaining equilibrium.

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including length of residence in the U.S., age, education level, and ability to speak English. Also, dietary acculturation is influenced by issues of traditional food availability, quality, and cost. For elders, however, eating traditional Chinese foods at lunch and dinner tends to be the norm. If there is any dietary acculturation, it is usually seen in the choice of food items for breakfast. It is important to note that with acculturation to mainstream American eating patterns, dietary fat and sugar consumption increase. These dietary changes are postulated as risk factors for a number of diseases, including type 2 diabetes.

Strategies for Culturally Appropriate Dietary Interventions:

1. *Make Healthy Food Choices.* Choose foods that are low in total fat, especially saturated fat and cholesterol. Emphasize high intake of complex carbohydrates, fresh vegetables, and fruits and low fat sources of protein, (for example, beans, tofu, lean meats, fish and poultry). Focus on healthy traditional foods.
2. *Control Food Portions.* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Asian food guide pyramid to discuss adequate servings and recommended choices from each food.

3. *Modify Recipes.* Emphasize low fat, healthy cooking methods such as steaming and reduced amount of oil for stir-frying. Reduce high sodium seasonings and salted, fermented, and pickled food, especially if hypertension is present.

4. *Resources.*

In-depth information on Chinese American cultural perspective, traditional and contemporary food habits:

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning

For implementation of strategies listed above:

Georgia State University. *Nutrition education for new Americans project (Chinese language version)*: Available at <http://monarch.gsu.edu/nutrition/Chinese.htm>

Lau, G., Kee, M.M., & Ng, A. 1998. *Chinese Americans: Food practices, customs, and holidays*: Available from American Dietetic Association, 216 W. Jackson Blvd, Suite 800, Chicago, Illinois 60606-6995, (312) 899-0040. www.eatright.org

Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

To locate Registered Dietitians or Certified Diabetes Educators:

www.eatright.org; www.diabeteseducator.org. Unfortunately, these organizations do not list their members according to cultural specialization. However, one could begin by identifying those professionals who have family names that appear to be of Chinese origin; then, follow up with a phone call or email to get specific information on their cultural and bilingual expertise.

Depression

Risk

Studies by Mui and colleagues of older Chinese immigrants in U.S. East Coast cities have found prevalence rates of depression ranging from 26% to 51%, based on different versions of the Geriatric Depression Scale and different populations (Mui, Kang, Chen, & Domanski, 2003).

The Chinese American Psychiatric Epidemiology Study focusing on rates of major depressive episodes and dysthymia in a probability sample of 1,747 Chinese American households indicated that the lifetime rate of major depression was 6.9%, and approximately 5.2% had experienced dysthymia (Takeuchi, Chung, Lin et al., 1998). Compared to the National Comorbidity Survey (Kessler, McGonagle, Zhao et al., 1994) the rate of depression was lower for Chinese Americans. Low rates of reporting depression were found to be due to social stigma, distress and illness behaviors that reflect the Chinese epistemology of disease, lack of Western diagnostic criteria for depression, and coping mechanisms that protect against depression (Parker, Gladstone, & Chee, 2001).

Older Chinese American women aged 65-74 have been found to have a suicide rate three times higher than white women in the U.S., and in the 75-80 year olds, the rate was seven times higher (Liu & Yu, 1985). In a Los Angeles study, most of the Chinese women who committed suicide lived with their children, and some suicide notes indicated that they did not want to be a burden to their children (Diego, Yamamoto, Nguyen, & Hifumi, 1994))

Culturally Appropriate Diagnosis and Assessment.

The Geriatric Depression Scale (GDS) is available in Chinese and is available to download from the following website <http://www.stanford.edu/~yesavage/GDS.html>. The Mui version of the short form of the GDS was developed to be more appropriate to Asian elders and validated with a sample of older Chinese immigrants. It is included in Chinese in the author's 1996 publication (Mui, 1996; Mui et al., 2003). Chinese have been observed to tend to deny depression or express it somatically.

Cognitive Loss and Dementia

Risk

In a study of prevalence rates of dementia in 1,034 Chinese age 70 and older residing in Hong Kong, Alzheimer's disease accounted for 64.6% and vascular dementia accounted for 29.3% of dementia cases. These findings suggest that the rate of Alzheimer's in Chinese in Hong Kong is lower than found in studies that include Caucasian elders (Chiu, Lam, & Chi et al., 1998).

Culturally Appropriate Diagnosis and Assessment

The Cognitive Abilities Screening Instrument (CASI) was designed to be appropriate as a cognitive screening tool with cross-cultural populations and has been used successfully with Chinese populations (Teng, Hasegawa, Homma, et al., 1994). (See Appendix A for information on accessing the CASI in the Chinese language.)

FILIPINO AMERICAN ELDERS

Melen McBride, RN, PhD, Caroline Fee, MA, and Gwen Yeo, PhD

Background

Almost all the current cohort of elders in the U.S. from Filipino ancestry have come as immigrants. In the 1990 census 95% were born outside the U.S., however, they are a very diverse population. A few of the very old men may have come in the wave of young poorly educated bachelors who came to work in agriculture and canneries in the 1920s who came to be known as “Pinoys”. They were not allowed to marry white women and experienced extreme poverty and discrimination. Immigration was cut to 50 per year by the Tydings-McDuffie act from 1934, and it remained low until after World War II. Military personnel, and later their family members, immigrated in the 1950s and 1960s. Many of the current Filipino American elders came as followers of their adult children who had come in the 1980s and 1990s to work in health care and other professional and paraprofessional occupations. Filipino men who fought for the Allies in World War II were promised citizenship, but many were denied it until legislation changed in 1990 to allow several thousand of these older veterans to immigrate and become U.S. citizens. The majority traveled alone anticipating a warm welcome from the Veterans Administration which did not materialize. (McBride, Morioka-Douglas, & Yeo, 1996). The Filipino community has joined their elders to work to obtain veterans benefits, especially for those who are still living at or below the poverty level.

When older Filipinos immigrate, they usually live with adult children or relatives. If there are no relatives or friends, they quickly form surrogate families in their workplace, neighborhoods, churches, community centers, or shared public places (Tompar-Tiu & Sustento-Seneriches, 1995). Without an extended family or social group, Filipino elders feel alone and isolated. Among Filipino seniors who immigrated as children or young adults, their acculturation experiences may have enabled them to acquire the skills to seek services in community-based agencies with bicultural, bilingual staff. Although many speak some English, 57% of Filipino American elders said they do not speak English very well, and 17% were classified as linguistically isolated in the 1990 census (Young & Gu, 1995).

The present cohorts of Filipino elders are predominantly Catholics, and tend to: have profound faith in God and God’s mercy; consider the Church to be part of their extended family that is a source of moral, emotional, and spiritual support; and practice their religion with rituals and symbols. Folk Christianity is also a foundation of Filipino Catholicism with roots in animism prior to Spanish colonization (Andres, 1987). Indigenous healing by faith healers, fortune telling, and superstitions are part of the belief system especially when an illness is perceived to be chronic and/or incurable. This opposing value system in a person or “split-level Christianity” is neither a source of guilt nor moral dilemma (Bulatao, 1964).

Diabetes

Risk

Although there are no data on prevalence of diabetes specific to older Filipino Americans, data from all ages point to a higher prevalence than among U.S. elders in general. Diabetes was the 7th leading cause of death in the U.S. but the 4th leading cause of death among Filipina women (CDC, 1996). A study in Houston found the prevalence of previously diagnosed diabetes was 21% in a convenience sample of Filipino-Americans (Cuasay, Lee, Orlander, Steffen-Batey, et. al., 2001).

Filipinos in Hawaii had the second highest prevalence of self-reported diabetes based on an analysis of cases extracted from the 1988-1993 Behavioral Risk Factor Survey System data. However, in the older age group, Filipinos had the highest prevalence (170.07 per 1000) of diabetes (Shim, 1996). The overall rate for Filipinos in Shim's analysis is similar to the rate found in the 1989 Hawaii Health Surveillance Program in which the prevalence for Filipinos was 31.3 per 1000, second to the Japanese (Hawaii State Health Dept. 1989).

Local data from California also indicate a higher prevalence for Filipinos. In a San Diego study, Filipino women age 2 - 69 years had four times the prevalence of type 2 diabetes of whites (36% vs. 9%) based on oral glucose tolerance test and metabolic syndrome. The result was not related to obesity measured by weight and waist girth (Araneta, Wingard, and Barrett-Connor, 2002). Kalusugan Wellness Center in San Diego, which serves the Filipino community, found in a health assessment survey that 25% of adults and seniors had diabetes, 60% did not know they had it, and 60% had a family history of diabetes (Dirige, 2003). San Francisco South of Market Health Clinic estimated 45% of the Filipinos served age 65 and over are being treated for diabetes (Ferrer, 2003). A private Filipino physician in the San Francisco Bay Area estimates 25% of his Filipino patient population have diabetes (Balbuena, 2003).

Culturally Appropriate Diagnosis, Assessment, and Management.

In addition to the general suggestions for assessment in the introductory section, Filipino specific issues to be addressed could include the following: frequency and quantity of rice intake, method of preparing rice (steamed, fried, dessert), fat and sodium intake, attempts to reduce caloric intake specific to sweets, pork, salted foods (dried fish, fish sauce, salted fish/shrimp-caviar type, intake (frequency, quantity, and type) of fresh fruits and vegetables, and sources of food supplies (e.g., grocery store, Asian food stores, transported products from the Philippines).

Prevention and early intervention could include: culturally and language appropriate patient and family education about diabetes and its complications, preferably by bilingual professionals and community leaders, including the relationship between calories, metabolism, and diabetes control; educational literature in large print, preferably in Pilipino languages; emotional and psychological support through Filipino-managed community-based service organizations or church-based activities. On-going intervention could include: culturally and language appropriate patient and family

education on diabetic self-management; updates on state-of-the art treatment options; and long-term support and counseling, preferably by bilingual providers.

Nutrition Education for Treatment of Diabetes in Filipino American Elders

Traditional Foods. The traditional diets of elder Filipino Americans reflect the diverse cultural influences and history of their Filipino ancestry, including Malaysian, Spanish, and Chinese. Because the Philippines are actually an archipelago of many islands, there is great regional variation. Nonetheless, there are certain foods that are considered staples of a traditional Filipino diet including long grain rice (steamed or sometimes fried) which is served at every meal and noodles (rice, wheat, or mung bean) often mixed with bits of chicken, pork, or shrimp and vegetables commonly called “*pancit*.” The favored meat is pork, “*lechon*,” (with the exception of the Muslim minority who avoid pork for religious reasons). Coconut and coconut products such as coconut milk and oil are often used in cooking. Fish sauce, “*bagoong*” or “*patis*,” is used extensively as a seasoning. A further sampling of common foods includes: **fruits:** bananas, coconut, mango, papaya, guava, jackfruit, pineapple, pomelo, tamarind; **vegetables:** yams, sweet potatoes, bitter melon, cassava, cabbage, bamboo shoots, spinach, okra; **grains:** rice (also used in sticks or noodles), wheat (used in noodles, breads and desserts); **dairy products:** used infrequently in traditional Filipino diets, although sweetened evaporated milk is used as an ingredient in some desserts; **protein sources:** *meats* (pork and chicken), eggs, fish/shellfish, legumes (chickpeas, mung beans, soybeans, and soy products), nuts (cashew, chestnuts, macadamia, peanuts, pili nuts), seeds (lotus, pumpkin, sesame).

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including length of residence in the U.S., age, education level, income level, and ability to speak English. Availability is also an issue, since some traditional fresh fruits and vegetables may not be found in the U.S.. Most elder Filipino Americans continue to eat rice on a daily basis, often with every meal and also use high sodium seasonings (fish sauce and soy sauce) frequently. Fried salt-cured dried fish is a popular side dish especially for breakfast. Traditional dishes continue to be consumed on a regular basis, particularly at family gatherings and celebrations.

Strategies for Culturally Appropriate Dietary Interventions.

1. *Make Healthy Food Choices:* Choose foods that are low in total fat, especially saturated fat and cholesterol. Increase intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein, (for example, lean meats, fish, and poultry). Encourage reduction in high sodium food and seasonings. Focus on healthy traditional foods.
2. *Control Food Portions.* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Filipino food guide pyramid to discuss adequate servings and recommended choices from each food. (Food guide available in resource listed below by Claudio, V.S.).
3. *Modify Recipes.* Recommend recipes that reformulate traditional dishes. Emphasize low fat, low cholesterol, and low calorie cooking methods like grilling, baking, steaming,

and boiling, instead of frying. When frying, use a non stick teflon pan and a small amount of cooking oil. Cut down on high sodium seasonings, particularly if hypertension is present.

4. Resources

For in-depth information on Filipino American cultural perspective, traditional and contemporary food habits in the U.S.:

Claudio, V.S. 1994. *Filipino Americans: Food practices, customs and holidays*: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, IL 60606-6995, (312) 899-0040. www.eatright.org

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.

For implementation of strategies listed above:

Claudio, V.S. 1994. *Filipino Americans: Food practices, customs, and holidays*: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, Illinois 60606-6995, (312) 899-0040. www.eatright.org

Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.

To locate Registered Dietitians or Certified Diabetic Educators: www.eatright.org, or www.diabeteseducator.org. Unfortunately, these organizations do not list their members according to cultural specialization. One may have some success by identifying surnames that appear to be of Filipino origin; then, follow up with a phone call or email to get specific information on their cultural and bilingual expertise. With this approach it is important to remember that Filipino names would be a combination of Chinese, Malayan, Spanish, or European. The Kalusugan Wellness Center (www.webkalusugan.org) in San Diego is a resource through its nutrition program. The American Dietetic Association (www.eatright.org/Public/index.cfm) networking groups include the Filipino American Dietetic Association www.eatright.org/Public/7762_10933.cfm; email: Betty.Dykes@sinclair.edu

Some Cultural Remedies Used for Treatment of Diabetes in Filipino American Elders

Selected Herbs	Dietary Practices	Spiritual Practices	Cultural Healers	Other
Bittermelon <i>Momordica charantia</i>	Overall moderation of dietary intake is valued; however a layer of body fat, i.e., being plump, is seen as maintaining body warmth and protecting vital energy. Because food is seen as a major form of socialization, dietary restrictions are particularly difficult for a person to adhere to.	Church affiliation and regular church attendance are used to ask for God's intervention and healing, as the majority of Filipinos practice the Catholic religion.	A <i>Hilot</i> is a healer who treats supernatural causes of illness with herbal and medicinal treatments, incantations, and offerings.	Timbang (the principle of balance is the foundation of health promotion. Avoiding inappropriate behavior is believed to promote health by maintaining balance of a person and their social environment.
Banaba <i>Lagerstroemia speciosa</i>				
Garlic <i>Allium sativum</i>		Atonement and confession to a Priest are used to ask for God's forgiveness, since past transgressions are believed to cause illness.	An <i>Arbularyo</i> is a healer who treats illness with herbal remedies.	Keeping "warm," (avoiding sudden changes in temperature from hot to cold) and avoidance of wind/drafts are believed to promote health by maintaining balance of a person and their natural environment.
Onion <i>Allium cepa</i>				
Star Apple <i>Chrysophyllum cainito</i> L.		A cultural spiritual healer may be asked to perform ceremonies to counteract evil forces, since evil spirits or witchery may be perceived as a cause of illness.	A <i>Babaylan</i> is a cultural healer who uses prayers, rituals, herbs, and massage.	Personal cleanliness is believed promote to good health.
Campanilla <i>Tecoma stans</i>				
Dandelion <i>Taraxacum officinale</i>				
Cashew <i>Anacardium occidentale</i>				

Resources

- Andico, M. M. (1982). *Medicinal Plants in Our School Garden* (2nd ed). Tabunok, Talisay, Cebu: St. Scholastica's Academy.
- Becker, G. (2003). Cultural Expressions of Bodily Awareness Among Chronically Ill Filipino Americans [Electronic version]. *Annals of Family Medicine*, 1, 113-118.
- McBride, M. (2001). Filipino American Elders. In G. Yeo (Ed.), *Ethnic Specific Modules of the Curriculum in Ethnogeriatrics: A project of the collaborative on ethnogeriatric education*. (pp.8-12). Funded by the Bureau of Health Professions, Health Resources and Services Administration. Also available at www.stanford.edu/group/ethnoger
- Mckenzie, J. L., & Chrisman, N. J. (1977). Healing herbs, gods, and magic: Folk health beliefs among Filipino Americans. *Nursing Outlook*, 25, 326-9.
- Natural Medicines Comprehensive Database. www.naturaldatabase.com
- U. C. Davis Health System (2000). *Filipino Health Practices*.
<http://www.ucdmc.ucdavis.edu/cne/Policy/cultural/Filipinos/health.htm>

Depression

Risk

Mui and colleagues found the percentages of older Filipino immigrants in their New York sample who scored in the range indicating depression in three versions of the Geriatric Depression Scale were 15% to 19%. This was the lowest rates of the five older Asian populations in the study which also included Chinese, Indian, Korean, and Vietnamese.

A study of depression among Filipinos in the San Francisco Bay Area found that situational depression is a common clinical problem (Tompar-Tiu and Seneriches-Sustento, 1995) Since about 90% of older Filipinos are immigrants, many of whom came to the U.S. as adults or older adults, their immigration history and adjustment issues may contribute to depression. For example, it is a common practice for older Filipinos to live in intergenerational households, and often they become actively involved as surrogate parents in raising their American born grandchildren. In Philippine society, grandparents expect to be domestic consultants to their adult children and have considerable influence on the raising of children (Medina, 1991). Differences between the grandparent and the adult child in the approaches to child rearing could trigger emotional and psychological tensions. Keeping positive interpersonal relationships and respect for the elder are strong cultural values among traditional Filipino Americans. Conflicts may remain unresolved when the parties involved are unable to use a culturally acceptable problem solving approach. Living with adult children is highly desirable to older Filipinos. However, the older unmarried woman who immigrated since 1965 is more likely to live in a blended household (Burr and Mutchler, 1993). Other stressors such as geographic separation and economic issues are also common among Filipino elders. A Filipino focused community agency with a mental health program on the West Coast reports an increasing number of monolingual clients who are seeking “urgent” services (Jocson, 2004). The stress associated with limited English proficiency and access is an important risk factor for depression in this group.

In San Diego, more older Filipino men attempted suicide than women (Diego, Yamamoto, Nguyen, & Hifumi, 1994). An analysis of the Los Angeles County investigative coroner’s report on suicide in 1984, found no subgroup differences among Asians (Chinese, Filipino, Japanese, and Vietnamese) for marital status, health status, reason for suicide, number of attempts, and depression (Diego, et al., 1994). Religion as a deterrent to suicide has not been studied in older Filipinos who are predominantly Catholics.

Culturally Appropriate Diagnosis and Assessment

For traditional older Filipinos, there is a tendency to shy away from seeking help for emotional and psychological problems. This may be interpreted by the service provider as denial; however, for the current generation of Filipino seniors who are mostly immigrants, mental health services, especially psychiatric care, is a relatively new specialty in the Philippines. While growing up in their hometowns, many have heard stories of individuals who were taken to a state institution for the “crazies or lunatics” and never returned to their communities. A caring family member, trusted

friend, healer, or a minister may be the chosen confidant. Understanding the reasons, precipitating factors, and source of referral for emotional problems will help guide the clinician to identify the outcome expected by the patient and the family and to negotiate an intervention plan. For example, is the reason related to getting a medical certification to apply for Medicaid, to go along with a spouse's demand, to meet a court mandate due to allegations of spousal abuse, or other non-health related reasons?

It is preferable that the initial assessment for depression be done by a physician before the referral is made to a mental health specialist (Tompar-Tiu and Sustento-Seneriches, 1995). During medical consultations, elders expect somatic complaints to be addressed. When the somatic complaint is associated with an organ system, an examination of the involved body part reassures the patient that her/his complaints are taken seriously. Performing the examination before the psychological assessment sets a better environment for building trust in the patient-clinician relationship.

Reaching an unbiased clinical impression requires the clinician to: pay attention to presenting symptoms which are often somatic in nature; understand the chronology of events in the Filipino elder's life that led to the problem; understand the elders' conception of the problem; and clarify the cultural values that may be subtle contexts for the symptoms. There are no words in the Pilipino languages to translate the term "depression" directly. Twenty four words or phrases in the Pilipino language were offered by respondents when asked "What does it mean to be depressed?" The words "sad" and "worried" accounted for 29% of responses, followed by "hopeless" at 11% (Tompar-Tiu & Sustento-Seneriches, 1995). The explanatory model of a depressed older Filipino might include beliefs and fears about losing social relationships, immigration status, job opportunities, damaging the family's public image, or other similar concerns.

Mui and colleagues translated three versions of the Geriatric Depression Scale into Tagalog in their New York study, including one with Asian appropriate substitutions (Mui et al, 2003).

The older person may not admit to feeling stressed especially when stressors are associated with family relationships. Catecholamine excretion levels were found to be superior than subjective reports of stress in measuring stress among Filipino-Americans (Brown, 1982).

For the assessment interview, the patient should be requested to bring all prescription and over the counter medications being taken in a brown bag to the clinic. Because the physician is perceived as an authority figure, the older Filipino patient may refrain from asking about potential side effects or possible drug interactions with other medications prescribed by another physician. It is also common practice to ask family members and friends who travel to the U.S. to bring medications from the Philippines. Questions about the use of alcohol and other substances should include occasion and location. Family and social gatherings are environments conducive to alcohol use by an elder who is addicted or subjected to peer pressure.

Culturally Appropriate Treatment and Intervention.

Fifty percent of the participants in a study of depression among Filipino Americans stated the best treatment is talking to a loved one or someone who cares, and 60% said a loved one, close family member, or friend are the best persons to treat the illness (Tompar-Tiu & Sustento-Seneriches, 1995). The older Filipino's natural religiosity is a vital force for coping with stressors, accepting suffering as a spiritual offering, explaining causes and remedies for illnesses, and being passive and patient by accepting one's fate.

There are no clinical trials of current anti-depressant medication with Asians, specifically Filipinos, age 65 and older. Hence, there are no guidelines to determine drug dosages specific to this population. Effective titration of medications can reduce the incidence of patient non-adherence.

For many traditional patients, direct instruction from the physician is accepted without question. To encourage patient participation, a clinician could say "I would like to schedule sessions to advise and guide you through your present problem. How soon can you come back?" Using the term psychotherapy or therapy may increase patient anxiety and confirm a belief system that seeking mental health care means the person is "crazy". The prescription pad is an important and simple tool for clinicians who work with Filipino seniors, which can be used with suggestions other than prescribing medications. Writing (legibly) on a separate prescription slip other therapeutic activities discussed as a prescribed plan and signed by the clinician makes the recommendations a formal and concrete outcome of the visit. Having a written document to take home helps the elder to adhere to the treatment plan and to discuss the plan with family members and friends.

An example of a successful mental health intervention among Filipino Americans is a 6-year old program which was developed in response to the advocacy of the Filipino community whose leaders met with city Health Commissioners and the Medical Director of the Health Department. A city funded mental health clinic used a team of bilingual Filipino clinicians and health workers to develop culturally appropriate treatment options for adult and older Filipino patients. A new client enters the system through a referral from the city hospital or other health care agencies in the area. One-on-one sessions are scheduled for assessment and to customize a treatment plan. If medication is prescribed, the patient is advised to participate in a medication support group facilitated by one of the team members. Some patients continue individual psychotherapy. A monthly potluck family picnic is held in which the patients have the responsibility of planning the event with assistance from the team (Department of Mental Health, 2004), M. Rodriguez (personal communication, 2004).

Cognitive Loss and Dementia

Risk

There are no epidemiological data on the prevalence of dementia in older Filipinos. In the first eight years of the nine California Alzheimer's Disease and

Diagnostic Centers, 0.7% of the total number of individuals coming for diagnosis were Filipinos compared to approximately 2% of the population of older Californians. (Yeo & Lieberman, 1993, unpublished data). There are no specific studies on risk factors for older Filipinos of various types of dementia; however, vascular dementia may be a predominant problem in this group due to the high prevalence of coronary heart disease and hypertension among those 50 and older (Angel, Armstrong, & Klatsky, 1989; Gerber, 1980; Klatsky & Armstrong, 1991; Ryan, Shaw, Pliam et. al, 2000; Stavig, Igra, & Leonard, 1988). Cases have been reported of changes in mental function in Filipinos with Parkinson's disease and amyotrophic lateral sclerosis who reside in Guam (Zhang, Anderson, Lavine, & Mantel, 1990).

Culturally Appropriate Diagnosis and Assessment

The genetic link in Alzheimer's Disease may delay access to screening and assessment due to family concerns. Literacy level is an important factor to consider when screening for changes in mental function. Deficits in language comprehension and computational abilities may yield inaccurate scores for tools such as the MMSE. Older Filipinos who are predominantly immigrants are quite diverse in their mastery of the English language (McBride, Morioka-Douglas, and Yeo, 1996). There are no mental status screening tools that have been tested and validated for this group.

The duration of a chronic condition such as hypertension and the adherence to prescribed treatment would be useful information to establish a link to dementia (Angel, Armstrong, & Klatsky, 1989).

Culturally Appropriate Treatment and Intervention

Given the emphasis on family caregiving of older adults rather than formal services in the Filipino community, it would be important to ascertain the family's knowledge and ability to care for an increasingly dependent older adult. In a small study of family Filipino caregivers, the primary caregiver role was acquired by either family consensus (50%), self-assignment (25%) or default (25%) (McBride and Parreno, 1996). Passing on the value of caring for their elders remains strong in the Filipino community (Superio, 1993), thus a family-focus needs to be incorporated in the management plan. The family's help-seeking patterns with regard to eldercare may range from relying on themselves to taking the older person back to the Philippines (McBride and Parreno, 1996). There are no studies of family support groups for Filipino family caregivers, but the model from effective support groups using bicultural facilitators in other Asian populations could be adapted for Filipino families.

Community outreach programs such as those conducted by the Alzheimer's Association can be an effective mode of delivering information on early detection and prevention of vascular dementia to the Filipino community.

Information from Interviews with Four Filipino American Key Informants

The respondents indicated that the most common descriptions of diabetes referred to high blood sugar or eating too much sugar. Beliefs about the causes of diabetes included: heredity; a bad diet: or eating too much, including too much sugar or salty fish caviar ("*bagoong*"); obesity; family practices; or a malfunction of the pancreas.

In general they did not believe there was a cure for diabetes, but it was important to control the disease to avoid complications, especially limb loss. For help with diabetes they tend to go to friends, relatives, or health professionals, especially those who speak Tagalog or their own native language. To feel better, they eat less (especially fats, sweets, and rice or other carbohydrates), or they might try exercise. The health professionals interviewed estimated that about a third of the older Filipino Americans they see have diabetes.

Filipino Americans might talk about depression as feeling sad, homesick, or alone. Some refer to it as having mental problems, or being crazy. Most depressed elders don't admit or know they are depressed. In fact, there is not a word for depression in the Pilipino language, and people don't talk about it. Somatic complaints are common among individuals who are depressed, especially those who just arrived from Philippines. They might withdraw from social situations or activities. To feel better they would talk to friends, or go to parties or other recreational activities, such as a casino or bingo at the Senior Center, or go to church. A relative may call and "push" them to do something, but they may not do anything about it. Many don't recognize it or go for help with depression, but if they do, they would turn to friends or relatives who know resources. Women especially might go to a priest, a spiritual adviser, (e.g., nun), or a charismatic healer.

Memory loss is frequently seen as a part of aging. Signs are forgetfulness or being "picky", and if families do anything, they might have someone watch the elder or pay someone to help. Sometimes they might take the elder back to the Philippines or bring a relative to the U.S. as a caregiver. Filipino Americans generally do not recognize a connection between diabetes and memory loss. The term "dementia" is not commonly used by some Filipino Americans, but they might use the terms "Alzheimer's" or "senility." Signs are wandering and forgetfulness, attributed in some cases to "too much going on in the brain" or side effects of medications.

In cases of emergency or bioterrorism, Filipino American elders would need someone who speaks Tagalog. They may listen to Filipino TV or radio stations to get news and wait for family and friends to contact them and tell them what to do.

HMONG AMERICAN ELDERS

Sharon Waller, PhD, MDiv, and Caroline Fee, MA

Background.

The Laotian Hmong, who originally migrated from China, practiced an undisturbed agricultural and nomadic lifestyle in the highlands of Laos for over a hundred years. That peaceful clan-based

existence began to change in the mid-1900's with threats against Hmong by Laotian and Vietnamese Communist forces. Increased military conflict by the Pathet Lao between 1961 and 1973 displaced one-third of the Hmong population. In 1977, after thousands of Hmong lives had been lost, the Hmong began an exodus to Thailand. Only two-thirds of those who fled survived, and the survivors settled into what they believed would be a temporary stay in a refugee camp in Thailand. However, many Hmong lived in refugee camps for five to ten years.

At the point at which there was no other solution, most left, often reluctantly, for new lives as refugees in the U.S. or other countries. Many of the initial 150 Hmong families who left Thailand for the U.S. in 1976 had been associated with the U.S. during the war and had fought in American-backed special forces. The families were separated and scattered in a dispersal program designed to promote assimilation, a major policy failure. Soon clan leaders led many Hmong to California, Minnesota, and Wisconsin. By the end of 1986 there were over 47,000 Hmong in California. According to the 2000 U.S. Census there are 186,310 Hmong in the United States, 65,095 in California, and 41,800 in Minnesota.

The Hmong entered the U.S. having experienced traumatic and multiple losses. They had endured war, experienced deaths of countless community and family members, lost homes and their traditional lifestyle, and spent years in uncertainty and boredom in refugee camps. They encountered radical and enormous changes: a new language, role changes, values and beliefs opposite from their own, and innumerable other challenges. Hmong elders, in particular, have experienced high rates of depression and stress as a result of their profound losses and the difficulties in negotiating life in a new country.

Diabetes

Risk

Chronic illnesses, including stroke, diabetes, hypertension, and cancer, have all been on the rise among the Hmong in the United States. Diabetes is a new disease for the Laotian Hmong whose lifestyle has generally been sedentary and whose eating habits have been poor in the U.S. compared with Laos. Diabetes, high blood pressure, heart disease and obesity, have been termed the "New World syndrome". (Peterson, Vang, and Xiong, 2003 p.179.)

The comparison between rates of chronic diseases among the Hmong in the U.S. and the Hmong in Thailand is striking. Rates of cardiovascular disease, diabetes,

respiratory problems, and mental distress are generally low among Thai Hmong, but Laotian Hmong rates of these diseases in the U.S. are extremely high. Diabetes rates for Hmong in Fresno, California, for example, are seventeen times greater than for Thai Hmong, and mental health rates are nineteen times greater among Fresno Hmong than among Thai Hmong (Hunn, 2002.)

Understanding of Diabetes. There is much misconception and lack of accurate information within the Hmong community about diabetes, its cause, and treatment. Since most Hmong elders with diabetes did not have symptoms before coming to the United States, Hmong question why they would have this disease in the U.S. and why so many Hmong seem to be affected. They question how they could experience symptoms of thirst and hunger in this country while even under conditions of war and escape in Laos they did not feel “unquenchable thirst and intense hunger” (Henry, 1996, p.63). One man with diabetes stated, “ I wonder why it is that in this country there is this [diabetes]. Don’t know if it just exists in this country or if it already existed in our country. Why is it that when I got to this country there is this? I don’t know what it is inside my body that causes this illness.” (Henry, 1996, p.64).

Confusion of terms adds to the difficulties of understanding the condition of diabetes. There is no term for diabetes in the Hmong language. The translation for diabetes is *ntshav qab zib* or “sweet blood”. High blood sugar is translated “high sweet blood.” Since high blood pressure is translated as “high blood,” there is danger of confusing the two diseases (Peterson et al., 2003). Hmong who have diabetes may say they have a problem with their “oil and blood,” optimally associated with “plumpness, firmness, strength, and energy” (Henry, 1996, p.67). The problem of “oil and blood” is spoken of as “bad skin and bad flesh.” In interviews with Hmong who had chronic diseases, Henry (1996, p.15) noted frequent use of the word *siab* or “liver” (location or “heart” of emotion for Hmong) in describing the body and experience of symptoms. Some Hmong used the term *qhuav siab* or “dry liver” to describe the “insatiable hunger and thirst” that characterizes diabetes (Henry, 1996, p.63).

Culturally Appropriate Assessment and Management

In regard to preventive medicine, many Hmong elders have very little knowledge about diseases such as diabetes and do not think they are at risk. Hmong associate biomedical care with treatment, not with prevention, and not with diagnosis. Laboratory tests and health histories may seem like a waste of time. Hmong do not readily seek treatment for diseases that may not present acute symptoms such as diabetes and hypertension (Fadiman, 1997, Cha, 2000). The Center for Cross-Cultural Health in Minneapolis reported in 1998 that a Hmong person may not seek help until extremely ill and frequently discontinue treatment when they feel well (Parker & Kiatoukaysy, 1999).

Barriers occur as Hmong wait until their conditions are severe before seeking help; they ignore symptoms and do not understand that there is no “cure” for diabetes since for Hmong, illness and symptoms are “curable.” Cha (2001) points out that in traditional Hmong culture it is bad luck to talk about an illness in hypothetical terms. Henry (1996) states, “To tell a Hmong elder that his or her illness is ‘chronic,’ is at best

like saying that you are giving up on the patient and their moral cultivation as a person, and at worst is like putting a curse on them” (p.251).

Traditionally, the diagnosis and treatment of a chronic illness such as diabetes would be viewed by Hmong through the lens of the animist, in whose world the physical and the spiritual are inextricably interconnected. Harmony and integration of souls in the body maintain health, and imbalance caused by soul loss or the intrusion of spirits cause illness. Preventive, diagnostic, and healing ceremonies performed by Hmong healers are designed to re-establish balance and harmony. The shaman, one of the most important of all Hmong healers, acts as an intermediary between physical and spiritual worlds by negotiating for the sick person’s soul.

Many shaman believe that diseases affecting the physical body, such as diabetes, are not treated effectively by shamanic ritual. However, there are Hmong who do attribute the disease to spiritual causes and seek advice from a shaman. An example is the case study of a Hmong man named Bliia Vang with diabetes and hypertension who sought help from both a doctor and a shaman (Peterson et al., p. 176).

Mr. Vang was told by the doctor to adhere to a diabetic diet and to exercise. Later, that proved too difficult, and so he began taking an oral diabetes medicine. Still not feeling well, the doctor diagnosed hypertension and prescribed a high blood pressure medication. Confused about the diagnosis of high blood pressure and vacillation of his blood sugar, Mr. Vang took medication in response to how he was feeling. Eventually he began to take herbal medications and the family prayed. Still not well, Mr. Vang consulted a shaman who told him that he was being chosen to become a shaman. It was only when Mr. Vang gave up Christianity to follow the path to becoming a shaman and was assisted by insulin that he truly felt better. The shaman’s diagnostic ceremony (*Ua neeb saib*) indicated that Bliia Vang had experienced soul loss, was in a living arrangement not allowed in Hmong culture, and that he had been called through his illness to become a shaman (Xiong, p.184.) The shaman, *Nkaj Zeb Yaj*, who performed the diagnostic work as well as the subsequent rituals attributed Mr. Vang’s recovery to his eventual belief in the healing powers of the shaman and in the love he received from his family, which convinced Mr. Vang he must get well to return that love (Xiong, p.185.)

Some Cultural Remedies Used for Treatment of Diabetes in Hmong Elders

(Because diabetes was not known or recognized as an illness by the Hmong before coming to the U.S., there are no traditional treatments specific to this condition. Thus, the information below is generalized to treatment of illness, in general).

Herbal Medicine	Spiritual Practices	Cultural Healers	Other
<p>Hmong herbal medicine is actually a complex mix of ingredients that comes from many sources, for example, indigenous roots, bark, leaves, flowers fruit, and grains. Specific plants include bamboo, pepper plant, iris, rose, tobacco plant, and opium poppy. Animal sources include egg yolk, powdered deer horn, and chicken fat. Minerals include iron, silver, ashes from a fire, red dirt, salt, and charcoal. Ingredients are chopped, crushed, dried, or mixed with water, according to the appropriate prescription to treat specific symptoms. Medication may be ingested through the mouth, inhaled, applied topically, or forcibly pressed into the skin. (See resource by Spring for analysis of medicinal plants used by the Hmong in the U.S.).</p>	<p>Shamanic healing ceremonies include incantations, negotiations, and offerings to spirits in order to restore health, because “loss of soul” is seen as a primary cause of illness.</p>	<p>A shaman (<i>Neeb</i>) is a spiritual healer, who is consulted if the source of illness is not visible, i.e supernatural. The <i>shaman</i> travels to the spiritual world to search for lost souls, then negotiates with spirits to get the soul back to its owner.</p>	<p>Cupping, coin rubbing, moxibustion, massage, or charm wearing may be used as remedies.</p>
	<p>Offerings may include sacrifice of animals. (A chicken, pig, cow, or dog may be used in cases of serious illness, because the animal’s soul is believed to replace that of a person’s lost soul). Chanting and incantations accompany these ceremonies.</p>	<p><u>A <i>Kws tshuaj</i> is consulted when herbal treatment is sought.</u></p>	<p>Blood drawing or surgical procedures are often unacceptable, because of the belief that these may cause either a weakness of the body, deformity in the next life, or only be employed as an experimental procedure by “western” doctors.</p>
	<p>Ceremonial negotiation with spirits and/or ancestors is used as a remedy to restore health, as disharmony with the spirit world is believed to cause illness. As an offering to the ancestor’s spirits, food or flowers may be placed on a home alter.</p>	<p><u>A <i>Tschen tschua</i>, is consulted for medicinal treatment, if the source of symptoms can be examined externally and caused by natural phenomena.</u></p>	
<p>Shamanic rituals may also be performed to restore equilibrium of a person and nature, since this imbalance is perceived as a cause of illness</p>			

Basano, M., Hayes, J., & Wilson, R. (1986). Traditional beliefs and use of health care services by Vietnamese and Loatian refugees. *Texas Medicine*, 82:33-36.

Cheon-Klessig, Y., Camilleri, D., Elmurry, B., & Ohison, V. (1988). Folk medicine in the health practices of Hmong refugees. *Western Journal of Nursing Research*, 10(5):647-660.

Cultural Diversity in Health. (2004). Hmong from Laos. www.diversityinhealth.com.

Hendricks, G., Downing, B., & Deinard, A. (1986). The Hmong in transition: The Southeast Asian Refugee Studies Project of the University of Minnesota. Staten Island, NY: Center for Migration Studies.

Spring, M.A. (1989). Ethnopharmacologic analysis of medicinal plants used by Laotian Hmong refugees in Minnesota. *Journal of Ethnopharmacology*, 26: 66-91.

Westermeyer, J. (1988). Folk medicine in Laos: A comparison between two ethnic groups. *Social Science Medicine*, 27(8).769-778.

Nutrition Education for Treatment of Diabetes in Hmong American Elders

Dietary changes for Hmong with diabetes require far more than a shift in the way they eat. Cultural significance of food preparation and consumption in Hmong culture, beliefs about the relationship of food consumption to emotion, and historical and social conceptions of the body greatly impact attitudes about dietary change. Individual changes in frequency and balance of meals may disrupt established communal food

preparation and consumption. Diabetes education directed to the entire family can prevent misunderstandings and enhance support (Peterson, et.al, p. 181.)

Hmong use the term *mov* or rice, to refer to food in general. *Noj mov* refers to eating food (Henry, p.65.) It is very difficult for Hmong to cut back on eating rice, a staple eaten at every meal in large quantities. Loss of weight is not generally regarded positively among Hmong; obesity perceived through the historical lens of scarcity of food is viewed as a positive attribute (Peterson, et. al., p.179.) A careful treatment plan would take into account concrete dietary changes that Hmong would be most likely to adopt, the importance of family and family eating habits, and the ways that diabetes is perceived by the Hmong (Peterson, et.al., p.181.)

Traditional Foods. The traditional diets of elder Hmong Americans reflect the diverse influences and history of many cultures, including Chinese, Vietnamese, Laotian, and Thai. Before coming to the U.S. as political refugees (as a result of the Vietnam War), the Hmong inhabited the mountainous region of Laos, where they lived in isolated villages and were referred to as hill tribe people. In the U.S., their traditional diet reflects the foods available in their specific region of origin. Core foods that are considered staples of a traditional Hmong diet include rice which is served at every meal. Pork is a favored meat, in addition to chicken and beef. Amounts of animal protein consumed are related to the ability to purchase these foods. Green vegetables, particularly mustard greens, are common, as are soups simmered with vegetables. The broth from these soups is sipped from a bowl during mealtime. Generally, the same foods are eaten for all meals of the day. A typical meal consists of rice, vegetables (usually greens) and pork, chicken, or beef. Fish sauce and soy sauce are popular as seasonings, as are Chinese parsley, red chile peppers, lemon grass, lemon and lime juice. A further sampling of common foods includes: **fruits:** bananas, coconut, mango, papaya, guava, jackfruit, lichees (Because of availability and cost, bananas, oranges, apples, peaches, cantaloupe and pears, among other fruits common in the U.S., are substituted); **vegetables:** mustard and other types of greens, cabbage, bitter melon, Chinese broccoli, bamboo shoots, yard-long beans, squash, pumpkin); **grains:** rice, noodles (made from rice, wheat, or mung bean); **dairy products:** These are not part of their traditional diet; **protein sources:** meats (pork, chicken, or beef), tofu. Lard is often used for cooking.

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including length of residence in the U.S., age, education level, and income level. Availability is also an issue, since some traditional fresh fruits and vegetables may not be found in the U.S.. However, in the elder Hmong American population, adherence to traditional diets is the norm. They continue to eat rice with every meal, enjoy fresh vegetables (including the broth from these dishes), and pork, chicken, or beef, as their economic situation allows. Tofu is also consumed. Snacking is not common, and mainstream American foods are not popular.

Strategies for Culturally Appropriate Dietary Interventions:

1. *Make Healthy Food Choices:*

Choose foods that are low in total fat, especially saturated fat and cholesterol. Emphasize intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein,

(for example, lean meats, poultry, and tofu). Encourage reduction in high sodium seasonings. Also, emphasize low fat, healthy cooking methods. Focus on healthy traditional foods.

2. *Control Food Portions*

Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Hmong food guide pyramid to discuss adequate servings and recommended choices from each food. (Food guides available in resources listed below by Ikeda, J.P. and Georgia State University)

3. *Modify Recipes*

Recommend reformulation of traditional recipes. For example, substitute small amounts of vegetable oil for lard in stir frying, and reduce amounts of high sodium seasonings like fish and soy sauce, particularly when hypertension is present. Community gardening activities are also recommended.

Resources for in-depth information on Hmong American cultural perspective, traditional food habits, and contemporary food habits in the U.S.:

Georgia State University. Nutrition education for new Americans project: Hmong language version. <http://monarch.gsu.edu/nutrition/Hmong.htm>

Ikeda, J.P. 1999. *Hmong American: Food practices, customs and holidays*: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, Illinois 60606-6995, (312) 899-0040. www.eatright.org

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning. Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

To locate Registered Dietitians or Certified Diabetic Educators: www.eatright.org, or www.diabeteseducator.org. Unfortunately, these organizations do not list their members according to cultural specialization.

Depression

Risk

The Hmong have experienced prolonged and severe psychological impact after years of war, loss, trauma, and uncertainty, including the enormous challenge of adaptation to a radically different country, language, roles, rules, and expectations. Mental illness rates for Hmong have remained consistently high, among the highest for Post Traumatic Stress Disease and depression of all refugee and immigrant groups. Dr. Vang Leng Mouanoutoua (2003) states that the common psychiatric problems of Hmong -- depression and posttraumatic stress disorder -- stem from many years in a war-torn country, multiple losses, intergenerational conflicts related to differences in rates of acculturation, failure of finding meaning in their lives in a new environment, and other issues.

Culturally Appropriate Diagnosis and Treatment

The Hmong version of the Hopkins symptom checklist to assess for psychological distress was developed by Dr. Vang Leng Mouanoutoua (1995).

Providers aware of the manifestations of depression in Hmong elders will be better able to develop a culturally appropriate treatment plan. An appropriate treatment plan for a Hmong suffering from depression would involve a number of therapeutic and educational goals to help the individual regain functional status. Interventions might include helping the individual understand how to cope with grief, depression, and

trauma, and work on ways to create a meaningful life in the U.S. Case management might include both primary doctor and other health providers and indigenous healers such as shaman and herbalist. The Hmong elder's family could be enlisted to help, and the therapist could educate the family in the nature and cause of the individual's problems, dispelling misconceptions such as the individual being "crazy."

Information from Interviews of Four Hmong American Key Informants

Terms used to describe **diabetes** in Hmong contribute to confusion about the disease. Diabetes and hypertension are translated similarly; diabetes is translated "high blood sugar" which Hmong confuse with "high blood pressure." One informant described blood pressure as meaning "have too much blood" and diabetes as meaning "can't connect with sugar." The Lao term for diabetes was reported as "sweet urine," and a tangible indicator of diabetes is the crystallization of sweet urine that attracts ants. Accordingly, Hmong may not believe anything is wrong because they feel fine, but they can check their urine and see tangible evidence.

Some Hmong, but certainly not all, believe that symptoms of diabetes indicate soul loss, and therefore, they consult a shaman or "soul caller." One informant described the soul calling that her mother, who has diabetes, received. She had related the tiredness of diabetes to a soul "that went someplace else" and caused fatigue. The daughter described a part of the soul-calling ritual: the soul caller tied a thread to an egg and rolled it from the bed to the front door and then threw a pair of buffalo horns to divine if the soul had returned. This woman participated in a soul calling ceremony once a year, and her daughter said that she had more energy afterwards.

In addition to soul calling, Hmong turn to herbs they grow or obtain from Laos to treat diabetes more frequently than they use Western medicine. One informant said that they use the herbs to "cure – to get rid of diabetes" and stated that Hmong feel better when they take these herbs. A study of ten shaman with diabetes and high blood pressure is underway in Merced, and all report use of herbs. One of the men in the study had diabetes for ten years and then went home to Laos to be cured with traditional herbs called dragon herbs that have been used for centuries. One informant stated that Hmong take medicine when they notice symptoms and stop when they feel fine. They are also confused about the number of medicines they have and what the dosage is, despite the availability of medical translators to assist with instructions.

Informants reported a number of problems with biomedical treatment and healthcare for Hmong with diabetes. One stated "Western medicine gives lots of information without thinking about how the brain categorizes. The American notion of health is mechanical and not holistic. When factual information is given, Hmong cannot relate to it and they give their own explanation." Another informant, a medical translator, said that there are problems when doctors speak too directly about dire consequences that can result when a patient does not follow a treatment regimen. In an extreme case, a doctor might say that death can result from not following strict dietary and treatment instructions. The translator said that he would never translate something like that word for word. He said, "What the doctor should say is 'You may want to try this because...'"

All informants indicated that there were few cases of diabetes in Laos and so people don't consider the seriousness of the disease. They said that this makes prevention as well as treatment a problem. Hmong do not want to change their eating habits or adhere to a treatment regimen that they don't understand. All indicated that it was important to work with a whole family or group and not just with an individual.

All of the informants indicated that **depression** was a significant and serious problem in the Hmong community. Older Hmong, in particular, who suffer greatly from depression, do not talk openly about how they feel, but they may voice many somatic complaints, such as backache, stomachache, or headache. Mental health in general is associated with "being crazy," and there is no specific translation for depression. One informant said that it takes a long time and a number of conversations before they are willing to say how they feel. In general, they would rather not know that they have depression, but if they do receive this diagnosis, they will not tell others. Some Hmong believe that the condition might become worse if one talks about it.

Those in the middle generation have to work, take care of children, take care of their parents, and consequently experience a great deal of worry and stress. Sometimes the worry and stress manifests as domestic violence. The informants believe that those who experience a chronic condition such as high blood pressure and diabetes and cannot work suffer from social isolation that increases depression. The ten shaman with high blood pressure or diabetes (referred to above) are experiencing depression related to their conditions.

Depressed Hmong in the community of Merced can attend a group for support created through a Southeast Asian Support Grant originally funded to enable Hmong with depression to consult with physicians. To date, there have been sixteen people in the group, mostly women. Informants agreed that most Hmong who are depressed generally do not seek outside help.

Serious **memory loss** is regarded as a natural consequence of old age, especially for one who has an illness like high blood pressure and diabetes. One informant stated that if a Hmong has lots of pressure and many community and family responsibilities, he or she will naturally become forgetful. One informant said "it is not something that people worry about." There is no direct translation for cognitive loss in Hmong, and one informant did not understand the terms "cognitive loss" or "dementia." Similar to diabetes, it was not a problem that existed in Laos, especially given a typically shorter life span.

JAPANESE AMERICAN ELDERS

Kellie Takagi, PhD, Nancy Hikoyeda, DrPH, Caroline Fee, MA, and Gwen Yeo, PhD

Background

Japanese Americans have a long history in the United States. The first generation immigrants (called *Issei*) were primarily male contract laborers who worked in the fields of Hawaii in the 1860's. In the 1880's, mainland work opportunities arose on railroads, farms, canneries, and mines. Although immigration of family members was restricted, in time the Japanese workers were allowed to bring wives and begin families in their adopted homeland. The current cohort of older Japanese Americans, known as *Nisei*, are the second generation, children of the *Issei*; their children are *Sansei* (3rd generation), followed by *Yonsei* (4th generation) and *Gosei* (5th generation). Traditional Japanese families were vertically structured and male-dominated. The social structure and moral codes were based on Meiji era Confucian values (e.g., filial piety, deference to authority) which dictated how individuals were to act within families and society.

Historically, the great majority of Japanese Americans have resided on the U.S. West Coast. As a group, they encountered racial discrimination and anti-Japanese sentiment, which reached its peak during World War II. At that time, all people of Japanese descent on the West Coast, whether citizens or not, were removed from their homes and placed in one of 10 inland internment camps. With only two days notice, they were forced to pack their belongings and leave their homes and businesses, allowed to take only what they could carry. Although some internees were allowed to leave the camps to take jobs or attend college, most families remained in the camps until 1945 when the war ended, and the experience became a common unifying factor for the people in this cohort. After the war, internees were allowed to return to their West Coast homes; many located near *nihon machis* (Japanese towns) where they received assistance with resettlement. In the 1990's, after a long battle with the U.S. Congress about the constitutionality of the relocation, survivors of the camps were awarded redress and reparations.

Since WW II, Japanese American elders, on a whole, have done well socioeconomically and have been labeled a "model minority." However, the belief that Japanese American families "take care of their own" has prevented many elders from receiving needed government assistance and/or access to resources. For example, many single older Japanese American women live near or below poverty. Intergenerational conflicts have also surfaced because of assimilation and an out-marriage rate of 50% which has diluted traditional Japanese values and transformed family roles (e.g., family members as caregivers). Since most Japanese American elders are now *Nisei* or *Sansei*, most speak English.

Diabetes

Risk

Much of what is known about the health of older Japanese Americans comes from data from the Honolulu Heart Program (HHP), which recruited 8,006 Japanese

American men aged 45 to 68 living on the Hawaiian Island of Oahu in the late 1960s (Yano, Reed, & Kagan, 1985). This original sample represented 72% of the men of Japanese ancestry on Oahu; identified through the World War II Selective Service Registration records. The initial baseline evaluation occurred between 1965 and 1968, and subsequent examinations took place in 1968-70, in 1971-74, and in 1991-93. Each examination included simple clinical measures, sociodemographic information, and assessment of medical conditions such as dementia, depression and diabetes.

Eighty percent of the original HHP sample were interviewed in 1991-93 when they were 71-93 years old. At that time the prevalence of impaired glucose metabolism was 18% (Rodriguez, Abbott, & Fujimoto et al., 2002). In King County, WA, 56% of Japanese American men aged 45-74 were found to have abnormal glucose tolerance, and 20% had diabetes, approximately half of which were previously undiagnosed (Fujimoto, Leonetti, Kinyoun, et al., 1987). Similar rates were found among Japanese Americans in Los Angeles (Lipson & Kato-Palmer, 1988). In the Hawaii study, lifestyles that included higher levels of physical activity and consumption of more carbohydrates and less fat and animal proteins resulted in lower prevalence of type 2 diabetes (Huang, Rodriguez & Burchfiel et al., 1996).

Culturally Appropriate Management

Some Cultural Remedies for the Treatment of Diabetes in Japanese American Elders

<u>Selected Herbs</u>	<u>Dietary Practices</u>	<u>Theory</u>	<u>Cultural Healers</u>
In Traditional Japanese Medicine, (Kampo), herbs are most often used in combination. These formulations usually contain a mixture of many herbs. Below are some common individual components.	Based on Traditional Chinese Medicine theory, illness may be considered an imbalance of a person's yin (cold) and yang (hot) equilibrium. Since diabetes is considered a yang (hot) condition, to restore balance in the body yin (cold) foods may be used. However, this dietary practice is not as widely practiced in Kampo as it is in Traditional Chinese Medicine.	Kampo remedies seek to restore or unblock Ki (the vital life force/energy in the body), based on Traditional Chinese Medicine theory. The flow of Ki may be disrupted in the body by improper diet, insufficient sleep, lack of exercise, or conflict with family or society, which leads to illness. The concept of harmony with nature, family, and society is also seen as being a central element in restoring health.	Kampo Practioners Herbalists Acupuncturists Massage Therapists
Ginseng <i>Panax ginseng</i>			
Astragalus <i>Astragalus membranaceus</i>			
Dan Shen <i>Salvia bowleyana</i>			
Bitter Melon <i>Momordica charantia</i>			
Garlic <i>Allium sativum</i>			
Maitake Mushroom <i>Grifola frondosa</i>			
Aloe <i>Aloe vera</i>			

Resources

Japanese Kampo. <http://www.honsousa.com/>

Kenner, D. (2001). The role of traditional herbal medicine in modern Japan. www.acupuncturetoday.com.

Kittler, P.G., & Sucher, K.P. (2004). *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Natural Medicines Comprehensive Database. www.naturaldatabase.com

Rister, R. (1997). *Japanese herbal medicine: The healing art of Kampo*. Garden City Park, NY: Avery Publishing Group.

Nutrition Education for Treatment of Diabetes in Japanese American Elders

Traditional Foods. The traditional diet of Japanese American elders reflects the regional foods of their Japanese ancestry. Additionally, attractive presentation of foods is highly valued, as it reflects the importance of maintaining balance and harmony with nature and within the individual person. In the U.S., food availability determines many food choices including seasonal fresh fish, vegetables, and fruits. Nonetheless, there are certain foods that form the foundation of traditional Japanese cuisine including short grain rice, wheat (popular as noodles) vegetables (pickled vegetables are used extensively), seaweed, soybean products (soy sauce, tofu, miso), fish/shellfish, and green tea. Additionally, dried, smoked, and pickled foods are commonly consumed, and seasoning of foods usually includes soy sauce. A further sampling of these core foods includes: **fruits:** oranges, tangerines, melons, pear apples, persimmons (fruits are usually served fresh and for dessert), plums (fresh, preserved, salted); **vegetables:** bamboo shoots, bean sprouts, cabbage, daikon radish, onions, ginger, mushrooms (shitake and others), seaweed; **grains:** short grain rice, wheat and buckwheat (used in noodles); **dairy products:** in traditional Japanese diets, dairy products are not commonly consumed; **protein sources:** fish/shellfish (raw, cooked, dried, smoked), soybeans (tofu, miso), meats (bite size pieces of chicken, and beef), legumes (soybeans, red beans, lima beans) and **green tea**. A typical meal includes soup, rice, and other dishes that are shared (fish dishes are common).

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including length of residence in the U.S., age, education level, and ability to speak English. Also, dietary acculturation is influenced by issues of traditional food availability, quality, and cost. For elders, however, eating traditional Japanese foods at lunch and dinner may be the norm and dietary acculturation may be seen in the choice of food items for breakfast. It is important to note, however, that with acculturation to mainstream American eating patterns, dietary fat, refined carbohydrates and sugar consumption increase. These dietary changes are postulated as risk factors for a number of diseases, including type 2 diabetes.

Strategies for Culturally Appropriate Dietary Interventions:

1. *Make Healthy Food Choices:* Continue to choose foods that are low in total fat, especially saturated fat. Emphasize high intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein, (for example, fish, tofu, lean poultry and beef). Focus on healthy traditional foods.
2. *Control Food Portions:* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Asian food guide pyramid to discuss adequate servings

and recommended choices from each food. (For food guide, see resource listed below from Georgia State University).

3. *Modify Recipes*. Emphasize low fat, healthy cooking methods such as steaming, grilling, and simmering. Reduce high sodium seasonings and salted, fermented, and pickled foods, especially if hypertension is present.

4. *Resources*

For in-depth information on Japanese American cultural perspective, traditional and contemporary food habits in the U.S.:

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.

For implementation of strategies listed above:

Georgia State University. *Nutrition education for new Americans project (Japanese language version)*: Available at <http://monarch.gsu.edu/nutrition/Japanese.htm>

Nasco Food Replicas: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

To locate Registered Dietitians or Certified Diabetic Educators www.eatright.org; or www.diabeteseducator.org. Unfortunately, these organizations do not list their members according to cultural specialization. However, one could begin by identifying those professionals who have family names that appear to be of Japanese origin; then, follow up with a phone call or email to get specific information on their cultural and bilingual expertise.

Depression

Risk

In the HHP physically healthy, depressed older Japanese American men had higher mortality than the physically ill group (Takeshita, Masaki, & Ahmed et al., 2002).

In the study of five populations of older Asian immigrants in New York City, Mui and colleagues found that 72% to 76% of Japanese American elders scored in the depressed range on different versions of the Geriatric Depression Scale. This was the highest percentage of the five populations (Mui et al., 2003).

Culturally Appropriate Assessment.

Although most Japanese American elders speak English, a few may be more comfortable speaking Japanese. The Geriatric Depression Scale (GDS) is available in Japanese and can be downloaded from the following website <http://www.stanford.edu/~yesavage/GDS.html>. In the New York study, Mui and colleagues found that all of the Japanese American elders preferred the English version (Mui et al., 2003).

Cognitive Loss and Dementia

Risk

In the HHP sample Syndrome X, or metabolic cardiovascular syndrome (a cluster of cardiovascular risk factors including impaired glucose tolerance and high blood pressure) was found to increase the risk of vascular dementia but not Alzheimer's disease (Kalmijn, Foley & White et al., 2000).

A study of the prevalence of dementia in a cohort of 3,734 older Japanese American men (80% of the surviving cohort of the HHP) found that the prevalence of Alzheimer's disease in the Hawaii sample was 5.4%, higher than in Japan but similar to Americans of European-ancestry. Prevalence of vascular dementia was found to be 4.2%, slightly lower than in Japan but higher than in those of European-ancestry (White, Petrovitch, Ross et al., 1996).

In an associated HHP study to determine the frequency of unrecognized dementia by family informants, all the older Japanese American subjects underwent cognitive testing. A total of 21% of family informants failed to recognize memory problems in subjects that were diagnosed with dementia. Mild dementia was unrecognized by 52% of family informants compared to 13% of unrecognized severe dementia. Among those whose families did recognize memory problems, 53% had not received a medical evaluation (Ross, Webster, Abbott et al., 1997).

Culturally Appropriate Diagnosis and Assessment.

The Cognitive Abilities Screening Instrument (CASI) has been used extensively in the HHP and in associated research with Japanese Americans in the Seattle area. It is designed to be appropriate as a cognitive screening tool with cross cultural populations (Teng, Hasegawa, Homma, et al., 1994). (See Appendix A for information on accessing the CASI in the Japanese language.)

Information from Interviews with Four Japanese American Key Informants

Diabetes is familiar to Japanese Americans because it is so prevalent now. It is viewed as serious and generally described as too much sugar or glucose in the blood. Causes include a genetic link as well as obesity, lack of exercise, and a diet that includes too many sweets. It is a problem because people with diabetes cannot eat what they want, especially rice, and it is a lot of trouble having to poke their fingers after they eat. There is fear of blindness and foot problems. Some don't want to take insulin. Diabetes is not seen as having a cure, only prevention and control that includes diet, medication management, and especially exercise. People with diabetes turn to Japanese American nurses for information, and rarely discuss it with their physicians. They also read articles and turn to others in the community with diabetes for support, which makes them feel better. They may also pray, exercise (especially walk), cut out sweets and reduce other carbohydrates, and take their medicines to feel better.

The term depression is seldom used. It is talked about as feeling sad, down-in-the-dumps, tearful, lonely, withdrawn, socially isolated, tired or without energy, worn-out, "don't want to do anything any more" (especially going out or being with friends), having trouble sleeping, or "ready to go at any time." Talking about mental problems such as depression is seen as taboo by some Japanese Americans, and most do not talk about it, even within the family. One respondent felt that more education about depression is needed. If people see someone who is "low", not talking, or staying at home, they may talk with others in the community and then offer the person emotional support through the social network. They might even call the family and encourage

them to take the person to the doctor. Sometimes people with depression will turn to “good listeners” who are trusted, such as community leaders or a minister.

Signs of memory loss include not remembering what day it is or what they had for breakfast, calling the same person about the same thing many times, being forgetful, or not being able to function in their normal roles. People often joke about their forgetfulness and see it as a normal part of aging. Adult children are sometimes not informed because the parents don’t want to bother them. Driving is a difficult problem, and older adults stop going out because they forget things and people. Sometimes spouses cover for their loved ones with memory problems so others won’t know. Dementia is not a word that is commonly understood in the Japanese American community. They sometimes see it as the very early stages of Alzheimer’s disease. The term senility is used, and it is thought to be a normal part of aging.

Individuals with diabetes might talk to someone about it, but depression and memory loss are not seen as commonly associated with diabetes. Since the latter two are more difficult to talk about in the Japanese American community, they would generally not be included in the conversation. In an emergency such as bioterrorism, it is fortunate that most Japanese American elders speak English, so communication would be easy to direct them to a safe place.

MEXICAN AMERICAN ELDERS

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Background⁴

Today's cohort of older Americans from Mexican ancestry is extremely heterogeneous. Since much of the Western U.S. was originally part of Mexico, some families have resided in the area longer than those from European and other ancestries. Immigration has continued both formally and informally since the annexation of the Western territories to the U.S. in the mid 1800s. Periods of massive immigration, especially during crises in Mexico such as the Mexican Revolution in the early 1900s, have alternated with periods of forced repatriation such as that during the great depression, leaving families divided. Not only Western agriculture, but increasingly agricultural and industrial areas in other parts of the U.S., have become dependent on Mexican labor.

The large majority of the current Mexican American population, however, lives in urban areas, and there is a growing middle class of professional and technical employees and business owners. Strong family ties and values tend to keep Mexican American elders living close to their adult children, many times in heavily Spanish-speaking communities. Although they and their children may be comfortable in English and acculturated to the larger community, they may prefer to communicate in Spanish and maintain some of their traditional culture.

Common experiences of Mexican American elders have been;

- As children, working with their families in the fields as migrant laborers, staying in crowded labor camps with little running water and no electricity, and with little or no access to school;
- Having attended schools in which they were punished for speaking Spanish, even on the playground;
- *Bracero* programs, and large numbers of Mexican American in the military in World War II;
- The Chicano Movement of the 1970s, increasing civil rights, and Cesar Chavez's United Farm Worker movement;
- Various periods of anti-immigrant movements, welfare reform, and immigration reform sentiment;
- Family reunification legislation after 1965 which allowed elders to immigrate as "followers of children" to join their adult children.

Issues that may affect health care of Mexican American elders include the fact that a large portion may have had access to minimal or no education; preference and comfort with the Spanish language; traditional Catholic participation, although there

⁴ Information in this section is excerpted from the chapter on Mexican Americans from Yeo, G., Hikoyeda, N., McBride, M., Chin, S-Y, Edmonds, & Hendrix, L. (1998) *Cohort Analysis as a Tool in Ethnogeriatrics: Historical Profiles of Elders from Eight Ethnic Populations in the United States*. SGECE Working Paper #12. Stanford, CA: Stanford Geriatric Education Center.

are growing Protestant and Evangelical Spanish speaking congregations; and traditional expectations for family care and services rather than formal services, especially in relation to long term care.

Diabetes

Risk

Diabetes is a serious health problem among Latinos⁵ in the United States. According to the National Institute of Health, two million Hispanic Americans had a diagnosed case of diabetes in 2000, which accounts for approximately 10.2% of the United States' population of 30 million Latinos (NIDDK, 2002). (See Table 3 for prevalence among older Latino/Hispanic Americans.) Statistics on diagnosed cases of diabetes likely do not provide a complete picture of diabetes in Latinos, as it is estimated that approximately one third of diabetes cases in Hispanic Americans are undiagnosed (Harris et al., 1998).

Diabetes is considerably more prevalent among Latinos than Anglos, with Hispanic Americans having 1.9 times the risk of developing diabetes as European Americans of a comparable age (NIDDK, 2002). (See Table 3 with data by age from Center for Disease Control, 2004.) This is true for Mexican Americans, the largest ethnic subgroup in the Latino category, and for Puerto Ricans, whereas the prevalence among Cubans is only slightly higher than that of Anglos (Harris, 1991; Stern & Haffner, 1990). This higher prevalence of diabetes in Latino communities is likely due to the finding that Hispanic Americans have higher rates of risk factors for diabetes than European Americans. These include genetic, medical, and lifestyle factors (NIDDK, 2002). For example, Mexican Americans are twice as likely to have a first-degree relative with diabetes than to have no family members with diabetes (Stern et al., 1983). Compared to European Americans, Mexican Americans have higher rates of pre-diabetes (blood glucose levels above normal but subthreshold for diabetes) (Harris et al., 1998), higher rates of hyper-insulinemia (Stern and Mitchell, 1995), and higher rates of obesity (Kuzmarski et al., 1994). In addition, 65% and 74% of Mexican American men and women respectively report engaging in minimal or no leisure-time physical activity (Crespo et al., 1996). The prevalence of diabetes appears to decline with increasing levels of acculturation among Mexican Americans (Hazuda, Haffner, Stern, & Eifler, 1988).

Mexican Americans with diabetes have been found to have more severe hyperglycemia, an increased prevalence of retinopathy, increased proteinuria, and six times higher incidence of end-stage renal disease than their Anglo counterparts with diabetes (Haffner, Mitchell, Pugh, et al., 1989; Pugh, Stern Haffner, et al, 1988).

⁵ In this curriculum the term Latino and Hispanic are used interchangeably

Table 3
Age-Specific Prevalence of Diagnosed Diabetes per 100 Population,
by Hispanic Ethnicity and Sex, United States, 2002

Population	Age	Rate
Hispanic Females	45-64	12.31
	65-74	25.22
	75+	18.51
White Females	45-64	7.56
	65-74	13.63
	75+	11.66
Hispanic Males	45-64	16.40
	65-74	25.02
	75+	25.81
White Males	45-64	9.60
	65-74	18.11
	75+	16.47

Source. Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Health Interview Statistics, data from the National Health Interview Survey. U.S. Bureau of the Census, census of the population and population estimates. Data computed by the CDC's Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion

Culturally Appropriate Assessment and Management

Culturally appropriate assessment and treatment for diabetes includes not only the standard laboratory tests and history taking (available in Spanish), but also attention to the traditional cultural values of Mexican Americans which may influence elders' expectation of the health care encounter, especially among those who are less acculturated. Two that influence the assessment process include (Villa, et al, 1993):

- *personalismo*, or personal rather than impersonal relations, especially showing *respeto*, or respect, to elders, who are traditionally valued in Mexican society;
- *familismo*, or emphasis on the value of, and reliance on the family. This can be used as a motivation to encourage elders to be screened for diabetes, so that they can be treated if necessary to lessen the chance they will be a burden to their family.

Eliciting elders' explanatory models of diabetes can help providers understand their patients' view of the origin and process of their condition. Questions such as "What do you call this condition?" "What do you think caused it?" can be used. Some traditional perspectives and treatment in the Mexican culture are found in the following table which can guide the provider in exploring the practices of elders, some of which could be incorporated into a management plan if the patient and provider feel it is helpful (e.g., continuing the use of the common food *nopales*). It would be helpful to know if the elder practices balancing foods that are considered "hot" and those considered "cold" in guiding the nutrition education.

Some Cultural Remedies Used for Treatment of Diabetes in Mexican American Elders

<u>Selected Herbs</u>	<u>Dietary Practices</u>	<u>Spiritual Practices</u>	<u>Cultural Healers</u>	<u>Other</u>
Aceitilla burr marigold <i>Briens pilosa</i>	Illness is considered an imbalance of a person's "hot" and "cold" equilibrium. Since diabetes is considered a "hot" condition, to restore balance in the body an increased intake of "cold" foods is recommended. (Some examples of cold foods are most vegetables, citrus fruits, and dairy products). Decreased intake of "hot" foods is also recommended. (Some examples of hot foods are alcohol, beef, chiles, oil, and pork).	Prayer is used to seek God's intervention and healing.	<i>Curandero</i> : Treatments include counseling, herbs, amulets, rituals, and prayers.	Treatments for "Susto" (a fright, fear, or other strong emotion) are sought, often from a <i>Curandero</i> .
Chia (Pinole) chia sage <i>Saliva columbariae</i>				
Nopal prickly pear cactus <i>Opuntia species</i>		Other Catholic religious practices/rituals are used to ask for God's healing powers.	<i>Sobadora</i> : Treatments include massage and manipulation.	
Prodigiosa(Rodigiosa) Bricklebush <i>Brickella grandiflora</i>				
Sabila Aloes <i>Aloe vera</i>		Other Catholic religious practices/rituals are used to ask for God's healing powers.	<i>Yerberero</i> : Treatments include herbs and mineral extracts.	
Tejocote Hawthorn <i>Crataegus mexicanus</i>				
Tronadora trumpet bush <i>Tecoma stans</i>				
Zarsasparilla Sarsaparilla <i>Smilax officinalisi</i>				

Resources

Hunt, L., Arar, N.H., & Akanna, L.L. (2000). Herbs, prayer, and insulin : Use of medical and alternative treatments by a group of Mexican American diabetes patients. *Journal of Family Practice*, 49(3): 216-223.

Jezewski, M.A., & Poss, J. (2002). Mexican Americans' explanatory model of type 2 diabetes. *Western Journal of Nursing Research*, 24(8): 840-867.

Kaiser, L. L. et al. (2003). Diabetes-related health beliefs explored in low income Latinos. *California Agriculture*, 51(1): 8-12.

Natural Medicines Database. www.naturaldatabase.com

Poss, J., & Jezewski, M.A. (2002). The role and meaning of *susto* in Mexican Americans' explanatory model of type 2 diabetes. *Medical Anthropology*, 16(3): 360-377.

Thompson, J. (2002). Cultural aspects of treating Mexican patients, *Clinical Reviews*, 12(5): 56-62.

Zaldivar, A., & Smolowitz, J. (1994). Perceptions of the importance placed on religion and folk medicine by non-Mexican-American Hispanic adults with diabetes. *Diabetes Education*, 20(4): 303-306.

In addition to considerations of medication for diabetes, culturally appropriate treatment includes health education on lifestyle changes that is appropriate for the elders' language and literacy level. In the population based SALSA study, for example 13% of the 1,789 older Latino elders from the Sacramento area had no formal education, another 48% had eight years or less, and 58% preferred to be interviewed in Spanish (Haan, et al, 2003). Information on diabetes in Spanish is available on the website of the American Diabetes Association at: http://www.diabetes.org/enespanol/spanish.jsp?WTLPromo=HEADER_espanol&vms=144702815395

Nutrition Education for Treatment of Diabetes in Mexican American Elders

Traditional Foods. The traditional diet of Mexican American elders reflects the diverse cultural influences of their Mexican ancestry, especially indigenous Indian and Spanish. Traditional diets also reflect the geographic regions of Mexico and the availability of local fruits, vegetables, grains, dairy products, and protein sources. Nonetheless, there are certain foods that are considered staples of a traditional Mexican diet which include corn tortillas and beans. These core foods includes: **fruits:** bananas, guava, mango, papaya, pineapple, and *aguas natualales* (fresh fruit blended with sugar and water); **vegetables:** avocados, squash, cactus, i.e., "nopales" or "nopalitos," chile peppers, tomatoes, onions, and salsas; **grains:** corn and corn products (*tortillas* and *masa*), long grain rice (usually prepared with vegetables, i.e., tomatoes, onions, and chile peppers), European-style breads and rolls, and pan dulce (Mexican sweet bread); **dairy products:** *atole* (a traditional hot milk beverage), cheese, and "crema," i.e., Mexican cream used for topping; and **protein sources:** meats (prepared with chile peppers, tomatoes, and other vegetables), *carne asada* (grilled beef), *chorizo* (spicy pork or beef sausage), eggs (prepared with vegetables). Lard is often used for cooking.

Acculturation Issues. Acculturation to mainstream American diets is influenced by numerous factors, including length of residence in the U.S., age, education level, income level, and ability to speak English. However, in general, consumption of many traditional dishes decreases, while, with acculturation, many new foods are added including ready to eat breakfast cereals, flour tortillas, plain cooked rice, white bread, ice cream, cookies, salad dressing, mayonnaise, margarine, fruit flavored high sugar drinks, and sodas. These dietary changes are postulated as risk factors for a number of diseases, including type 2 diabetes.

Strategies for Culturally Appropriate Dietary Interventions.

1. *Make Healthy Food Choices:* Choose foods that are low in total fat, especially saturated fat, cholesterol, and trans fats. Increase intake of complex carbohydrates, fresh vegetables and fruits, and low fat sources of protein, (for example, beans, lean meats, fish, and poultry). Focus on a return to healthy traditional foods.
2. *Control Food Portions:* Use food replicas to teach serving sizes, emphasizing the importance of portion control. Use the Mexican food guide pyramid to discuss adequate servings and recommended choices from each food.
3. *Modify Recipes:* Recommend recipes that reformulate traditional dishes. Emphasize low fat cooking methods, for example grilling, roasting, stewing, and baking. When

frying, use a small amount of cooking oil, instead of lard. Group cooking classes are also recommended.

4. Resources

For in-depth information on Mexican American cultural perspective, traditional and contemporary food habits in the U.S.:

Kittler, P. G., & Sucher, K.P. 2004. *Food and culture* (4th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Romero-Gwynn, E. et al.1993. Dietary acculturation among Latinos of Mexican descent, *Nutrition Today*, 28: 6-12.

For implementation of strategies listed above:

Algert, S.J., Brzezinski, E., & Ellison, T.E.. 1998. *Mexican Americans: Food practices, customs, and holidays*: Available from American Dietetic Association, 216 West Jackson Blvd, Suite 800, Chicago, Illinois 60606-6995, (312) 899-0040.

Martinez, M. 1995. *101 great lowfat Mexican dishes*. Rocklin, CA: Prima Publishing.

Nasco Food Replicas: Mexican American Ethnic Food Set: Available from Nasco Nutrition Teaching Aids. www.eNASCO.com

Southeastern Michigan Dietetic Association (SEMDA). Mexican food pyramid.

<http://www.semda.org/info/pyramid.asp?ID=27>

Internet resources to locate Registered Dietitians or Certified Dietetic Educators include: www.eatright.org and www.diabeteseducator.org. Unfortunately, these organizations do not list their members according to cultural specialization. However, one could begin by identifying those professionals who have family names that appear to be of Latino/Mexican origin, then, follow up with a phone call or email to get specific information on their cultural and bilingual expertise.

Depression Among Latinos with Diabetes

Risk

A number of studies have documented the higher risk of depression and dysphoria among older Mexican Americans in general than in their Anglo counterparts (Villa, Cuellar, Gamel, & Yeo, 1993). Latino patients with diabetes have also been found to be more likely than non-minority diabetics to have depression (Black & Markides, 1999). Fisher and colleagues found that 31.6% of the Latinos with diabetes had CES-D scores that indicate likely depression, compared with 17.2% of Anglos (Fisher, Chesla, Mullan, Skaff, & Kanter (2001). Also, in a study that included Hispanic and European Americans, individuals with both major depressive disorder and diabetes were more likely than those without both disorders to be Latino (Egede & Zheng, 2003). In another study by Fisher and colleagues no significant difference in rates of depression were found between Latino and Anglo partners of diabetics (Fisher, Chesla, Skaff, Mullan, & Kanter, 2002). There is a possibility of an underestimation of the differences between Latinos and Anglos due to the finding that Hispanic Americans are more likely than European Americans to have mental health problems, including depression, that go undiagnosed in primary care (Borowsky et al., 2000).

Latinos with diabetes have similar risk factors for depression as do their Anglo counterparts, including being older than 50, having less education, a low economic status, being unemployed, having greater functional burden of diabetes, and greater levels of financial stress (Egede and Zheng ,2003; Fisher et al. 2001).

Dr. Gallagher-Thompson and colleagues completed two studies examining the relationship between prevalence of diabetes and depression in middle aged and older Latino and Caucasian women caring for an elderly relative with dementia. In the first study of 110 Latinas and 154 Caucasian caregivers, the prevalence of diabetes was 14.5% in Latinas compared to 4% in Caucasians ($p < .002$). It is noteworthy that the mean age of Latina diabetics were significantly younger (55) than their Caucasian counterparts (70), suggesting that they would be living with their disability longer. In this study there was no significant relationship between diabetic status and level of depression; however it should be noted that depressive symptoms were high in both ethnic groups, with or without diabetes. This is consistent with the overall caregiving literature that generally reports rates of depressive symptoms at 30 - 50% among women caregivers. In the second study of 30 Latinas and 76 Caucasian women caregivers of dementia patients, the prevalence of diabetes, again, was significantly higher among Latinas (23%), compared to 6% of the Caucasians. In this study, the presence of diabetes was significantly associated with depression, in two important ways. First, using a structured psychiatric interview, 25% of those with diabetes across the two ethnic groups met criteria for Major Depressive Disorder, whereas only 5% of those without diabetes met the criteria. In addition, higher self-reported depression on the Beck Depression Inventory was found in the diabetics in both ethnic groups. Taken together, results of these studies underscore the relationship between ethnicity, diabetic status and both depressive disorder and depressive symptoms in women caregivers.

Culturally Appropriate Diagnosis and Assessment.

There are many self-report scales of depression that have been translated into Spanish. For example, the CES-D and Geriatric Depression Scale (GDS) have been used with Mexican Americans with good results. The GDS is available on the following website to download, including a version used in Mexico and others used in other Spanish speaking countries: <http://www.stanford.edu/~yesavage/GDS.html>. In addition, there are psychiatrically-based interviews that have been translated into Spanish.

Culturally Appropriate Treatment

Fisher et al. (2001) suggest that psychotherapy for Latinos with diabetes and depression should include an emphasis on life stressors unrelated to diabetes, in addition to stressors associated with the disease. Lustman and colleagues tested the efficacy of a 10-week individual cognitive behavioral therapy (CBT) with depressed Latinos with diabetes. They found that the CBT combined with diabetes education was more effective than a control condition in helping to relieve depression (Lustman, Griffith, Freedland, Kissel, & Clouse, 1998).

Cognitive Impairment in Diabetic Latinos

Risk

In the Sacramento Area Latino Study on Aging (SALSA) of 1,789 Latinos aged 60 and over, 45% of whom were born in Mexico, the overall prevalence of dementia was found to be 4.8%, which is not dissimilar to findings with non-Hispanic populations of the same age. The risk of dementia was found to be nearly eight times higher in

those with both type 2 diabetes and stroke. The authors estimate that 43% of dementia was attributable to diabetes, stroke, or a combination. (Haan, Mungas, Gonzalez, et al., 2003). As seen in Table 4, those diagnosed with vascular dementia or mixed Alzheimer's and vascular dementia were much more likely to have had both diabetes and stroke.

Table 4
Percent of SALSA Study Subjects with Dementia Who Had Diabetes and/or Stroke by Type of Dementia

	Alzheimer's (AD) (n=15)	Vascular (VaD) (n=13)	Mixed AD & VaD (n=6)
Diabetes	26.0%	6.3%	16.7%%
Stroke	5.9%	12.5%	33.3%
Both Diabetes and Stroke	11.8%	62.5%	50.0%

Adapted from Haan, et al., 2003.

Culturally Appropriate Assessment

A number of measures of cognitive functioning have been successfully translated into Spanish and used in studies on cognitive impairment in Latinos. For example, Haan et al. (2003) used translated versions of the Modified Mini-Mental State Examination (3MSE), the Spanish and English Verbal Learning Test (SEVLT) for cognitive screening and the Spanish English Neuropsychological Assessment Scales (SENAS), and the Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) for those who were referred for neuropsychological testing. All have been validated with older Latino populations. The CASI has also been translated into Spanish. (See Appendix A for information on accessing the CASI in Spanish.)

Information from Interviews with Three Mexican American Key Informants

In the Mexican American community **diabetes** is very common and accompanied by many losses. Since so many people have it, people are unfazed by it, even though it is a very bad disease. People don't have a lot of information about it, and many don't understand it. Diabetes is commonly seen as caused by *un susto* (a fright) or a sudden negative incident in their lives, or eating sweet foods. Some think it can be passed from husband to wife, but few relate it to parents having diabetes. A simple and positive approach in talking about it is recommended, especially what can be done about it. Words such as *problema con azucar en la sangre*, (problem with sugar in the blood) or *azucar en el urina* (sugar in the urine) can be used. *Nopales* (cactus) and other herbs are frequently used to treat diabetes, and many use prayer and other religious practices hoping for a cure. Some fall prey to scams such as a mattress or a bracelet. Self management is difficult, especially for women who are less likely to modify their diet since they cook for the family.

Depression is seen as being sad, but the term depression is seldom used. People may describe themselves as being tired [*No tengo animo* (I don't have energy)] or sad [*Me siento triste* (I feel sad)]. They might also talk about being on the edge,

being irritable, being *de mal humor* (bad mood), *todo le molesta* (everything bothers them) or *¡estit sola* (No one comes to see me.) To elicit symptoms of depression, one can ask if they feel *triste* (sad) or *sola* (alone) or if *hay problemas con deprimido o depresión* (there are problems with depression). Causes of depressions could be lack of understanding of the changes that are happening along with the complications and costs of those changes, lack of power or options to change circumstances, or fear of negative things that can happen in the future. They may be just getting tired of not feeling good. Unless the symptoms of depression are extreme, Mexican American elders would probably not seek help for it. They are more likely to look to religion and prayers and seek support from their family. A small percentage might consider seeing a healer, such as a *curandero* or *sobador*. A primary care physician reported one patient whose demeanor or reported symptoms never hinted at depression, then she was hospitalized in crisis.

Memory loss is even less likely to be reported, and the term dementia is not a term people recognize. In the extreme, it might be called, *loco* (crazy). In talking about memory loss, someone might say “*Ya se me olvida*” (Now I forget things), “*Ya no conosco gente*” (Now I don’t know people), “*Ya no se acuerda*” (Now she doesn’t remember). One provider commented that the individuals with dementia often had a history of alcohol abuse.

SENSORY LOSS AND EMERGENCY PREPAREDNESS STRATEGIES WITH ELDERLY WITH DIABETES FROM DIVERSE ETHNIC BACKGROUNDS⁶

Melen McBride, RN, PhD

Sensory Loss

It is widely known that vascular and neurologic involvement in diabetes may result in retinopathy which can progress to significant ocular problems and severe visual impairments (Kane, Ouslander, and Abrass, 1994) and hearing loss (Kakrapudi, Sawyer, & Staecker, 2003). Consequently, the ability of an older person with diabetes to respond to and navigate the environment in an emergency situation would be greatly impaired.

One of the most common visual complications from diabetes is retinopathy. Retinal hemorrhages from damaged blood vessels may result in retinal detachments, macular edema, and scar tissue. In addition, cataracts, glaucoma, and changes in the refractive error are commonly found in diabetics. As a result, an elderly person may encounter numerous problems associated with reduced visual acuity, decreased peripheral vision, poor contrast sensitivity, impaired dark adaptation, and increased sensitivity to glare (Kane, Ouslander, and Abrass, 1994).

Sensorineural hearing loss may involve peripheral nerve changes which could affect acuity for pure tones, speech, and the ability to understand speech. Brain stem changes could create problems with localizing sound and/or listening with both ears. When cortical changes occur, problems with difficult speech and language could develop (Kakrapudi, Sawyer, & Staecker, 2003) Other age-related hearing loss such as structural changes and presbycusis would exacerbate the impairment (Kane, Ouslander, and Abrass, 1994).

Implications for Service Providers

Accessing resources is a major challenge to many older ethnic minorities due to lack of knowledge, fear, or distrust of health care services (McBride and Lewis, 2004, McBride and Lewis, in press). The diabetic elder with unrecognized depression and changes in memory and sensory functions is at risk of falling through the cracks in the event of a public health emergency such as environmental disasters involving biological or chemical agents.

A Center for Disease Control (CDC) report on emerging infectious diseases as potential agents for bioterrorism indicates that older adults are among the most

⁶ Dr. McBride would like to thank the following individuals and groups for their contributions to this section: Patsy Harvey, Ph.D., O.D., Clinical Professor of Optometry, University of California Berkeley and SGEC Affiliated Core Faculty member; staff of the Hearing Society for the Bay Area, Rose Resnick LightHouse for the Blind, SGEC Consortia Partners, West Bay Pilipino MultiService Center, Inc., and Canon Kip Community Center; and members of the San Mateo County Commission on Aging, Minority Elders' Committee.

vulnerable, particularly nursing home residents with decreased immunity (Ashford, Kaiser, Bales, et al., 2003). Since health care workers are often primary sources of early recognition and reporting, strengthening their knowledge is recommended, particularly among those serving the most vulnerable populations. The Association for Professionals in Infection Control and Epidemiology (APIC) in collaboration with the Center for Disease Control and Prevention (CDC) developed a reference document to facilitate emergency preparedness plans (APIC, 1999).

When an emergency evacuation is required, the sensory impaired senior could easily become disoriented and confused. Even in a safe environment, decreased sensory input can be a threat which creates anxiety. If a power black out occurs, devices for communication such as a telephone assistive device (e.g., TDD) would be non-functional, and self-assessment for physical signs of exposure to an infectious agent (e.g., skin changes) would be difficult to do with poor lighting.

Public health workers and community-based service providers, preferably those who are bilingual and bicultural, need to encourage and guide older ethnic clients to develop a well designed, customized home-based Emergency Readiness Health Plan. With patience and reassurance, names of family members or other responsible persons and their contact information should be identified and periodically verified for accuracy. In the current atmosphere of heightened fear of personal disclosures in minority and immigrant communities, clear and consistent explanation for the need of such information and the promise of confidentiality may help build trust.

The immune system of older adults with diabetes is at risk, and any threat of infection can compromise the system (Kane, Ouslander, and Abrass, 1994). Immediate treatment would be necessary, and for ethnic elders with sensory loss and limited English proficiency, accessing services and resources could be delayed due to lack of knowledge, distrust, and/or past experiences with formal systems (Yeo, Hikoyeda, McBride et al., 1998). Physiological reactions from stress associated with fear and panic, such as glucose metabolism, also require careful attention with regards to insulin treatment during crisis periods. To ensure a back up supply of insulin, elders should keep a spare bottle, syringes, and needles with a responsible person located beyond their neighborhood, and expiration dates should be checked regularly.

Community-based service providers in emergency shelters and ethnic specific senior centers are other groups who would need training in management of sensory impaired ethnic elders, particularly those with diabetes. Although staff and volunteers at these centers follow triage protocols, avoiding social isolation of sensory impaired elders and maintaining flow of communication helps to reduce anxiety. Post-event psychological adjustment may be eased with continuity of information and mental health support. The CDC concludes that the best response to emergency preparedness is an interdisciplinary approach in partnership with the communities at risk (Ashford et al., 2003). Providing public forums in ethnic and minority communities to develop an emergency readiness plan would be a positive step to establish trust in formal services.

The mnemonic E.T.H.N.I. C. E.L.D.E.R.S., developed by Dr. Melen McBride as an ethnogeriatric framework to develop curriculum content on bio-terrorism and emergency preparedness for ethnic elders, represents key areas of knowledge. It is included in the Core Curriculum on Bioterrorism and Emergency Preparedness for Older Adults developed by a collaborative of six Geriatric Education Centers who are recipients of HRSA grants on Bio-terrorism and Emergency Preparedness in Aging.

- E Evaluate risk to ethnic elder
- T Translate technical information to simple, indigenous terms
- H Help the senior communicate her/his special needs
- N Negotiate/navigate pathways to trust-relationship
- I Intervene with culturally appropriate plans
- C Collaborate with family, community, and ethnic media

- E Explain how to access local/neighborhood resources
- L Label survival kits with English and other languages
- D Differentiate between stress-induced anxiety and language difficulties
- E Educate senior, family, and community leaders
- R Respect traditional healing practices and rituals
- S Support with non-verbal behaviors

Other educational resources on emergency preparedness and the sensory impaired ethnic older adult with diabetes can be found in Appendix B. It includes practical tips on working with these populations in an emergency situation, resources, and a case scenario as a teaching tool.

Website resources

<http://www.nei.nih.gov/health/diabetic/retinopathy.asp>
<http://www.apic.org>
<http://bt.cdc.gov/training/index.asp#intro>
<http://www.phppo.cdc.gov/phtn/overview/asp>
<http://ucbcidp.org>
<http://www./cphdr.ucla/edu>
<http://www.lighthouse-SF.org>
<http://www.hearingsociety.org>

Other resources

American Red Cross	www.redcross.org
Salvation Army	1-888-321-3433
U.S. Public Health Service	1-800-872-6367
Domestic Preparedness Information Line	1-800-368-6498
National Response Center	1-800-8802

Information from Interviews with Ethnic/Minority Community Members and Service Providers

Informant Interviews

- Establish effective modes of communication during a crisis
- Provide for language interpreters
- Develop a good readiness plan; when crisis occurs, not much can be done
- Educate family how to provide guidance in a disaster
- Clarify payment for emergency services
- Have a central place to go to in the community

Consultation with Community Agency Staff

- Create a well organized emergency response system
- Enable the agency role to facilitate access to resources
- Educate agency staff and responders to special needs
- Target workers in emergency shelter
- Supplement community education

Consultation with Ethnic Minority Elders

- Ensure availability of language interpreter
- Educate emergency workers and volunteers on combined effects of diabetes, depression, cognitive changes, sensory loss, and infectious agents
- Educate seniors on a comprehensive approach to personal safety at home in the presence of an infectious biological agent
- Provide information on community resources in the event of an emergency, i.e., bio-terrorism

Appendix A

Request for CASI Material and Record Forms

To: Malcolm Dick, Ph. D.
 Alzheimer's Disease Research Center
 Institute for Brain Aging & Dementia
 Gottschalk Medical Plaza Bldg., Rm. 1100
 University of California at Irvine
 Irvine, CA 92697-4285

FAX: 949-824-3049

Date:

Please send me the CASI Manual, Quizzes, and Record Forms in English and in one of the following checked languages:

Spanish Japanese Chinese
 Vietnamese Korean

I am enclosing a check or money order of \$30 in U.S. dollars payable to
 UCI Regents

to cover the xeroxing and mailing costs.

If I have checked more than one of the languages, I have added \$5 for each additional language.

Signature and Title: _____

My name and mailing address are typed or printed legibly below for your office to use as the mailing label:

Appendix B

RECOMMENDED CURRICULUM CONTENT FOR INTERDISCIPLINARY TRAINING ON HEARING AND VISION LOSS AND EMERGENCY PREPAREDNESS

Hearing Loss

*Helen Luey, L.C.S.W., Director of Social Services
Hearing Society of the Bay Area, San Francisco, CA*

- **Defining Hearing Loss**
 - Statistics for Hearing Loss
 - Degrees and Characteristics of Hearing Loss
 - Dual Sensory Loss
 - Recognizing Participants with Hearing Loss
 - Implications for ethnic and minority older persons

- **What does Accessibility Mean?**
 - Program
 - Environment
 - Partnerships with ethnic and minority communities

- **Accommodation – How do you do it?**
 - Culturally appropriate communication
 - Interpreting
 - Technology and Equipment

- **Resources**
 - Hearing Rehabilitation Options
 - Hearing Resources
 - Local
 - State
 - National

Vision Loss

Kathy Abrahamson, MA, Coordinator, Low Vision Rehabilitation Services
Rose Resnick LightHouse for the Blind, Inc., San Francisco, CA

- **Defining Vision Loss**
 - Statistics for Vision Loss
 - Degrees and Characteristics of Vision Loss
 - Recognizing Participants with Vision Loss
 - Diabetic Retinopathy and Special Issues for Ethnic and Minority Older Adults and Families

- **What does Accessibility Mean?**
 - Program
 - Environment
 - Economic and cultural factors

- **Accommodation – How do you do it?**
 - Living with Vision Loss
 - Optimizing Sensory Functions in Dual - Sensory Loss
 - Learning Through Mobility Training
 - Gaining Confidence with Adaptive Aids and Techniques
 - Using all senses
 - Making Referrals

- **Resources**
 - Vision Rehabilitation Options
 - Vision Resources
 - Local
 - State
 - National

Psychosocial and Cultural Implications

Impact of communication challenges on

- social functioning
- self-esteem
- energy/ health
- relationships

Cultural issues

- meaning and expectations about hearing loss
- familiarity with resources
- language
- finances/ eligibility issues

For more details, contact Helen Luey at the Hearing Society for the Bay Area, 415-693-5870; helen @hearingsociety.org or Kathy Abrahamson at the Rose Resnick Lighthouse for the Blind, at 415-431-148; kabrahamson@lighthouse-sf.org

EMERGENCY PREPAREDNESS FOR PEOPLE WHO ARE HARD-OF-HEARING OR DEAF

First, obtain information that all people should know about preparing for an emergency:

American Red Cross National Headquarters
2025 E Street, NW Washington, DC 20006
Phone: (202) 303-4498; www.redcross.org/services/disaster

Second, obtain information about considerations for people with disabilities:

Independent Living Resource Center, 649 Mission Street 3rd Floor San Francisco, CA 94105. English (415) 543-6222; TTY: (415) 543-6698
www.ilrcsf.org/Publications/prepared/HTML/Emergency_Preparedness01.html

Third, consider these tips for people who are hard-of-hearing or deaf:

A. Make Plans for Obtaining Urgent Information. Some options:

Obtain a battery operated TV with decoder chip to reveal captions or sign language interpretation

Determine which broadcasting systems will provide continuous news that will be captioned and/or signed.

Arrange an emergency meeting place with a person who lives near you.

Make check-in agreements with your neighbors

B. Hearing Aids

Store hearing aid(s) in a strategic, consistent, protected, and secured location so they can be found and used in or after an emergency. (For example consider storing in a container by your bed which is attached to night stand or bed post using string or velcro)

C. Assistive Listening Device (ALD)

If you use amplification to understand, obtain one-on-one amplifier to use instead of or in addition to hearing aid in a difficult communication situation. Store near hearing aid or in emergency bag.

D. Create bag containing essential items in case you have to leave your home quickly. Include:

Extra hearing aid, if possible	Extra glasses
Assistive listening device	Medications
Batteries	For diabetics: glucometer supplies
Paper and pens	syringes and needles
Written information about how you communicate	
Family's and MDs' names & contact information	

E. Have in your home:

Extra batteries for hearing aids, ALD's, implants, TTY, and phone light.

Both audible alarms and visual smoke alarms. At least one should be battery operated.

F. Communication

Determine how you will communicate with emergency personnel: if there is no interpreter; if you do not have your hearing aid(s).

Consider carrying pre-printed copy of key messages such as:

I use American Sign Language (ASL) and need an ASL interpreter.

I lipread; please face me and speak slowly and clearly.

I have hearing loss: please speak next to my good ear

I do not write or read English. I speak (language).

I do not hear announcements from a public address system; please write or repeat it.

I do not see well; please write in large print

I have diabetes; the last time I had my medicine was _____ (time and date);
the last time I ate was _____ (time and date)

G. Advocacy

Recruit interpreters and people knowledgeable about hearing loss to be Red Cross emergency volunteers.

Maintain pressure on TV stations to broadcast all news and emergency information in open caption format.

When you travel ensure hotels have access packets for deaf and hard-of-hearing persons, including audible alarms. Ask for them when you check in.

Adapted From: Emergency Preparedness for People with Disabilities,
Independent Living Resource Center

SOME TIPS FOR VISION EVALUATION AND TRAINING *

Review the situations below that may indicate you or someone you know may require vision care.

<u>Situations</u>	<u>Yes</u>
<u>Do you bump into things?</u>	
<u>Do you grope for objects or touch them in an uncertain way?</u>	
<u>Do you move hesitantly or walk close to a wall?</u>	
<u>Do you fall or trip often? On holes or broken areas on sidewalks?</u>	
<u>Do you stub your toes?</u>	
<u>Do you overreach or underreach?</u>	
<u>Do you have difficulty seeing edges of stairs or curbs?</u>	
<u>Do you have trouble seeing in bright light, dim light, glare, or at night?</u>	
<u>Are you having trouble seeing or detecting pedestrians, street signs, traffic lights, newspaper racks, parking meters, crosswalk lines, buses, or cars?</u>	
<u>Do you feel afraid when you cross streets?</u>	
<u>Do you cross streets by following others?</u>	
<u>Do you know where to cross the street?</u>	
<u>Do you know when to cross the street?</u>	
<u>Do you feel safe walking?</u>	
<u>Do you feel off balance?</u>	

* Assessment questions used by staff of the Rose Resnick LightHouse for the Blind, San Francisco.

HEARING HEALTH INVENTORY *

Please answer each question. If you wear a hearing aid, answer according to how you hear without the aid.

<u>Questions</u>	<u>Yes</u> (4)	<u>No</u> (0)	<u>Sometimes</u> (2)
Does a hearing problem cause you to feel embarrassed when you meet new people?			
Does a hearing problem cause you to feel frustrated when talking to family members?			
Do you have difficulty hearing when someone speaks in a whisper?			
Do you feel handicapped by a hearing problem?			
Does a hearing problem cause you difficulty when visiting friends, relatives, or neighbors?			
Does a hearing problem cause you to attend religious services or social functions less often than you would like?			
Does a hearing problem cause you to have arguments with family members?			
Does a hearing problem cause you difficulty in listening to TV or radio?			
Do you feel that any difficulty with your hearing limits or hampers your personal or social life?			
Does a hearing problem cause you difficulty when in a restaurant with relatives or friends?			

Interpretation of Score: 0-8 = no loss; 10-24 = mild/moderate loss; 26-40 = severe loss

* Source: Ventry & Weinstein, 1983, American Speech and Hearing Society, 25, 37-42.

VULNERABILITIES OF SENSORY IMPAIRED ETHNIC ELDERLY WITH DIABETES CASE VIGNETTES

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Vignette No. 1: Mrs. Garcia is a 72 year old Mexican American with non-insulin dependent diabetes for the past 10 years controlled with medication and diet. Due to financial reasons, she is irregular in taking her medication. Recently she was informed by her primary care physician of changes in her retina which confirmed her own observation of decreasing visual acuity for more than a year. She especially notices this when driving at night and when sewing children's clothes. The latter activity supplements her disability income. She is overweight but she believes it is normal for women of her age who have had children to be a bit rotund. Modifying her diet has been difficult because she considers preparing good and satisfying food for her husband and two grandchildren to be more important. Taking care of the grandchildren, attending to domestic responsibilities, and meeting her job quota keeps her busy with little time for anything else such as exercise. She is worried about going blind and does not know what to do about it.

Teaching-Learning points

1. What strategy would you use to help Mrs. Garcia adapt an effective diabetic self-management plan?
2. What additional assessment would you do to build a trust relationship?
3. What would you include in a teaching plan for emergency preparedness for Mrs. Garcia and her family?
4. What referrals would you consider for the changes in vision?

Vignette No. 2: Mr. Magat, a 68 year old Filipino had a quadruple by-pass five years ago due to hypertension and vascular complications from Type 2 diabetes. Because he has been on insulin for 17 years and a diabetic for much longer, he relies on physical symptoms (dizziness, weakness, etc) instead of blood glucose tests, to adjust his medication and food intake. The demands of teaching is a reason given to health care providers for using this approach. He receives laser treatment every 3 months for retinal hemorrhages, and the severe vision loss keeps him indoors at night. Visits to his grandchildren must be done in the daytime by public transportation, a resource that he depends upon for almost all activities. Since he was widowed, he has rented out a section of his house to a middle-aged Filipino couple. His daughter who calls often gets frustrated on the phone because he does not wear his hearing aid.

Teaching-Learning Points

1. What risk factors makes Mr. Magat vulnerable in the event of an emergency situation involving potential exposure to an infectious agent?
2. How might these risk factors be reduced?
3. What would you include in a cultural assessment to understand his attitude about self-care?
4. What resources would you offer to Mr. Magat and his daughter to improve communication?

REFERENCES

- Akpaffiong, M., Kunik, M., Hale, D., Molinari, V., & Orengo, C. (1999). Cross-Cultural Differences in Demented Geropsychiatric patients with behavioral disturbances. *International Journal of Geriatric Psychiatry, 14*, 845-850.
- American Geriatrics Society and American Association for Geriatric Psychiatry, (2003). Consensus statement on improving the quality of mental health care in U.S. nursing homes: Management of depression and behavioral symptoms associated with dementia. *Journal of the American Geriatrics Society, 51*(9), 1287-1298.
- Anderson, R. J., Clouse, R. E., Freeland, K. E., & Lustman, P. J. (2001). The prevalence of comorbid depression in adults with diabetes: A meta-analysis. *Diabetes Care, 6*(6), 1069-1078.
- Andres, T. D. (1987). *Understanding the Filipino*. Quezon City, Philippines: New Day Publishers.
- Angel, A., Armstrong, M. A., & Klatsky, A. L. (1989). Blood pressure among Asian Americans living in Northern California. *American Journal of Cardiology, 64*, 237-240.
- Araneta, M. R., Wingard, D. L., & Barrett-Connor, E. (2002). Type 2 Diabetes and metabolic syndrome in Filipina-American women. *Diabetes Care, 24*, 494-499.
- Arvanitakis, Z., & Bennet, D. (2004). *NIA News: Diabetes Linked to Increased Risk of Alzheimer's in Long –Term Study*. Retrieved May 18, 2004, from <http://www.alzheimers.org/nianews/nianews65.html>
- Ashford, D. A., Kaiser, R. M., Bales, M. E., Shutt, K., Patrawalla, A., McShan, A., et al. (2003). Planning against Biological Terrorism: Lessons from Outbreak Investigations. *Emerging Infectious diseases, 9*(5).
- Association for Professionals in Infection Control and Epidemiology. (1999, April). *Bioterrorism Readiness Plan: a Template for Healthcare Facilities*. APIC.
- Attico, B. N., & Pauk, G. L. (1998). Diabetes Mellitus in Elders. *The IHS Primary Care Provider, 23*(5), 51-56.
- Baker, F. M. (1995). Misdiagnosis among older psychiatric patients. *Journal of the National Medical Association, 87*(12), 872-876.
- Baker, F. M., Okwumabua, J., Philipose, V., & Wong S. (1996). Screening African-American elderly for the presence of depressive symptoms: a preliminary investigation. *Journal of Geriatric Psychology and Neurology, 9*(3), 127-132.

- E. Balbuena (personal communication, June 28, 2003)
- Baron, A. E., Manson, S. M., Ackerson, L. M., & Brenneman, D. L. (1989) Depressive symptomatology in older American Indians with chronic disease: Some psychometric considerations. In C. Attkisson & J. Zich (Eds.), *Depression in Primary Care, Screening and Detection*. New York: Routledge, Chapman, and Hall.
- Bassiony, M. M., Warren, A., Rosenblatt, A., Baker, A., Steinberg, M., Steele, C. D, et al. (2002). Isolated hallucinosis in Alzheimer's disease is associated with African-American race. *International Journal of Geriatric Psychiatry*, 17(3), 205-210.
- Black, S. A., & Markides, K. S. (1999). Depression among African-Americans with diabetes. *Annals of Epidemiology*, 9, 46-53.
- Blazer, D. G., Hybels, C. F., Simonsick, E. M., & Hanlon, J. T., (2000). Marked differences in antidepressant use by race in an elderly community sample: 1986-1996. *American Journal of Psychiatry*, 157(7), 1089-1094.
- Blazer, D. G., Landerman, L. R., Hays, J. C., Simonsick, E. M. & Saunders, W.B. (1998). Symptoms of depression among community-dwelling elderly African-American and white older adults. *Psychological Medicine*, 28(6), 1311-1320.
- Borowsky, S. J., Rubenstein, L. V., Meredith, L. S., Camp, P., Jackson-Triche, M., & Wells, K. B. (2000). Who is at risk of nondetection of mental health problems in primary care? *Journal of General Internal Medicine*, 15(6), 381-388.
- Brown, D. E. (1982). Physiological stress and culture in a group of Filipino Americans: a preliminary investigation. *Annals of Human Biology*, 9(6), 55-63.
- Brown, D. R., Milburn, N. G., & Gary, L. E. (1992). Symptoms of depression among older African-Americans: an analysis of gender differences. *Gerontologist*, 32(6), 789-95.
- Brown, S., Salive, M., Guralnik, J. M., Pahor, M., Chapman, D. P., & Blazer, D. (1995). Antidepressant use in the elderly: association with demographic characteristics, health related factors, and health care utilization. *Journal of Clinical Epidemiology*, 48(3), 448-453.
- Bulatao, J. (1964). Hiya. *Philippine Studies*, 12, 424-438.
- Burr, J. A. & Mutchler, J. E. (1993). Nativity, acculturation, and economic status: Explanation of Asian American living arrangements in later life. *Journal of Gerontology*, 48(2), 55-63.
- California Healthcare Foundation/American Geriatrics Society Panel on Improving Care for Elders with Diabetes. (2003). Guidelines for improving the care of the older

person with diabetes mellitus. *Journal of American Geriatrics Society*, 51(5), 265-280.

Center for Disease Control. (2004). *Diabetes Public Health Resource. Data and Trends*. Retrieved April 22, 2004, from <http://www.cdc.gov/diabetes/statistics/prev/national/fig2002.htm>

Center for Disease Control. (2003). Terrorism preparedness in State health departments: United States, 2001-2003. *Morbidity and Mortality Weekly Report*, 52, (43). Retrieved, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5243a7.htm>.

Centers for Disease Control and Prevention. Surveillance Report. (1996) *Chapter 1. The Public Health Burden of Diabetes Mellitus in the United States. Table 3.2 Number of Deaths Due to Diabetes and Rank of Diabetes Among Top 15 Causes of Death by Age, Race, and Sex, United States*. Hyattsville, MD: National Center for Health Statistics.

Cha, D. (2001). *Hmong American concepts of health, healing, and illness and their experience with conventional medicine. Ph.D. dissertation*. Boulder, CO: University of Colorado.

Chapleski, E. E., Lamphere, J. K., Jankowski, T. B., Dwyer, J. W., & Lichenberg, P.A. (1997). Structure of a depression measure among American Indian elders: Confirmatory factor analysis of the CES-D scale. *Research on Aging*, 19(4), 462-486.

Chiu, H. F. K., Lam, L. C. W., Chi, I., Leung, T., Li, S. W., & Law, W. T. (1998). Prevalence of dementia in Chinese elderly in Hong Kong. *Neurology*, 50(4), 1002-1009.

Choi, E. S. K., McGancy, R. B., Dallal, G. E., Russell, R. M., Jacob, R. A., Schaefer, E. J., et al. (1990). The prevalence of cardiovascular risk factors among elderly Chinese Americans. *Archives of Internal Medicine*, 150, 413-418.

Chou, P., Chen, H. H., & Hsiao, K. J. (1992). Community-based epidemiological study on diabetes in Pu-Li Taiwan. *Diabetes Care*, 15, 81-89.

Cochran, D., Brown, D., & McGregor, K. (1999). Racial differences in Multiple Social Roles of Older Women, Implications for Depressive Symptoms. *The Gerontologist*, 465-472.

Cohen, C. I., & Carlin, L. (1993). Racial differences in clinical and social variables among patients evaluated in a dementia assessment center. *Journal of the National Medical Association*, 85, 379-384.

- Cooper, L. A., Gonzales, J. J., Gallo, J. J., Rost, K. M., Meredith, L. S., Rubenstein, L. V., Wang, N. Y., & Ford, D. E. (2003). The acceptability of treatment for depression among African-American, Hispanic, and white primary care patients. *Medical Care, 41*(4), 479-89.
- Cooper, L. A., Brown, C., Vu, H. T., Ford, D. E., & Powe, N. R. (2001). How important is intrinsic spirituality in depression care? A comparison of white and African-American primary care patients. *Journal of General Internal Medicine, 16*(9), 634-638.
- Cuasay, L. C., Lee, E. S., Orlander, P. P., Steffen-Batey, L., & Hanis, C. L. (2001). Prevalence and determinants of type 2 diabetes among Filipino-Americans in the Houston, Texas metropolitan statistical area. *Diabetes Care, 24*, 2054-2058.
- Culhane-Pera, K. A., Vawter, D. E., Xiong, P., Babbitt, B., & Solberg, M.M. (2003). Man with Diabetes and Hypertension: A Case Study. In K.A. Culhane-Pera, D.E. Vawter, P. Xiong, B. Babbitt, & M. M. Solberg (Eds.), *Healing by heart: clinical and ethical case stories of Hmong families and western providers* (pp. 173-175). Nashville, TN: Vanderbilt University Press.
- DeGroot, M., Anderson, R., Freedland, K. E., Clouse, R. E., & Lustman, P. J. (2001). Association of depression and diabetes complications: A meta-analysis. *Psychosomatic Medicine, 63*, 619-630.
- Diego, A. T., Yamamoto, J., Nguyen, H., & Hifumi, S. S. (1994). Suicide in the elderly: Profiles of Asians and Whites. *Asian American and Pacific Islander Journal of Health, 2*, 50-57.
- Dirige, O. (2003). Role of Nutrition and Physical Activity in the Prevention and control of diabetes. Paper Presented at the public hearing of the Asian Pacific Islander Mayor's Advisory Group, San Diego, CA.
- Eaton, W. W., Armenian, H., Gallo, J., Pratt, L., & Ford, D. E. (1996). Depression and risk for onset of type II diabetes: A prospective population-based study. *Diabetes Care, 19*(10), 1097-1102.
- Egede, L. E. (2004). Diabetes, major depression, and functional disability among U.S. adults. *Diabetes Care, 27*(2). 421-428.
- Egede, L. E., & Zheng, D. (2003). Independent factors associated with Major Depressive Disorder in a national sample of individuals with diabetes. *Diabetes Care, 26*, 104-111.
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *American Journal of Psychiatry, 137*, 535-544.

- Fadiman, A. (1997). *The spirit catches you and you fall down: a Hmong child, her American doctors, and the collision of two cultures*. New York, NY: Farrar, Straus and Giroux.
- Federal Interagency Forum on Aging Related Statistics. (2000). *Older Americans 2000: Key Indicators of Well-Being*. Washington, DC: U.S. Government Printing Office.
- Feinson, M. C. (1987). Mental health and aging: Are there gender differences? *The Gerontologist*, 27, 703-711.
- Ferrer, R. (personal communication, July 1, 2003)
- Fisher, L., Chesla, C. A., Mullan, J. T., Skaff, M. M., & Kanter, R. A. (2001). Contributors to depression in Latino and European-American patients with type 2 diabetes. *Diabetes Care*, 24, 1751-1757.
- Fisher, L., Chesla, C. A., Skaff, M. M., Mullan, J. T., & Kanter, R. A. (2002). Depression and anxiety among partners of European-American and Latino with type 2 diabetes. *Diabetes Care*, 25, 1564-1570.
- Foley, K. L., Reed, P. S., Mutran, E. J., & DeVellis, R. F. (2002). Measurement adequacy of the CES-D among a sample of older African-Americans. *Psychiatry Research*, 109(1), 61-69.
- Fujimoto, W. Y., Leonetti, J. L., Kinyoun, J. L., Newell-Morris, L., Shuman, W. P., Stolov, W. C., & Wahl, P. W. (1987). Prevalence of diabetes mellitus and impaired glucose tolerance among second-generation Japanese American men. *Diabetes*, 36, 721-729.
- Gallo, J. J., Cooper-Patrick, L., & Lesikar, S. (1998). Depressive symptoms of whites and African Americans aged 60 years and older. *Journal of Gerontology B: Psychological Science and Social Science*, 53(5), 277-286.
- Garant, M. J., Kao, W. H. L., Brancati, F., Coresh, J., Rami, T. J., & Harris, C. L. (2002). SNP43 of CAPN10 and the risk of type 2 diabetes in African-Americans: the atherosclerosis risk in communities study. *American Diabetes Association*, 51(1), 231-237.
- George, L. K., & Lynch, S. M. (2003). Race differences in depressive symptoms: a dynamic perspective on stress exposure and vulnerability. *Journal of Health and Social Behavior*, 44(3), 353-369.
- Goodnick, P. J., Henry, J. H., & Buki, V. M. (1995). Treatment of depression in patients with diabetes mellitus. *Journal of Clinical Psychiatry*, 58(6), 128-136.

- Gradman, T. J., Laws, A., Thompson, L. W., & Reaven, G. M. (1993). Verbal learning and/or memory improves with glycemic control in older subjects with non-insulin dependent diabetes mellitus. *Journal of American Geriatrics Society*, 41, 1305-1312.
- Haan, M. N., Mungas, D. M., Gonzalez, H. M., Ortiz, T. A., Acharya, A., & Jagust, W. J. (2003). Prevalence of dementia in older Latinos: The influence of type 2 diabetes mellitus, stroke, and genetic factors. *Journal of the American Geriatrics Association*, 51, 169-177.
- Haffner, S. M., Mitchell, B. D., Pugh, J. A., Stern, M. P., Kozlowski, M. K., Hazuda, H. P., Patterson, J. K., & Klein, R. (1989). Proteinuria in Mexican-Americans and non-Hispanic whites with NIDDM. *Diabetes Care* 12, 530-536.
- Hall, K. S., Hendrie, H. C., Brittain, H. M., et al. (1993). The development of a dementia screening interview in two distinct languages. *International Journal of Methods in Psychiatric Research*, 3, 1-28.
- Harris, M. D. (2003). Psychosocial aspects of diabetes with an emphasis on depression. *Current Diabetes Report*, 3(1), 49-55.
- Harris, M. I. (1991). Epidemiological Correlates of NIDDM in Hispanics, whites, and blacks in the U.S. population. *Diabetes Care*, 14, 639-648.
- Harris, M. I., Flegal, K. M., Cowie, C. C., Eberhardt, M. S., Goldstein, D. E., Little, R. R., et al. (1998). Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults: The Third National Health and Nutrition Examination Survey (NHANES), 1988-1994. *Diabetes Care*, 21, 518-524.
- Harris, M. I., Klein, R., Cowie, C. C., Rowland, M., & Byrd-Holt, D. D. (1998). Is the risk of diabetic retinopathy greater in non-Hispanic African-Americans and Mexican-Americans than in non-Hispanic Caucasians with type 2 diabetes? : a U.S. population study. *Diabetes Care* 21, 1230-1235.
- Hawaii State Health Department Health Promotion and Education Branch. (1989). *Hawaii's Health Risk Behaviors*. Honolulu, HI: (missing author)
- Hazuda, H. P., Haffner, S. M., Stern, M. P., & Eifler, C. W. (1988). Effects of acculturation and socioeconomic status on obesity and diabetes in Mexican Americans. *American Journal of Epidemiology*, 128, 1289-1301.
- Healthy People 2010*. (2000). Retrieved August 11, 2004, from <http://www.healthypeople.gov/Document/pdf/Volume1/05Diabetes.pdf>
- Hendrie, H. C., Hall, K. S., Pillay, N., Rodgers, D., Prince, C., Norton, J., et al. (1993). Alzheimer's disease is rare in Cree. *International Psychogeriatrics*, 5, 5-14.

- Hendrix, L. R. (1999). Cultural Support in health care: The older urban American Indian of the San Francisco Bay area. Dissertation. Union Institute and University, Cincinnati, OH. UMI Dissertation Services. 1-800-521-0600.
- Henry, R.R. (1996). *Sweet blood, dry liver: Diabetes and Hmong embodiment in a foreign land*. Unpublished doctoral dissertation, University of North Carolina, Chapel Hill, N.C.
- Herr, D. B., Herr, K. A., Pacala, J. T., Pollock, B. G., Potter, J. F., & Semla, T. P. (2004). *Geriatrics at your Fingertips: 2004, 6th Ed.* Malden, MA: Blackwell Publishing, Inc.
- Hewer, W., Mussel, M., Rist, F., Kulzer, B., & Bergis, K. (2003). Short-term effects of improved glycemic control on cognitive function in patients with type 2 diabetes. *Gerontology*, 49, 86-92.
- Huang, B., Rodriguez, B. L., Burchfiel, C. M., Chyou P., Curb, J. D., & Yano K. (1996). Acculturation and prevalence of diabetes among Japanese American men in Hawaii. *American Journal of Epidemiology*, 144(7), 674-681.
- Hunn, D. (n.d.). *The lost generation: elder Hmong immigrants struggle with life in America. The Clovis Independent*. Retrieved January 27, 2002, from <http://www.clovisindependent.com/projects/hmong/hmongstory1.html>
- Jackson, J. S. (Ed.). (1988). *The black american elderly: Research on physical and psychological health*. New York: Springer.
- Jervis, L. L. & Manson, S. M. (2002). American Indians/Alaska Natives and Dementia. *Alzheimer Disease and Associated Disorders*, 16, 89-95.
- Jeste, D. V., Lindamer, L. A., Evans, J., Lacro, J. P. (1996). Relationship of ethnicity and gender to schizophrenia and psychopharmacology of neuroleptics. *Psychopharmacology Bulletin*, 32, 243-251.
- E. Jocson (personal communication, August 5, 2004)
- Kaiser Permanente National Diversity Council. (2003). *A Provider's Handbook on culturally competent care: Asian and Pacific Islander Population, Second Edition*, Oakland, CA: Kaiser Permanente National Diversity Council.
- Kakralapudi, V., Sawyer, R., & Staecker, H. (2003) The effect of diabetes on sensorineural hearing loss. *Otology and Neurotology*, 24:382-386.
- Kalmijn, S., Foley, L., White, C. M., Burchfiel, J. D., Curb, H., Petrovitch, G. W., et al. (2000). *Arteriosclerosis, Thrombosis, Vascular Biology*, 20, 2255-2260.

- Kane, R., Ouslander, J., & Abrass, I. (1997). *Essentials of Clinical Geriatrics, 3rd Ed.* New York, NY: McGraw Hill, Inc.
- Klatsky, A. L., & Armstrong, M. A. (1991). Cardiovascular risk factors among Asian Americans living in Northern California. *American Journal of Public Health, 81*, 1423-1428.
- Koenig, H. G., Meador, K. G., Cohen, H. J., & Blazer, D. G. (1992). Screening for depression in hospitalized elderly medical patients: taking a closer look. *Journal of the American Geriatric Society, 40*(10), 1013-1017.
- Koro, C. E., Bowlin, S. J., Bourgeois, N., & Fedder, D. O. (2004). Glycemic control from 1988 to 2000 among adults diagnosed with type 2 diabetes: A preliminary report. *Diabetes Care, 27*(1), 17-20.
- Kramer, B. J. (1991). Urban American Indian aging. *Journal of Cross-Cultural Gerontology, 6*, 205-217.
- Kraus, R. F. & Buffler, P. A. (1979). Sociocultural stress and the American Native in Alaska: An analysis of changing patterns of psychiatric illness and alcohol abuse among Alaska Natives. *Culture, Medicine and Psychiatry, 3*, 111-151.
- Kunitz, S. J. & Levy, J. E. (1991). *Navajo aging: The transition from family to institutional support.* Tucson, AZ: University of Arizona Press.
- Landerman, L., & Hays, J. (1998). Symptoms of depression among community-dwelling elderly African-American and white older adults. *Psychological Medicine, 28*, 1311-1320.
- LaFromboise, T. D. (1988). American Indian mental health policy. *American Psychologist, 43*(5), 388-397.
- Lavery, L. A., van Houtum, W. H., Ashry, H. P., Armstrong, D. G., & Pugh, J. A. (1999). Diabetes-related lower-extremity amputations disproportionately affect African-Americans and Mexican-Americans. *South Medical Journal, 92*, 593-599.
- Kaplan, B. H. (ed.). (1971). *Psychiatric Disorder and the Urban Environment.* New York: Behavioral Publications.
- Lewis, I. & McBride, M. (2004). Anticipatory grief and chronicity: Elders and families in racial/ethnic minority groups. *Geriatric Nursing, 25*(1), 44-47.
- Liang, J., Van Tran, T., Krause, N., & Markides, K. S. (1989). Generational differences in the structure of the CES-D scale in Mexican Americans. *Journals of Gerontology, 44*, 110-120.

- Lichtenberg, P. A., Chapleski, E. E., & Youngblade, L. M. (1997). The effect of depression on functional abilities among Great Lakes American Indians. *Journal of Applied Gerontology, 16*(2), 235-246.
- Liu, W. T., & Yu, E. (1985). Asian/Pacific American elderly: Mortality differentials, health status, and use of health services. *Journal of Applied Gerontology, 4*, 355-364.
- Lipson, L. G. & Kato-Palmer, S. (1988). Asian Americans. *Diabetes Forecast, 41*, 48-51.
- Lustman, P. J., Griffith, L. S., Freedland, K. E., Kissel, S. S., & Clouse, R. E. (1998). Cognitive behavior therapy for depression in type 2 diabetes mellitus: A randomized, controlled trial. *Annals of Internal Medicine, 129*, 613-621.
- Mankiller, W., & Wallis, M. (1993). *Mankiller: A Chief and Her People*. New York, NY: St. Martin's Press.
- Manley, J. J., Jacobs, D., Sano, M., et al. (1998). Cognitive test performance among nondemented elderly African Americans and whites. *Neurology, 50*, 1238-1245.
- Manson, S. M., Shore, J. H., & Bloom, J. D. (1985). The depressive experience in American Indian communities. In A. Kleinman & B. Good (eds.), *Culture and Depression*. (pp. 331-368). Berkeley, CA: University of California Press.
- Manson, S., Walker, R. D. & Kivlahan, D. R. (1987). Psychiatric assessment and treatment of American Indians and Alaska Natives. *Hospital & Community Psychiatry, 38*, 165-173.
- Mayer-Davis E. J., Monaco, J. H., Carmichael, S., Vitolins, M. Z., Rewers J., & Haffner, S. (1997). Dietary fat and insulin sensitivity in a triethnic population: the role of obesity, The insulin resistance atherosclerosis study (IRAS). *American Journal of Clinical Nutrition, 65*, 79-87.
- McBride, M. & Lewis, I. D. (2004). African American and Asian American Elders: An ethnogeriatric perspective. *Annual Review of Nursing Research, 22*, 161-214.
- McBride, M. and Lewis, I. (in press). African American and Asian American Elders: Access and Utilization of Services and Resources. In J. Fitzpatrick & M. Wallace (Eds.), *Encyclopedia of Nursing Research*. New York: Springer.
- McBride, M., Morioka-Douglas, N., & Yeo, G. (1996). *Aging and Health: Asian and Pacific Islander American Elders, 2nd Edition, Stanford Geriatric Education Center Working Paper Series, No. 3*. Palo Alto, CA: Stanford Geriatric Education Center.
- McBride, M. R. & Parreno, H. (1996). Filipino families and caregiving. In G. Yeo & D. Gallagher-Thompson (Eds.), *Ethnicity and the dementias* (pp. 123-135). Washington, DC: Taylor and Francis.

- Medina, B. (1991). *The Filipino Family*. Diliman, Quezon City: University of the Philippines Press.
- Miller, R.I. (2001). Cultural and social consideration in applying standardized assessment tools to AI/AN populations. In *Guide to Comprehensive Geriatric Assessment in Indian Country*. Rockville, MD: Indian Health Service & Albuquerque, NM: New Mexico Geriatric Education Center.
- Mohammad, Y. M., Qureshi, A. I., Suri, F. K., Siddiqui, A. M., Kirmani, J. F., Xavier, A. S., et al. (2003). *Poorly controlled diabetes mellitus is a risk factor for cognitive impairment in the elderly of United States*. Abstract retrieved April 22, 2004 from <http://www.abstracts-on-line.com>
- Mui, A.C. (1996). Geriatric Depression Scale as a community screening instrument for elderly Chinese immigrants. *International Psychogeriatrics*, 8, 445-458.
- Mui, A.C., Kang, S-Y., Chen, L.M., & Domanski, M.D. (2003). Reliability of the Geriatric Depression Scale for use among elderly Asian immigrants in the USA. *International Psychogeriatrics*, 15, 253-271.
- National Institute of Diabetes and Digestive Kidney Diseases (NIDDK). (2002). *National Diabetes Information Clearinghouse: National diabetes statistics*. Retrieved April 22, 2004 from www.niddk.nih.gov/health/diabetes/pubs/dmstats/dmstats.htm
- National Institute of Diabetes and Digestive and Kidney Diseases. (2002). *Diabetes in American Indians and Alaska Natives*. Retrieved August 9, 2004, from <http://www.niddk.nih.gov/health/diabetes/pubs/amindian/amindian.htm>
- National Institute of Health. (2002). *Conquering diabetes: Extraordinary research opportunities*. Retrieved August 9, 2004, from <http://www.niddk.nih.gov/federal/dwg/2002/8clinical.pdf>
- Ness, J., Nassimiha, D., Feria, M., & Aronow, W. (1999). Diabetes mellitus in older African-Americans, Hispanics, and Whites in an academic hospital-based geriatrics practice. *Coronary Artery Diseases*, 10, 343-346.
- Nichols, G. A. & Brown, J. B. (2003). Unadjusted and adjusted prevalence of diagnosed depression in type 2 diabetes. *Diabetes Care*, 26(3), 744-749.
- Norris, S. L., Engelgau, M. M., & Venkat Narayan, K. M. (2001). Effectiveness of self-management training in type 2 diabetes: A systematic review of randomized controlled trials. *Diabetes Care*, 24(3), 561-587.

- Okwumabua, J. O., Baker, F. M., Wong, S. P., Pilgram, B.O. (1997). Characteristics of depressive symptoms in elderly urban and rural African Americans. *Journal of Gerontology A: Biological Science and Medical Science*, 52(4), 241-246.
- Ott, A., Stolk, R. P., & Van Harskamp, F. (1999). Diabetes mellitus and the risk of dementia. *Nuerology*, 53, 1937-1942.
- Pan, X. R., Hu, Y. H., Li, G. W., Liu, P. A., Bennett. P. H., & Howard, B. V. (1993). Impaired glucose tolerance and its relationship to ECG-indicated coronary heart disease and risk factors among Chinese: Da Qing IGT and Diabetes Study. *Diabetes Care*, 16, 150-156.
- Parker, G., Gladstone, G., & Chee, K. T. (2001). Depression in the planet's ethnic group: The Chinese. *The American Journal of Psychiatry*, 158(6), 857-864.
- Parker, M., & Kiatoukaysy, L. (1999). Hmong in America: Culturally responsive health care. *Minnesota Physician*, 8, 3.
- Peterson, K. A., Vang, D.R., & Xiong, Y.M. (2003). Type 2 Diabetes Mellitus in the Hmong community. In K.A. Culhane-Pera, D.E. Vawter, P.Xiong, B. Babbitt, & M.M. Solberg (Eds.), *Healing by heart: clinical and ethical case stories of Hmong families and western providers* (pp. 176-182). Nashville, TN: Vanderbilt University Press.
- Pugh, J. A., Stern, M. P., Haffner, S. M., Eifler, C. W., & Zapata. M. (1988). Excess incidence of treatment of end-stage renal disease in Mexican-Americans. *American Journal of Epidemiology*, 127, 135-144.
- Rhoades, D. A. (2003). Hypertension in Older Urban Native-American Primary Care Patients. *Journal of the American Geriatrics Society*, 51(6), 774-781.
- Rimmer, J., Silverman, K., Braunschweig, C., Quinn, L., Liu, Y. (2002). Feasibility of a health promotion intervention for a group of predominantly African American women with type 2 diabetes. *Diabetes Educator*, 28(4), 571-580.
- Robbins, J. M., Vaccarino, V., Zhang, H., Kasl, S. (2001). Socioeconomic status and type 2 diabetes in African American and non-Hispanic White women and men: Evidence from the third national health and nutrition examination survey. *American Journal of Public Health*, 91(1), 76-83.
- Rodriguez, B. L., Curb, J. D., Burchfiel, B., Huang, B., Sharp, D. S., Lu, G. Y., et al. (1996). Impaired glucose tolerance, diabetes and cardiovascular disease risk factor profiles in the elderly: the Honolulu Heart Program. *Diabetes Care*, 19, 587-590.
- M. Rodriguez (personal communication, 2004)

- Rosenberg, P., Richter, R. W., Risser, R. C., Taubman, K., Prado-Farmer, I., Ebaló, E., et al. (1996). Genetic factors for the development of Alzheimer disease in the Cherokee Indian. *Archives of Neurology*, 53, 997-1000.
- Ross, G. W., Abbott, R. D., Petrovitch, H., Masaki, K., Murdaugh, C., Trockman, C., et al. (1997). Frequency and characteristics of silent dementia among elderly Japanese-American Men: The Honolulu-Asia Aging Study. *The Journal of the American Medical Association*, 277(10), 800-805.
- Ryan, C., Shaw, R., Pliam, M., Zapolinski, A. J., Murphy, M., Valle, H. V., et al. (2000). Coronary heart disease in Filipino and Filipino-American patients: prevalence of risk factors and outcomes of treatment. *Journal of Invasive Cardiology*, 12, 134-139.
- Saad, M., Sampson, J., Bertoni, A., & Liu, K. (2003). Increased prevalence of type 2 diabetes in Chinese Americans: The multi-ethnic study of atherosclerosis (MESA). *Diabetes*, 52(1), 227-228.
- Samuel-Hodge, C. D., Headen, S. W., Skelly, A. H., Ingram, A. E., Keyserling, T. C., & Jackson, E. J. (2000). Influences on day-to-day self-management of type 2 diabetes among African-American Women. *Diabetes Care*, 23, 928-933.
- San Francisco Department of Public Health. (2004). Filipino American Clinical Team brochure [Brochure]. San Francisco, CA: Department of Mental Health.
- Shim, M. J. (1995, December). *Self-reported Diabetes in Hawaii: 1988-1993, A Field Work Summary*. Paper presented to the Department of Public Health Sciences Biostatistics at The University of Hawaii, School of Public Health, Manoa, HI.
- Shore, J. H., & Manson, S. M. (1981). Cross-cultural studies of depression among American Indians and Alaska Natives. *White Cloud Journal*, 2(2), 5-12.
- Sloan S. R. (1963). Ethnic distributions of diabetes mellitus in Hawaii. *JAMA*, 183, 123-128.
- Superio, E. (1993) *Beliefs held by Pilipinos regarding filial responsibility*. Unpublished master's thesis, San Jose State University, San Jose, CA.
- Stavig, G. R., Igra, A., & Leonard, A. R. (1988). Hypertension and related health issues among Asians and Pacific Islanders in California. *Public Health Reports* 103, 28-37.
- Steffens, D., Artigues, D., Orenstein, K. (1997). A review of racial differences in geriatric depression: implications for care and clinical research. *Journal of the National Medical Association*, 89(11), 731-736.

- Steinberg, M., Munro, C. A., Samus, Q. V., Rabins, P., Brandt, J., & Lyketsos, C. G. (2004). Patient predictors of response to treatment of depression in Alzheimer's disease: the DIADS study. *International Journal of Geriatric Psychiatry, 19*(2), 144-150.
- Stern, M. P., Gaskill, S. P., Hazuda, H. P., Gardner, L. I., & Haffner, S. M. (1983). Does obesity explain excess prevalence of diabetes among Mexican Americans? Results of the San Antonio Heart Study. *Diabetologia, 24*, 272-277.
- Stern, M. P. & Haffner, S. M. (1990). Type II diabetes and its complications in Mexican Americans. *Diabetes Metabolism Review, 6*, 29-45.
- Stern, M. P., & Mitchell, B. D. (1995). Diabetes in Hispanic Americas. In National Diabetes Data Group (Ed.), *Diabetes in America, 2nd Ed.* (pp. 631-659). Bethesda, MD: National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health.
- Stewart, R. & Liolitsa, D. (1999). Type 2 diabetes mellitus, cognitive impairment and dementia. *Diabetic Medicine, 16*, 93-112.
- Storck, M., Csordas, T. J. & Strauss, M. (2000). Depressive illness and Navajo healing. *Medical Anthropology Quarterly, 14*(4), 571-597.
- Strachan, M. W., Deary, I. J., Ewing, F. M., & Frier, B. M. (2000). Recovery of cognitive function and mood after severe hypoglycemia in adults with insulin-treated diabetes. *Diabetes Care, 23*(3), 305-312.
- Strong Heart Study. (2003). *Data Book*. Retrieved July 28, 2004, from <http://strongheart.ouhsc.edu/>
- Sundquist, J., Winkleby, M., & Pudaric, S. (2002). Cardiovascular risk factors among Black, Mexican American, and White women and men: An analysis of NHANES III, 1988-1994. Third National Health and Nutrition Survey. *Journal of the American Geriatrics Society, 49*, 109-116.
- Takeshita, J., Masaki, K., Ahmed, I., Foley, D. J., Li, Y. Q., Chen, R., Fujii, D., Ross, G. W., Petrovitch, H., & White, L. (2002). Are depressive symptoms a risk factor for mortality in elderly Japanese American men?: The Honolulu-Asia Aging Study. *American Journal of Psychiatry, 159*, 1127-1132.
- Takeuchi, D. T., Chung, R., Lin, K. M., Shen, H., Kurasaki, K., Chun, C. A., et al. (1998). Lifetime and twelve-month prevalence rates of major depressive episodes and dysthymia among Chinese Americans in Los Angeles. *American Journal of Psychiatry, 55*(10), 1407-1414.

- Talbot, F. & Nouwen, A. (2000). A review of the relationship between depression and diabetes in adults. *Diabetes Care*, 23(10), 1556-1562.
- Teng, E. L., Hasegawa, K., Homma, A. et al. (1994). The Cognitive Abilities Screening Test (CASI): a practical test for cross-cultural epidemiological studies of dementia. *International Psychogeriatrics*, 6, 45-58.
- Tompar-Tiu, A., & Sustento-Seneriches, J. (1995). *Depression and other mental health issues: The Filipino American Experience*. San Francisco, CA: Jossey-Bass Publishers.
- Umpherrez, G., Clark, W., & Steen, M. (1997). Sulfonylurea treatment prevents recurrence of hyperglycemia in obese African-American patients with a history of hyperglycemic crises. *Diabetes Care*, 20(4), 479-483.
- Umpherrez, G., Woo, W., Hagopian, W., Isaac, S., Palmer, J., & Gaur, L. (1999). Immunogenetic analysis suggests different pathogenesis for obese and lean African-American with diabetic ketoacidosis. *Diabetes Care*, 22(9), 1517-1523.
- Unutzer, J., Katon, W., Callahan, C. M., Williams, J. W., Jr., Hunkeler, E., Harpole, L., et al. (2003). Depression treatment in a sample of 1,801 depressed older adults in primary care. *Journal of American Geriatric Society*, 51(4), 505-514.
- US Department of Health and Human services. (2001). *Mental Health Culture, Race and Ethnicity—A supplement to Mental Health: A Report to the Surgeon General*. Rockville, MD: Center for Mental Health Services.
- Vega, W. A. & Rumbaut, R. G. (1991). Ethnic minorities and mental health. *Annu. Rev. Sociol.*, 17, 351-83.
- Waldman, C. & Braun, M. (1985). *Atlas of the North American Indian*. New York, NY: Facts on File, Inc.
- White, L., Petrovitch, H., Ross, G. W., Masaki, K. H., Abbott, R. D., Teng, E., et al. (1996). Prevalence of dementia in older Japanese American men in Hawaii: the Honolulu-Asia Aging Study. *The Journal of the American Medical Association*, 276, 955-960.
- Woo, J. I., Ho, S. C., Sham, A., Sea, M. M., Lam, K. S. L., Lam, T. H., et al. (2003). Diet and glucose tolerance in a Chinese population. *European Journal of Clinical Nutrition*, 57(4), 523-530.
- Xiong, Y. M. (with Yai, N. Z.). (2003). I tell you this story of healing: a shaman's perspective. In K.A. Culhane-Pera, D. E. Vawter, P. Xiong, B. Babbitt, & M. M. Solberg (Eds.), *Healing by heart: clinical and ethical case stories of Hmong families and western providers*. Nashville, TN: Vanderbilt University Press.

- Yeo, G., Hikoyeda, N., McBride, M., Chin, S-Y., Edmonds, M., & Hendrix, L. (1998). *Cohort Analysis As A Tool in Ethnogeriatrics: Historical Profiles of Elders from Eight Ethnic Populations in the United States*. SGEC Working Paper #12. Stanford, CA: Stanford Geriatric Education Center.
- Yeo, G. & Lieberman, M. (1993). *Cases in the California ADDTC Data Bank by ethnicity*. Unpublished data.
- Young, J. J. & Gu, N. (1995). *Demographic and socio-economic characteristics of elderly Asian and Pacific Island Americans*. Seattle, WA: National Asian Pacific Center on Aging.
- Zhang, Z. X., Anderson, D. W., Lavine, L., & Mantel, N. (1990). Patterns of acquiring parkinsonism-dementia complex on Guam from 1944 through 1985. *Archives of Neurology*, 47(9), 1019-1024.