SILENT TRAUMA: Diabetes, Health Status, and the Refugee

Southeast Asians in the United States



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Issues and recommendations for approaches to reduce the burden of diabetes in this vulnerable population

Developed by the Southeast Asian Subcommittee of the Asian American/Pacific Islander Work Group National Diabetes Education Program A middle-aged Cambodian woman had had an excellent relationship with her American doctor for 9 years, but he had no idea that she had been tortured. He had only partial success in controlling her type 2 diabetes. After attending a training session on treating the effects of terrorism after the events of September 11, 2001, the doctor asked the patient for the first time whether she had undergone extreme violence or torture. She revealed that two of her children had died of starvation in Cambodia, her husband had been taken away violently and disappeared, and she had been sexually violated under the Khmer Rouge. More recently, in the United States, her remaining daughter had been nearly fatally stabbed by a gang that burglarized her home. Since September 11, the patient had taken to barricading herself in her house, leaving only to see her doctor.

When the doctor became aware of the patient's traumatic history, he used a screening tool to explore the effects of her traumas, diagnosing major depression. Over time, he was able to treat the depression with medication and counseling, eventually bringing the diabetes under control as well.

- Dr. Richard Mollica. Surviving Torture. New England Journal of Medicine 2004.1

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Executive Summary

The impact of type 2 diabetes on Southeast Asian (SEA) communities in the United States—a group that includes Cambodians, Hmong, Laotians, and Vietnamese—is driven by cultural, historical, and logistical factors. Understanding these factors is a first step in identifying potential interventions. Though there is great diversity within the SEA subgroup, its members are united by a strong sense of their respective communities and a reverence for local leaders. Effective programs to overcome barriers to type 2 diabetes prevention and control must capitalize on these strengths, while taking into account the unique requirements of this population.

The purpose of this paper is to

- 1. Increase awareness among health care providers, decision makers, and organizations serving Asian Americans of the risk for type 2 diabetes in SEAs and potential impacting factors.
- 2. Highlight data collection issues, barriers to care, and special health care needs, and introduce successful models in reaching Southeast Asian populations.
- 3. Identify resources available to organizations, government agencies, health care providers, and others who work with SEAs in the United States.

This monograph discusses the following:

- The data on diabetes prevalence, rates of complications, and health care quality measures among SEAs are limited.
- Overweight as a risk factor for type 2 diabetes in SEAs—and Asian Americans in general—is underrecognized. The risk for type 2 diabetes increases at a lower body mass index for Asians than for other ethnic groups. Qualitative evidence from focus groups with Asian Americans indicates many Asians believe themselves to be at lower risk for type 2 diabetes because of smaller average body build.
- SEAs experience major obstacles to diabetes diagnosis and management, including inadequate access to culturally appropriate health care, lack of insurance coverage, and language barriers. For example, many SEAs are unaware of their federally mandated right to interpreter services and do not request these services.
- Low cultural acceptance of preventive health services among SEAs reduces opportunities for risk assessment, opportunistic testing, timely diabetes diagnosis, and interventions for diabetes prevention and management.
- Diagnosis and culturally appropriate treatment of concomitant mental health disorders such as depression, anxiety, and post-traumatic stress disorder (PTSD) are key in diabetes management.

- Mental health conditions such as PTSD (resulting from trauma and torture), anxiety, and depression are highly prevalent among SEAs and further complicate diabetes self-care.
- Cultural competency among health care providers who treat SEAs is critical to successful interventions for diabetes prevention and control.



Photo Courtesy of Gary Jacobson

Recommendations

The following three recommendations reflect the consensus of the Southeast Asian subcommittee of the National Diabetes Education Program Asian American/Pacific Islander Work Group (see page 31). These recommendations include creating collaborative health initiatives, gathering baseline diabetes data for program planning, and addressing the relationship between mental health and diabetes in SEAs.

1) Collaborative Health Initiatives

Collaborative health initiatives that address diabetes impact among SEAs by linking communities with their SEA subpopulations could offer more comprehensive information on effective interventions. Such information could also benefit SEAs who are geographically isolated from larger SEA communities, and thus less likely to benefit from local studies on program impact. The development of outreach programs and health care delivery systems that serve both high-and low-concentration SEA population areas requires the collaboration of local community leaders, health educators, and trusted professionals in the SEA community across the United States.

2) Baseline Diabetes Data

An expert panel convened by the Centers for Disease Control and Prevention concluded that no existing survey is suitable for gathering nationwide minority-specific diabetes data for small subpopulations such as SEAs.² The recommendations made by the panel include

- Investigating the use of community-based surveys.
- Exploring the ability of national surveys to increase sample sizes and produce state-level estimates.
- Encouraging government agencies and public health programs to coordinate and integrate diabetes-related survey data and share analytic methodology.²

3) Mental Health and Diabetes

No national data exist on comorbid medical problems, mental health disorders, and cognitive functioning (e.g., memory loss and attention deficits) as contributing factors to diabetes burden among SEAs. Comorbid mental health conditions are known to adversely affect morbidity and mortality in other populations,³⁻⁵ but few data address the impact of mental health conditions on diabetes self-management practices and outcomes among SEAs. Specific information on cultural beliefs, self-care practices, access to mental health services, and mental illness models among SEAs may help shape targeted interventions in this population, which has a high prevalence of mental illness.

Background

History

At least 28 Asian and 19 Pacific Islander groups constitute the generalized "Asian American/ Pacific Islander" (AAPI) ethnic data category used by U.S. federal agencies.⁶ The population of Southeast Asians (abbreviated in this paper as SEAs) comprises four of these groups— Cambodians, Hmong, Laotians, and Vietnamese.

Of the few SEAs living in the United States before the 1970s, most were students. After 1975, this population grew rapidly, and the demographic shifted from those who immigrated for educational opportunity to a population comprising primarily war refugees arriving from Vietnam, Cambodia, and Laos. Immigrants who came to this country after 1975 arrived with few resources of their own and entered communities that were not necessarily prepared to provide culturally and linguistically competent health care and preventive services.

Demographic Information

According to the 2000 U.S. Census, the proportion of Asian Americans in the U.S. population is small, totaling 10,171,820 people. However, Asians are the fastest growing ethnic population in the United States, experiencing a roughly 13% increase in numbers during the years 2000 to 2003.⁷ According to the 2000 U.S. Census, the four SEA groups have increased 13%, 17%, 88%, and 83% respectively in the past decade, and now comprise 167,792 Laotian, 178,043 Cambodian, 170,049 Hmong, and 1,110,207 Vietnamese Americans (see Figure 1). SEAs totaled 1,626,091 in the year 2000, and represent almost 16% of all Asian Americans.

Rapid growth has particular impact when it occurs locally, as in the case of Lowell, Massachusetts. Drawn by a boom in manufacturing jobs there, the Southeast Asian population increased more than 2000% from 1980–1990. According to the 2000 U.S. Census, nearly 9,000 foreign-born SEAs reside in Lowell, approximately 9% of the city's population. Of this number, more than half (5,478) come from Cambodia, making Lowell the second largest Cambodian community in the United States.⁸ This demographic change influences public health and community services planning at the local level.



The President's Advisory Commission on Asian Americans and Pacific Islanders suggests that the Asian American population in the United States may be 10%–15% larger than Census data indicate, since not all Asian Americans participate in the U.S. Census. In addition, the Commission states that certain Asian American subpopulations, such as Hmong Americans, may have even higher rates of Census underreporting than other Asian American populations.⁹

Regional population data are scant but available in some jurisdictions, particularly those dealing with a large influx of SEA refugees. In California's Fresno County, for example, 50,500 refugees arrived in the year 2003—more than 6% of the overall population. Of this number, 58% were Hmong, 16% Laotian, 12% Cambodian, and 6% Vietnamese—amounting to a scenario where the refugee population is 92% SEA.¹⁰

Figure 1: Change in Total U.S. Population of Southeast Asian Subgroups, 1990 to 2000



Source: U.S. Census Bureau, Census 2000.

*One category alone (eg, American Indian or Filipino or Samoan).

**One category alone, or in combination with one or more other categories with the same race group, or in combination with any other race group, (eg, American Indian and white; or Filipino, Korean, and black; or Filipino, white, and black; or Native Hawaiian, Samoan, white, and black). Individuals are included in each category.

Geographic Concentrations of Southeast Asians

Overall, the states with the greatest numbers of SEAs are California, Texas, Minnesota, Washington, North Carolina, Massachusetts, Virginia, Wisconsin, Michigan, and Pennsylvania, accounting for almost 70% of the SEAS in the United States.⁶ Figure 2 graphically displays population size in the five states where the greatest number of Cambodians, Vietnamese, Hmong, and Laotians have settled.

Figure 2. Top 5 States for Cambodians, Vietnamese, Hmong, Laotians, U.S. Census, 2000



- * One category alone (e.g., Vietnamese or Laotian).
- ** One category alone, or in combination with one or more other categories within the same race group, or in combination with any other race group, (e.g., Cambodian and white; or Filipino, Vietnamese, and black; or Filipino, white, and black; or Native Hawaiian, Samoan, white, and black). Individuals are included in each category.

Spotlight Issue: Community Preparedness and Immigrant Health Services

The United States Citizenship and Immigration Service (USCIS) screening of new immigrants to the United States addresses existence of infectious disease, but not chronic diseases such as diabetes and cardiovascular disease. Data on chronic disease prevalence, complications, and the effectiveness of health care delivery approaches would help with community preparedness for meeting the healthcare needs of newly-arriving refugees.

The number of immigrant SEAs is small for the nation as a whole. However, a sudden influx of immigrants can have an impact on state or local health care and community resources.

This issue has recently come to the forefront due to an expected surge of Hmong immigrants in certain states. For example, there were 48,163 Hmong living in Wisconsin as of September 2004. It is estimated that 3,190 more Hmong will



Hmong man smoking cigarette with traditional pipe

immigrate to Wisconsin in the coming year. The population will be scattered around 20 counties throughout the state. These are very small numbers compared to the US as a whole, but the situation raises local public health and healthcare delivery concerns for marginalized populations.

A similar surge is also expected to occur within local Hmong communities in California. As of 2003, the Fresno County California Hmong population was approximately 50,000. An additional estimated 5,910 Hmong, who have lived the past 20 years in Thai refugee camps since escaping their homeland, immigrated to Fresno in 2004. These projected increases could pose problems in community preparedness regarding immigrant health services. The scattered nature of the Wisconsin Hmong population may create obstacles for the health care system response to deliver adequate interpreter services and community outreach. While Fresno has some community infrastructure in place for the Hmong, the increase in this refugee population could strain these existing resources.

Spotlight on Mental Health: Diabetes and Fatalism

"The Power to Control Diabetes is in Your Hands," a NDEP brochure, promotes not only the importance of self blood glucose monitoring but also the concept of empowerment—that one can take personal action to prevent diabetes complications. But what if you have had a series of life experiences over which you had no control, as refugees from war have had? Many refugees learned that they had little control over their lives during those times, and fatalistic attitudes that carry over to today create barriers to optimal healthcare.

Tam Phan, former consultant with the National Vietnamese American Health Care Association, has noted this fatalism among the Vietnamese refugees his organization serves

"I've received many telephone calls from Vietnamese women around the United States complaining about their diabetic husbands who ignored healthcare providers' instructions for care," affirms Phan. "The husbands would say things like 'diabetes cannot be cured' and 'I am going to die anyhow' to justify the lack of interest in their own health."

New educational approaches are needed to address this barrier to diabetes self-management.



Photo Courtesy of Khmer Health Advocates

Dearth of Data on Diabetes and SEAs

Data on AAPIs are aggregated from diverse AAPI groups. Current statistics on diabetes prevalence specific to SEAs are limited. Why is dearth of data a problem? Data are used to prioritize the use of funds and other resources to address public health needs. It is difficult to capture the scope of the diabetes burden in the SEA population. The lack of data on diabetes prevalence and outcomes among SEAs creates a challenge for organizations serving SEAs and for public health officials. Without data, it is more difficult to attract funding, justify resource use, monitor the impact of interventions aimed at improving health outcomes, and develop programs that make the best use of limited resources.

Regional survey results vary in the self-reported prevalence of diabetes among SEAs.^{8,11} No cost-effective way to gather national diabetes data on subpopulations such as SEAs has been identified. Given that AAPIs are recognized as a high-risk group for diabetes and that SEAs are included in the AAPI group, SEAs are also assumed to have a higher risk. Working with this assumption, the rest of this monograph will focus on some of the special circumstances and needs of this population. Focus group research performed by the Centers for Disease Control and Prevention (CDC) Division of Diabetes Translation has indicated that the increased diabetes risk among AAPIs is underrecognized by health care providers, organizations that serve Asian Americans, including SEAs, and people of Asian ethnicity themselves.¹² The challenges facing those working with the SEA population concern not only diabetes surveillance issues, but also the many difficulties encountered in addressing health care delivery.

Refugee Experience

REFUGEE: Any person who is outside his or her country of nationality and is unable or unwilling to return to that country because of persecution or a well-founded fear of persecution that may be based on race, religion, nationality, membership in a particular social group, or political opinion.

-Adapted from the Refugee Act of 1980¹³

One of the key differences between immigrants and refugees is the condition in which they left their native country. Immigrants, for the most part, leave their country of origin for opportunities

elsewhere such as education and better paying jobs. Refugees, on the other hand, are forced to leave. Anxious to seek asylum from war or other traumatic conditions in countries of origin, refugees are often unprepared for the circumstances ahead of them and may feel that they do not control their own destinies.¹⁴ This psychological background, when compounded with the physiological effects of **historical trauma**,¹⁵ adds a layer of complexity when considering the burden of diabetes within SEA refugees.



Historical Trauma:

"The cumulative emotional and psychological wounding across multiple generations, including trauma experienced in one's own lifespan, which emanates from massively traumatized group history."

-M.Y.H. Brave Heart¹⁹

Food Deprivation and Later Eating Behaviors

Diet is an important factor in the prevention and management of diabetes. It is important to consider the association between unhealthy eating behaviors and the food deprivation that many SEA refugees previously experienced. According to a 2003 CDC report on food insecurity and obesity, "Studies of dieters, prisoners of war, and children with food-restrictive parents indicate that food deprivation can lead to overconsumption of foods restricted previously after the restriction ends."¹⁶

Details of the Cambodian refugee situation present a

clear example of the extent to which SEAs are at risk for developing abnormal eating patterns. Malnutrition was prevalent in at least 85% of the Cambodian population in 1970–1975.¹⁷ Starvation was universal during the Pol Pot regime in Cambodia in 1975–1979, and food rations prevented starvation—but not malnutrition—during the refugee camp era 1975–1992.¹⁸ Hmong and Vietnamese refugees also experienced deprivation and food shortages during the Vietnam War.¹⁴

The impact of long-term starvation can also be physiological. Studies conducted on women who were pregnant during the Dutch famine of World War II revealed that babies born to malnourished mothers may be at higher risk for insulin resistance and obesity as adults.^{19,20,21} In addition, data from a study in Mexico suggested that early malnutrition, independent of birth weight, has an adverse effect on insulin metabolism and glucose tolerance in young men. This effect became more prominent as body mass increased, even within the normal range of body mass index (BMI).²² Although these findings refer to populations in The Netherlands and Mexico, they offer insight to other groups such as SEAs.

It is plausible that the previous starvation and malnutrition could later have a major impact on the burden of type 2 diabetes in the SEA population. A recent report in *Lancet* on the prevalence of diabetes in 2004 among adults 25 years or older within one rural and one semiurban province in Cambodia is of interest.²³ The age-adjusted study, which was designed using World Health Organization (WHO) recommended methods, reported a diabetes prevalence of 5% in the rural region and 11% in the urban region. These results were more than double the latest prevalence estimate given by WHO in the year 2000.²³ Especially in light of the relative poverty and traditional lifestyle of Cambodian society, the authors call for more investigation into the effect of the earlier starvation on the "high prevalence of glucose intolerance in a country

that is classified among the world's least developed nations."

Some researchers hypothesize that the malnutrition and long-term starvation experienced in the past by refugee populations could mold a psychological relationship with food in the present that complicates diabetes prevention and management efforts.^{19, 24-26} Overeating has been clearly linked with stress and coping mechanisms.^{27, 28} Another study has



Photo Courtesy of Gary Jacobson

shown that food insecurity related to poverty affects overweight in women of other ethnic groups (e.g., African American and Hispanic/Latino).²⁹ These studies, which illustrate the relationship between stress and abnormal eating patterns, point to the difficulty refugees may have in adapting to healthy diet plans used in diabetes prevention and control efforts.

Mental Health, Diabetes, and SEAs

The refugee experience of past physical and psychological trauma plays a role in present chronic disease management and health care-seeking



Photo Courtesy of Gary Jacobson

behavior. This link between past trauma and present behavior was illustrated in a recent article in the New England Journal of Medicine, which described the long-term relationship between a Cambodian woman with type 2 diabetes and a U.S. physician.¹ In the article, the physician discovers that addressing his patient's depression by discussing emotional traumas (e.g., suffering under the Pol Pot regime in Cambodia and more recent traumas experienced while living in the United States as a refugee) was an important key to controlling her diabetes.

This case exemplifies the extent to which the effects from past trauma can complicate selfcare regimens for SEA refugees. Relevant to the refugee experience is the fact that unhealthful behaviors are reportedly more common in people who encountered trauma during their youth and in those currently under stress. The Adverse Childhood Experiences (ACEs) Study has linked ACEs with smoking,³⁰ obesity,³¹ and numerous other behavioral and health outcomes associated with increased morbidity and mortality. In addition, the American Diabetes Association recently reported that psychologically distressed people with diabetes are more likely to smoke and avoid exercise. As a result, these patients are more at risk for high blood pressure and high cholesterol—risk factors for serious complications such as heart disease.³² Key mental health concerns regarding SEAs and diabetes include post-traumatic stress disorder (PTSD), depression, and anxiety.¹⁴

• PTSD, depression, and anxiety are common among SEA refugee populations.

These conditions may be interrelated³³ and can shape behaviors that affect diabetes prevention and control.³⁴

- Forty-five percent of Cambodians and 14% of Vietnamese surveyed in a 2003 Connecticut health information survey self-reported that they had symptoms consistent with PTSD.³⁵
- In one study of 322 refugee SEAs receiving mental health services, 70% met diagnostic criteria for PTSD.^{9, 36}
- In a study from the 1980s of 404 Southeast Asian patients seen in a community clinic located in the Minneapolis/St. Paul, Minnesota area, approximately 75% met clinical criteria for a major depressive episode.³⁷
- Self-reported depression rates among Vietnamese, Laotian, and Cambodians—as found in a 2003 Connecticut health survey of 366 randomly selected SEAs—were 36%, 16%, and 74%, respectively.³⁸

- A Lowell, Massachusetts survey found that among Cambodian adults 25 and older, 25% were symptomatic for depression. Among women 50 and over, the rate rose to 43%.⁸
- Reports from a 2005 study of 490 Cambodian adults in Long Beach, California revealed high rates of psychiatric disorders related to trauma, even 2 decades after the end of the Cambodian civil war.³⁹

• PTSD and depression complicate care of people with diabetes.

Among trauma victims in general, those who had PTSD were more likely than those without PTSD to have conditions such as asthma, ulcers, kidney disease, and diabetes.⁴⁰ Furthermore, depression is associated with poorer health outcomes for people with diabetes. A study done by the University of Washington revealed that diabetes patients with depression have more symptoms, decreased physical functioning, and are less inclined to adhere to exercise regimens and diet.⁴¹ Researchers have also found a link between depression and poor blood glucose control.^{1,42} It is unclear whether this link may be due to the adverse effect of depression on self-care, direct adverse physiologic effects on glucose metabolism, or a combination of the two.⁴³

Long-term stress can increase diabetes risk

There is some evidence that long-term stressful experiences resulting in hormonal changes can contribute to an increased risk of diabetes. Physical and psychological stress releases hormones such as cortisol.^{44,45} Chronic stress resulting in chronically elevated cortisol levels leads to insulin resistance—a precursor to diabetes.⁴⁶ This series of events is related not only to current stress but also to childhood experiences.⁴⁷

Another effect of mental health conditions such as PTSD and depression is a negative impact on health care-seeking behavior among SEAs. For example, in a Fresno, California, study of 200 Hmong patients with hypertension, 82% of them reported that psychological distress had interfered with their seeking care from their health care provider. Among those Hmong who did seek such care, 92% reported that they missed taking their medication because of depression.⁴²

Many SEAs came to the United States to flee repressive political regimes. For example, refugees who survived the Khmer Rouge era in Cambodia witnessed more than 1 million Cambodians die of disease, starvation, or execution.¹⁴ Refugees' previous experience of torture and abuse at the hands of government agents could continue to influence their trust of authority figures and to have an adverse effect on their seeking of health care and preventive services. ¹⁸

Conditions Contributing to Risk of Diabetes Complications

Diabetes management includes a combination of medical interventions such as screening exams and lab test monitoring, and self-care behaviors such as healthy eating, medication adherence, and avoiding tobacco. We have highlighted some of the challenges around food, medication compliance, and cultural barriers to seeking health care. Other circumstances that contribute to the risk of diabetes complications among SEAs include underrecognition of this risk, high prevalence of tobacco use, and high blood cholesterol (a factor in cardiovascular disease [CVD]—the number one cause of death among people with diabetes).

Underrecognition of Risk

A World Health Organization (WHO) expert consultation concluded that increased risk for type 2 diabetes and CVD occurs at a lower BMI for Asian people than the existing WHO cutoff point for overweight (a BMI greater than 25 kg/m²).⁴⁸ Although BMI is used as a screening tool for percent body fat, accurate risk assessment must also take into account different body habitus. For the same age, sex, and BMI, Asians have a higher fat percentage.⁴⁹ A BMI of >25 kg/m², the standard used by physicians for most American adults, inaccurately predicts risk in Asian patients.⁵⁰ Table 3 contains measurements of height and weight for at-risk standards of BMI specific to Asian Americans and non-Asian Americans. The at-risk standard used for AAPIs is a BMI of 23 or more.⁵¹ Table 4 offers the BMI chart and waist circumference measurements used for evaluating disease risk in SEAs.

Focus group research conducted by CDC has revealed that Asian Americans tend to underestimate diabetes risk because of their smaller body habitus.⁵² Additional data gathered from areas where SEA populations are concentrated could help identify barriers to recognizing chronic disease risk and other health conditions that increase diabetes-related complications.

If you are Asian American: At Risk BMI ≥23		If you are not Asian American: At Risk BMI ≥25	
Height	Weight	Height	Weight
5'6"	142	5'6"	155
5'7"	146	5'7"	159
5'8"	151	5'8"	164

Table 3: Sample BMI Chart

Source: U.S. Department of Health and Human Services. *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: the Evidence Report.* ⁵³

Table 4: Co-morbidities risk associated with different levels ofBMI and suggested waist circumference in adult Asians

Classification	BMI (kg/m2)	Risk of Co-morbidities		
		Waist Circumference		
		< 90 cm (men) ≥ 90 cm (men)	$< 80 \text{ cm (women)} \ge 80 \text{ cm (women)}$	
Underweight	< 18.5	Low, but increased risk of other clinical problems	Average	
Normal Range	18.5-22.9	Average	Increased	
Overweight	<u>></u> 23			
At Risk	23-24.9	Increased	Moderate	
Obese I	25-29.9	Moderate	Severe	
Obese II	<u>></u> 30	Severe	Very Severe	

Source: The Asia -Pacific Perspective-Redefining Obesity Report, February 2000

Spotlight on the Clinic: Cultural Differences in Perception of Mental Health and Implications for Diabetes Care

Mental illness can negatively influence physical health. In addition, cross-cultural communication issues further complicate timely diagnosis and subsequent care. Because SEAs have a different model by which they conceive of physical and mental health, misdiagnosis and inadequate treatment can occur easily if a patient's somatic expression of mental illness is misinterpreted through Western medical models.

Depression is more common in people with diabetes,¹⁰⁷ and in SEAs,^{14, 37} and presents with myriad signs and symptoms, often expressed in unique cultural constructs. As physician Arthur Kleinman writes in the *New England Journal of Medicine*, "Culture confounds diagnosis and management by influencing not only the experience of depression, but also the seeking of help, patient-practitioner communication, and professional practice."¹⁰⁸ He later illustrates his point by discussing the perspective of Chinese immigrants, many of whom find the diagnosis of depression "morally unacceptable and experientially meaningless." Like SEA immigrants, their beliefs are vastly different from those of U.S. clinicians, who consider depression a significant mental disorder.

The difficulty of dealing with multicultural conceptions of mental health in the clinic was affirmed by another study in the *New England Journal of Medicine*. Using data from 14 countries, the study examined the relationship between somatic (physical) symptoms and depression, concluding that, "Somatic symptoms of depression are common in many countries, but their frequency varies, depending on how somatization is defined."¹⁰⁹ The complexity of their findings was amplified by the observation that patients often waited for the appearance of physical complaints before seeking medical help from their health care providers. Physical expressions of depression can be mistaken for vascular disease or gastroparesis, for example, leading to a medical "workup" without a culturally appropriate mental health intervention. Conversely, symptoms of neuropathy might be attributed to mental health disorders without appropriate evaluation and treatment.

Dealing with the multifaceted issues surrounding mental health is a key factor in reducing the impact of diabetes and other chronic diseases on SEAs. Since depression, anxiety, and other mental conditions have such a great impact on diabetes self-care,^{1,42} clinicians need to be aware of the fact that such conditions manifest different reported symptoms depending on the cultural beliefs of their patients. Given the traumatic history of many SEA refugees, the importance of addressing these mental health symptoms cannot be underestimated as a way to build trust and to improve compliance with diabetes treatment regimens.

Health Care Provider Counseling on Risk

Asian Americans, in general, are less likely to receive physician counseling about smoking cessation, healthy diet, weight control, exercise, and mental health than the U.S. general population.⁵⁴ There is additional evidence that SEAs are even less likely than Asian Americans in general to practice healthy behaviors and receive preventive care counseling.

- A 2001 study of 669 Asian Americans in the United States found that Vietnamese Americans are less likely than other Asian Americans to report receiving preventive care services and counseling.⁵⁴
- A 2001 survey of 1,026 Cambodians living in Lowell, Massachusetts and 2658 Vietnamese living in California found that SEAs in the United States self-report less fruit and vegetable consumption than those who live in their native countries.⁷ Only 16% of Cambodians and 11% of Vietnamese in the United States reported eating at least five servings of fruits and vegetables a day.⁷
- In 2001, Vietnamese were less likely to meet physical activity recommendations than other Asians or the general U.S. population (14%, 28%, and 33%, respectively).⁷ Counseling by health care providers and dietitians regarding healthy diet and physical activity levels is an important intervention to reduce diabetes risk.

Tobacco Use

Tobacco use increases the risk of cardiovascular, kidney, foot, and eye complications in people with diabetes.⁵⁵ Although the overall rate of smoking among AAPIs is lower than for whites (17% vs. 25%, respectively) in the United States,⁵⁶ the smoking rate among subgroups of SEAs noted in regional surveys is higher.

• According to one regional survey conducted in Washington state in 1989, smoking prevalence among 253 SEA men was highest for Laotians (51%).



Photo Courtesy of Gary Jacobson

followed by Vietnamese (42%) and Cambodians (33%) (data were not collected for Hmong in this study).⁵⁷

- Other studies conducted in San Francisco, Los Angeles, and other regions of California during the 1990s showed that the smoking prevalence rate among SEA men ranged from 34% to 43%.⁵⁸
- The 1997 National Health Interview Survey revealed the smoking rate among Vietnamese males to be as high as 55%.⁵⁹
- No comparable data on tobacco use are available for SEA women living in the United States.

A closer examination of the high smoking rates among the Vietnamese provides insight to how cultural influences have affected tobacco use in SEAs.⁶⁰ Smoking, which is a social norm widely accepted in Vietnam, has a prevalence among Vietnamese males living in their home country that is one of the highest in the world (72.8%).^{60,61}

Many SEA tobacco users face cultural barriers in seeking assistance to quit. A study in Minnesota found that Vietnamese smokers feel ashamed of being identified.⁶² Youth smoking is becoming a sad reality among Vietnamese Americans, although tobacco use has traditionally been rare among Vietnamese youth in their home country. A study by the American Legacy Foundation in 2001 revealed a seven-fold increase in smoking prevalence among Asian youth—including Vietnamese—between grades 7 and 12.⁶³ Interventions concerned with preventing diabetes complications must acknowledge the impact of high tobacco use prevalence as a comorbid condition and consider public health approaches that address multiple unhealthy behaviors.

High Blood Cholesterol

People with diabetes are at a higher risk for CVD than those who do not have diabetes. High low-density lipoprotein cholesterol, in particular, increases the risk for developing coronary heart disease. Focus group research has shown that many Asian Americans perceive themselves to be at low risk for elevated cholesterol and CVD.⁵² Few data exist on blood cholesterol levels in SEAs with or without diabetes, but regional studies have found low rates of self-reported cholesterol testing.^{7, 64}

In a 1992 CDC study of 154 SEA refugees with and without diabetes in Seattle, Washington, a majority of U.S. Vietnamese men (56%) and women (55%) had never had their cholesterol levels checked.⁶⁴ Another study, conducted among 1,026 Cambodians living in Lowell, Massachusetts, with and without diabetes reported that a large number of Cambodians (52%) had never had their cholesterol checked.⁷

Cholesterol testing and management is a standard of care for diabetes management.⁶⁵ No data exist on cholesterol testing among SEAs with diabetes, but suboptimal rates of screening and control have been found in general for SEAs, regardless of diabetes status.⁶⁶ Health disparities in cholesterol testing and control have been noted for other ethnic minority populations.⁶⁶

Stroke: A Major Diabetes Complication Affecting SEAs

Overall, among people with and without diabetes, the age-adjusted death rate from stroke is approximately 26 per 100,000 in AAPIs while the general U.S. age-adjusted rate is 27 per 100,000. Although this statistic refers to all AAPI populations as a whole, regional data suggest health disparities in SEAs with regard to stroke. According to the 1990 U.S. Census Bureau and California Department of Health Services data, Cambodians in California with and without diabetes had the second highest death rate from stroke compared with all other races in that state (125.3 vs. 63.6 per 100,000, respectively).^{67, 68} Understanding the determinants of a higher stroke rate among SEAs is relevant to diabetes care because this complication is a major cause of morbidity and mortality for people with diabetes.

Quantitative data on SEAs, diabetes prevalence, and complications are limited. However, data from death certificates reveal a need to examine the prevalence of diabetes complications in

SEAs. According to a 2001 study in Lowell, Massachusetts, where the majority of Asians are Cambodian, "Asians aged \geq 45 years die from diabetes at higher rates than the general MA population."⁷ Qualitative data such as focus group reports and key informant interviews can provide insight to diabetes complications prevention among SEAs. The "Project Asian Diabetes: Access, Prevention, and Treatment" (Project ADAPT) report of a focus group was initiated in response to health care and social service provider perceptions in San Joaquin County, California that, "Patients from Southeast Asia are more likely to present with more advanced disease upon initial diagnosis of type 2 diabetes and more likely to progress quickly to complications than are other patients."⁶⁹ Although no quantitative data currently exist to support these perceptions, this ongoing project seeks better understanding of the challenges confronting SEAs with diabetes in San Joaquin County. The CD-ROM accompanying this monograph contains the full January 2006 Project ADAPT report findings and recommendations. Such qualitative reports provide information on cultural beliefs and practices that are at odds with the Western medical model, mental health issues, and other challenges to quality medical care delivery, as well as suggested solutions.

Access to and Quality of Health Care Services

SEAs face multiple challenges to accessing quality health care services, including underinsured or uninsured status, language barriers, lack of culturally appropriate care, mental health disorders related to previous physical and emotional trauma, and concurrent chronic disease. These challenges affect the ability of SEAs to access effective health care that could prevent, delay, or diagnose diabetes. Such barriers also prevent

Insurance Matters: The 2003 California Endowment Report

Results from a multilingual poll given to Californian immigrants showed that the lack of health insurance was the main barrier to seeking medical care.

For detailed charts and graphs on the results of the poll, please see the accompanying CD-Rom.

SEAs who have diabetes from receiving appropriate services to manage and control their disease.

Insurance Status

The lack of health insurance has been linked to decreased provision of preventive health care services and poorer outcomes for people with chronic disease.^{70,71}

- As of 1997, 27% of SEAs in the United States were uninsured, compared with 14% of whites.
 ⁷² Less than half (49%) of SEAs had job-related health insurance, compared with 73% of whites.
- A national study reported in 2002 found that one in five Asian American adults aged 18–64 had been uninsured at some point in the past year, and the rate was especially high for Vietnamese Americans (37%) (data on other SEAs were not collected).⁵⁴

A regional case in point regarding this lack of health coverage can be seen in California. According to the 2001 California Health Information Survey, the rate of non-elderly Asians who do not have health insurance is 1.4 times the rate of whites (13% vs. 9%, respectively).⁷⁴

Studies have shown that the extensive lack of health insurance can seriously hamper the ability of patients to obtain care and treatment for diabetes—another factor that magnifies the existing burden of disease in SEAs. ⁷⁵ However, access to quality health care remains a problem even

among those who have adequate insurance coverage.⁷⁶ According to the 2003 California Endowment report, approximately a quarter of SEAs with private insurance, Medicare, or other medical coverage reported experiencing problems when seeking medical assistance.⁷⁶

Language Barriers

Effective diabetes prevention and control rely on good communication between patients and health care providers. Because SEA populations speak several distinct languages, however, language barriers remain among the most difficult aspects of establishing effective public health and primary care interventions.

Language Proficiency

The U.S. Census defines a linguistically isolated household as one in which all adults (high school age and older) have some limitation in communicating in English. According to the 1999 U.S. Census, more than 60% of Hmong, 56% of Cambodian, 52% of Laotian and 44% of Vietnamese households were linguistically isolated, affecting those SEA populations' access to health care and information.^{76, 77}

Spotlight on Policy:

HIPAA's Effect on Access to Care in Southeast Asian Communities

The Health Insurance Portability and Accountability Act (HIPAA) was passed by Congress in 1996 to protect privacy of health information.¹¹⁰ Although HIPAA has fulfilled its purpose with regard to electronic transactions, it has also inadvertently erected barriers for health care providers who serve people in SEA immigrant communities.

"The act of patient privacy is a barrier for limited English-speaking people," said Theanvy Kuoch, executive director of Khmer Health Advocates.



Photo Courtesy of Association of Asian Pacific Community Health Organizations (AAPCHO)

"Though HIPAA's objective is to protect the patient's privacy, it also prevents those trying to assist from receiving information on behalf of their limited-speaking client."⁷⁹

In Kuoch's experience, HIPAA regulations have led to increased time and effort spent by patient advocates working with SEA patients in communicating with health care providers. In some instances, incorrect interpretations of HIPAA have prevented access to care. For example, a local agency in Connecticut required clients to call for services on their own behalf, even if they do not speak or understand English. Recalling earlier experiences with this agency, Kuoch said, "Nine out of 10 times, when I have clients seek assistance on their own, they call directly after their appointment and say that they were not provided medical services."

While many immigrants of other ethnicities (e.g., Hispanics/Latinos) have access to clinics in which their native language is spoken, this is less often the case for SEAs.⁷⁶ The following points, taken from the California Endowment report, illustrate the scope and consequences of this situation:

- Approximately half of the Cambodians and Hmong surveyed in California regularly visited a clinic in which their native language was not spoken.
- Seventy percent of Cambodians, 57% of Hmong, and 42% of Vietnamese reported that they had a problem understanding a medical situation because it was not explained in their native language.
- Even if interpretive services are offered in the health care clinic, language difficulties may arise at the pharmacy. Fifty-nine percent of Hmong, 51% of Cambodians, and 25% of Vietnamese reported having trouble understanding the labels on prescription medicines.⁷⁶

A health survey in Connecticut echoes the findings of the California report. According to the 2003 study of 366 randomly selected SEAs, more than 80% of Vietnamese, 33% of Laotians, and 70% of Cambodians living there reported that they needed an interpreter during medical visits.³⁸

"Bridging Language Barriers in Health Care"

The California Endowment Report

With immigrants making up 25% of the state population,⁷⁶ California is at the forefront of a demographic change that is sweeping the nation. Such is the context surrounding the California Endowment report,⁷⁶ a multilingual poll of Californian immigrants designed to address the linguistic and cultural barriers to quality health care.

The report is particularly enlightening regarding the plight of SEAs. According to the polls, 70% of Cambodians, 45% of Hmong, and 35% of Vietnamese respondents said that they had had a problem understanding instructions when they were discharged from a hospital because the instructions were not given in their native language.⁶⁹

Excerpts from the report:

"The chance of misunderstanding instructions either from a physician or upon being discharged from the hospital doubles among immigrants who do not speak English well."

- "Substantial percentages of California immigrants, especially ... Hmong, Cambodians ... are often confused about how to use prescription medicines."
- "Many immigrants also have trouble understanding the label on their prescription medicines."
- "More than a quarter of these immigrants with a poor understanding of English have gotten sick as result of this handicap."

For more information, visit: http://www.ncmonline.com/media/pdf/tce_summary.pdf.

This study also noted that among those who do speak English, many do not understand the medical terminology often used in health care settings. In addition, according to the Cambodian Community Health 2010 Behavioral Risk Factor Surveillance Survey conducted in 2002 (CCH 2010 BRFSS), 96% always spoke Khmer at home.⁸ Within a clinical setting, more than three quarters of Cambodians preferred the Khmer language for health information, nearly 70% wanted an interpreter when talking to a non-Khmer-speaking doctor, and 18% reported a time when they needed an interpreter but did not have one.

Together, communication barriers such as the ones described above contribute to underrecognition of diabetes risk and inadequate counseling about risk reduction and ongoing care.



Interpreter Services

Lack of awareness with regard to interpreter services remains an obstacle to providing quality medical care to SEAs. Eighty-four percent of Hmong, 72% of Vietnamese, and 55% of Cambodians surveyed in the California Endowment report were unaware of their legal right to interpreter services at health care facilities.⁷⁶ Of those poll respondents who did not speak the same language as their doctor, fewer than 10% used a trained interpreter. Most (56%) reported that they did "the best I can in English," and some (19%) had asked a family member or friend to help them communicate with their doctor. *Unequal Treatment,* a report published by the Institute of Medicine on racial and ethnic disparities in health care, specifically advises against the use of family or untrained personnel as interpreters.⁷⁸

"I still hear the Khmer Rouge slogans in my head... I don't know who this person on the phone is, so I am polite, but I don't tell them anything."

Some health care facilities have begun to rely on telephone interpreter services to compensate for the absence of trained interpreters in their communities.⁷⁹ However, these services can be problematic for SEAs who came to the United States as refugees, who are more likely to trust health care providers in a face-to-face interaction than a phone interaction, according to some advocates. According to Theanvy Kuoch, executive director of Khmer Health Advocates, telephone interpreter

services have been, in her experience, particularly disturbing for Cambodians, who may associate the unknown voice on the other end of the line with brainwashing sessions performed by the Khmer Rouge. When Kuoch asked a Cambodian community health worker if her patients liked to use the telephone interpreter service, the woman said, "An old man told me, 'Even though I know it's not true, I still hear the Khmer Rouge slogans in my head. I think maybe I am safe if I just don't talk. I don't know who this person on the phone is, so I am polite, but I don't tell them anything.' I think my other patients are like that too."⁸⁰

Language and Patient-Physician Interactions

Differences in patient-physician interaction were notable between Asian Americans whose primary language was English and those whose primary language was not English.⁵⁴ Asians with limited English proficiency preferred using professional interpreters, when available, rather than family members.⁸¹

The CCH 2010 BRFSS showed that among adult Cambodians over 25 who preferred an interpreter, 76% usually relied on hospital or health center interpreters. Among men aged 25 to 35, 93% of whom reported they speak English well enough to converse, 35% usually still wanted an interpreter in health care settings.⁸ Failure to address interpreter services ignores SEA patients' limited language skills to interpret medical terminology, as well as cultural traditions and practices.

This failure also goes against recommendations given by the Department of Health and Human Services, as stated in a document titled, *National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health Care.* These standards reflect legislation that ensures a patient's right to an interpreter when seeking health care services at a clinic or hospital.^{82,83}



Lack of Culturally Appropriate Care

The 2002 California Endowment Study reported that Asian Americans were less likely than the overall population to rate their medical care highly, less likely to be confident about their care, and more likely to indicate having a communication problem with their doctor. ⁷⁶ The issue is not only one of common language but of cultural health beliefs and the perceived need for preventive health care services. ^{69, 84, 85}

According to focus group research conducted by the National Diabetes Education Program (NDEP), many immigrants do not seek preventive health care services, indicating reasons such as the lack of these services in the country of origin, unfamiliarity with these services, and a cultural attitude of seeking health care for symptomatic complaints, not prevention.¹² Indeed, results from the CCH 2010 BRFSS survey show that, few Cambodian adults older than 25, knew about CVD and diabetes, and very few knew the modifiable risk factors for CVD and diabetes, or even that diabetes and hypertension were chronic diseases.⁸

Thirty-six percent of immigrants (from all ethnic groups) interviewed in the California Endowment survey reported the main reason they did not have a regular doctor or clinic was because they "never get sick."⁷⁶ This response highlights a lack of belief in preventive health care. Indifference toward preventive care has major implications for diabetes prevention and control, as can be seen in the comments of one Cambodian participant in a NDEP focus group on diabetes: "When I feel bad, I check [my blood sugar]. When I feel good, I don't check. What's the point of hurting your finger with a needle if you aren't sick?"⁸⁶

Little information exists on the percentage of SEAs who access preventive health care services for diabetes, usually in the form of surveys conducted among only one group of SEAs. For example, according to the Year 3 REACH 2010 Risk Factor Survey conducted by the National Opinion Research Center in 2004, only 26% of adult Cambodians with diabetes reported having an A1C test in the past year.⁸No comparable information is available for other SEA subgroups.

Since little is known about diabetes preventive care services among SEAs, we conducted a literature review of cancer screening practices among Asian Americans. Like diabetes, the early stages of cancer are mostly asymptomatic. Because of this similarity, understanding of attitudes

and barriers to cancer screening can offer possible insights relevant to other chronic disease preventive services.

- Cervical cancer rates among Vietnamese women are five times higher than among white women.⁸⁷ SEA women are more likely to have late diagnosis of cervical cancer that could have been prevented by routine Pap smear testing and appropriate treatment.⁸⁸
- Compared with other ethnic groups, AAPI women in the United States have the lowest cancer screening rates. A national study conducted in 2000 found that less than 60% of adult AAPI women in the United States had obtained a Pap test within the past 2 years.⁸⁹
- A 2002 report on the health status of 7,429 state residents by the Massachusetts Department of Health found that 37% of Asian women aged 18 and older living in Massachusetts had never had a Pap test (compared with 10% of white women and 15% of African American women).⁹⁰
- A 1992 study of 1,011 Vietnamese living in California found that nearly 50% of Vietnamese women over 40 had never had a mammogram.⁹¹ In addition, a California survey of 201 Hmong women living in Fresno, Long Beach, Orange County, and San Diego found that only 52% of women over the age of 30 had ever had a clinical breast examination and only 30% had ever had a mammogram.⁹²
- Another study conducted in 2001 of 566 SEAs residing in California found that white men are twice as likely to have been screened for prostate cancer than Asian men. The authors also said that in fact, "60% of Cambodian and Vietnamese men have never even heard of the test." ⁹³

Opportunistic screening:

Screening carried out at a time when people are seen, by health care professionals, for a reason other than the disorder in question

- WHO, 2003⁹⁷

Current programs that rely on **opportunistic** screening⁹⁴ for diabetes and counseling about chronic disease risk presuppose that AAPIs present to the health care system for preventive care services. However, these low rates of cancer screening indicate the need to educate the SEA population about the importance of seeking preventive care. Such educational measures are particularly relevant to risk counseling, early diagnosis, and optimal diabetes management.

Some studies offer evidence that many AAPIs do not receive recommended preventive care tests in part because of the lack of awareness campaigns in their native languages. Findings from a 2001 California Health Interview Survey found a direct correlation between level of English proficiency and cancer screening rates in immigrants.⁹⁵ In addition, focus group research with non-physician health care providers revealed that physicians tend to provide SEA patients with less education and therapies than they provide to other patients mainly because of language barriers.⁶⁹

Other cultural barriers play a role in addition to the above linguistic factors. For example, the extent to which provider behavior can affect patient relationships can be seen in the following quote from a Hmong patient, "I understand that the doctor is trying to help, but when the medication is not helping, the doctor won't change the medication for me. Sometimes I feel

like they're just in it for the money." ⁶⁹ In addition, the California Endowment report revealed that compared with 62% of the overall population, only 45% of Asian Americans were "very satisfied" with their health care.⁷⁶ Important aspects of quality of health care services identified by study participants included the providers' respect for traditional health beliefs and practices, access to professional interpreters, and assistance in obtaining social services.⁷⁶

Vietnamese American patients with limited English proficiency want to discuss the use of non-Western medical practices with their providers, but encounter many barriers, according to a study examining cultural barriers to care.⁸¹ They viewed providers' knowledge of, inquiry about, and nonjudgmental acceptance of traditional Asian medical beliefs and practices as part of quality of care, and they found this quality lacking. In addition, lack of communication about traditional medicine can lead to poorer health outcomes. Physician training has traditionally focused only on the use of prescription drugs, with little information on complementary and alternative treatments such as herbal remedies. Many traditional herbal remedies have pharmacologically active properties that can interact with prescription medication and worsen chronic conditions such as high blood pressure or unstable blood glucose levels. Ginseng, for example, is a popular herbal remedy that has been known to counteract hypertension medication and to cause hypoglycemia when taken in conjunction with diabetes agents.^{96, 97} It is important both for health care providers to ask about herbal remedies and for SEA patients to understand the reason for sharing this information with their providers.^{98, 99}

CLAS Standards: Focus on Cultural Competence and Health Care

In 2000, the U.S. Department of Health and Human Services convened a committee of health care providers, policy makers, and researchers to recommend cultural and linguistic guidelines for national health care delivery and policy making. This report, *National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health Care*, is the culmination of this committee's efforts.⁸³ Provision of clinical services consistent with these standards is federally mandated by law.

As defined by the report, cultural and linguistic competence suggests "an ability by health care providers and health care organizations to understand and respond effectively to the cultural and linguistic needs brought by patients to the health care encounter." Finding ways to develop this competence is a necessity for today's health care providers, advocates, and policy makers, who face an increasingly diverse patient population in a variety of clinical settings. In the words of a recent commentary in the *New England Journal of Medicine*, "Cultural competence is not a panacea that will single-handedly improve health outcomes and eliminate disparities, but a necessary set of skills for physicians who wish to deliver high-quality care to all patients."¹¹¹

The CLAS report lists 14 standards that health care providers can use to define and implement linguistic and cultural competence. For a full list of these standards, please visit http://www.omhrc.gov/CLAS/cultural1a.htm#Summary.

"Pulling Out the Cold Air": Snapshots of the Contrast Between Eastern and Western Medicine in the United States



Photo Courtesy of the New England Journal of Medicine

To a physician trained in the American system, seeing a patient with a back full of swollen lesions would be cause for alarm. However, in the eyes of a Vietnamese healer, these lesions would not be considered signs of injury. They would instead be seen as part of a common Asian treatment for minor ailments that works by "pulling out the cold air" from a person's body.

This treatment, known as cupping, uses heated cups to create a localized suction effect on the skin that in turn is believed to remove elements that cause disease. Unfortunately, as an article in the *Journal of General Internal Medicine* reports, the process leaves behind conspicuous welts that U.S. clinicians can mistake for signs of abuse or hematological disease.⁸¹ The article describes how Asian

immigrants who encountered negative reactions from their Western doctors were "reluctant to tell their providers about their use of Asian medicine."

The confusion of U.S. clinicians about treatments such as cupping has had serious ramifications for the care of SEA immigrants. In one instance, a comatose Hmong girl was under the care of a group of Californian doctors, who, with well-meaning intentions, had given permission to her parents to "take her home to die" with dignity. The remark so frightened the father that he snatched his daughter away from the doctors and attempted to run from the hospital without signing the required discharge forms. His flight, which triggered a security breach alarm throughout the hospital, was later explained through the insights of a Hmong translator: "In the Hmong moral code, foretelling a death is strongly taboo … it means you're going to kill a person. Maybe poison him. Because how do you know for certain he's going to die unless you're going to kill him?"¹¹²

The inability of many Western-trained clinicians to discuss symptoms within their patients' cultural concept of illness is particularly detrimental to those who already have difficulties trusting their providers. Khmer Health Advocates reports situations where this mistrust has led many Cambodians to rely solely on their own home remedies, thus "postpon[ing] treatment for serious conditions or threaten[ing] the compliance with Western medicines."¹¹³

As the encounter between Eastern and Western medicine becomes more frequent, the need for culturally competent health care providers grows more urgent. This urgency was the subject of a *Journal of the American Medical Association* article, which states that, "In the clinical setting, effective communication is maximized when the patient and health care provider share beliefs about the sickness. Discrepancies in beliefs and behaviors are often greatest when the physician and patient have different cultural orientations."^{105, 114, 115}

Learning how to deal with these "differences in cultural orientations" is a big challenge facing U.S. clinicians today. Though it is not necessary for clinicians to agree with the logic or efficacy of Eastern medicine, being open, nonjudgmental, and appreciative of the cultural context surrounding Asian remedies is an important first step.

Other barriers to care as revealed by the CCH 2010 BRFSS survey include low education levels and lack of transportation. These issues are not unique to the SEA population, but there is a high prevalence of low educational levels, low literacy even in native languages, and transportation barriers among SEAs.⁶⁹ In the CCH 2010 BRFSS study, many Cambodians reported transportation challenges when they wanted to see a doctor, especially women, 37% of whom relied on rides from others to medical appointments. Public transportation was seldom used.⁸ Sixty-one percent of Cambodians had no formal education in the United States—a statistic that has implications for the ability to navigate the U.S. health care system, and for health literacy.⁸

Physicians and other health care providers can play a key role in improving patient participation in preventive care by nonjudgmentally asking their patients about cultural practices, beliefs about disease causes and treatment, and traditional medicine use. Health care providers of SEA heritage can act as cultural brokers to help improve cultural competency and understanding of their non-SEA health care provider peers. However, according to the most recent Census data available on the U.S. labor force (2000),¹⁰⁰ physician representation was lower for most SEA groups than for non-Hispanic whites. In terms of patient-to-physician ratio, the 2000 Census data show that there was 1 Cambodian physician per 2,473 Cambodian people, 1 Laotian physician per 3,570 Laotian people, and 1 Hmong physician per 4,148 Hmong people. In comparison, the ratio for non-Hispanic whites was 1 per 389 people.¹⁰⁰

Public opinion surveys of SEAs provide evidence that health care is a high priority for those interviewed, despite low utilization of preventive services, and perhaps highlighting the issue of barriers to quality care. According to the 2003 California Endowment report, more than 90% of the Vietnamese, 80% of the Hmong, and 60% of the Cambodians interviewed stated that health care was very important to them. Medical care was rated the number one concern for Vietnamese Americans interviewed, in contrast to the general population Gallup poll of June 2002 in which unemployment and the economy were ranked far above health care as top-priority issues. Nevertheless, the report also stated that nearly 30% of both Hmong and Vietnamese and 23% of Cambodians experienced problems getting medical care when needed.

Successful Models Reaching SEAs

Local and regional interventions to improve access to, quality of, and communication in health care practices with SEAs are not well documented. However, refugee organizations such as mutual assistance associations (MAAs) can play an important role in improving outreach and education efforts directed toward underserved SEAs.⁸³ MAAs comprise refugees who provide assistance to other refugees. Other refugee organizations, such as Khmer Health Advocates, are extending their service area through innovative use of technology. Telemedicine tools (e.g., videoconferencing) are user-friendly, can be created in the language of the targeted people, and can be programmed to collect and store patient

"Diabetes is simply beyond the capacity of any single physician, patient or caregiver to manage all alone."

- Dr. Athena Tsimikas, regarding the importance of community health centers¹⁰¹

data. These technologies are already widely used among health care providers in settings from Connecticut to Alaska and could serve to fulfill culturally and linguistically appropriate standards for geographically scattered populations who need interpreters.¹⁰²

In many areas throughout the country, MAAs and other refugee agencies are the primary organizations helping underserved SEA communities. The Fresno County Human Services System Refugee Community Liaison provides services that include teaching refugee populations how to navigate the American health care system.¹⁰³

The Vietnamese American Medical Research Foundation publishes a patient education newsletter in Vietnamese with discussion of cultural practices and foods relevant to diabetes and other chronic disease risks. Multiple organizations serving SEAs conduct local cultural competency training for health care providers. This training is in accordance with CLAS standards—which list the ongoing education of health care providers as the "single most important element of assuring the cultural competence of an organization—and one of the elements most directly related to clinical care and outcomes."⁸³

On March 23, 2005, New Jersey became the first state in the nation to mandate cultural competency training as part of medical education. The law stipulates that cultural competency— understanding cultural aspects of medical care and integrating these into the medical care plan— be included as part of continuing medical education requirements for practicing physicians as well.¹⁰⁴ An increase in appreciation of the need for cultural competency training for health care providers and recognition of Western medicine itself as a culture with special language, models, values, and attitudes can be seen in recent articles in mainstream medical literature. Articles in the *New England Journal of Medicine*,^{1, 84, 85} *Journal of the American Medical Association*,¹⁰⁵ and others have joined the public health literature in highlighting needs and directing the reader to successful models. Resources exist to help individual health care providers, clinics, and medical

organizations access training, including case studies, role-playing exercises, and tools for successful interventions (see reference section at the end of this paper).

In addition to ongoing education, CLAS standards also encourage the use of community health workers as an important link in "bridging the gap between mainstream organizations and ethnic minority communities." Project Dulce, a diabetes management and education program in San Diego, California, is one example of how community health workers can have a positive impact on diverse populations with diabetes. As part of its outreach to the Vietnamese community, the program uses trained Vietnamese peer educators to deliver health messages, nutritional counseling, and diabetes self-management support. Project Dulce staff also provide training to other community health workers on implementation of culturally appropriate diabetes management programs. This approach has led to successful outcomes, as measured through specific metabolic parameters such as cholesterol and triglyceride levels.



In addition, patient compliance to American Diabetes Association standards also increased. A curriculum, flipcharts, and peer educator training curriculum are available online (http://www.whittier.org/pages/pp_dulce.html).

Spotlight Outreach Organization: Khmer Health Advocates

Khmer Health Advocates (KHA) in West Hartford, Connecticut, was founded with a mission to care for the health needs of survivors of the Mahandorai (the Cambodian holocaust), and their families. As the only Cambodian health organization in the United States, KHA provides care for Cambodian immigrants in Connecticut and Western Massachusetts, and advocates for Mahandorai survivors across the nation. KHA is meeting the challenges of outreach to this population through innovative technology tools that could be useful in other settings with marginalized populations.

Currently, KHA is in the final stages of developing a telemedicine Web site called the Cambodian Health Network (Cambodianhealth.org) which will provide spoken Khmer language assessment tools and health information and a patient case management system that collects and stores data on a sequel server.^{102, 114}

In addition, KHA is evaluating a Connecticut initiative in which interpretive services for SEAs in the health care setting are provided via videoconferencing as part of a model program funded by the U.S. Department of Commerce Technical Opportunities Program, the Langeloth Foundation, and the Connecticut Health Foundation.

Telemedicine tools (e.g., videoconferencing and patient care peripherals such as glucose meters attached to a videoconferencing system) allow Mutual Assistance Associations to offer clinical supervision of in-home diabetes monitoring, and live face-to-face education. For more information, visit: http://www.khmerhealthadvocates.org/about.asp.



Spotlight on Innovation: Lowell Community Health Center

Lowell Community Health Center (LCHC) in Lowell, Massachusetts serves a culturally diverse city and its surrounding areas. Always an immigrant city, Lowell experienced its newest influx of immigrants in the 1980's as a result of the Vietnam War and the Cambodian holocaust, with many SEA families settling in Lowell. Due to this influx, LCHC has responded with



Photo Courtesy of Association of Asian Pacific Community Health Organizations (AAPCHO)

innovative approaches providing comprehensive, high-quality healthcare to this group of newcomers to its community.

In October of 2000, the LCHC added the "West Meets East Center" as a new site designated to improve access for Cambodians and Laotians to primary medical care and mental health services. As time passed, a Buddhist monk and a community advisory committee determined that a more culturally appropriate name for the center would be "Metta," which is a Buddhist Pali word meaning loving kindness, or compassion. The LCHC Metta Health Center addresses the ethnocultural and institutional barriers to care for Lowell's Southeast Asian population and builds on the strengths of culture that the Southeast Asians carried with them to Lowell. Located in a well-known Cambodian Mutual Assistance Association (CMAA) facility that houses an array of cultural programs and social services, the Metta Health Center integrates Western primary care and mental health services with traditional healing, meditation, and alternative medical approaches.

As a means to increase access to the health care system for Cambodians, CCH 2010 and LCHC's Metta Health Center provide screenings at the Adult Education English as a Second Langauge (ESL) classes, faith-based facilities (the Glory and Trairatanaram Temples), and the Saint Julie Asian Center. Bilingual-bicultural health advocates are available to help people with transportation needs and assist those who are applying for free care and/or MassHealth. Screenings are linked to follow up health care services with advocates and health care providers available to arrange referral and care if indicated. Screenings also present opportunities for health education and health promotion about diabetes and high blood pressure.

For more information, please visit: http://www.lchealth.org/

The National Diabetes Education Program (NDEP): Networking to Promote Awareness of Diabetes in the SEA Population

The NDEP is a federally-sponsored initiative that unites public and private partners to improve the treatment and outcomes for people with diabetes, to promote early diagnosis, and to prevent the onset of diabetes.

A key to the success of these partnerships are work groups comprised of members from a variety of healthcare backgrounds. NDEP has work groups convened to address specific audiences and issues—for example, a work group concerned with diabetes in older adults and another involved with business and managed care—which help to tailor diabetes prevention and control messages to different audiences. The Asian American Pacific Islander (AAPI) Work Group, in particular, has been instrumental in promoting diabetes awareness in SEA communities.

Using a diverse network of representatives from national Asian health organizations, Asian community-based organizations, and other health professionals, the AAPI Work Group provides advice on the development and dissemination of culturally-sensitive NDEP materials and messages to Asian American and Pacific Islander communities. Initiatives pursued by the Work Group have included tailoring and making culturally-appropriate NDEP campaign materials (e.g., public service announcements, posters, brochures) into 15 Asian and Pacific Islander languages, as well as putting together a capacity-building toolkit for use by AAPI community-based organizations.

The following organizations from the AAPI Work Group have been directly involved in examining the impact of diabetes in SEA communities:

- Association of Asian Pacific Community Health Organizations (AAPCHO)
- Khmer Health Advocates, Inc.
- Charles B. Wang Community Health Center
- National Asian Women's Health Organization
- National Vietnamese American Health Care Association
- Refugee Community Liaison, Fresno County Human Services System
- Office of Minority Health

For more information on NDEP, please visit:

http://www.ndep.nih.gov

http://www.cdc.gov/diabetes/ndep/index.htm

Snapshots from the Field: A Physician Reaches Out to SEAs with Diabetes¹¹⁵

Dr. Kwabena Adubofour, a Stockton, California, internist, was frustrated. His practice was seeing an increasing number of SEA patients with diabetes who, by the time they sought help, were already suffering from complications such as blindness or kidney disease. So Dr. Adubofour partnered with Lao Khmu Association (LKA) and Education, Training and Research Associates (ETR) to find solutions to the problem. The collaboration led to the creation of Project Asian Diabetes: Access, Prevention and Treatment (ADAPT), a two-phase project designed to obtain needs assessment data (phase one), then apply the findings toward the development of local programs (phase two) focused on preventing diabetes and treating patients with diabetes in the SEA communities of San Joaquin Valley. Funded primarily with internal funds from ETR and LKA, phase one of the project received a supplement of \$10,000 from the Golden State Medical Association and completed its needs assessment report in November 2005.⁶⁹

"We want[ed] to understand why the Lao, Cambodian, [Vietnamese] and Hmong [patients] who have diabetes come in so late to get health care," explained Dr. Adubofour. "This initial [phase] is to look at the knowledge base, the practices, and the attitudes toward the disease and in doing so come up with some innovative ways for best treatments and prevention strategies [focusing on] Southeast Asians."

Dr. Adubofour is a member of the Stockton chapter of the Golden State Medical Association, a group of black physicians aiming to reduce health disparities among minorities, including SEAs, a group that is largely underrepresented because of language and education barriers.

The Network of Ethnic Physician Organizations (NEPO, www.ethnicphysicians.org), to which the Golden State Medical Association belongs, consists of 53 ethnic physician organizations in California dedicated to reducing health disparities and improving health care access, health care workforce diversity, and cultural competency in communities of color through collaboration with community-based organizations. NEPO elected to focus on type 2 diabetes initially because it was having the greatest impact on their patients. In California, diabetes is currently the fifth leading cause of death and costs the state nearly \$12 billion annually.

The next step for Project ADAPT is to meet with community stakeholders to identify one or more programs and services that would best meet patients' substantial needs in culturally appropriate ways. Following that, Dr. Adubofour, ETR, and LKA will seek funding for implementing and evaluating the new program(s).

Patient Outreach/Education Efforts

Investment in patient outreach—particularly to communities that are the most linguistically and culturally isolated and traumatized by the refugee experience—is an important step in closing the gap in access to and quality of health care services. Specific interventions include, but are not limited to, the following:

- Increase availability and affordability of health insurance to small businesses and business owners through purchasing pools.
- Provide skilled medical interpreters and support staff, as legally mandated in the National Standards for Cultural and Linguistically Appropriate Care in Health Services.⁸³
- Conduct outreach and educate communities about diabetes, stroke, and mental illness through community health workers or "patient navigators," and provide support services such as facilitating access to appropriate diabetes prevention and management services.
- Provide linguistically and culturally appropriate tools to assess patients' ability to read and understand diabetes prevention and management concepts in English or their own language.
- Train health care providers who work with SEA communities not only about culture and traditional beliefs of SEAs but also about the refugee experience.
- Provide nutritional counseling for refugees that includes information on the potential long-term consequences of malnutrition in earlier life.
- Provide training and funding for MAAs to increase their capacity to serve SEAs.
- Increase use of telemedicine tools for providing interpreter services, monitoring home care practices, and providing family conferencing in a culturally and linguistically appropriate manner.
- Provide patient education delivered in the patient's native language on access to state-ofthe-art glucose monitoring devices.
- Reduce pain associated with blood glucose testing through the use of improved monitoring supplies (e.g., lancets) and increase awareness of access to equipment covered by Medicaid, Medicare, and private insurance.
- Support grassroots advocacy efforts to educate policy makers on the impact of 1996 welfare reform laws,¹⁰⁶ which stripped away Medicaid benefits from legal immigrants. These laws have added barriers to appropriate and timely preventive and disease management services in SEA populations.

Conclusions

Current evidence suggests that SEAs, a rapidly growing segment of the AAPI group in the United States, face unique mental health, sociodemographic, cultural, language, and health care access issues that complicate diabetes prevention and control. Unique health care needs generated by the refugee experience, cultural practices, and possible underrecognition of chronic disease risk by providers, policy makers, and individuals contribute to poor health outcomes.

Barriers such as poor health care access, low socioeconomic status, lack of interpretive services, coexistent mental health conditions, and cultural differences in understanding preventive care practices continue to exist despite the fact that many SEA immigrant populations have been in this country for decades. The barriers pose multiple immediate challenges to local, state, and national health professionals and decision makers. The far-reaching health implications of poorly controlled diabetes and its complications compel action to address these barriers while simultaneously seeking ways to gather more data on these populations.

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Selected Web sites for More Information on Southeast Asian Populations

- 1) Hmong Studies Internet Resource Center. http://www.hmongstudies.org Includes Census data for Laotians, Hmong, and Vietnamese, along with the top metropolitan areas for each.
- 2) Hmong Health Education Network. Hmong Health. http://www.hmonghealth.org/
- 3) Khmer Health Advocates. www.khmerhealthadvocates.org
- 4) Office of Minority Health, Public Health Service, U.S. Department of Health and Human Services. A Practical Guide for Implementing the Recommended National Standards for Culturally and Linguistically Appropriate Services in Health Care. http://www.omhrc.gov/clas/guide2a.asp
- 5) Southeast Asian Resource Action Center. http://www.searac.org/.
- 6) The White House Initiative on Asian Americans and Pacific Islanders. http://www.aapi.gov/
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