

# Understanding Traditional Hmong Health and Prenatal Care Beliefs, Practices, Utilization and Needs



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## Abstract

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**Objective:** To increase understanding of traditional Hmong health and prenatal care beliefs, practices, utilization and needs and their perceptions toward the utilization of Western health care.

**Specific Aims:** The aims of this project are: 1) Collect primary quantitative and qualitative data on the prenatal health care beliefs, practices, utilization, and needs of the Hmong men and women from three of the highest Hmong populated counties in Central California; 2) Better understanding of traditional Hmong prenatal and health care practices; 3) Highlight barriers to prenatal care for Hmong; and 4) Use findings to inform next steps.

**Setting:** California's Central Valley Hmong American Communities: Fresno, Merced, and San Joaquin counties.

**Methods:** A convenience sample of 99 Hmong women of child-bearing age (18-35) and 74 Hmong men of child-bearing age (18-45) were recruited through partnership with a Hmong health collaborative and within communities by word of mouth and snowball sampling. Hmong, bilingual graduate students obtained informed consent and conducted 45-60 minute face-to-face interviews including structured and other questions. Descriptive bivariate analysis and multivariate modeling explored how receipt of appropriate prenatal care is related to Hmong respondent demographics, cultural perspectives and health care experiences

**Findings:** Hmong residents utilize both Western and traditional medicines due to lack of complete trust in Western medicine. Respondents reported using over the counter pregnancy tests and more than half (52%) sought prenatal care six weeks after confirming pregnancy. Almost half (45%) are not satisfied with their experience using Western medicine. About 60% report a disconnect between Western and Hmong medicine. Language access and lack of cultural competence training were also at the forefront of the concerns.

**Conclusion:** Hmong residents utilize and rely on Western health care, yet they cannot abandon their cultural and traditional health care practices due to new cultural setting. In order to provide equitable and effective health care, clinicians need to be able to function effectively within the context of the cultural beliefs, behaviors, and needs of consumers and their communities. Failing to provide culturally supportive and respectable health care for Hmong residents can increase costs for individuals and society through increased hospitalizations and complications.

## I. Introduction



The purpose of this project is to understand the health and prenatal care beliefs, practices, and needs of Hmong women age 18-35 and men age 18-45 in Central California where the largest share of the Hmong have settled. The Hmong population in the United States is growing rapidly. Census estimates indicate 186,310 Hmong were enumerated in the 50 states and Washington, D.C. in 2000, representing a 97% increase in the census enumerations over the course of the decade, with the largest settlements in the San Joaquin Valley of California (65,345), Minnesota (41,800), and Wisconsin (33,790) (Hmong estimates, 2003). According to the 2006 American Community Survey the total Hmong population in the U.S. is 209,866 (Pfeifer, 2008). The 2000 Census figures were met with

considerable skepticism from representatives of the Hmong community. Community-based professionals who work closely with persons of Hmong origin have suggested that the census figures may represent an actual count of only half of the actual Hmong population across the country and in particular cities. Language and cultural barriers, a lack of community information about the census, as well as widespread suspicion of government surveys have all been suggested as possible causes of an undercount (Census 2000, 2001). Hmong National Development in Washington, D.C. estimates the actual Hmong population is about 275,000 in the U.S. (Pfeifer, 2008). California's Central Valley, because of the opportunities presented by the agricultural industry, has become home not only to the Hmong but to other Southeast Asian refugees and immigrants. Although the displacement of people from their home countries is of growing concern, little attention has been paid to the health care experiences, utilization or outcomes of refugees in the U.S. health care literature. Experiences of refugees are more complex and difficult than those of voluntary immigrants because refugees often experienced trauma in their own country, as well as being forced to leave. Voluntary immigrants most often choose to immigrate willingly in search of a better life. Trauma may further complicate acculturation for refugees and their children as they learn practical skills for survival and construct an identity in the host country (Yakushko, Watson, & Thompson, 2008).

## Hmong Refugees and their Families

The forced relocation of refugees occurs around the world but the examples best known to people in the United States are refugees from countries in Central and South America, refugees from Africa, from the former Soviet Union, and refugees from Asia and Southeast Asia. People who have lived in one culture most of their lives cannot fathom the changes that face refugees in this country. Everything -- the physical environment, the customs of social life, the realities of economic life -- is so very foreign to refugees who settle here.

The psychological implications of such drastic relocation, including post-traumatic stress syndrome, depression, loss of purpose in life, loss of individual and cultural identity, loss of friends and families, new styles of houses, the everyday battle to use a grocery store, and above all, the bureaucratic nightmare of all forms of government, leave refugees in a state of culture shock and profound disorientation. Exacerbating these psychological discomforts are the traumas that refugees suffered before they arrived in the United States. Such dislocation and trauma, and the psychological effects of this trauma, can be seen most clearly and dramatically in the Hmong refugees from Laos and Thailand who settled in the United States during the last two decades. Many people have documented the horrors the Hmong suffered. The Hmong were in an agrarian society, living with kinsmen in small villages. The recruitment by the CIA as recorded in books by Jane Hamilton-Merritt (1993), Chan (1994) and many other authors, initiated change in the Hmong communities. The change was exacerbated in the refugee camps and continued with the Hmong arrival in the United States.

The transition into the U.S. mainstream has remained a difficult process for the Hmong refugees. Like many refugee groups, Hmong new arrivals to the U.S. receive financial support and access to Medicaid, but this assistance is temporary. Over time Hmong refugees and their children who are also low income face the same barriers to health care coverage and access as do other low income families, legal residents and citizen communities.

Upon arrival in the United States, the Hmong's were a sub-group that was unfamiliar with local communities and often mistaken for some other type of Asian immigrant group, such as Chinese or Mongolian. The lack of awareness from U.S. residents at that time about Hmongs and their cultural practices and beliefs made it hard for Hmong refugees to receive access to services and aid for the transitioning period. Many aspects of the Western culture were very foreign to the Hmong refugees. As a result, we hypothesize, that Hmongs hold onto their cultural practices as much as they can up to this day. Presently, their strong family structure and work ethics carried into current generations as large families are very common and agricultural farming continues to be practiced throughout Hmong communities.

In-depth studies of Hmong demographics and socioeconomic trends in communities across the states (Pfeifer, 2004; Hmong Studies Internet Resource Center; Smith, 1996; Olney, 1983) have noted that the Hmong form tight-knit groups with community leaders, often former clan leaders or politicians, from Laos and are their descendents. Still, there is a new generation of Hmong leaders emerging. They are young, well-educated, and not necessarily willing to be beholden to old loyalties based on clan affiliation. Cleaved along this generational divide, the younger leaders support the reform of some aspects of Hmong culture that may clash with American customs. For instance, Hmong women's groups have campaigned against polygamy, domestic violence, and teenage brides -- not common but not unheard of among more traditional Hmong (Pfeifer, 2003).

## Hmong Health and Prenatal Care

The underutilized prenatal health care by people of color and immigrant populations in the United States has been well documented and linked to neonatal morbidity and mortality (Collins & David, 1990; David & Siegel, 1983; Greenberg, 1983; McCormick, 1985). A recent study conducted by Bengiamin et al in the California Central Valley also suggests Asian/Pacific Islanders, whether publicly or privately insured, had the worst rates of late initiation and non-adherence to recommended prenatal care compared to other mothers of color and white mothers (Bengiamin, et al, 2010). Ethnographic studies reveal that the traditional Hmong health care practices are indigenous to the people and continue to be practiced even after arrival in the United States. Hmong traditional health care is a holistic approach to the well-being of a person which includes the physical, emotional, and spiritual aspects. In this context, female Hmong patients objected to biomedical procedures and to being attended by several doctors; they also reported poor communication with staff (Spring, 1989). This results in the underutilization of prenatal care by Hmong women. Understanding the socio-cultural context of such underuse by an immigrant population can suggest programmatic changes that result in more effective health care delivery. Since the traditional Hmong birthing process has remained at home, many Hmong women do not understand Western methods of labor and delivery. As a result, many Hmong women limit the number of prenatal visits or seek prenatal care in late pregnancy (Levine, Anderson, & McCullough, 2004; Spring, Ross, Etkin, & Deinard, 1995). The greatest barriers to seeking prenatal care are vaginal examinations, lack of understanding of obstetrical procedures, and language barriers (Levine et al., 2004).

Despite hosting the largest Hmong concentration in the nation, little current systematic evidence-based data on the health and prenatal care beliefs, practices, and needs of Hmong women and men of child bearing age is available for the San Joaquin Valley. It is imperative to understand Hmong perception, utilization of, and barriers to Western Health Care (WHC), the extent of the gap between Hmong traditional health care and Western medicine, and the disconnect between providers and Hmong patients.

## Theoretical Framework

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### Acculturation and Health Care

When radical situations of cultural change occur, people use their native cultural frame of reference to try to make sense of and understand the new culture. This is impossible to do unless there is active participation on the part of the receiving culture. Everything in U.S. culture has been foreign to the waves of Hmong new arrivals. This included the styles of houses and apartments, electrical appliances and all the other outward manifestations of American culture. The patterns of social behavior, communication, religion, economic life, and political life – all were completely new, and there was usually no one to help the Hmong make sense of their new surroundings. The only guidelines they possessed were those of Hmong culture, and these were not always appropriate in their new surroundings.

In such situations, the social adaptation theory called “segmented assimilation” may offer a framework for understanding. Portes and Zhou (1993) have noted that traditional theories have assumed that all immigrant groups go through a similar process of learning about U.S. society and making a life for themselves here. But this perspective fails to recognize the diversity of U.S. society and the multiple social groups to use as assimilation models and community context faced by immigrants. The path toward cultural and practical adjustment to the U.S. that a group or individual ends up taking depends in part on their skills, resources, and social networks and in part on how the host community has received them. These divergent assimilation paths include three possible trajectories for immigrant integration. First, immigrants could follow traditional assimilation into the white middle class majority, which would presumably lead to upward mobility. Alternatively, immigrants could assimilate into the urban underclass, which could lead to downward mobility and permanent poverty. Finally, immigrants could preserve culture and community solidarity, which, in itself, could provide resources for upward mobility (Portes & Zhou, 1993). In other words, segmented assimilation assumes that there is more than one ‘American’ identity and therefore more than one way to become ‘Americanized’.

Although this framework has been applied to the psychological adaptation and health behaviors of adolescent immigrants and refugees, this is its first application to adult prenatal care use. Given the Hmong unique history, cultural beliefs and language, this is a framework that affects Hmong health and their interaction with the health care system. We propose that individual factors reflecting differences in acculturation and access to culturally responsive health care influence the Hmong use of primary care in general and prenatal care.

## Culturally Responsive Care

Recent multicultural research and heightened awareness of multicultural issues have advanced in working with members of various minority cultures in the United States (Atkinson, Morton, & Sue, 1998; Lee & Richardson, 1991; Pope-Davis & Coleman, 1997; Sue, 1990). Despite this considerable amount of research, little attention has been devoted to information for professionals who work with various Asian American groups (Uba, 1994). Within this limited amount of research, the majority has addressed Chinese and Japanese Americans (Lee, 1996). Because the Hmong people possess cultural practices and traditions that differ significantly from other Asian subgroups (Cerhan, 1990), many health care professionals may be unaware of the history, culture, and acculturation of the Hmongs, and of the value they place on family and community. Because of the limited availability of research about the Hmongs, many health professionals may also be uninformed about the ramifications these cultural traditions and practices may have on Hmong health care practices and processes.

Hmong residents face multiple barriers to accessing quality health care services - economic, linguistic, and cultural. Economic barriers include: underinsured or uninsured status. Some of the linguistic barriers include: lack of proficiency in English, lack of trained medical interpreters, and lack of medical terminology in their native language. The cultural barriers include: lack of knowledge about the Western health care delivery system, skepticisms about Western medicine, and lack of respect by health care providers for their culture including their beliefs about health and illness. Most refugees had minimal exposure to Western medicine in their homeland. They used the services of traditional healers who successfully practiced healing rituals for centuries. These challenges affect their ability to access effective health care that could prevent, delay, or diagnose diseases. Such barriers also prevent Hmongs who have chronic conditions from receiving appropriate services to manage and control their disease (Buchwald, Panwala, & Hooten, 1992; Brotzman & Butler 1991; Galanti 1991; Gilman, Justice, Saephom, & Charles, 1992; Muecke 1983; Pachter 1994; Thao 1986; and Uba 1992).

Over the past 20 years, health disparities by race/ethnicity have been extensively documented (Smedley, Stith, & Nelson, 2003; The Morehouse Medical Treatment and effectiveness Center, 2000). This literature demonstrates that disparities arise both because of differential access to care (insurance, provider availability) and differential treatment once individuals are in the health system (Capitman, Bhalotra, & Ruwe, 2005). In this context, Hmong refugees are faced with almost insurmountable barriers to adequate health care by the U.S. Cultural barriers, including their beliefs about health and illness, are completely opposed to those of the Western health care professional. A health care system that believes in the biomedical model of disease and lacks cultural humility skills and training does not support equal and positive health outcomes. The Healthy People 2010 mandate is to reduce and eliminate health disparities. However, a better understanding of the mechanisms and contributing factors to observed disparities is essential in order to develop and implement effective interventions. Thus, more research and attention need to be devoted to understanding the Hmong culture and traditions of health care practices and their health status and outcome, how to address them in health care settings when the physician and the patient are different. The critical interactions of social class, race and ethnicity, language proficiency, cultural background, environment, and health are at the core of understanding the mechanisms for health care disparities.

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## Objectives

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In an effort to respond to regional concerns regarding the limited evidence on Hmong traditional health and prenatal care practices and perspectives toward Western health care, the Central Valley Health Policy Institute at California State University, Fresno, in collaboration with the Fresno Hmong Health Collaborative, conducted a survey to understand how Hmong residents in the valley deal with the foreign and complex culture of Western medicine. The questionnaire had two objectives:

1. Describe the child-bearing age in the Hmong population in the Central Valley and their attitudes toward and use of traditional Hmong health care and Western health care.
2. Describe how health insurance, prior experiences with health care, cultural beliefs, and other factors are related to self-reported use of timely prenatal care.

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## Context

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This project was a collaborative effort between Central Valley Health Policy Institute (CVHPI) and the Hmong Health Collaborative (HHC). HHC consists of nine organizations ranging from Fresno County to the greater Sacramento area. The data for this project was collected from three of the largest concentrated Hmong populations in the Central Valley of California (Fresno, Merced, and Stockton). Fresno had the largest Hmong population (30,456); the other two counties, Merced and San Joaquin (Stockton), had a fairly large number of Hmong residents, 6,148 and 5,653 respectively. Tulare County was not included in the research study project because there were no HHC partners in the area and it had a lower percentage of Hmong population. The demographics of the Hmong population varied in gender, age, nativity, educational attainment, employment status, religious practice, number of years lived in the United States, and marital status. Collaborating partners from the three counties served as resources for participant recruitment for this research project.

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## Methodology

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### Sampling

We used a ‘snowball’ sampling technique to solicit participants who then suggested other potential participants. This was a reasonable method for the purpose of this research since we were targeting a population that is difficult to identify using neighborhood or health center sampling and is similar in age and race/ethnicity (Kirk & Miller, 1986). Participants were recruited by word-of-mouth from HHC partnering organizations and hired bilingual Hmong interviewers. Seven Hmong data collectors assisted in the data collection phase; four in Fresno County, two in Merced County and one in San Joaquin County. This sample was stratified based on density of Hmong population per county.

The targeted sample size for this study project was 200 participants. The sample size was distributed by counties based on Hmong population density. Half of the participants would be males while the other half would be females. Eligible participants were 18-35 years of age for females and 18-45 for males. We attempted to keep the number of participants proportionate to the age range groups of the general population. In addition, our goal was to select one eligible participant per household to avoid replication of information.

We achieved only 86.5% (173 participants) of the intended 200 participants. There was a loss of male participants in the San Joaquin County due to the lack of a Hmong male data collector in that area. Overall, most people who were asked to participate were willing to participate in the study due to the fact that this is academic-related and provided a Walmart gift card for \$25 as an incentive for participating in the study. For the few that refused participation, it was mainly due to time unavailability for interview within the time frame of the project.

## Data Collection

Prior to data collection, California State University, Fresno's Institutional Review Board (IRB) at the university and departmental levels approved the protocol. The Protection of Human Subjects Committee has thoroughly reviewed the protocol and approved that the protocol therefore protects the rights and health of human subjects used in this research investigation.

A consent form was given and read to subjects in their preferred language, Hmong or English, before an interview occurred. For those who agreed to participate in the study, the interview continued. For those that decided not to, the interview was cancelled. We conducted face-to-face semi-structural interviews at various sites and participant homes. About 70% of the sample was from Fresno, 16% from Merced, 14% from San Joaquin County. More than half (57.2%) of the participants were females and 42.8% were males. Data collectors were restricted to interviewing participants of the same gender. This method allowed sensitivity to cultural and gender issues that may have arisen from participants during personal interviews. California State University Human Subject Approval (Institutional Review Board IRB) was submitted and obtained.

## Instrument

The survey instrument development was guided by an extensive review of the literature on Hmong health practices and consultations with Hmong community leaders. The portion of the survey addressing prenatal practice was derived from several sources, including California birth records and California Health Interview Survey (CHIS). The instrument included both quantitative and qualitative questions to provide measureable data and in-depth responses. The questionnaire was translated into Hmong and translated back into English to preserve meaningful context and give opportunity of participation to those who either preferred communication in Hmong or were less fluent in English. The translated Hmong version was thoroughly reviewed by multiple highly educated Hmong leaders and university faculty members. The instrument was then pilot-tested to ensure questions were clear, made sense, and the instrument was working correctly. This also permitted us to make final checks on the logical branching of the survey, and ensured that respondents and interviewers understood the directions and skipped items as needed on the questionnaire.

The questionnaire was divided into four parts: 1) Demographics, 2) Personal health and health behaviors, 3) Cultural and Western health care practices, and 4) Prenatal health care. The first three parts consisted of 38 questions for all participants to answer. The fourth part of the survey was related to prenatal health, and participants answered from 11-18 questions depending on participant self-identified pregnancy status: a) currently pregnant, b) had been pregnant before and had a child, c) planned to have a child in the future, or d) did not plan to have a child.

We developed five scales to measure: 1) satisfaction with Western medicine (*Appendix A*); 2) barriers to seeking Western medicine (*Appendix B*); 3) reasons to seek Western medicine (*Appendix C*); 4) obstacles to timely initiation of prenatal care (*Appendix D*); and 5) issues couples discuss when seeking prenatal care (*Appendix E*). Two additional scales were developed to measure: a) the participants' satisfaction with the overall health care experiences; and b) level of agreement to the statement that Western health care delivers medical care that meets Hmong patient health needs (*Appendix F*). The survey also included three open-ended questions to allow participants to express their personal experiences and strategies in response to addressing the differences between Western and Hmong traditional health care practices (*Appendix G*).

We used Cronbach's Alpha test to assess the reliability of the scales used in the analyses. The reliability tests performed on the overall satisfaction, obstacles to timely initiation of prenatal care, barriers to seeking Western medicine, reasons to seek Western medicine, and issues couples discuss when seeking prenatal care data each was found to have an acceptable Cronbach's Alpha of .62, .75, .82, .72, and .70 respectively. This suggests that the items in the scales are related enough to combine into a scale or index.

## **Variables**

The extensive data on this project was reduced to focus on a limited number of variables to best explain the findings of Hmong health behaviors for both categories of perceptions toward Western health care and prenatal care. The selected variables for dependent and independent variables were thoroughly reviewed and discussed by the researchers to structure the foundation for this base finding so that health and health-related professionals can grasp a better understanding of Hmong health perceptions toward Western health care and their own cultural health practices to further increase efforts on Hmong health research.

## **Dependent Variables**

The dependent variables were: 1) Average visits to the doctor—defined as the self-reported number of visits the participant makes to the doctor's office in a given year (N=163); 2) Physical exam habit—defined as the perceived belief that a participant should make it a habit to visit a doctor for an annual physical exam (N=96); and 3) Delayed prenatal care - defined as participants' self-report of receiving prenatal care after the first three months of pregnancy (13 weeks from conception ), (N= 75).

## Independent Variables

Several independent variables were examined: 1) Male; 2) Marital status; 3) Born outside of U.S.; 4) Unemployed; 5) No health insurance; 6) Educational attainment of high school or less; 7) Length of stay in the United States of less than 10 years; 8) belief that Western health care does not meet Hmong health needs; 9) Dissatisfaction with the overall experience of Western health care; 10) Perception that the area of traditional Hmong religious practice is being viewed as a conflict with Western health care; 11) Perception that the area of Hmong cultural practice is being viewed as a conflict with Western health care; 12) Perception that the area of Hmong familial consultation around the issues of death and dying is in conflict with Western health care; and 13) Perception that the area of Shamans viewed as inferior to Western doctors is in conflict with Western health care. We defined two groups of sources of payment for care: 1) Medi-Cal and other public coverage (including county indigent care programs and other public and philanthropic programs) and 2) private insurance (including indemnity, HMO and self-pay). Only potential covariates that demonstrated significant bivariate correlations with the dependent variables were retained.

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## Analysis

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After examining univariate distributions, we examined the association between the independent and dependent variables. We recoded the dependent variables to dichotomous variables (0 and 1) and then conducted binary logistic regression to determine the independent impact of the independent variables on average visits to the doctor, physical exam habits, and delayed prenatal care. We conducted logistic regression model-building procedures following those described by Hosmer and Lemeshow (2000). Multivariate analysis was first conducted by entering respondent demographics into the regression model. The effect of adding or removing other sets of variables was assessed through the likelihood ratio test.

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## Results

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The results are divided into two sections to better define each research purpose separately. The first section will cover findings from the survey pertaining to Hmong general health behaviors, practices, and perceptions toward Western health care and utilizations. The second section will cover aspects relating to prenatal care and identify issues that child-bearing Hmong adults may have experienced while utilizing Western health care. Descriptive, cross-tabulations, scale reliability tests, and multivariate analyses were used to report the findings. Each section delivers information about the same group in general but geared toward different health focuses of the research.

### Demographics

The age for males ranged from 18 to 45 years of age, while female were 18 to 36 years of age with more than half (55%) of the total participants being in the 18-25 age group. The median ages for males and females are 25 and 24 years old, respectively. A little more than one-third (37.6%) of the participants were born in United States, about another third (32.4%) were born in Laos, and about 27.2% were born in Thailand (Figure 1). Of those who responded, a small percentage (8.4%) reported living in United States for 1-10 years while 46.4% reported 10-20 years and 45.2% reported 21-30 years (Figure 2).

**Table 1 Demographic Distribution by Gender**

VARIABLE	FEMALE		MALE	
	N=99	(%)	N=74	(%)
<b>Age</b>				
• 18-25 Years	57	57.6%	38	51.4%
• 26-30 Years	25	25.3%	13	17.6%
• 31-35 Years	16	16.2%	9	12.1%
<b>Nativity</b>				
• United States	48	50.5%	17	23.3%
• Laos	19	20.0%	37	50.7%
• Thailand	28	29.5%	19	26.0%
<b>Years Lived in U.S.</b>				
• 1-10 Years	4	4.3%	10	13.9%
• 11-20 Years	40	42.6%	37	51.4%
• 21-30 Years	50	53.2%	25	34.7%
<b>Marital Status</b>				
• Married	52	65.0%	67	72.0%
• Single	25	31.2%	19	20.4%
• Others	3	3.8%	7	7.6%
<b>Current Pregnancy Status</b>				
• Pregnant or Pregnant Before	64	64.6%	39	53.4%
• Not Pregnant	35	35.4%	34	46.6%
<b>Education</b>				
• High School or Less	55	51.4%	35	44.3%
• Associate Degree or Others	39	36.5%	28	35.4%
• Bachelor or Master Degree	13	12.1%	16	20.3%
<b>Religious Practice</b>				
• Shamanism	65	67.0%	51	71.8%
• Christianity-Based	21	21.6%	13	18.3%
• Others	5	5.2%	2	2.9%
• None	6	6.2%	5	7.0%
<b>Responsible for House Spirit Altar</b>				
• Yes	12	14.1%	25	39.7%
• No	70	82.4%	37	58.7%
• Unsure	3	3.5%	1	1.6%
<b>Langue of Interview</b>				
• English	76	76.8%	54	73.0%
• Hmong	23	23.2%	20	27.0%

Figure 1

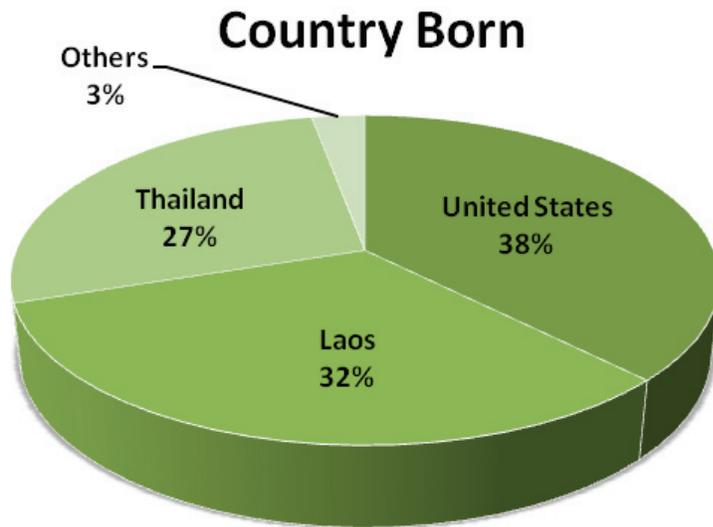
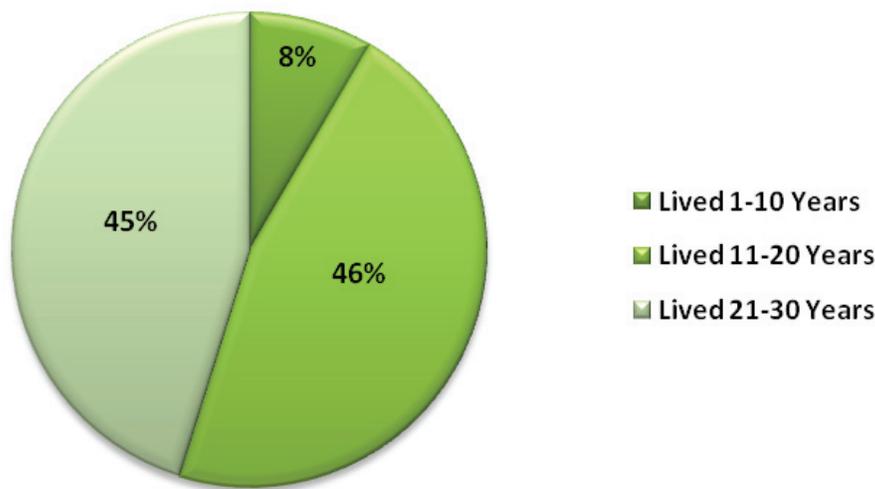


Figure 2

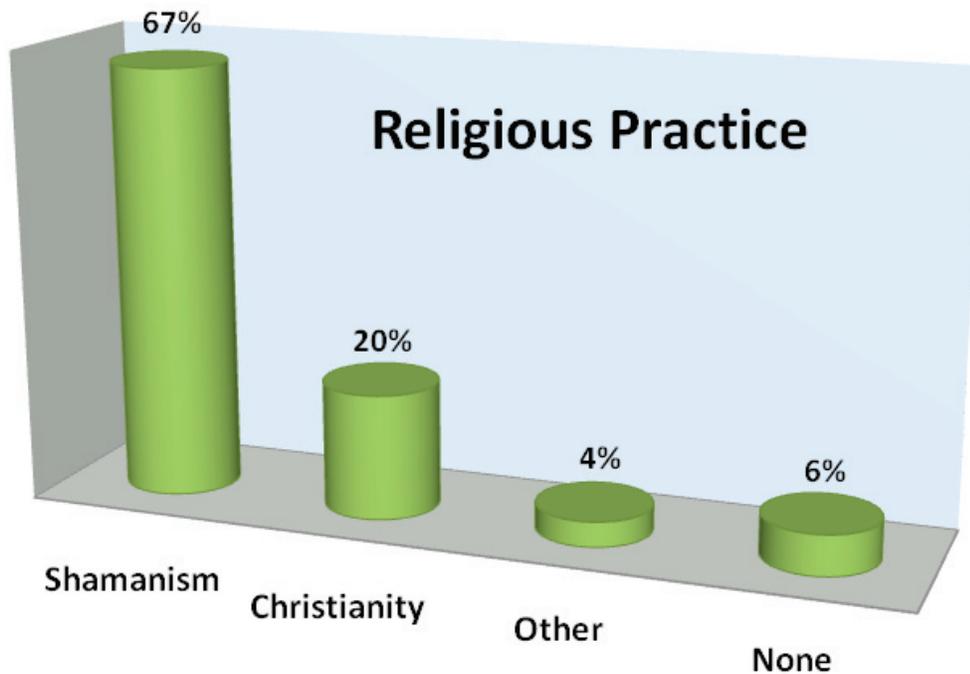
### Years Lived in United States by Group



Religion is at the center of traditional Hmong cultural practices. The changing Hmong population in the Central Valley not only practices one religion but many for various personal spiritual reasons. Figure 3 presents the most common religions reported by participants in the valley. Shamanism, or ancestry worship (67.1%), and Christianity-based religions such as Protestant Christianity (9.8%), Catholic Christianity (4.6%), Evangelical Christianity (3.5%), and Mormonism (1.7%), some other form of religion (4.0%) and no religion at all (6.4%).

Of those reporting practicing Shamanism, only 21.4% reported that they were the primary person responsible for the house spirit altar, *xwm kab*. The *xwm kab* is the altar set in the house that is believed to bring good fortune and protection to the household and family members living there. It is highly respected and is worshipped to deter evil spirits from entering the house or making someone sick. The *xwm kab* is associated with the male patrilineage and its household representative (Lindemans, [http://www.pantheon.org/articles/d/dab\\_xwm\\_kab.html](http://www.pantheon.org/articles/d/dab_xwm_kab.html)).

**Figure 3**



More than half (68.8%) were married and a quarter (25.4%) were single. A small percentage reported being separated (1.2%), divorced (2.3%), or within a partner relationship (2.3%). Of the respondents who were married, about 35% were married culturally only, 3% married legally only, and about 29% reported being married both culturally and legally (Figure 4). Cultural marriage is a ceremony process participated in and recognized by both parties and their families as the marriage between the two individuals and does not involve any legal documents; it usually involves a consensus between the two families and a bride dowry. It is worth noting that teen marriages are very common and accepted in the Hmong traditional culture. Ethnic studies indicate that Hmong “family patterns include early age of marriage for female children, high levels of fertility . . .” (Hutchison & McNall, 1994). About a quarter (25.7%) of those who indicated they were married did so before they were age 18. The youngest age at marriage for male and female participants were 13 and 12 years of age respectively, while the oldest age of marriage was 38 and 30 years of age, respectively.

Figure 4

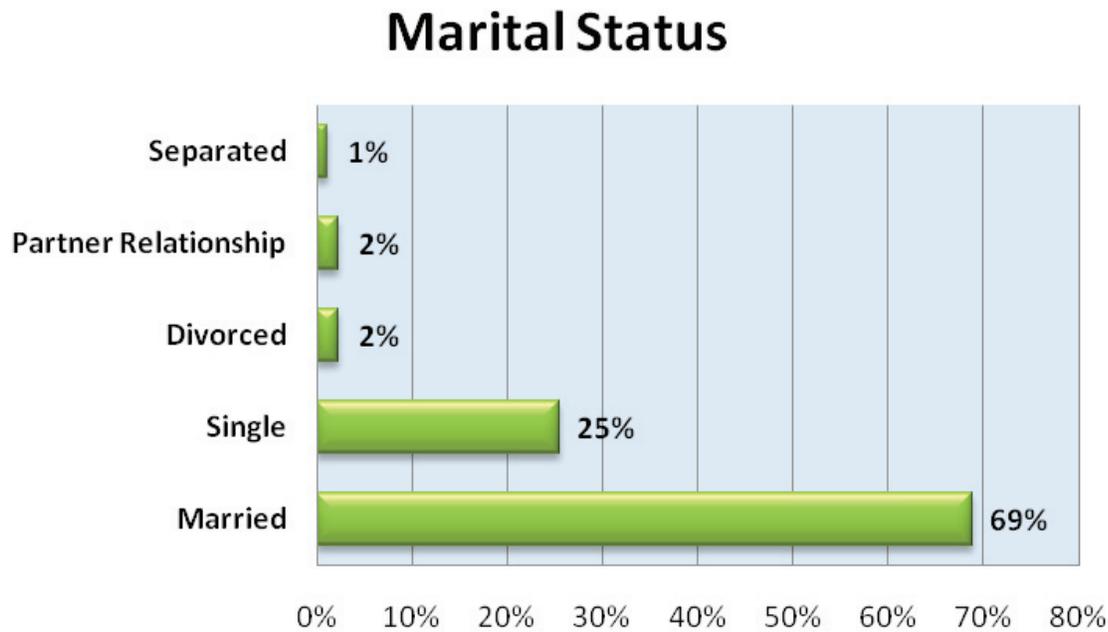
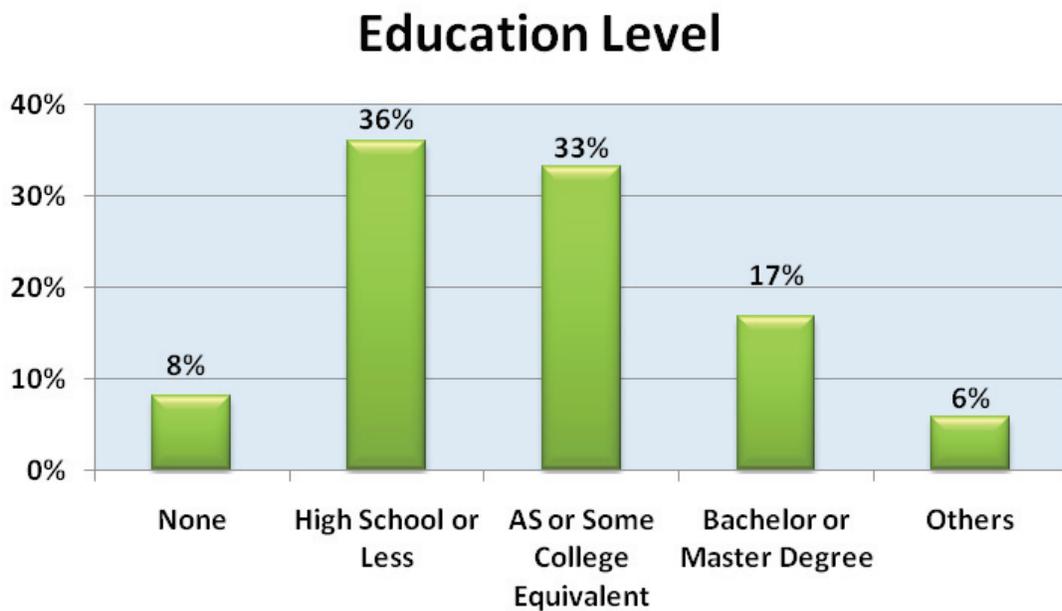


Figure 5 illustrates participants' educational attainment distribution. The majority of the participants (36.0%) report having high school diploma or less and less than one-fifth (16.9%) completed an undergraduate or graduate degree. A smaller percentage (8.1%) received no formal education, while another 5.8% reported other levels of education.

Figure 5

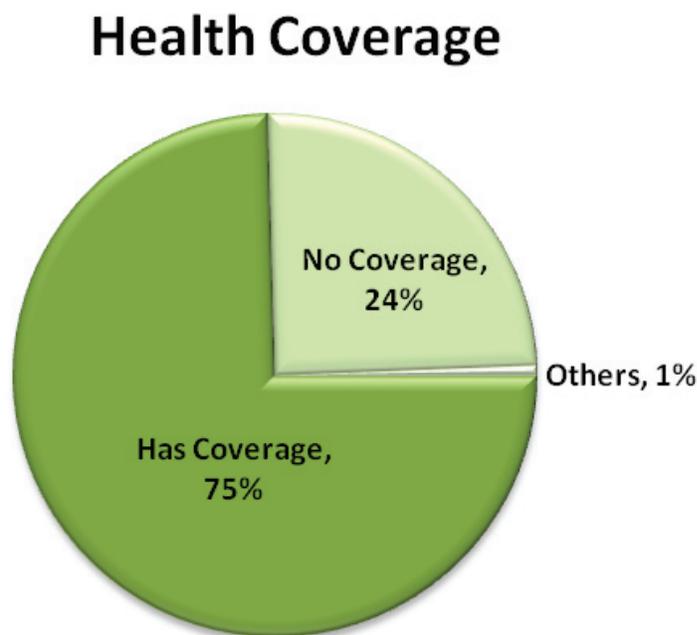


## Health Coverage

One of the health policy efforts is to increase health coverage. In the Hmong sample, close to three-fourths (75%) of the respondents had some source of health coverage (Figure 6). Table 2 demonstrates the respondents' health care coverage by selected demographics. Less than half (40.6 %) were insured through a public health program. Of those, the majority (97.0%) is covered through Medi-Cal (California Medicaid program); 25.3% of the participants had private health insurance; 12.4 % were covered by health maintenance organization (HMO) plan while 12.9% had provider preferred organization (PPO) plans. A small percentage (9.4%) indicated that they have some other source of health coverage and 4.7% were unsure about their coverage. Another 25% reported being uninsured. Less than a fifth (18.8%) indicated that this question was not applicable to them as they had no coverage, and 4.6% said they were unsure about their coverage.

Of those who had health coverage 69% reported having a usual source of care while 35% of those without health coverage reported having a usual source of care. Compared to SJV's 91.6 % of those currently insured have usual source of care and 57.3% who don't have coverage report having usual source of care (CHIS, 2005).

Figure 6



**Table 2 Distribution of Health Insurance Coverage by Selected Demographics**

VARIABLE	PUBLIC COVERAGE		PRIVATE COVERAGE		Uninsured	
	N	(%)	N	(%)	N	%
<b>Gender</b>						
• Male	25	36%	28	42%	27	62.8
• Female	44	64%	39	58%	16	37.2
		100%		100%		100%
<b>Age</b>						
• 18-25 Years	39	57%	27	40%	32	74.4
• 26-30 Years	11	16%	23	34%	5	11.6
• 31-35 Years	13	19%	9	13%	4	9.3
• 36-45 Years	6	9%	8	12%	2	4.7
		100%		100%		
<b>Nativity</b>						
• United States	30	46%	23	35%	16	37.2
• Laos	22	33%	24	36%	11	25.6
• Thailand	14	21%	19	29%	16	37.2
		100%		100%		
<b>Years Lived in U.S.</b>						
• 1-10 Years	12	18%	1	2%	1	2.4
• 11-20 Years	33	50%	21	32%	25	61.0
• 21-30 Years	21	32%	44	67%	15	36.6
		100%		100%		
<b>Education</b>						
• High School or Less	43	62%	20	32%	14	32.5
• Associate Degree or Some College	17	25%	26	41%	22	51.2
• Bachelor or Master Degree	6	9%	17	27%	4	9.3
• Others	3	4%	0	0%	3	7.0
		100%		100%		
<b>Employment Status</b>						
• Employed	23	33%	47	72%	15	36.6
• Student	10	15%	3	5%	2	4.9
• Both Work and Student	8	12%	6	9%	7	17.1
• None	27	39%	9	14%	15	36.6
• Other	1	1%	0	0%	2	4.9
		100%		100%		

\*These data are limited to only those who indicated they have health coverage.

## Health Behavior

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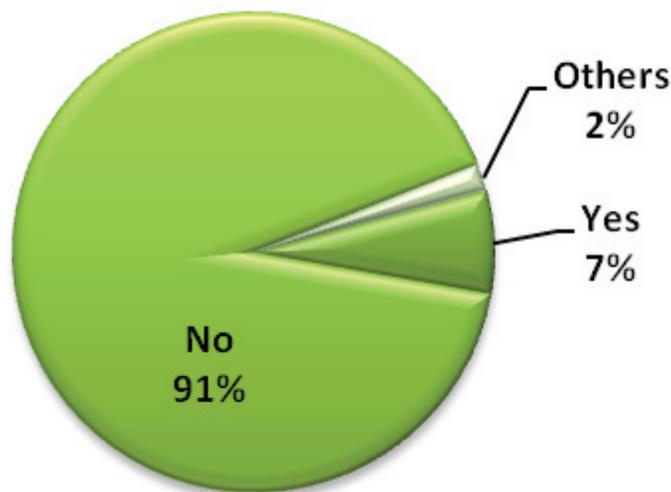
Health behavior is a predictor of health outcomes. We asked some questions about health behaviors and dental care. Fewer than half (43.9%) of the respondents reported engaging in moderate physical activity each day at least 30 minutes or more. Women with health coverage were more physically active and engaged in physical activity for 30 minutes or more each day compared to men with health coverage. Conversely, men without health coverage engaged more in physical activities 30 minutes or more each day compared to women without health coverage. About 22% of the respondents reported engaging in physical activity less than 30 minutes a day while 12.1% indicated that they do not engage in physical activities but plan to within the next three months. Another 22% reported that they do not engage in physical activities at all.

The use of tobacco products and alcohol contributes to adverse health conditions. The majority of the respondents (91.3%) reported that they do not smoke tobacco products. Only 7% indicated that they smoke tobacco while a small percentage declined to answer that question. In contrast, data from the California Health Interview Survey 2005 indicates that of the SJV Latino adults and teens (12-64 years), 82.2% are not current tobacco smokers and 12.8% are current tobacco users. The same data also shows that of the SJV white adults and teens (12-64), 76% are not current tobacco users and 24% are current tobacco users (Figure 7).

The number of alcoholic drinks consumed the previous month was used to assess participants' drinking behaviors. One drink was defined as 12 oz. of beer, 5 oz. of wine, or 1.5 oz. of liquor (CDC, 2008). Fewer than half (43.4 %) reported that they did not drink any alcoholic beverages at all, and 27.7% did not drink any in the last month. Fourteen (14%) percent reported drinking between one to three drinks, while (6.9%) consumed between four to six drinks and (6.4%) consumed seven or more drinks. In comparison, Latino adults (18-64) 64% did not engage in binge drinking (five or more drinks on at least one occasion in the past month) and 36% did. SJV white adults (18-64) 66.6% did not engage in binge drinking (five or more drinks on at least one occasion in the past month) and 33.4% did engage in binge drinking in the last month (CHIS 2009).

Figure 7

## Tobacco Smoker



Preventable illness makes up approximately 80% of the burden of disease and 90% of all health care costs and account for eight of the nine leading causes of death (Iglehart, 1999). A physical exam is a health screening mechanism that can detect early signs of chronic disease and allows providers to treat the symptoms early. When asked about regular annual physical exams, more than half of the participants (56.1%) reported that they do not make it a habit to have an annual physical exam. However, about 38%, both males and females, reported making it a habit to have an annual physical exam. Findings also show that some of those who make physical exams a habit reported that they will utilize Western medicine only if there is a medical condition that needs attention (Table 3). Furthermore, based on qualitative responses, participants who do not make it a habit to have an annual physical exam view it as consuming valuable time and unnecessary visits to the doctor. However, those that do make it a habit perceive it as a preventative measure to screen out early stages of any disease or health condition.

According to new health care statistics (NHSR #8 [PDF, 624 KB]) released in 2006 by CDC's National Center for Health Statistics (NCHS), American patients' annual rate of visits to physician offices and hospital outpatient and emergency departments is nearly four per person. About half (50.9%) of the Hmong respondents in this study reported at least one or two visits to the doctor a year. Another 23.7% indicated that their average visit to the doctor's office varies from three to 10 visits per year. About 5.2% indicated that they visited the doctor's office 11 or more times during one year. However, 15.6% of participants indicated that they did not visit the doctor's office at all in a given year. Female respondents in this study made more visits to the doctor's office than male respondents in a given year. About 70% of male respondents did not visit the doctor compared to women (29.6%). As expected, results indicate that 51.0% of those who are employed visit the doctor's office at least once a year compared to others who are employed part time or are students.

Access to health care is significantly affected by coverage status. Individuals without insurance are more likely to lack a usual source of care, or if they do, it would likely be Southeast Asian patient-serving health centers. Like the general population, having no health coverage for a person limits their number of visits to the doctor's office. However, those with coverage use a source of care that accommodates their needs. Our analysis indicates that more than one-third (36.5%) of those without a usual source of care do not visit the doctor in a given year compared to 94.1% of those with a usual source of care visits the doctor at least once a year.

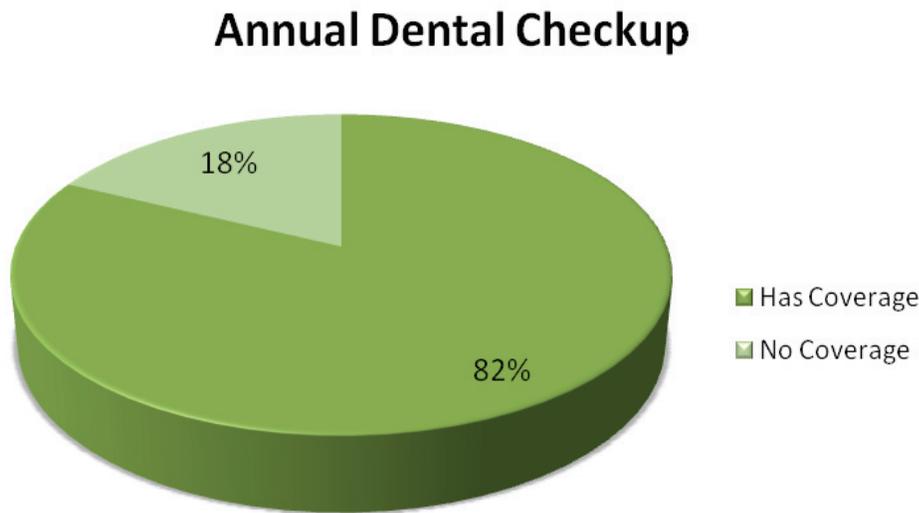
**Table 3 Habits of Having Annual Physical Exams by Selected Demographics**

VARIABLE	No Annual Physical Exam		Annual Physical Exams	
	N	(%)	N	(%)
<b>Gender</b>				
• Male	51	68.9	23	31.1
• Female	57	57.6	42	42.4
<b>Employment Status</b>				
• Employed	55	65.5	29	34.5
• Student	9	56.3	7	43.8
• Both Work and Student	13	61.9	8	38.1
• None	27	58.7	19	41.3
• Other	2	66.7	1	33.3
<b>Health Coverage</b>				
• Has insurance	76	58.9	53	41.1
• No insurance	31	72.1	12	27.9

Dental health care is a critical to maintaining good health. Most reported visits to dental office were for dental checks and teeth cleanings, 42.1% and 45.6% respectively. Fewer than a half (38.7%) of all participants reported that they have visited the dentist within the last 12 months. Twenty six (26.6%) percent had a dental visit during the last 1-2 years, 13.9% in the last 3-5 years, and 13.3% have not had a visit within the last five years. A small percentage (7.5%) has never had dental care in the United States.

As with usual source of care, access to dental care is significantly affected by coverage status. Figure 8 shows that having no coverage limits access to dental offices. Of the participants who report making annual dental check up visits, 82% have insurance coverage.

Figure 8



## Cultural and Western Health Care Practices

### Satisfaction (Scale Item)

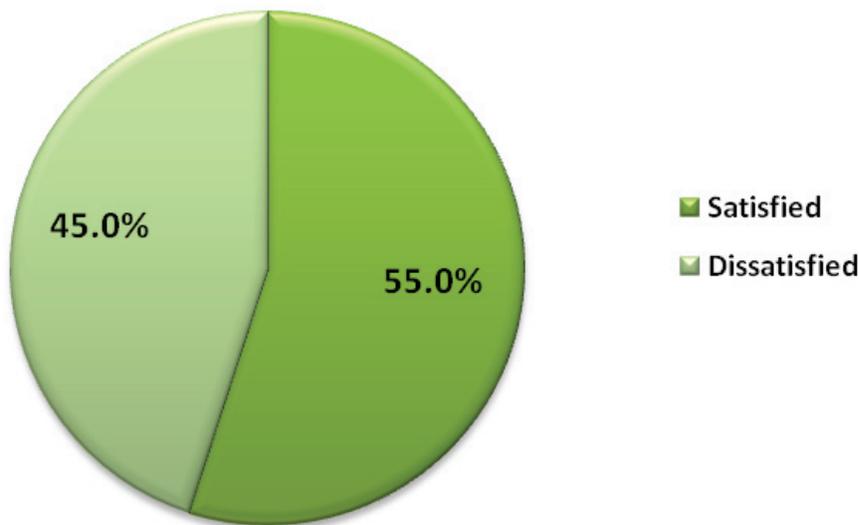
As a community of refugees and their families, Hmong health-relevant culture and traditions vary greatly from that of Western health culture. The experiences that Hmong patients have reflect their decisions to utilize the Western health care system. Collectively, more than half (55%) of the respondents were satisfied with the general Western health care (Figure 9). Several items made up the satisfaction of the participants toward Western health care practices. Generally, waiting periods can be lengthy and burdensome to seeking health care. Results show that 34.1% of the participants indicated that they had waited more than 30 minutes to see the doctor. In addition, close to three-fourths (71.7%) reported that the doctor was not timely. In comparison, 85.5% participants reported that the front staff was not timely in delivering services. The amount of time used for health care or waiting to be seen by a health care provider is an important factor for perceiving health care as adequate and efficient. Effective practices keep this time gap at the point of patient entry-to-exit minimal for efficiency.

The satisfaction scale included language assistance and culture respect for the patient. Language assistance is essential for clarifying the right and accurate delivery of health treatment or care to a patient who does not speak English or is not fluent in the language. Results indicated that 89.6% of participants were not provided with language assistance. Of those who reported that no language assistance was provided, almost half (45.4%) were not satisfied with the overall Western health care experiences. Respect for patient cultural differences is another important factor to consider when looking at the

patients' satisfaction. The survey examined whether respect from the doctor and front staff members are contributing factors to patients' satisfaction. Results indicated that 76.3% of the participants reported that the doctor is not respectful. About half (49.3%) of those who reported that the doctor is not respectful were also not satisfied with their overall Western health care experience. Another 86.1% of participants reported that the front staff is not respectful and 46.6% of them indicated that they are not satisfied with their overall Western health care experience. We only report on frequency for this variable because when looking at the cross tabulation of the respect variable by language, the survey was conducted on the nativity of the participants, and we believe that the respondents may have checked multiple responses.

Figure 9

## Overall Experiences by Group



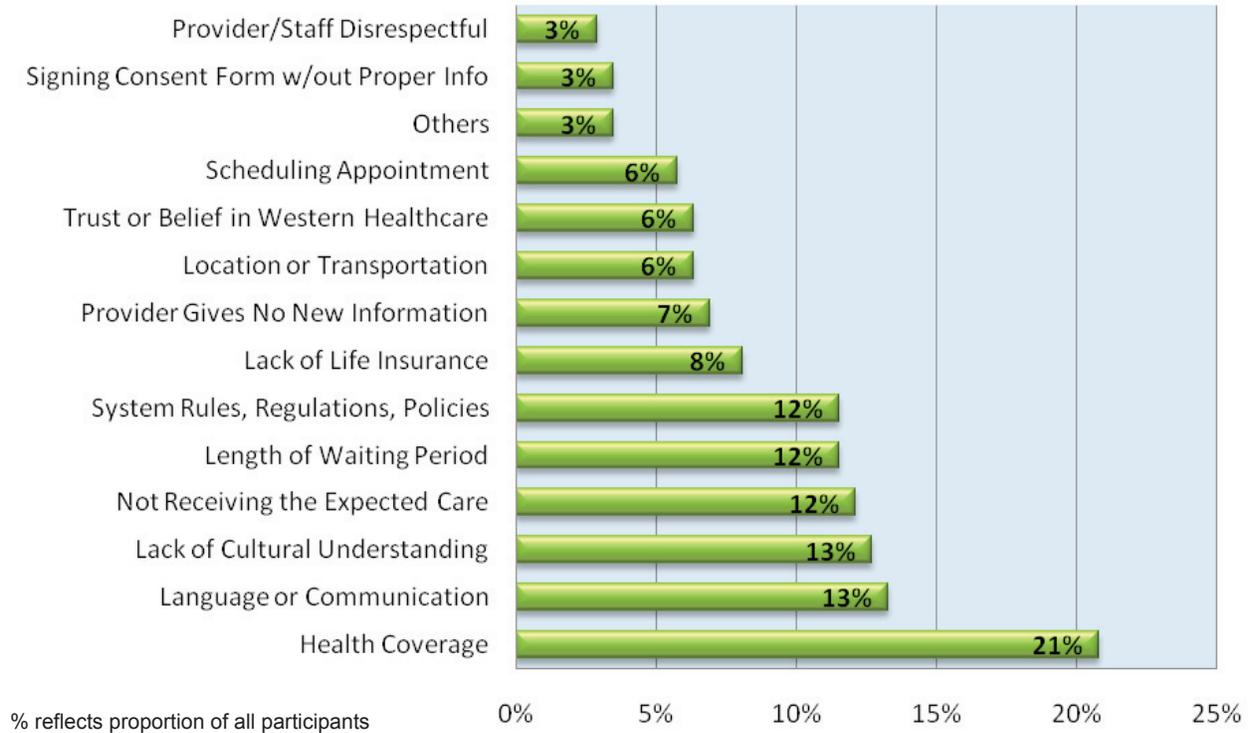
## Barriers

Understanding the barriers that prevent Hmong from seeking and utilizing Western health care is vital. Results of this study indicate that 16.3% of the participants reported that they do not visit the doctor in a given year. In comparison, California Health Interview Survey (CHIS) 2007, for the same three counties of Fresno, Merced, and San Joaquin, 81.3% reported that they had not visited the doctor within the past year. However, CHIS data cannot account for the whole Hmong population even though the reported data represents other single/multiple Asian type and is the only subgroup that may include the Hmong population. There is no Asian ethnicity subgroup for the Hmong specifically in CHIS. Therefore, CHIS data may not be considered representative of the Hmong population in these counties.

The utilization of Western health care by the Hmong community for addressing and screening health issues is a public health concern. Research shows that the Hmong resident's health socio-cultural habits have a tendency to practice seeking and utilizing Western health care during a late-stage health condition after traditional and herbal treatments have been trialed (Baisch, Vang, & Peterman 2008). Increasing the utilization rate of the Western health care system would imply that preventable diseases can be detected early for some cases. However, for many minority communities, there seem to be barriers that delay the necessary care of the Western health care provider office. To bridge the gap between traditional Hmong health care practices and beliefs, it is critical to assess the barriers that prevent them from seeking Western medicine. Slightly under half (42.8%) of the study participants felt that there are barriers that do indeed prevent them from seeking Western medicine. Figure 10 examines reported barriers to Western health care utilization. When compared to other barriers, the most frequently cited barrier was lack of health coverage (20.8%). Next, was a tie between language issues and communication and lack of cultural understanding (13.3%).

Figure 10

## Barriers that Prevent Western Health Care Utilization



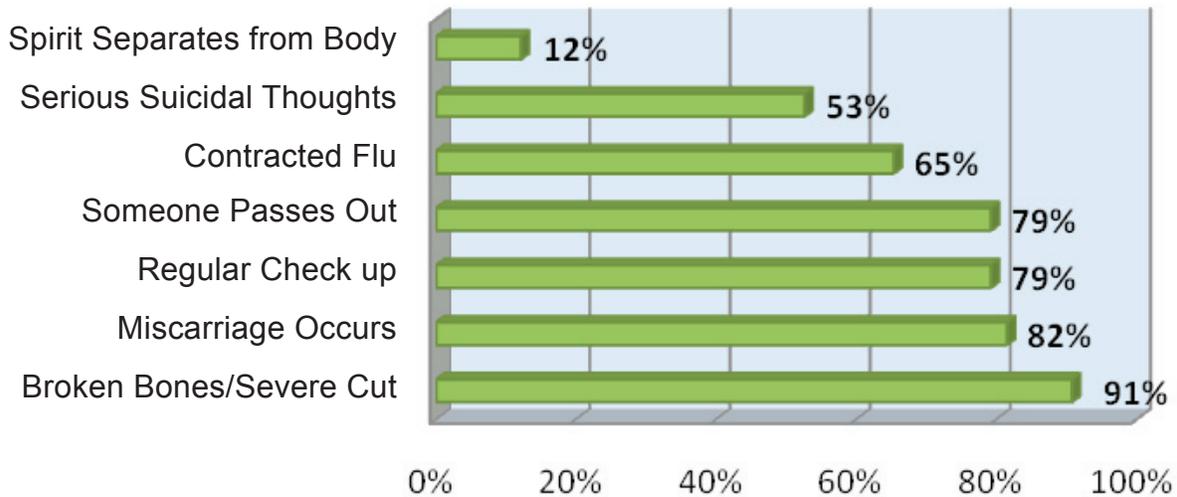
### Utilization

The appropriate use of Western health care is as important to understand as the appropriateness of using traditional and cultural Hmong health care. Figure 11 shows the health conditions under which Hmong residents would feel it more appropriate to utilize Western vs. traditional medicine. The Utilization scale included seven health conditions under which a Western culture would utilize Western medicine. The majority (64.5%) reported that they were willing to utilize Western medicine for six of the seven conditions listed.

When asked if participants would utilize Western health care for the following conditions: 1) spirit separates from the body, 2) having serious suicidal thoughts, 3) contracted the flu, 4) loses consciousness, 5) regular check-up, 6) miscarriage occurs, and 7) a broken bone or severe cut (*Appendix C*). These are some of the health practices often used by Western health care to indicate compliance when a health condition arises. However, the first reason listed above is relative to Hmong cultural practices and deviates from Western health care compliance.

Figure 11 Condition When Participants Would Seek Western Health Care

## Reasons Participants Would Seek Western Health Care



### Multivariate Analysis of Utilization

In order to understand the factors associated with differences in health care use among Hmong child-bearing age adults, we conducted multivariate modeling. Table 4 presents the odds ratios derived from logistic regression. Overall, we found that marital status, being foreign born, unemployed, having less than high school education, and feeling that Western health care does not meet Hmong health care needs not to be independent predictors of making more visits to the doctor. However, we found that gender, insurance status, level of satisfaction with the overall Western health care experience had an impact on whether participants made visits to the doctor. Men were more likely to make no visits to the doctor than women (OR= 3.86). Participants with no insurance coverage also reported that they were more likely to make no visits to the doctors (OR=4.1). Further, if participants were dissatisfied with the overall Western health care experience they were more likely to make no visit to the doctor (OR= 3.5).

**Table 4 Impact of Selected Demographics on Lack of Visits to the Doctor**

Variables	Lack of Visit to the Doctor Odds Ratio	95 % Confidence Interval
Gender: Male	3.863***	1.4 -9.2
Health Insurance Status: No Coverage	4.142***	1.6 -10.6
Overall Experience with WHC: Dissatisfied	3.534***	1.5 -10.2
Cox & Snell R Square	.16	
Nagelkerke R Square	.28	

\*\*\* p<.005

**Table 5 Impact of Selected Demographics on Habit to Have Annual Physical Exams**

Variables	Physical Exams Odds ratio	95% Confidence Interval
Gender: Male	.345	.1-1.2
Marital Status: Married/Partner	9.511**	1.6-55.2
Country Born: Foreign	1.564	.1-5.7
Work Status: Unemployed	1.126	.3-4.5
Health Insurance Status: No Coverage	1.464	.4-6.1
Educational Attainment: HS or Less	.667	.2-2.5
Years Lived in US: Less than 10 years	14.208**	1.8-113.7
Believes that WHC Meets Hmong Health Needs: Disagree	1.426	.4-4.7
Overall Experience with WHC: Dissatisfied	.226**	.1-.8
Area of Conflict: Religious Practice	.179**	.1-3.7
Area of Conflict: Cultural Practice	1.104	.3-3.8
Area of Conflict: Family Consultation Method	3.880**	1.0-14.6
Area of Conflict: Shamans Seen as Inferior to Doctors	.579	.2-1.9
Cox & Snell R Square	.30	
Nagelkerke R Square	.41	

\*\* p <.05

Table 5 presents the odds ratios derived from logistic regression. Overall, we found that gender, being foreign born, unemployed, having no insurance coverage, less than high school education, and believing that Western health care does not meet Hmong health care needs, believing that cultural practice is an area of conflict and that shamans practice is seen as inferior by Western doctors not to be independent predictors of making a habit of having annual Western physical examination. On the other hand, we found that married participants were more likely to make a habit of having an annual physical exam (OR= 9.511) than unmarried. We also found that participants who lived in the U.S. less than 10 years were more likely to make it a habit to have annual physical exams (OR= 14.208) than those who lived in the U.S. longer.

Naturally, if participants reported that they were dissatisfied with the overall Western health care experience, they were less likely to make a habit of having annual physical exams (OR= .226). Likewise, if participants perceived religious practice to be an area of conflict with Western practitioners, they were less likely to make it a habit to have annual physical exams (OR= .179) than their counterparts.

### **Respondents' Recommendations for Improving the System**

Participants were given the opportunity to say in their own words what strategies they thought would be helpful to bridge the gap between Western medicine and traditional Hmong health care practice. Four main themes emerged from the analyses: 1) Cultural competency education - participants believe that exposures to the Hmong culture and practices will increase awareness and knowledge; 2) Cross-culture training - cross-cultural trainings are required to provide cultural training for both Hmong community members and Western health providers. By increasing the understanding of the other group's health care practices, it is hopeful that this may answer some of the unanswered questions about health care practices on either side of the cultures; 3) Increase language access - increasing language access is defined as providing interpreters, translations, and translated materials to Hmong patients or clients in need of the service at the facilities, and 4) Increase Hmong health and health care workforce diversity. There is a need to include more Hmong professionals in the areas of health and health care workforce. The Hmong community understands the need to produce more Hmong professionals within the fields in order to provide minority self-serving culturally-sensitive services. These are long-term goals but were thought to be meaningful solutions to improving the system for both the Hmong community and the Western health care system.

## Prenatal Care

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Research shows that the Hmong have the highest number of problems with barriers to receiving Western health care. There are indications, despite the prevalence of health problems, that Southeast Asian refugees underuse the American health care system. Most of the Hmong speak little or no English, and the conventional wisdom is that they are shy, leery of strangers, and tend to provide answers they feel will please the questioner (Koumarn & Barney 1978; Gordon, Matousek, & Lang 1980; An outline of health care for Vietnamese refugees.1979). It is also felt that Hmong women, besides sharing these characteristics, display deference to men and a reluctance to discuss intimate subjects like sex and childbearing in their presence (Gordon, et al., 1980; Silverman 1977). The majority of Hmong report a language access problem. Typically, language barriers are associated with other issues related to access to care or coverage, customer service problems, denials or billing problems (<http://healthconsumer.org/HmongBarrierstoCare.pdf>). Of the Hmong who are fluent enough in English to act as interpreters, the majority are men. Beyond that, the Hmong are the products of a primitive health care system in which the women often deliver their own children by themselves at home, with minimal support from their husbands and local 'healers' (Koumarn & Barney, 1978; Silverman, 1977; Hollingsworth, Brown, & Brooten 1980). Providing health care, particularly perinatal care, to these refugees is made extraordinarily difficult because of their history and traditions. The result is that the Hmong women may become underserved by that system.

In the following section we report findings from the Hmong men and women responses to 11-18 questions (depending on participant self-identified pregnancy status: a) currently pregnant, b) have been pregnant before and have a child, c) plan to have a child in the future, or d) does not plan to have a child) related to prenatal care.

### Selected Demographics by Gender and Pregnancy Status

We examined the association between selected demographics by pregnancy status and compared the differences by gender. Table 6 shows some demographic relevancy to whether a Hmong person and his/her partner are/chooses to be pregnant or not. For Hmong males, 68% of those 18-25 years of age reported neither having a pregnant partner nor planning a pregnancy with their partner, while 86% of those 36-45 years of age have a spouse/partner that is currently pregnant or have been pregnant before. This is supported by a higher percentage (77%) of women ages 26-35 years and currently pregnant as compared to a 24% of those in the same age group who are not pregnant nor choose to have a child. Being married increases the likelihood for Hmong men to choose to have a child (73%) compared to 27% who choose not to. A high percentage of married women (84%) are currently pregnant while 75% of those reported as singles are in the non-pregnant group. Educational attainment did not seem to have an impact on pregnancy status among males. There is, however, a reverse association for Hmong females on educational attainment and pregnancy status; the higher the education level the less likely a woman to be pregnant. Having some form of health coverage (average of 70%) increases the likelihood for the men to make a decision to have a baby. For Hmong women, having health coverage also significantly increases the chance to have a baby (average 69%) as compared to an average of 31% deciding not to have a baby. Type of insurance coverage also impacts the decision for women 82% of those on public insurance were pregnant as compared to 57% of those privately insured.

**Table 6 Pregnancy Status by Selected Demographics**

VARIABLE	MALE				FEMALE			
	PARTNER CURRENTLY PREGNANT <sup>1</sup>		PARTNER NOT PREGNANT <sup>2</sup>		CURRENTLY PREGNANT/HAVE BEEN BEFORE <sup>1</sup>		NOT PREGNANT <sup>2</sup>	
	N	(%)	N	(%)	N	(%)	N	(%)
<b>Age</b>								
• 18-25 Years	12	32%***	25	68%***	32	56%	25	44%
• 26-35 Years	15	68%***	7	32%***	31	77%	10	24%
• 36-45 Years	12	86%***	2	14%***	1	100%	0	--
<b>Marital Status</b>								
• Married	38	73%***	14	27%***	56	84%***	11	16%***
• Single/other	1	05%***	20	95%***	8	25%***	24	75%***
<b>Education</b>								
• High School or Less	15	54%	13	46%	34	72%	13	28%
• Associate Degree or Others	16	55%	13	45%	24	62%	15	38%
• Bachelor or Master Degree	8	50%	8	50%	6	46%	7	54%
<b>Health Coverage</b>								
• Public Insurance	15	63%	9	37%	36	82%**	8	18%**
• Private Insurance	17	77%	5	23%	22	57%**	16	43%**
• No Health Coverage	2	33%	4	67%	1	50%**	1	50%**
<b>Timely Prenatal Care</b>								
• Delayed	14	100%	--	0	31	100%	--	0
• Timely ( <i>1<sup>st</sup> Trimester</i> )	23	100%	--	0	31	100%	--	0

1 – PREGNANT refers to those who are currently pregnant or have been pregnant before (per couple).

2 – NOT PREGNANT GROUP refers to those who are not pregnant or do not plan on pregnancy (per couple).

\*\* p <.05; \*\*\* p<.005

## Barriers to Prenatal Care

In Hmong communities, pregnant couples, regardless of age, encounter many obstacles. The Hmong culture presents many barriers due to the patriarchal dominance of the relationship and the family clan structure hierarchy. Women are in a position with less authority to make final decisions. However, with the mainstreaming of Western culture, Hmong women are taking a stance on many issues and making executive decisions in the family for the well-being of the family (Hmong insider, 2008)

Over a quarter (25.5%) of the participants reported obstacles to seeking prenatal care. Couples reported work obligations as the primary barrier (29.1%) to seeking prenatal care in the first trimester. Health coverage (36.7 %) and transportation (36.7%) were cited as second barriers. Language problems (24.2%) with health care staff and providers and lack of cultural understanding (24.2%) followed as important barriers to consider in understanding the causes of the Hmong receiving delayed prenatal care.

We created a barrier scale that consists of 11 obstacles that may be of burden to Hmong couples. The more obstacles perceived the less likely Hmong couples are to seek and utilize Western prenatal care. This leads to increased prenatal risk and timely/prevention and/or intervention. More than half (53%) of the Hmong couples delayed or failed to seek timely prenatal care when they faced only two of the obstacles.

## Prenatal Care Practices

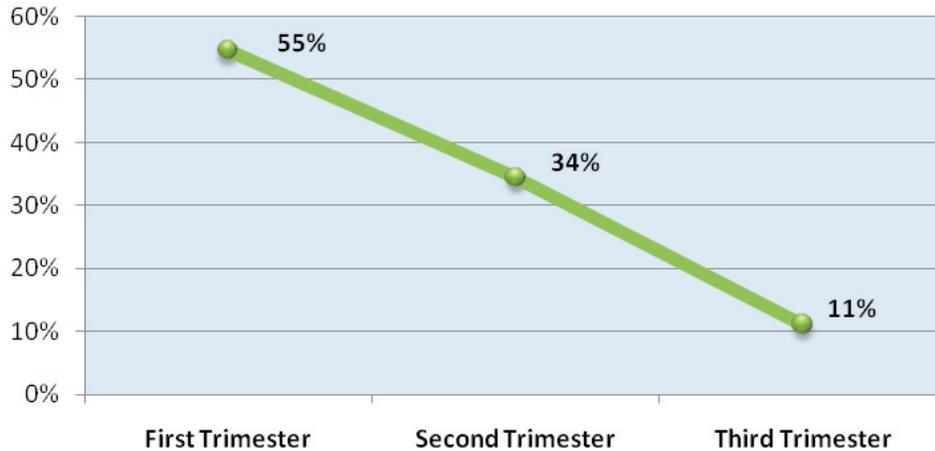
Understanding the current practice of Hmong men and women toward prenatal care is crucial. On a survey item, we asked participants, those with current pregnancy experience or past experience, about the estimated self-reported length of time by weeks they or their spouses (for males) were pregnant before they sought prenatal care. About a quarter (23.0%) indicated that they sought prenatal care after about 0 to 2 weeks following positive conception. By three to four weeks after conception, another 19% of participants reported seeking out prenatal care. The larger percentage (27.0%) of participants reported seeking prenatal care at about five to eight weeks of conception acknowledgement. Another 23% of participants reported that after nine to 16 weeks, they sought prenatal care.

Timely prenatal care is defined as utilizing Western prenatal care in the first trimester. Figure 15 presents the percentages of participants who have utilized prenatal care in each of the three trimesters. More than half (54.5%) of all participants indicated that they utilized prenatal care within the first three months (12 weeks) of pregnancy. A smaller percentage (34.3%) reported utilizing prenatal care later in the second trimester while 11.1 percent utilized prenatal care at the last trimester (Figure 12).

Prenatal care during the first trimester is essential to both the mother and the developing fetus. In one of the survey items, we asked participants how many weeks after positive pregnancy they would seek prenatal care. The responses vary from the week of conception to about 36 weeks into pregnancy before prenatal care was sought. We found an association between timely prenatal care and pregnancy status. Almost half (47.4%) of those who were pregnant for the first time would seek prenatal care within four weeks of acknowledgement of conception. More than half (60.7%) of those who have had a pregnancy before reported that they sought prenatal care at or before eight weeks after confirming positive pregnancy. However, in comparison, those with previous pregnancy experience would seek prenatal care later than those pregnant for the first time by 8.4%.

Figure 12

## Number of Weeks PNC Received by Trimester

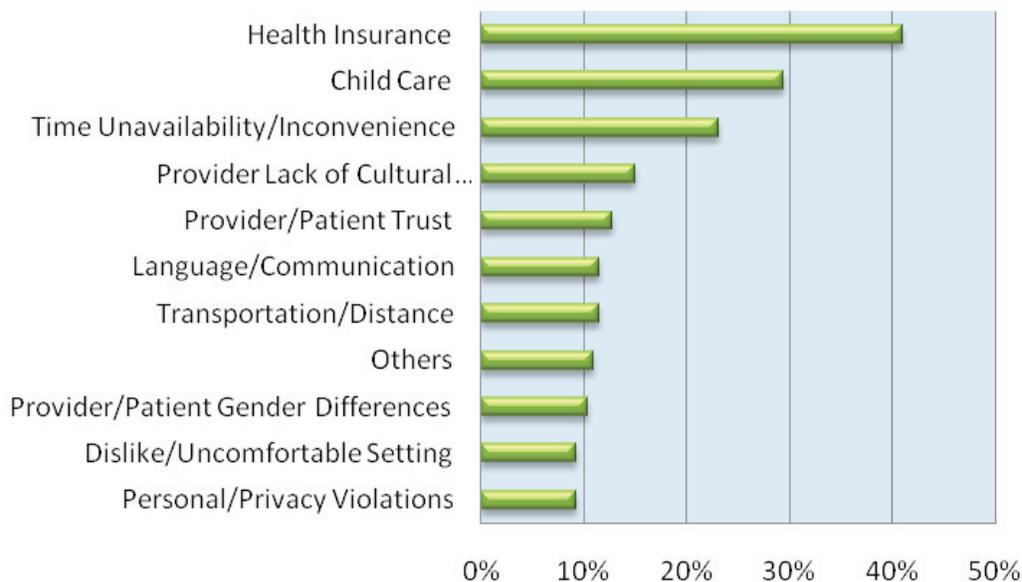


## Issues Couples Discuss Before Seeking Prenatal Care

In an effort to examine other barriers to a timely utilization of prenatal care, we asked questions about issues the couples may discuss as they approach prenatal care utilization (Figure 15). When compared to other issues, the most frequently cited issue (41.0%) was health insurance coverage for prenatal care visits. The next two issues that were of concern for Hmong couples were childcare (29.5%) and time constraints (23.1%). Following that (15.0%) was concerns that the provider lacks understanding of Hmong cultures and traditions.

Figure 13

## Issues to Seeking PNC



## Multivariate Analysis of Prenatal Care Use

Table 7 presents the odds ratios derived from logistic regression. Overall, we found that living in the U.S. less than 10 years, believing that shamans practice is seen as inferior by Western doctors and having no life insurance are not to be independent predictors in delaying prenatal care. However, we found that participants with less than a high school education were more likely to delay prenatal care (OR= 2.76) compared to participants with higher than high school education. We also found that participants who have public health insurance were more likely to delay prenatal care (OR= 2.79) than participants with private coverage. Participants also delayed prenatal care if they did not trust the Western health care system (OR=12.31).

**Table 7 Variables That Impact Delayed Prenatal Care.**

Variables	Delayed Prenatal Care Odds Ratio	95% Confidence Interval
Educational Attainment: HS or Less	2.766**	1.1-6.9
Years Lived in US: Less than 10 Years	.215	.1-1.4
Health Insurance Type: Public	2.796	1.1-7.4
Area of Conflict: Shamans Seen as Inferior to Doctors	.129***	.1-.6
Lack of Life Insurance Prevents Seeking WHC (Scale Item)	.145	.1-1.6
Lack of Trust Prevents Seeking WHC (Scale Item)	12.305**	1.4-105.5
Cox & Snell R Square	.20	
Nagelkerke R Square	.27	

\*\* p <.05; \*\*\*p<.005

## Discussion

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While 65.9% of participants reported engaging in health promotion activities involving exercise, slightly over a third (34.1%) did not report engaging in any health promotion behavior, suggesting substantial potential for health education impact. Associations between health maintenance behaviors and self-reported health status may underscore the importance of health promotion in perception of overall wellness. These findings are consistent with literature suggesting a high potential for increased obesity and associated chronic diseases among Hmong-Americans.



Among barriers mentioned in the survey were a) lack of health insurance, b) language or communication barriers, c) transportation, d) disrespect from provider and/or staff, e) lack of cultural understanding, f) lack of having insurance, g) length of waiting time, h) feeling that they are not receiving the expected treatment, i) feeling that there is no new information besides the known prior to visit, and j) lack of trust in Western health care.

Results from education items suggest a low degree of formal schooling. Approximately 44% of respondents had no education or less than high school. This lack of education may be impeding employment in occupations that offer health insurance benefits. Approximately 25% of participants reported having no medical insurance, suggesting economic barriers to medical care might be substantial. One respondent said *“We cannot afford health insurance on our own and we don’t qualify for MediCal, therefore we don’t have health insurance so we would rather risk not having it and not pay for medical bills.”*

About 40.3% of participants reported consulting a Hmong shaman though 7.6% of those surveyed refused to answer this item. One possible explanation for this item’s low response rate is that many Hmong are hesitant to admit they take part in such practices. Over half of the respondents reported using Hmong herbal medicines. Our data collectively suggest many Hmong-Americans still subscribe to traditional means of healing and that participation in such practices must be considered when evaluating the health of the Hmong population.

Despite the persistence of linguistic barriers, 91.2% of participants, reported doctors sometimes or never provide translators. This results in patients’ frustration and lack of interest in building a relationship with the physician as indicated in the following quote: *“Sometimes when we go to the clinic, there are no translators available, and they don’t provide any interpretations. We just go in, let the doctor do his job, and we wait for a drug prescription.”* Given these language barriers, many Hmong patients are forced to bring their own interpreter.

These interpreters may be inconsistent, young and with little comprehension of medicine or its terminology, suggesting the potential for serious communication impediments to proper treatment.

For the refugee population, as with many low income immigrants, access to care is impeded by the lack of transportation as one respondent said, *“It makes it hard to go to doctor appointments because I don’t have a car and cannot drive. . . .I have to rely on my friend or relative to take me there if he is available.”* Coupled with the language barrier, this impediment makes it even harder. *“Even if he takes me there, we both don’t speak English, so then communication between us and the doctors becomes a barrier. It is hard. It would be good to have young people who speak both languages take us there, interpret for us, then bring us back.”*

Disrespect from provider and/or staff, lack of cultural understanding were also reported as notable barriers to access as mentioned by a respondent. *“It would be nice if we can help our Hmong patients in the hospital setting by performing a small cultural ritual (hu plig) to heal the spirit. There needs to be cultural understanding from hospital staff about our healing process.”*

Hmong patients also felt that seeking Western health care is a waste of their time. This was indicated by several respondents as, *“I just don’t like waiting for a long time to see the doctor. Finally when I see the doctor, the doctor only looks at the place where I am hurting and writes a prescription. No questions were asked. He sees me for no more than 5 minutes.”* *“ . . . may refer to doctor referrals to specialists, a cycle that goes around and around . . . no one seems to know what the condition is.”*

Lack of trust in Western health care was reported as another huge barrier to access for the Hmong community. Hmong respondents felt that doctors, particularly practicing residents, are taking advantage of Hmong patients who do not have private health insurance and only rely on MediCal for medical coverage and use them as test subjects, and that death may be the result of these medical experiments. For that reason, many Hmong’s will not seek Western health care unless they have some sort of life insurance to help “ . . . ease their fear from actually seeking Western health care in these types of hospitals.”



## Conclusion

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The Hmong are a unique minority group that has distinct views regarding sickness, health, death, illness, gender, age, religion, and social structure (Pease, 1993). A relevant cultural characteristic of Hmong populations is the use of shamanic services to restore spiritual and overall well-being. Hmong populations in the U.S. continue to use shamans' services despite the availability of other health practitioners because of traditional cultural beliefs, economic constraints, language barriers, power differences between the clients and the health care providers, availability of the shaman at all times, empathetic listening of the shaman, and willingness of the shaman to listen to the clients' complaints without attaching a value judgment related to the behavior of the client (O'Connor, 1995).

Hmong-Americans are relatively new members of the American family, having fled political persecution resulting from their assistance with Vietnam-era U.S. military campaigns. Many suffered from the difficulties associated with low socio-economic status, cultural dissonance, low levels of education, linguistic isolation, and difficulties in accessing health care.

Results from this study showed that values (lack of respect by Western health care staff and lack of trust in the Western health care system) were stronger predictors as barriers to health care access than cultural practices and self identifications. Over the years acculturation status has been found to be associated with physical and mental health, school performance, marital adjustment, and career and personal development. In Schwartz et al; 2010 acculturation is proposed as a multidimensional process consisting of the confluence among heritage-cultural and receiving-cultural practices, values, and identifications (Schwartz, Unger, Zamboanga, & Szapocznik, 2010).

Better understanding of traditional Hmong health care practices may enable health educators to relate more sensitively to Hmong clients. Likewise, educating the Hmong community about the Western health care system may make them feel more empowered to use the system. Further, we believe that if the Hmong knew to expect to be misunderstood and feel disrespected (intentionally or unintentionally) by the health care provider, and were taught how to respond appropriately, that might lead to less resistance in seeking Western health care and may increase health educators' likelihood to develop an integrated health care system that involves and respects traditional healing methods. By recognizing the traditional values of various ethnic groups and similarly by teaching the communities about the appropriate manners of dealing with the system, we can achieve a mutual understanding and respect of each other's needs and differences.

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## **Limitations**

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Major limitations of this study included the lack of access to the shamans themselves and the use of convenience sampling. This study reiterates the need for health care professionals and educators to understand and respect that shamanism is a form of treating illness within the Hmong community. To better understand Hmong health care practice it is important to understand some of the fundamental concepts of shamanism. Future studies may be helpful to explore a larger and more systematic sampling procedure and include the shaman point of view as well. Comparisons between Hmong living in rural areas versus those living in large cities may provide a different perspective. Additional research may be needed to determine the psychometric characteristics of the instrument developed for this study and its usefulness with other Hmong groups.

## **Strengths**

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Information obtained from this study may be critical in considering how to implement a health education program in the Hmong community. Better understanding of traditional Hmong health care practices may enable health educators to relate more sensitively to Hmong patients. This study provides useful insights for the development of cross cultural health education for health care professionals and the Hmong people.

## **Acknowledgments**

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## APPENDIX A

### Satisfaction with Western Medicine

How would you rate your overall experiences with Western health care?

Very Satisfied

Satisfied Neutral

Dissatisfied

Very Dissatisfied

Please tell me more about your level of satisfaction.

Waiting more than 30 minutes for the doctor to see me

Waiting more than 10 minutes for the front staff to talk to me

Language communication barrier

Doctor is culturally disrespectful

Front office staff is culturally disrespectful

The doctor saw me in a timely manner

The front staff talked to me in a timely manner

Language assistance is provided

Doctor is culturally respectful

Front office staff is culturally respectful

Others, Please explain: \_\_\_\_\_

## APPENDIX B

### Barriers to Seek Western Medicine

Do you agree with this statement: There are things that would prevent me from seeking Western health care?

Yes

No

If yes, please tell me why you feel this way. *(Please check all that applies).*

Health coverage or insurance

Language or communication issues

Location or transportation issues

System rules, regulations, or policies

Provider/staff disrespectful

Lack of Cultural understanding

Lack of life insurance

Sign consent form without properly being informed

Length of waiting period

Scheduling appointment

Not receiving what is expected

Provider gives no new information

Trust or belief in Western medicine

Others, Please explain: \_\_\_\_\_

## APPENDIX C

### Reason to Seek Western Medicine

Would you go for Western medicine if any of the following happened?

Regular check-up

Have the flu

Broken bones/big cut

Serious suicidal thoughts

Spirit separates from body

Someone passing out

Miscarriage

## APPENDIX D

### Obstacles to Timely Initiation of Prenatal Care

Do you agree to this statement: There are obstacles that would keep me from seeking early prenatal care?

Yes

No

If yes, please tell me why you feel this way. *(Please check all that applies).*

Transportation

Work obligations

School or school-related

Health coverage or insurance

Lack of understanding

Inappropriate cultural care

Language barrier

Lack of Hmong female provider

Child care

I do not support prenatal care

I have no obstacles

Others, please indicate: \_\_\_\_\_

## APPENDIX E

### Issues Couples Discuss when Seeking Prenatal Care

We hear that couples discuss a lot of issues concerning prenatal care. In your discussion with your spouse/partner about prenatal care, what are some issues or concerns that have come up:

Health coverage or insurance issues

Time unavailability or time inconvenience

Transportation or distance issues

Provider lack of cultural understanding

Language and/or communication issues

Provider/patient trust issues

Provider/patient gender difference issues

Personal or privacy violations/intrusions

Dislike or uncomfortable with setting

Child care issues

Others

## APPENDIX F

### Level of Satisfaction with the Overall Health Care Experiences and Prenatal Classes

How would you rate your overall experiences with Western health care?

Very Satisfied

Satisfied

Neutral

Dissatisfied

Very Dissatisfied

If attended, please rate how satisfied you were with the prenatal classes.

Very Satisfied

Satisfied

Neutral

Dissatisfied

Very Dissatisfied

### Western health care delivers medical care that meets Hmong patient health needs

Do you believe that Western health care delivers medical care that meets Hmong patients health needs?

Strongly Agree

Agree

Uncertain

Disagree

Strongly Disagree

## APPENDIX G

### Open-ended questions to address strategies in response to addressing the differences between Western and Hmong traditional health care practices

#### Cultural and Western Health Care Practices

What is needed to bridge the gap between Western medicine and traditional Hmong health care practice to improve the system overall? Please explain.

#### Prenatal Care

Is your spouse/partner following the doctor's prescriptions and recommendations for prenatal care?

Yes

Sometimes

No

Please explain your response.

#### Conclusion

Please add any additional comments on Hmong prenatal health care.



## Notes

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## Notes

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