

Health Disparities Research in the Hmong American Community: Implications for Practice and Policy

By

**Kari Smalkoski, M.A.¹
Department of Family Social Science
University of Minnesota**

**Nancy K. Herther, M.A.
University of Minnesota Libraries**

**Zha Blong Xiong, Ph.D
Karen Ritsema²
Rebecca Vang
Ri Zheng
Department of Family Social Science
University of Minnesota³**

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Abstract

Since the first wave of their arrival to the U.S. over 30 years ago, the Hmong population has grown substantially. Although the focus on health disparities has led to improvements in recent decades in the health of the U.S. population as a whole, many non-white populations continue to lag behind. One such population is the Hmong. This article reviews medical studies since 1990 that focus on Hmong health issues and argues for long-term funding at the state and federal levels as well as immediate support to address the health needs of this significantly growing population. Furthermore, the authors argue that existing anecdotal reports and findings on the Hmong population require greater attention, further study, and a commitment to work for change.

Keywords: Hmong, Hmong Americans, Hmong health data, health disparities, health inequities,

¹Address correspondence to: Kari Smalkoski, 290 McNeal Hall, 1985 Buford Avenue, St. Paul, Minnesota, 55108. E-mail: smal0009@umn.edu

² The last three co-authors contributed equally to the manuscript.

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Introduction

One of the major goals of *Healthy People 2020*, a national health promotion and disease initiative by the U.S. Department of Health and Human Services, is to “achieve health equity, eliminate disparities, and improve the health of all groups” (Healthy People, 2012). According to Thomas, Quinn, Butler, Fryer and Garza (2011), although these disparities have been obvious and in many cases documented throughout the history of the U.S., federal efforts to address them have not been consistent. Furthermore, although improvements in recent decades in the health of the U.S. population as a whole have been significant, non-white populations continue to lag behind. One such population is the Hmong.

According to the 2010 U.S. Census, there are over 17.3 million Asian Americans living in the United States, of which, 260,073 are Hmong (<http://2010.census.gov/>). Since the first wave of their arrival to the U.S. over 30 years ago, the Hmong population has grown substantially. Between 2000 and 2010 alone, the Hmong population grew over 40% (Asian Pacific American Legal Center & Asian American Justice Center, 2011). This is significant, given that the total U.S. population grew only by 9.7% in the same decade (<http://2010.census.gov/>). Although the Hmong have been the subject of many research studies published in scholarly journals over the last 30 years (Herther, 2009), they are generally excluded as a group in large-scale research studies such as national health studies (Blendon et al., 2007; Kagawa-Singer, 2010) that include other Asian American groups with much larger population sizes.

The Absence of Health Disparities Data on Immigrant Populations

Since the first studies on health disparities in the U.S. were conducted in 1960, data has consistently shown that individuals with fewer resources are significantly disadvantaged (mainly

African Americans compared to whites); however, the extent of health disparities continues to show great variation by outcome, time, and geographic location within the United States (Adler & Rehkopf, 2008). Several nationally-recognized studies, including *The Heckler Report on Black and Minority Health*; the Institute of Medicine's *Confronting Racial and Ethnic Disparities in Healthcare*; the Medical Expenditure Panel Survey's *Comparing Urgent Medical Care*; and the Agency for Healthcare Research and Quality's *National Healthcare Disparities Report*, document the existence of health disparities in racial and ethnic populations in the U.S. (Buckner-Brown et al., 2011). These studies have shown that, overall, social and environmental factors, disparities in education, and cultural beliefs play a significant role in health disparities. Addressing these social determinants of health requires "multisectorial and transdisciplinary partnerships with community collaborators" (Buckner-Brown et al., 2011, p. S13).

In the last fifty years, national longitudinal data on health disparities have focused primarily on comparisons between whites and African Americans with growing comparison data on Hispanics.⁴ Data on the Hispanic population has made researchers aware of the need for data on foreign-born individuals to adequately assess health needs. According to Adler and Rehkopf (2008), individuals' place of birth is a critical component of socioeconomic and racial/ethnic disparities, yet it is frequently ignored in longitudinal national studies. Overall, it has been found that foreign-born individuals have lower rates of disease than U.S. born individuals (Adler & Rehkopf, 2008). However, immigrants' foreign-born status is not always analyzed as a separate variable and/or reported as such in studies. For example, the Greater Gilroy area of South Santa Clara County in California has a Hispanic population of more than 45,000 and a

⁴ Hispanic is used throughout this article because it is the term commonly used in all the studies we examined to describe this ethnically and culturally diverse population.

disproportionally high rate of diabetes at 7.5%, compared with 5.7% of whites (Buckner-Brown et al., 2011). Yet, the study did not explore foreign-born status to probe reasons for this disparity.

Why Study the Hmong?

Historically, public health statistics in the U.S. have been reported by racial or ethnic group, but health differences defined by socioeconomic status such as income and educational attainment have been examined far less frequently across groups (Bravemen, 2010). Asian Americans, a “racial group” that make up only 6% of the population in the U.S. (Asian Pacific American Legal Center and Asian American Justice Center, 2011) are often excluded in large longitudinal studies. When they are included, Asian American ethnic groups are generally lumped together in one category (Koh, Judge, Ferrer, & Gershman, 2005). It has been documented that Asian Americans have the lowest occurrence of disease and the lowest all-cause mortality rate of any major racial group (Adler & Rehkopf, 2008). In fact, in almost all areas of health disparities, including most major diseases, tobacco use, obesity, and access to quality healthcare, the indication is that Asian Americans have higher outcomes of health than any other minority group in the U.S. (Thomas et al., 2011).

If there is a relationship between health disparities and socioeconomic status, then this seems accurate. After all, according to the 2010 U.S. Census, the poverty rate for Asian Americans is at 11%, which is below the national average (<http://2010.census.gov/>). However, when these data are disaggregated, a very different story unfolds. Although 11% of Asian Americans live below the poverty line, disaggregated data shows that 26% of Hmong live below the poverty line. In fact, over 1 in 4 Hmong live below the poverty line and nearly one-third of Hmong children live in poverty - a rate that exceeds African Americans and Hispanics (Asian Pacific American Legal Center & Asian American Justice Center, 2011). Furthermore, only

48.9% of Hmong have privately-held health insurance, compared to 71.9% of the overall Asian American population and 67.7% of the total U.S. population (<http://2010.census.gov/2010census/data/>). In addition, 41.6% of Hmong receive public coverage compared to only 19.1% of the overall Asian American population and 28.5% of the total U.S. population (<http://2010.census.gov/2010census>). These distinctions are rarely acknowledged or considered in health studies (See Table 1). It has been noted that the Hmong are often, as Vue (2012) explains, “racialized like Asian Americans, but also stratified like poor African-Americans” (p. 13).

Table 1. 2010 U.S. Census Poverty Rates⁵ by Race and Hispanic Origin, United States 2007 to 2009⁶

Hmong	26%
African American	25%
American Indian/Alaskan Native	23%
Hispanic	22%
Total Population	14%
Native Hawaiian Pacific Islander	14%
Asian American	11%
White	10%

When health outcome is examined by ethnicity within the Asian American community, mortality rates amongst Asian Americans for cancer, such as stomach and liver, are approximately twice that of whites (American Cancer Society, 2007). Furthermore, findings from a study conducted by the Cancer Prevention Institute of California indicate that Asian-born women in the U.S. are at higher risk of dying from breast cancer than U.S. born Asian American women (E! Science News, 2010). However, further disaggregation of the data reveals alarming

⁵ Asian Pacific American Legal Center and Asian American Justice Center, 2011.

⁶ The poverty threshold used by the U.S. Census Bureau in 2009 was an annual income of \$21,954 for a family of four.

mortality rates, especially for the Hmong. For example, disaggregated studies found the Hmong population is reporting higher cancer mortality rates than their Asian American counterparts (Lee & Vang, 2010). In fact, mortality rates among Hmong for stomach cancer are 3.5 times higher than for Asian Americans overall, and 8.9 times higher than for whites (Lee & Vang, 2010). In California, mortality rates for liver and cervical cancer are 3 to 4 times higher for the Hmong in comparison to other Asian Americans and Pacific Islanders in the state (Baker, 2010). Furthermore, the average cervical cancer mortality rates for Hmong females are 2.8 times higher than for all Asian American females, and 4.2 times higher than for white females (Lee & Vang, 2010).

In one of the few studies conducted specifically on the Hmong, Lee and Vang (2010) report that the Hmong have one of the lowest rates of cancer screening of any racial or ethnic group in the U.S. The reasons for this are multi-faceted and have to do with access to healthcare, length of time in the U.S., foreign born status, mistrust towards a Western medical system, and other cultural barriers (Lee & Vang, 2010). Baker (2010) discovered that low socioeconomic status and higher rates of Hmong traditional healing practices are associated with lower immunization rates amongst the Hmong population (60% of liver and 70% of cervical cancer can be prevented by immunization).

Hmong American Health: A Historical Context

To provide some historical context, the following is a brief overview of the existing literature in the U.S. pertaining to Hmong American health. Fadiman's (1997) best-selling book, *The spirit catches you and you fall down: A Hmong child, her American doctors, and the collision of two cultures*, offered a non-Hmong, U.S. journalist's first-hand account of a Hmong family's attempt to work within the Western medical system while continuing to use their own

traditional healing practices to cure their ill child. Although the account, first published by Fadiman in 1997, and recently published in an updated first edition, has been contested amongst many Hmong Americans for its sensational portrayal of a Hmong family and community as primitive and pathological, it was the first time many people in the U.S. had read about the Hmong in popular press.

Although large-scale national health studies on the Hmong are non-existent, there are significant milestone monographs that contribute to the knowledge about Hmong health cultural practices and beliefs, specifically in the Hmong American context and from the perspective of Hmong Americans themselves. The first of these monographs was *Hmong American concepts of health, healing, and conventional medicine* by Dia Cha (2003). This work examines Hmong American concepts of health and illness and gives insights into different types of Hmong traditional healing methods, interactions between Hmong individuals and U.S. healthcare professionals, and specific factors that create successful and unsuccessful healthcare delivery to Hmong American families in the U.S. (Cha, 2003).

A second major milestone was the publication of *Healing by heart: Clinical and ethical case stories of Hmong families and Western providers*, edited by Kathleen A. Culhane-Pera et al. (2003). Through ethnographic accounts, the authors in this volume offer a comprehensive overview of health-related cultural beliefs and values held by Hmong individuals; furthermore, they explore a vast array of clinical and ethical challenges in delivering culturally responsive healthcare to Hmong families who reside in the U.S. (Culhane-Pera et al. 2003). In addition to these seminal works, Mai Neng Moua's (2002) groundbreaking anthology, *Bamboo among the oaks*, was the first to showcase first and second generation Hmong Americans' perspectives on health issues in their own words. Among these essays was Moua's (2002) "Endstage," where she

articulates the complexity of her experiences as a second generation Hmong American woman diagnosed with end-stage renal disease, and the difficult decision she made to go against her family's wishes and utilize Western medical care by receiving a kidney transplant from a non-Hmong friend. In addition, Shelley R. Adler (2011) has written extensively about Sudden Unexpected Nocturnal Death Syndrome (SUNDS) in the Hmong community. As a non-Hmong researcher, Adler (2011) sought to "represent faithfully the views of the people I spoke with regarding SUNDS and also present their understandings in a way that would allow other Americans to relate to their experiences" (p. 105).

Surveying the Existing Literature on Hmong Health Disparities

In a 2010 article in the *Merced Sun-Star* (<http://www.mercedsunstar.com>), health professionals, researchers, and educators looked at various health disparities that continue to plague the Hmong population in Merced County, California. Despite such existence, there is a dearth of data to document these disparities (Reiter, 2010). Anecdotally, it is known that Hmong Americans throughout the U.S. have high instances of cancer, diabetes, hepatitis, hypertension, and gout, but little data exists to document the widespread prevalence or persistence of these health-related issues. A search of the database Ethnic News Watch, which indexes ethnic newspapers across North America, found 209 articles in Asian American news media just on "Hmong" and "cancer" as well as 77 articles on "Hmong" and "Diabetes."

Although the Hmong population is small when compared to the general Asian American population, the incidence of diseases that affect Hmong individuals and families must be documented. To achieve this goal, specific questions such as the following have to be addressed: Where does the Hmong population fit in within the context of health disparities of the underserved populations in the U.S.? And, what is being done specifically to address their

growing and specific needs? Because data on Asian Americans is rarely disaggregated and often reported as representative of all Asian Americans in the U.S., it only underscores the need for more accuracy in the reporting of population data on the Hmong. The categorization of "Asian American" or "Asian Pacific Islander" is far too broad to describe the Hmong in any meaningful level of analysis.

Method

To address these issues, a thorough review of the literature was conducted and several definitions of "health disparities" were located and reviewed. Specifically, we began the search by contacting national health agencies, such as the National Institutes of Health (NIH), Department of Health and Human Services (DHHS), National Institute on Drug Abuse (NIDA), and state demographic and health agencies in California, Minnesota and Wisconsin given the large Hmong populations and enclaves in these states. None of these agencies were able to identify any large-scale health data or studies on the Hmong. We then turned to available health disparities studies in key scholarly databases.

Articles reviewed for this paper were based on information from key resources: Hmong health citations from the Hmong Studies Internet Resource Center (Pfeifer, 2012) and searches using keywords "Hmong" and "Health disparit*" in Web of Science, Ethnic NewsWatch, Sociological Abstracts, Social Services Abstracts, MEDLINE, Proquest Dissertations & Theses, EconLit, ProQuest Newspapers and PAIS International. We also used Google Scholar, Networked Digital Library of Theses and Dissertations (ndltd.org), and general web searching to try to identify white papers and other grey literature of value. In some cases, we expanded the search to "ASIAN AMERICAN*" AND "HEALTH DISPARIT*" to try to identify

key literature in which the Hmong American population was not a major focus of the research population but where the results and recommendations might still hold value.

All searches were evaluated based on the established inclusion and exclusion criteria, and all searches were limited from 1990 to 2012, since most studies conducted on Hmong individuals in general across the globe occurred during this period (Herther, 2009). Thus, to be considered for review, the publications had to meet the following inclusion criteria: (1) studies must include Hmong in the sample to be reviewed; (2) studies must involve actual research (either with primary or secondary data); and (3) studies must address the incidence, prevalence, morbidity, mortality, and survival rate of a particular disease (i.e., cancer, diabetes); and exclusion criteria: (1) studies that involved only a review of the literature; (2) studies that did not address a particular disease; and (3) studies that addressed mental health problems.⁷ Once key citations were identified and screened, members of the research team read through the articles and looked for information related to the research aim. The articles that met the criteria are presented in Table 2.

⁷ See the article on mental health by Dr. Serge Lee in *Hmong Studies Journal* Volume 13(2), 2010 Census Issue.

Table 2. Health Disparities Research and Evaluation Studies from 1990 to 2012

Author/Year	Design	Sample	Location	Disease Investigated*								
				TB	Diab	G/A	C	Hyp	Kid	HB/C	M	Other
Hurie, Mast & Davis (1992)	<u>Medical record.</u> Hepatitis B Virus data from local health care agencies database - identified by Cambodian and Hmong children's surnames from 1984 -1989.	N = 476 Hmong and Cambodians, ages ranged from 6 months to 75 years.	Wisconsin							X		
Henry (1999)	<u>Interview.</u> Cross-sectional face-to-face interviews.	N = 19 Hmong male and female parents - age not specified.	Minnesota								X	
Ross et al. (2003)	<u>Public record.</u> Data from the Minnesota Cancer Surveillance System database - identified by Hmong surnames from 1988-1999.	N = 186 Hmong (84 males & 102 females), ages ranged from 20 to 80.	Minnesota				X					
Portis et al. (2004)	<u>Medical record.</u> Data based on hospital chart - identified by patients' surnames to examine kidney stone.	N = 205 Hmong vs. N = 204 non-Hmong patients.	Minnesota						X			
Yang, Mills & Riordan (2004)	<u>Medical record.</u> Data based on hospital database - identified using Hmong patients' surnames with a cervical cancer diagnosis.	N = 102 Hmong women, ages ranged from 20 – 60 (mean = 47.2, SD = 15.7).	California				X					
Butler, Mills, Yang & Chen (2005)	<u>Survey.</u> Cross-sectional telephone and face-to-face interviews using an existing survey.	N = 65 Hmong to explore liver cancer risk factors (42 females and 23 males), ages ranged from 15-25 years (mean = 19.5, SD = 1.75).	California				X	X				

Dodge, Mills & Yang (2005).	<u>Medical record.</u> Data from the California Cancer Registry (CCR) from 1988–2000 were used to identify Hmong cases of head and neck cancers.	N = 51 Hmong cases of head and neck cancers, ages ranged from 22-83 (mean = 49.8 years).	California				X					
Wong, Mouanoutoua, Chen, Gray & Tseng (2005)	<u>Interview.</u> Cross-sectional face-to-face structured interviews.	N = 323 Hmong adults (194 females and 129 males), ages ranged from 22 to 90 (mean = 58).	Wisconsin					X				
Mills, Yang & Riordan (2005)	<u>Medical record.</u> Data obtained from the California Cancer Registry for Hmong and Non-Hispanic Whites from 1988 to 2000 for stomach cancer.	N = 76 Hmong patients (40 males and 36 females), ages ranged from 20 to 60 (mean = 67, SD = 13.7).	California				X					
Culhane-Pera & Lee (2006)	<u>Interview.</u> Cross-sectional design using face-to-face interviews with patients, family members, and traditional healers. regarding kidney stones.	N = 10 Hmong patients, 11 family members, and 4 traditional healers (ages of participants not provided).	Minnesota						X			
Yang, Mills, & Dodge (2006)	<u>Interview.</u> Cross-sectional structured interviews using a variety of health screening scales.	N=248 Hmong (122 males and 126 females), mean age of 34 for females and 33 for males.	California				X					
Culhane-Pera, Her & Her (2007)	<u>Focus group.</u> Focus group was employed with patients diagnosed with type 2 diabetes.	N = 39 Hmong adults (25 females and 14 males), ages ranged from 37 to 91 (mean = 58.6).	Minnesota		X							
Tanjasiri et al. (2007)	<u>Survey.</u> Evaluation study of workshops on breast cancer screening among Hmong women in Fresno and San Diego, California.	N = 616 Hmong adults (302 females and 314 males), mean age of 46.4 for females and 48.6 for males.	California				X					

Portis et al. (2010)	<u>Medical record.</u> The unobtrusive design was employed using gout data from 11 primary care clinics in Minneapolis.	N = 1,294 identified Hmong patients (800 females and 494 males). Ages of patients were not provided.	Minnesota			X						
Mulasi-Pokhriyal & Smith (2011)	<u>Survey.</u> Cross-sectional questionnaire was administered to the participants.	N = 335 Hmong children (185 females and 150 males) ages ranged from 9-18.	Minnesota		X							
Sheikh et al. (2011)	<u>Medical record.</u> Data obtained from the Hepatitis B Education Project which aims to screen, educate, and treat those who have been tested positive for the infection.	N = 534 Hmong (289 females and 245 males) ages ranged from 18 to 89 years (mean = 43.93, SD=15.62) were screened and 89 tested positive and participated in the education program.	California							X		
Thorburn, Kue, Keon, & Lo (2012)	<u>Interview.</u> Cross-sectional face-to-face interview using open-ended questions. Data were analyzed by age (18-39 and 40+) and gender.	N = 83 Hmong (44 females and 39 males) ages 18 years of age or older.	Oregon				X					
Sheikh et al. (2012)	<u>Medical record.</u> Cross-sectional data from blood donor screening records from 2006-2010 were reviewed for the HBV (Hepatitis B Virus).	Records included 821 Hmong donors (399 males and 422 females), ages ranged from 16 and 35 years old with 92% between the ages of 16 and 35 years old.	California							X		

*Note. TB = tuberculosis, Diab = diabetes, G/A = Gout/Arthritis, C = Cancer, Hyp = hypertension, Kid = kidney failure, HB/C = Hepatitis B & C, M = measles.

Results

Hmong vs. Asian Americans in Health Disparities Studies

Based on the initial MEDLINE database search for ethnicity and type of disease, we found that most studies had been published since the 2000's (See Table 3).

Table 3. Health Disparities Publication Trend

Publication year	Record	%
2001	5	1.89%
2002	5	1.89%
2003	9	3.40
2004	7	2.64
2005	19	7.17
2006	19	7.17
2007	23	8.68
2008	21	7.93
2009	31	11.70
2010	58	21.89
2011	45	16.98
2012	19	7.17

Note: Publications in Web of Science by year.

We also found that publications in top-ranked journals tended not to include Hmong in the sample (See Table 4). For example, when searching by ethnicity and disease, we found that less than 5% of the publications included the word “Hmong” in the study.

Table 4. Hmong vs. Asian Americans on Health Disparities Studies Using MEDLINE Database

Keywords Searched	Hmong	Asian American	Chinese American	Filipino	Japanese American	Korean American	Total Hits
Cancer	26 (3%)	892	90	166	155	60	1,389
Diabetes	13 (4%)	365	31	67	166	11	653
Disparities OR Inequality AND Health	20 (5%)	402	14	47	5	5	493
Stroke	0 (0%)	87	3	2	53	1	146

Using the Web of Science database, we also found that no Hmong scholars have published health disparities studies in top journals that were included in the MEDLINE database.

Type of Diseases Studied with Hmong Participants

The review found 19 published studies that fit the inclusion/exclusion criteria (See Table 2). Of the 19 publications, 9 (45%) publications were from California, 6 (30%) were from Minnesota, and 2 (10%) were from Wisconsin. 45% of the studies examined cancer in general and cervical and breast cancers in particular among Hmong women. For example, Yang, Miller, and Riordan (2004) examined California cancer registry data and found that Hmong women, especially those over the age of 40 years, were more likely to be diagnosed with cervical cancer compared to other groups. Similarly, Ross et al. (2003) used the Minnesota cancer surveillance system (MCSS) data and also found that Hmong patients were more likely to be diagnosed with nasopharyngeal cancer, gastric cancer, hepatic cancer, and cervical cancer than other groups. Furthermore, studies found that Hmong patients were less likely to choose treatment compared to Asian/Pacific Islander women and Caucasian women.

Another 20% of the studies investigated hepatitis B using medical records. Only a few studies examined other health disparities such as tuberculosis, diabetes, gout, hypertension, kidney failure, and measles (See Table 2). For instance, Sheikh et al. (2012) reviewed blood donor screening records from 2006-2010 for the Hepatitis B Virus and found that about one out of every six Hmong patients screened, was infected with the virus. Culhane-Pera & Lee (2006) studied kidney stones with Hmong patients and found that Hmong's rates of uric acid stones were much higher compared to other non-Hmong patients (50% vs. 10% of non-Hmong). Portis et al. (2010) conducted a survey at two public events and used billing data from the Minneapolis/St. Paul HealthEast Care System. They found that Hmong patients, especially men,

were more likely to report gout, compared to the general population (11.5% versus 4.1%, respectively).

Study Design, Population Focus, and Types of Data

The studies all used a cross-sectional design, and employed either a qualitative data collection method or secondary data analysis. Specifically, the review of literature showed that most large-scale studies tend to employ local existing medical data or records to detect certain incidence, prevalence, or other adverse health conditions in the Hmong population. None of the studies reviewed, used longitudinal design with methods that included random sampling approaches. In addition to existing medical records, the other most common studies that currently exist tend to be qualitative in nature (either face-to-face interviews or focus group discussions). Although qualitative studies are vital in understanding individuals' vast array of experiences and perspectives, they employ smaller sample sizes and often do not include detailed surveys or longitudinal data. Furthermore, the review also highlighted the fact that most participants in the studies tend to be adults who are first-generation Hmong immigrants. Only three studies specifically stated that they included youth and second-generation Hmong Americans in their samples (Butler, Mills, Yang, & Chen, 2005; Hurie, Mast, & Davis, 1992; Mulasi-Pokhriyal & Smith, 2011).

Discussion

Large, longitudinal, and national studies on health disparities that affect Asian Americans in general and Hmong Americans in particular are still in the conceptual stage. There are several reasons contributing to the absence of such research. First, Asian Americans as a U.S. ethnic/racial group are much smaller (6%) compared to African American (14%) and Hispanic (16%) populations. Second, Asian Americans as an aggregate group tend to do better than the

average ethnic/racial group. The educational attainment of Asian Americans is above the national average as 49% of Asian Americans vs. 28% of the total U.S. population have obtained a college degree or higher (Asian Pacific American Legal Center & Asian American Justice Center, 2011). In studies that have been conducted on Asian Americans, researchers have found that the population is healthier than the national average (Adler & Rehkopf, 2008; Thomas et al., 2011). Third, foreign born, first-generation Asian Americans as a group tend to have a different set of norms, values, and expectations about healthcare. Because of this, it may appear, or it is assumed, that they are less likely to advocate for their needs or seek preventative care.

It has been well documented that many foreign-born, first-generation Hmong adults use traditional Hmong healing methods, whereas the second generation is more open to Western medicine and procedures (Capps, 1994; Henry, 1999). We argue that the problem is not the traditional healing practices, or some Hmong individuals' preference for them, but that Western medical practitioners can better meet the needs and expectations of these particular Hmong individuals by building on existing practices as they offer them traditional Western treatment plans. In addition, it is crucial that foreign-born status be analyzed as a variable when conducting longitudinal studies to get at the differences in attitudes and perceptions about healthcare between generations within the same ethnic group. In the few studies that exist on Asian Americans and their instances of cancer, it is known that by the time most patients present themselves with the disease, it is too late for medical interventions to be successful (Yang, Mills & Riordan, 2004). However, the studies that exist rarely catch the attention of researchers, funders, and public policy makers and therefore information is rarely disseminated to the general public.

Implications and Recommendations

The implications of this void of research on health disparities are significant to the Hmong community, Hmong community-based organizations, community leaders, and public policy makers. According to Ruffin (2010), “health disparities in the U.S. will not be solved by an isolated cadre of public health experts—the problems are complex, and achieving health equity will require a profound transformation of our health care system and our society. Solutions will have to emerge from a large and expanding network of institutional partnerships in which organizations that represent health disparity communities play a preeminent role” (S8).

Implications for Hmong American Individuals

Without reliable and valid data about the origin, nature, extent, and progression of certain medical conditions, the Hmong are less likely to be screened for certain diseases and/or health conditions. For many reasons, the Hmong tend to be perceived as reactive versus proactive in seeking help when they need it most (Xiong, Tuicomepee, LaBlanc & Rainey, 2006). Anecdotal reports from Hmong community leaders indicate that most recent deaths in the Minnesota Hmong community are related to stroke, yet there is a lack of data on this health condition. An immediate next step is to find out about the origin, extent, and nature of this disease as experienced in the Hmong community so appropriate preventive measures can be taken.

This void will particularly impact Hmong individuals who rely solely on traditional healing methods at the time of the origin and progression of certain diseases, as they seek only herbal medicines to treat illnesses,⁸ and avoid Western trained physicians, including Hmong American physicians. Ideally, Hmong individuals who rely on important cultural practices such as traditional healing methods will also be open to other Western healing practices if these

⁸ If you reside in Minnesota, you can listen to two popular Hmong American radio stations (AM 690 and AM 1600), to hear endless commercials (in Hmong) about a vast array of herbal medicines that can cure every illness from impotence to cancer.

interventions are necessary. Furthermore, as previously noted, Western medical practitioners will acknowledge that for these Hmong individuals, traditional healing methods, along with Western interventions, can help maintain health.

The personal costs of these health disparities are both unsettling and unjust, and if this void continues, the economic costs will be staggering. The Joint Center for Political and Economic Studies, reported in *The Economic Burden of Health Inequalities in the United States*, that between 2003 and 2006 alone, “the combined costs of health inequalities and premature death in the United States were \$1.24 trillion (http://minorityhealth.hhs.gov/npa/files/Plans/HHS/HHS_Plan_complete.pdf). Tobacco use, predominately cigarette smoking, is prevalent among the young adult population in the Hmong community (Bautista, Ednacot, & Wong, 2005; BCBS, 2009) and continues to be the cause of multiple cancers, heart disease, stroke, complications in pregnancy, and chronic obstructive pulmonary disease (Thomas et al., 2011). In 2008, the incidence of 46 million U.S. adults identified as smokers, resulted in \$96 billion in medical costs and \$97 billion in annual productivity loss in the U.S. (Thomas et al., 2011).

Implications for Community-based Organizations

Community-based organizations have been created to help first-generation Hmong immigrants adjust to life in the U.S. and to improve the health and wellbeing of members of the community (these include Hmong American Partnership at www.hmong.org, and Lao Family Community of Minnesota at www.Laofamily.org). In order for these organizations to create programs to improve the community and help close the health disparities that exist between the Hmong community and the general population, reliable and valid data, as well as evidence based on rigorous research, must be used to justify and compete for local and national funding.

Hmong community-based organizations are at a disadvantage or marginalized altogether

in competing for funding sources as some funding agencies tend to lump Hmong Americans with the general Asian American population. When this happens, there are two specific consequences for the Hmong. First, when the Hmong are categorized with the general Asian American population, reviewers assume that Hmong Americans, like most Asian Americans, are not a high priority population since they do not have problems similar to other non-white groups (Thomas et al., 2011). Second, when Asian Americans are considered a high priority population, Hmong Americans are too small of a population to justify including in large-scale, longitudinal studies since there is limited research to demonstrate the need and feasibility for the studies in the first place (either basic or intervention studies).

Recommendations for Community Leaders and Public Policy Makers

Hmong community leaders and individuals can be mobilized to help address the health disparities issue since they have a stake in the community and hold certain degrees of influence in various sectors of the community. Although there are several ways mobilization can happen within the Hmong community, the following three ways are suggested with an understanding that Hmong leaders and individuals will generate further recommendations amongst themselves in the ongoing process.

First, we recommend that individuals organize, mobilize, and advocate for more resources to support various community-based organizations that will promote initiatives to foster healthy living, active living, and education about the impact of health disparities on Hmong livelihood and wellbeing. Some examples of effective initiatives are the Southeast Asian Health Equity Collaborative (SEAHAC)'s Statewide Tobacco Education and Engagement Project (STEEP), and the Southeast Asian Youth for Change (SEAY4C) Project, which is administered by Lao Family Community of Minnesota. These initiatives resulted when four

Southeast Asian communities came together to change the cultural practices and social norms surrounding tobacco use, nutrition, and exercise among Cambodian, Hmong, Lao, and Vietnamese communities throughout Minnesota (Xiong et al., 2010; Xiong, Lee, Peng & Yang, 2012).

Second, we recommend that Hmong community leaders be proactive and become involved in various health disparities initiatives boards, advisory councils, and/or task forces. This will ensure that the Hmong community is represented as a target priority population, especially when data gathering is part of the funding mechanism and sustainability is part of the deliverable mechanisms. Finally, we recommend that Hmong community leaders collaborate with other ethnic/racial groups to push for various governmental agencies (i.e., departments of health) to regularly collect and disseminate health data so that information about race, ethnicity, language spoken at home, country of origin and other factors can be easily accessed and used by professionals and community groups.

Although the Hmong population may be relatively small when compared to other racial/ethnic groups in the U.S., if the issue of health disparities is not addressed in that group, the healthcare costs to society will be immense. It is important then, that public policy makers as well as individuals whose positions allow them to develop policies to change systems and behaviors, ensure that leaders of health organizations, such as state departments of health, HMO's, insurance companies, and the Centers for Disease Control and Prevention (CDC) reach out to smaller communities like the Hmong.

Conclusion

Kathy Ko, President and CEO of the Asian Pacific Islander Health Forum, has described the problem of studying Southeast Asian and Pacific Islander communities quite succinctly:

“The data has just not been as revealing or the numbers that have been surveyed, or studied have just not been as significant. So we know anecdotally that there are more challenges in those communities, that there are a lot of health risks but we have not been able to reveal those with either state or federal level data” (Tackling Asian American Health Disparities, 2010).

In addition, a model minority myth that perpetuates the stereotype that all Asian Americans are void of the problems and struggles that plague other minority groups in the U.S. such as African Americans and Hispanics, as well as the need for studies on health issues and disparities that affect the daily lives of Asian Americans, continue to go unnoticed and are not perceived by researchers, policy makers, healthcare professionals and the general public as a necessity.

"Large minority groups in the United States have benefited from in-depth health surveys, but such data are largely unavailable for Native Hawaiians, Pacific Islanders and the numerous, widely varying ethnic groups that are collectively termed Asian Americans," argues U.S. Representative Judy Chu (D-CA). "It's time for health data regarding our populations to enter the 21st Century" (Studies Show Huge Health Disparities Among Asian-Americans, Native Hawaiians, Asian Immigrants, 2010). Historically, grouping all Asian Americans and Pacific Islanders together has been a way to fit these vast ethnic groups into a racial classification system used in data collection in the United States; however, describing a group such as the Hmong community in aggregate often masks health issues that are specific to them (Lauderdale, 2008).

It takes time to secure grant funding, to conduct longitudinal studies, and to report data. While this much-needed research is underway, it is vital that in the meantime, we focus attention on those who need it most: members of the Hmong community with healthcare needs.

Fortunately, it appears that more Hmong are not only entering professional healthcare fields, but are returning home to serve their community. According to a recent article in the *Merced Sun-Star* (<http://www.mercedsunstar.com>), three sisters (two medical doctors and one pharmacist) have returned home to Merced, California, to serve the Hmong community after completing their degrees elsewhere in the U.S. (Amaro, 2012).

In addition, the University of Minnesota medical school has reported an increase in Hmong students, many of whom have indicated that they wish to serve the Hmong community (Dr. Jon Hallberg: New Class of Medical Students Underway, 2012). We argue for more long-term funding, programs, and support to assist future and current Hmong healthcare professionals who wish to serve the Hmong community. Furthermore, we believe that existing anecdotal reports and findings for this significantly growing population require greater attention, further study, and a commitment to work for change.

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About the Authors:

Kari Smalkoski is a doctoral candidate in the Department of Family Social Science in the College of Education and Human Development at the University of Minnesota. Her dissertation research focuses on Wat Tham Krabok Hmong youth and their families in Minnesota. She is the Henry Luce Hmong Studies Graduate Fellow, 2010-11 and a former Institute for Advanced Study Graduate Fellow at the University of Minnesota. She recently completed fieldwork in a Hmong village in Thailand; part of this work also included time at Wat Tham Krabok.



Nancy Herther is the librarian for American Studies, Anthropology, Asian American Studies and Sociology at the University of Minnesota, Twin Cities campus.



Dr. Zha Blong Xiong is an Associate Professor in the Department of Family Social Science in the College of Education and Human Development at the University of Minnesota. His research interests include immigrant children's adjustment in the contexts of family, school, and community; parent education; and community engagement models with Southeast Asian American communities. He is the co-author of a highly respected research-based parent education curriculum called *Helping Youth Succeed: Bicultural Parenting for Southeast Asian Families* and serves on several organizations' boards, including the University of Minnesota Senate, the Hmong National Development, the Center for Hmong Studies, the *Journal of Southeast Asian American Education and Advancement*, and the Hennepin County Community Transformation Grant.



Karen Ritsema is a non-traditional student at the University of Minnesota where she will graduate in 2013 with a degree in Family Social Science.



Rebecca Vang is a 5th year undergraduate student in the Family Social Science department at the University of Minnesota.



Ri Zheng is a senior undergraduate student at the University of Minnesota. Her majors are Family Social Science and Psychology.

