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Cambodian Community Health 2010

COMMUNITY BEHAVIORAL RISK FACTOR SURVEY RESULTS 2002

Lowell, Massachusetts

A COMMUNITY

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Lowell Community Health Center
Lead Agency

Our Partners

Cambodian Mutual Assistance Association

Southeast Asian Bilingual Advocates, Inc.

University of Massachusetts Lowell Center for Family, Work and Community

University of Massachusetts Lowell Center for Public Health Research and Health Promotion

Massachusetts Department of Public Health: Refugee and Immigrant Health Program

Khmer Health Advocates Inc.

U.S. Centers for Disease Control and Prevention

Lowell General Hospital

Saints Memorial Medical Center

Visiting Nurse Association of Greater Lowell

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Introduction

Lowell, Massachusetts is home to the second largest Cambodian population in the US, but very little data is available that is directly useful for determining how to best serve the health needs of the community. The Cambodian Community Health 2010 (CCH 2010) Project is funded by the Centers for Disease Control and Prevention to serve the Cambodian community to identify and implement effective and sustainable interventions to improve the health of Cambodians in Lowell, especially by addressing health status disparities in cardiovascular disease and diabetes.

The CCH 2010 Project is coordinated by the Lowell Community Health Center, and coalition partners include Southeast Asian Bilingual Advocates, Inc. (SABAI), Cambodian Mutual Assistance Association (CMAA), University of Massachusetts Lowell Center for Family, Work, and Community, the Visiting Nurses Association, and the Massachusetts Department of Public Health's Refugee and Immigrant Health Program. The Cambodian Community Survey was designed to increase our understanding of the factors that can contribute to diabetes and cardiovascular disease in the Cambodian community-such as diet, exercise, smoking, health knowledge and health care access-and to learn more about respondents' families, education, community involvement and traditional health practices. The survey provides a picture of strengths and needs in the Cambodian community.

An extremely high level of community participation and project staff effort make this survey unique among surveys. The average survey took two hours to complete. Our interviewers went door-to-door, meeting people and asking them to answer our questions, and almost everyone they met shared their time. People let us into their homes while they were cooking meals, taking care of children, or visiting with friends and some postponed errands to stay home and answer our many questions.

Survey Development

We developed the survey in a series of steps. Topic areas for questions were defined based on established cardiovascular disease and diabetes risk factors and community concerns which were raised in a series of CCH2010 focus groups called "Community Conversations". We then looked at the public health literature to find questions that had been used successfully in other surveys. Many of our initial questions were taken from the Behavioral Risk Factor Surveillance Survey (BRFSS), a survey developed by the Centers for Disease Control (more information about the BRFSS, state health data, and actual survey questions are on the web at www.cdc.gov/brfss). The Massachusetts Department of Public Health administers the BRFSS each year, and by using some questions from it we could compare Lowell's Cambodian population to other groups in the state.

We wrote a first draft of the survey and carefully examined the questions to determine how they needed to be culturally adapted. We received input from Cambodian community advisors, human service workers, medical professionals, and researchers familiar with the Cambodian community.

After questions were adapted to the community, we translated the survey. The first Khmer draft of the survey was tested with thirty Cambodian community members, reviewed by bilingual human service staff on other projects, and translated back into English. Using the insights gained from these three activities, we revised the survey, both the English and the Khmer versions. This second revision was translated back into English again and the survey was refined further. After many revisions and reviews the survey was finalized.

Collecting the Information

We made sure that the information we collected would accurately reflect the adult population of Cambodians 25 and older, by scientifically selecting an area-based probability sample based on the data from the 2000 US Census. We did not just survey people who were easy to meet, such as clients of coalition partners, or people at markets and the temple. Instead, every Cambodian adult over 25 living in Lowell had a chance of being interviewed. However our process did not give everyone an equal chance to be in the survey. For example if a respondent lived alone they would be interviewed, but if they were one of four eligible adults in the household, they were less likely to have been asked, since we only spoke with one adult from each household. For this reason, the raw data from the survey are not representative of the community. However, since we knew the chance each person had to be interviewed therefore we were able to use survey weights to restore the proper proportions of all groups. The percentages we present in this report represent the population of all Cambodian adults 25 and older in Lowell.

The US Census records race and ethnicity. We used this information to find the census blocks where we expected at least one Cambodian family to live and randomly selected 36 such blocks. In November 2001, trained staff visited the 36 blocks and made a list of all the housing units on the block and noted whether a Cambodian family lived there. After the lists were complete we checked the addresses against Lowell City Census data and added any Cambodian families listed at addresses we had not identified as Cambodian.

From December 2001 to June 2002, trained interviewers talked to someone at every address identified as Cambodian, as well as at addresses of which we were not sure. A total of 610 addresses were visited, of those 409 were Cambodian, 403 were eligible (at least one Cambodian in the household was 25 or older), and 381 agreed to answer our questions. On average, 2 visits to each address were required before a survey was completed or the address was found to be ineligible. When an interviewer met a Cambodian family willing to participate in the survey, they used a scientific process to randomly select one adult age 25 or older to answer the questions. Often the first person that answered the door was not the person selected and staff had to make another trip to talk to the selected person. Staff persistence paid off, and with high acceptance of the survey by community members, the response rate was 94.5%, a very high response rate. The higher the response rate, the more confident we can be that the survey results appropriately represent the community.

Using this Report

This survey, using rigorous scientific methods, and achieving a very high response rate, provides data for policy makers, service providers, and community groups, as they seek to protect and improve the health of Cambodians in Lowell and beyond. We hope that what we have learned through this survey will spark thoughtful discussion and informed action.

The survey covered a wide variety of topics and this report includes the following sections based on survey results and other data sources:

1. **Community Profile**
   a. Overview of the Asian population in Lowell (data from sources other than the survey)
   b. Age distribution of Cambodian adults compared to the general Massachusetts population
   c. Immigration history
   d. Family structure
   e. Employment and income
   f. Education and reading
   g. Language use, social activities, and religion
2. **Health Behaviors**
   a. Diet
   b. Activity
   c. Alcohol consumption
   d. Cigarette smoking
   e. Weight
3. **Health and Health Care Use**
   a. Asian health in Lowell (data from sources other than the survey)
   b. Self- reported general health and mental health
   c. Self -reported diabetes and cardiovascular disease
   d. Access and use
   e. Language and interpreters
4. **Traditional Health Practices**
5. **Health Knowledge**
   a. Diabetes and cardiovascular disease
   b. Sources of health information

The Results

Community Profile

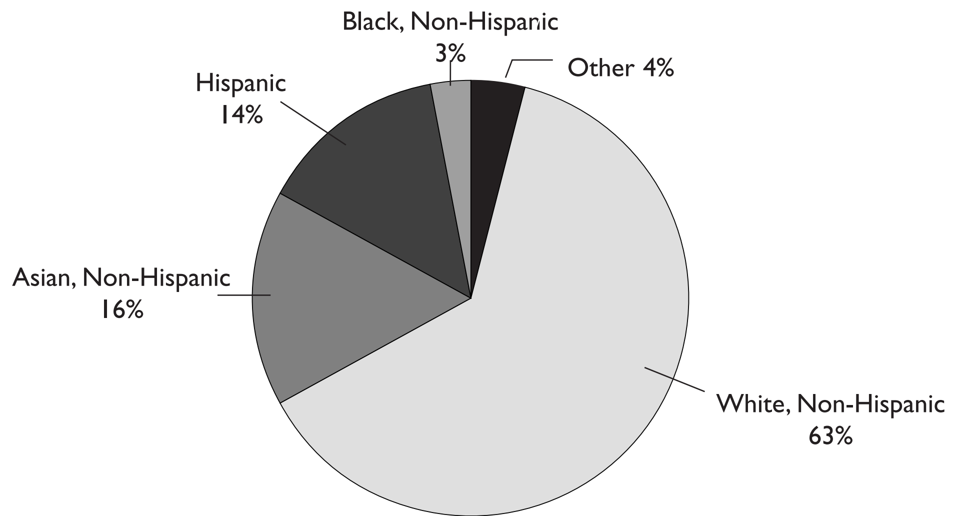
OVERVIEW OF THE ASIAN POPULATION IN LOWELL

To give a general overview of the Asian population in Lowell, the Northeast Center for Healthy Communities collected data from the US Census 2000 and the Massachusetts Community Health Information Profile (MassCHIP) from the Massachusetts Department of Public Health. The following four charts were generated.

White, non-Hispanics made up the majority of the Lowell population in 2000. Asian, non-Hispanics made up the 2nd largest proportion of the population, followed closely by Hispanics. Black, non-Hispanics and other races made up 7% of the Lowell population.

Percentage of Population by Race: Lowell 2000

Source: Population File (2000): Selected Race Categories, Age, Sex, (Hispanic is a separate category), Massachusetts Community Health Information Profile (MassCHIP) Massachusetts Department of Public Health
Version 2.8r270.0
8/19/2000

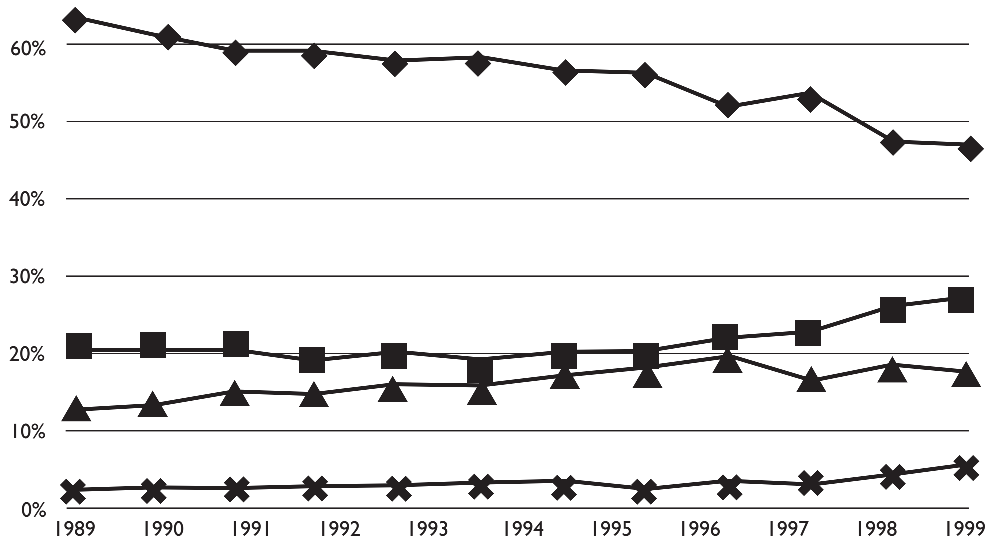


In the previous decade, while Asian births in Lowell were increasing, White births were steadily decreasing.

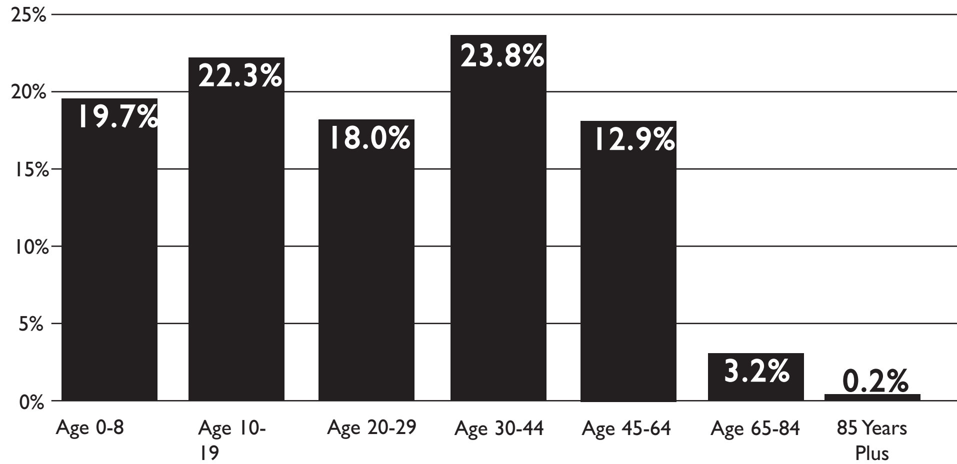
Percentage of Births by Race: Lowell (1989-2000)

- White, Non-Hispanic
- Asian Pacific Islander
- Hispanic
- Black, Non-Hispanic

Source: Natality/(Vital Records), Massachusetts Community Health Information Profile (MassCHIP) Massachusetts Department of Public Health
Version 2.8r270.0
10/21/2002

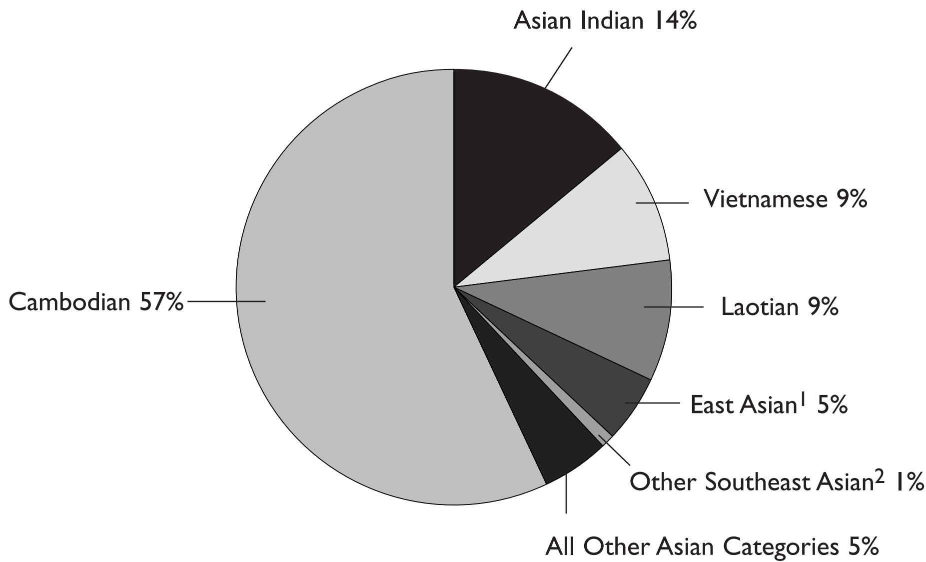


Out of the total Asian/non-Hispanic population of 17,302 (US Census 2000) the Asian population was greatest under age 29 (60%).



Percent Distribution of Asian, Non-Hispanic Population by Age, Lowell, 2000

Cambodians made up over half the Asian population in Lowell in 2000.



Percent Distribution of Asian Ethnicity, Lowell, 2000

[1]East Asian includes Chinese, Japanese, Korean, and Taiwanese

[2]Other Southeast Asian includes Filipino, Hmong, Indonesian, Malaysian and Thai

Source: U.S. Census Bureau 2000

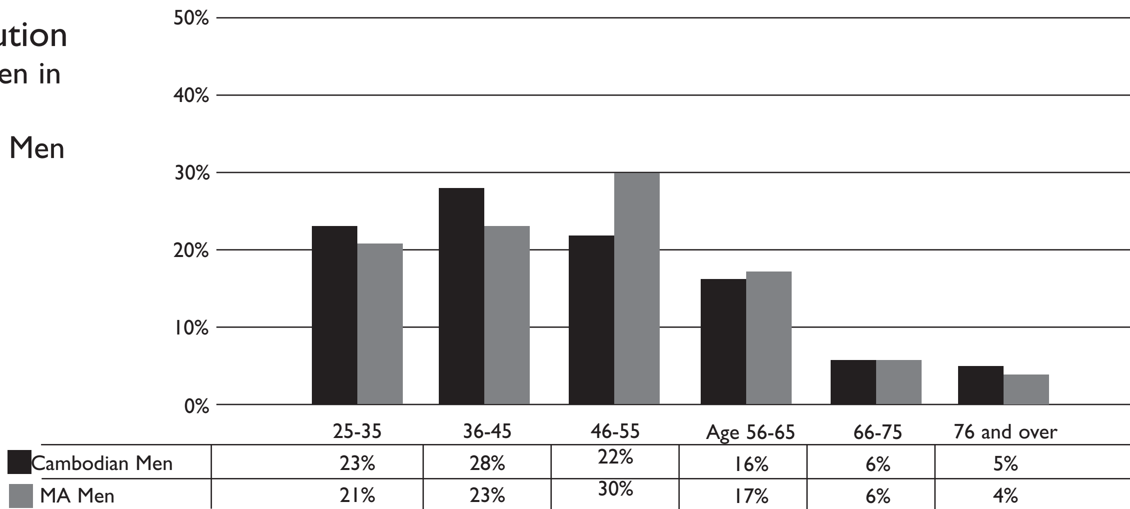
AGE

We interviewed adults 25 and older; the oldest person we spoke to was 84 years old. As indicated earlier, the Asian population in Lowell was greatest among those under 20. However, even among adults 25 and older, Cambodian women tended to be younger than the general Massachusetts population. Younger women were less likely to have developed conditions, such as diabetes and cardiovascular disease, which occur more frequently in older adults.The percent of Cambodian women over 55 was noticeably lower than for the Massachusetts women.

Among adults 25 and older:

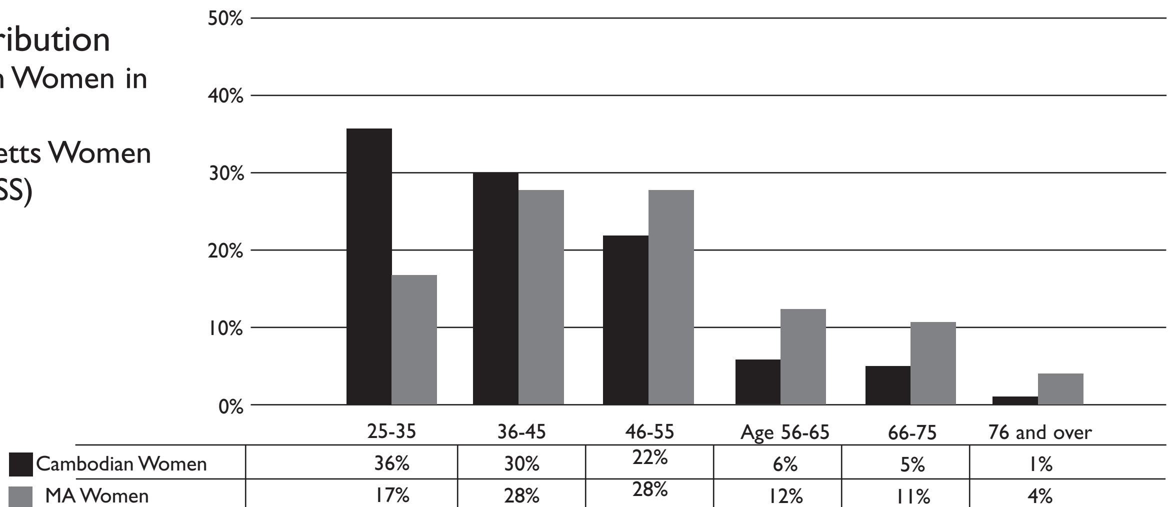
◆ Average age for Cambodian women was 42; overall in Massachusetts it was 48
◆ Average age for Cambodian men was 48; overall in Massachusetts it was 48

Age Distribution
Cambodian Men in Lowell and Massachusetts Men (2001 BRFSS)



	25-35	36-45	46-55	Age 56-65	66-75	76 and over
Cambodian Men	23%	28%	22%	16%	6%	5%
MA Men	21%	23%	30%	17%	6%	4%

Age Distribution
Cambodian Women in Lowell and Massachusetts Women (2001 BRFSS)



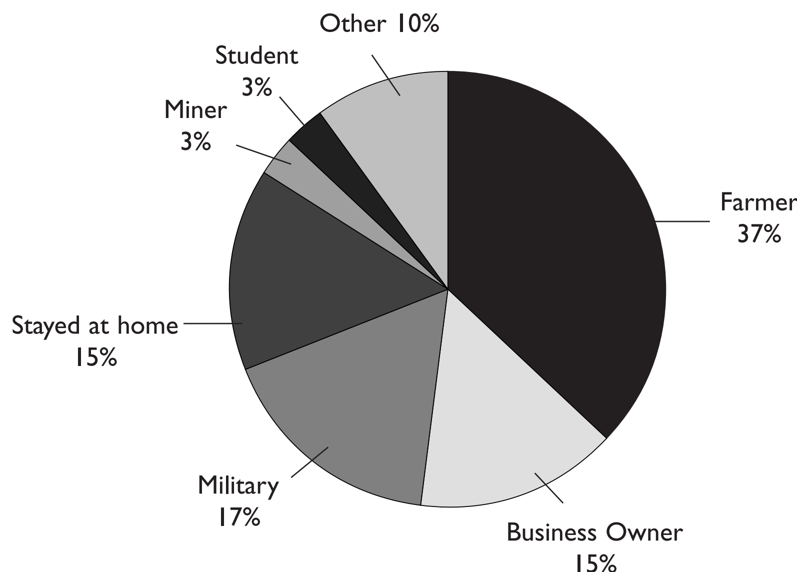
	25-35	36-45	46-55	Age 56-65	66-75	76 and over
Cambodian Women	36%	30%	22%	6%	5%	1%
MA Women	17%	28%	28%	12%	11%	4%

IMMIGRATION HISTORY

Many of the Cambodians living in the United States today were refugees from the Khmer Rouge regime and most spent several years living in refugee camps before arriving in the United States starting in 1979. Throughout the 1980s many moved to Lowell, attracted first by plentiful jobs in manufacturing, and as the community grew, by the temples, Cambodian-owned businesses, and friends and relatives already in Lowell.

In our survey we did not encounter a single person who had been born in the United States; most were born in Cambodia, the others in either Vietnam or Thailand. Most have been in the United States for almost two decades and in Lowell for the last decade. Many Cambodians living in Lowell today originally came from rural areas in Cambodia and worked as farmers.

Among adults 25 and older:
- 85% spent time in a refugee camp
- Average time in refugee camps was 4 years and ranged from 1 to 17 years
- All were born in Southeast Asia and 99% were born in Cambodia
- 73% were born in a rural area
- 37% were farmers in Cambodia before 1975
- Average time in US was 16 years and ranged from 1 to 27 years
- Average time in Lowell was 11 years and ranged from 1 to 22 years



Pre-Khmer Rouge Regime Employment Among Those Over 15 Years of Age in 1975

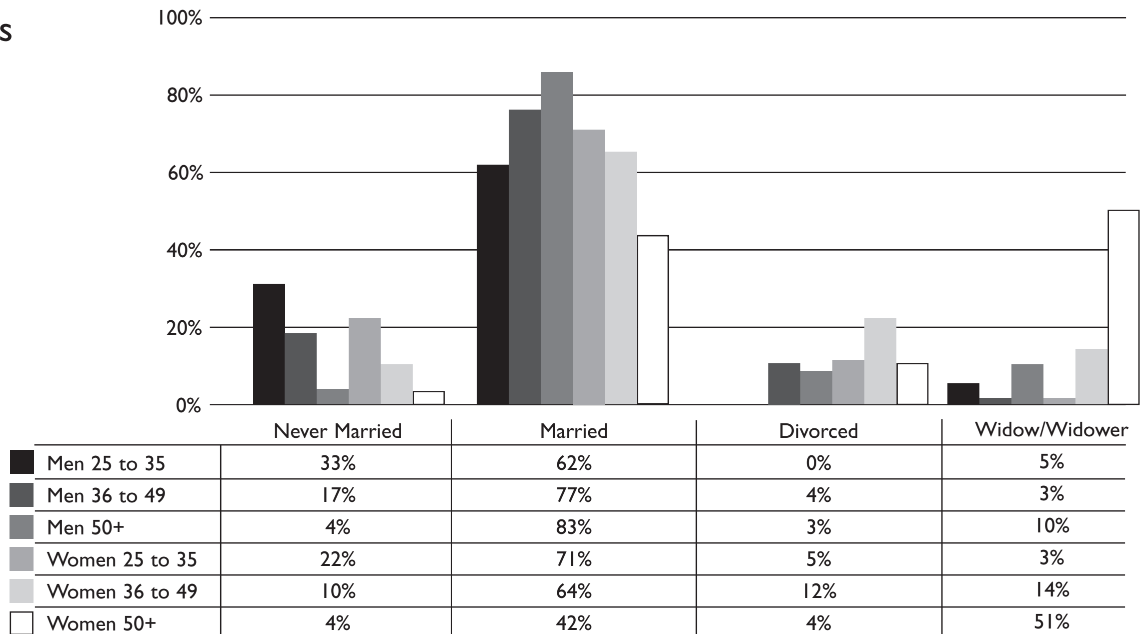
FAMILIES

In the Cambodian community there is often some hesitancy to provide detailed information about the family. This may be the result of the Khmer Rouge time and a lingering suspicion of authority. We did not want to alienate our respondents, and since the purpose of the survey was to learn about individual health and health behaviors, we did not ask for a complete listing of all household members and their relationships to each other. Instead, at various places in the interview, we asked for marital status, the total number of people living in the household, the number of adults 25 years and older, how many children they had and the ages of their children living with them. With these pieces we can provide a partial picture of family structure. We found that marital status and parenting of children differed by age and gender.

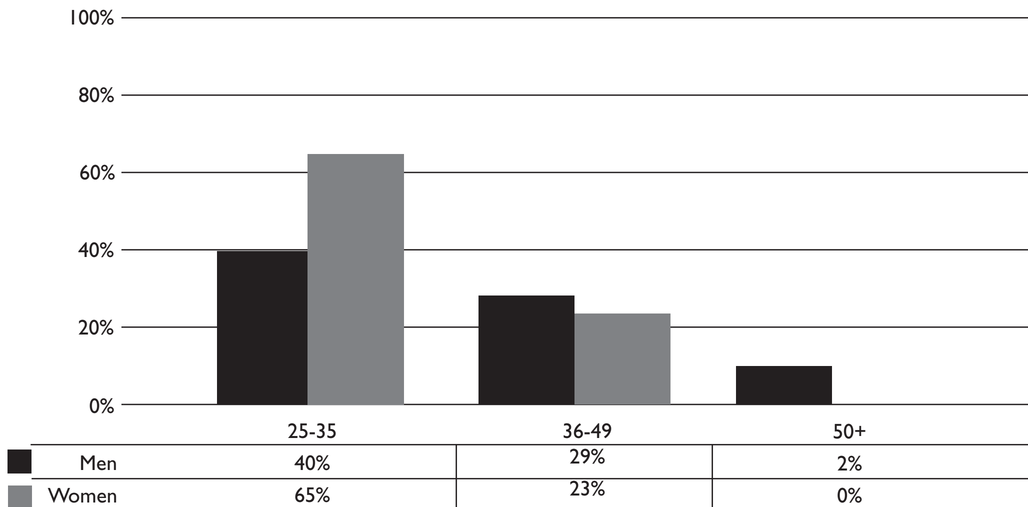
Among adults 25 and older:

- ◆ The average household included 5 people; household size ranged from 1 to 13 people
- ◆ In households with only one adult over 25 years, 5% were men and 12% were women
- ◆ 67% were married or living as a couple
- ◆ 15% were widows or widowers; 51% of women 50 and over were widows
- ◆ 28% were parenting children under 6
- ◆ 64% were parenting children under 18

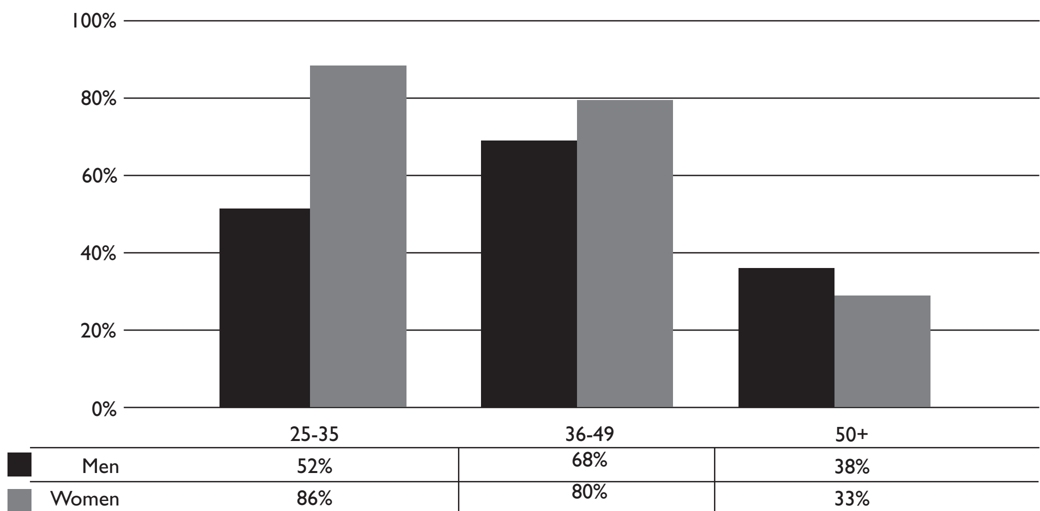
Marital Status



	Never Married	Married	Divorced	Widow/Widower
Men 25 to 35	33%	62%	0%	5%
Men 36 to 49	17%	77%	4%	3%
Men 50+	4%	83%	3%	10%
Women 25 to 35	22%	71%	5%	3%
Women 36 to 49	10%	64%	12%	14%
Women 50+	4%	42%	4%	51%



Parent of a Child Less Than 6 Years of Age Living in Their Household



Parent of a Child Less Than 18 Years of Age Living in Their Household

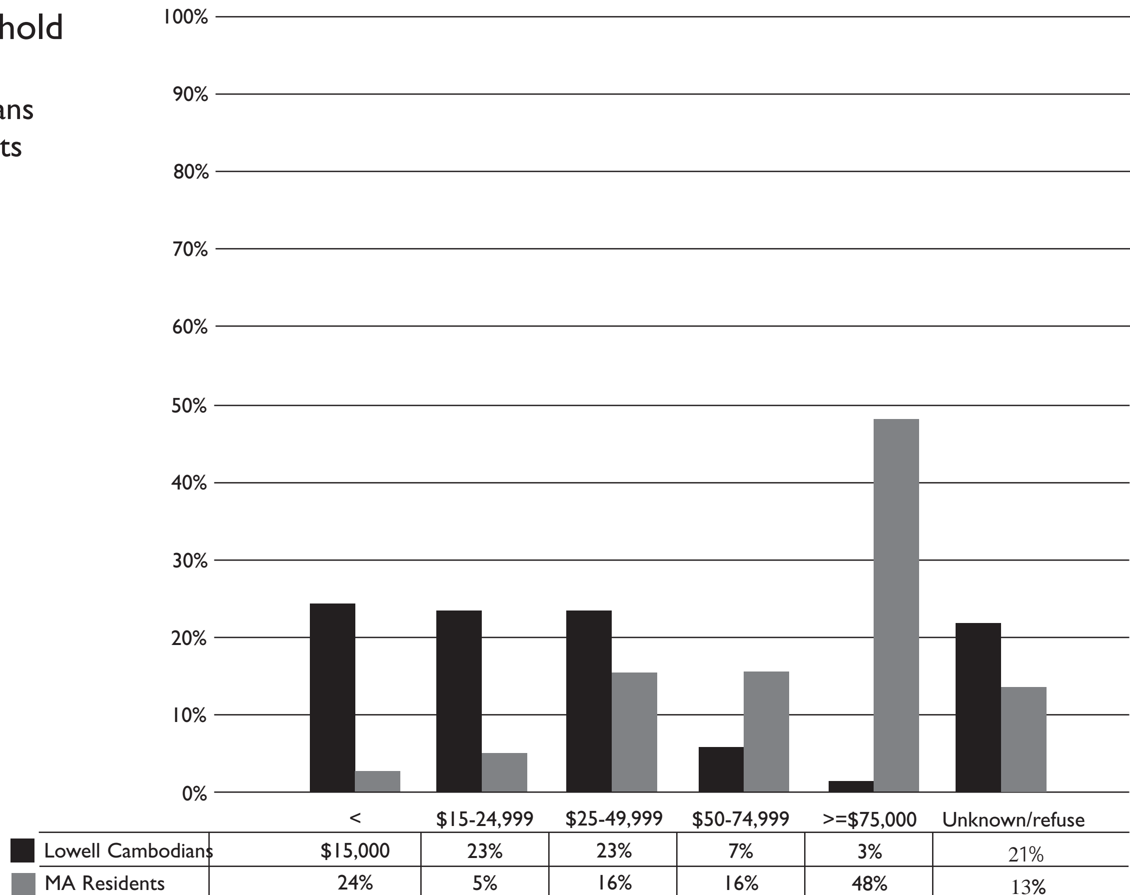
WORK AND INCOME

The Cambodian community tended to have higher rates of unemployment and lower incomes than the general Massachusetts population. Those who were working tended to work in manufacturing, most citing “assembly” as their job.

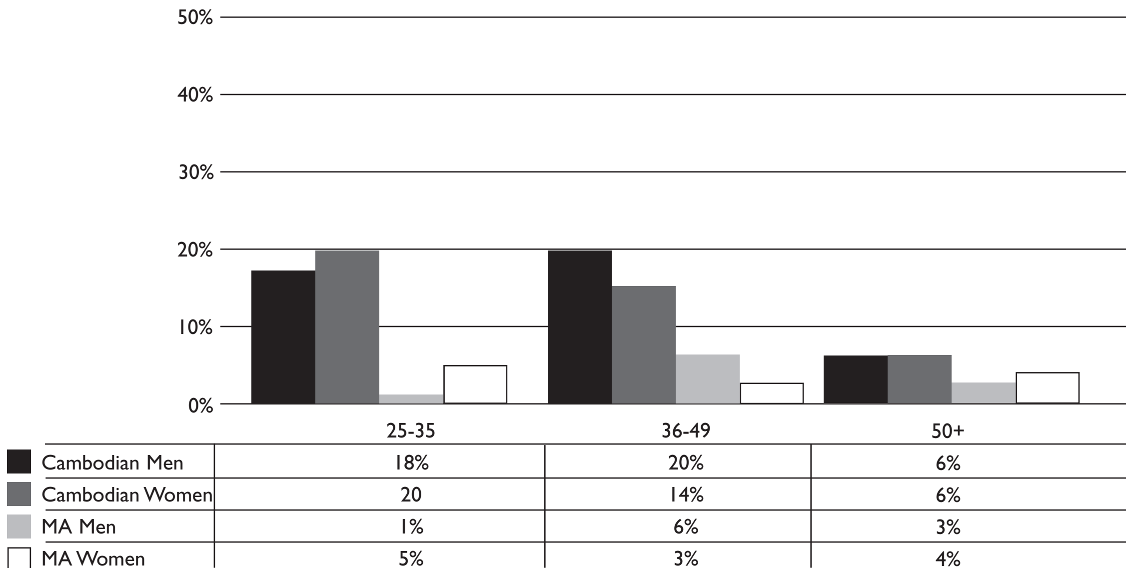
Among adults 25 and older:

- ◆ The median household income was $21,000, and ranged from $0 to $140,400
- ◆ 14% reported that they were looking for work
- ◆ 21% reported that they were unable to work/disabled
- ◆ Among those with work, 82% worked in manufacturing

Annual Household Income
Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



	<	$15-24,999	$25-49,999	$50-74,999	>=$75,000	Unknown/refuse
Lowell Cambodians	$15,000	23%	23%	7%	3%	21%
MA Residents	24%	5%	16%	16%	48%	13%



	25-35	36-49	50+
Cambodian Men	18%	20%	6%
Cambodian Women	20	14%	6%
MA Men	1%	6%	3%
MA Women	5%	3%	4%

Reported Looking for Work
Unemployed
Lowell Cambodians and Massachusetts Residents
(2001 BRFSS)

EDUCATION AND READING

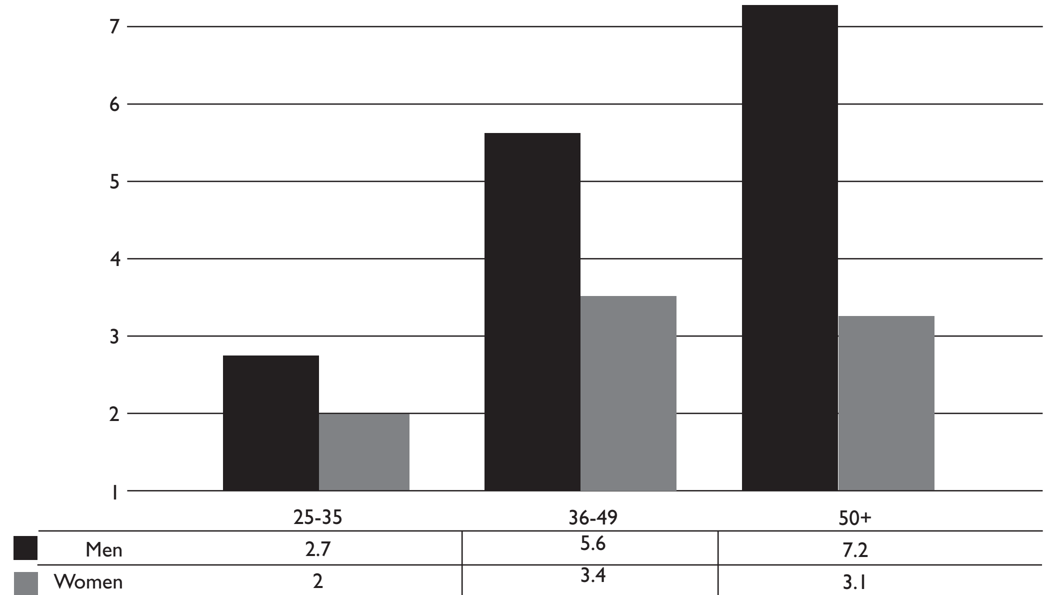
The experience of the Cambodian holocaust, time spent in refugee camps, and the stresses of resettlement in the US interrupted the educations of many Cambodians and has had an effect on literacy rates. We assessed literacy by asking about actual reading practice; whether people read something such as a letter, book, or magazine most weeks.

The levels of education achieved in Cambodia and the United States vary dramatically by age and gender. Older men generally received more years of education in Cambodia than older women or younger people. Younger men and women usually completed more formal education in the United States than their elders, but even in the United States men generally achieved higher levels of education than women.

Among adults 25 and older:

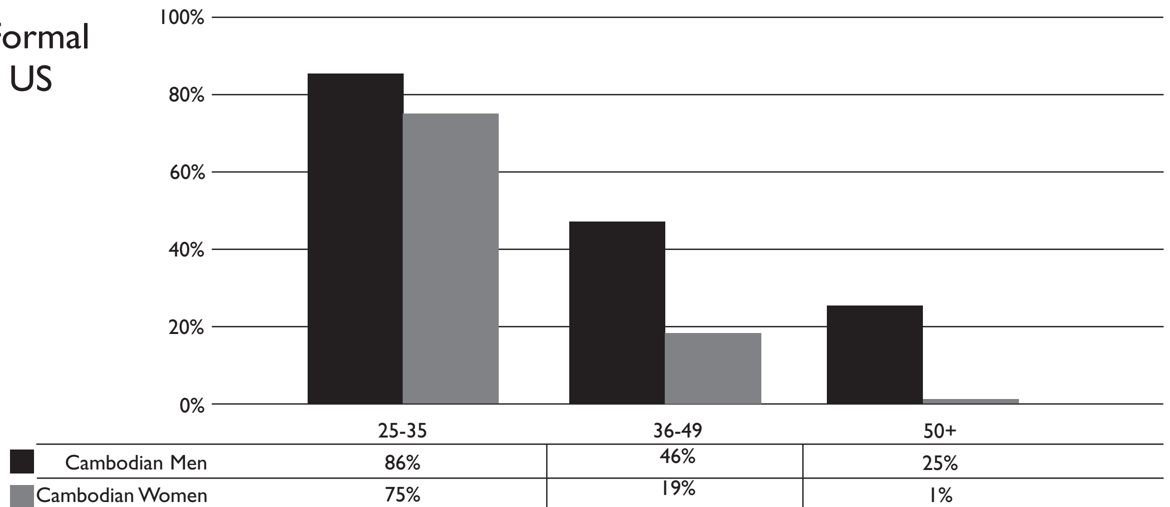
- Men received an average of 5.6 years of schooling in Cambodia; the range was from 0 to 18 years
- Women received an average of 2.8 years of schooling in Cambodia; the range was from 0 to 16 years
- 61% had no formal education in the US
- 17% completed high school or a GED certificate in the United States
- 7% completed college
- 43% reported reading something in Khmer most weeks
- 42% reported reading something in English most weeks

Years of Schooling in Cambodia



	25-35	36-49	50+
Men	2.7	5.6	7.2
Women	2	3.4	3.1

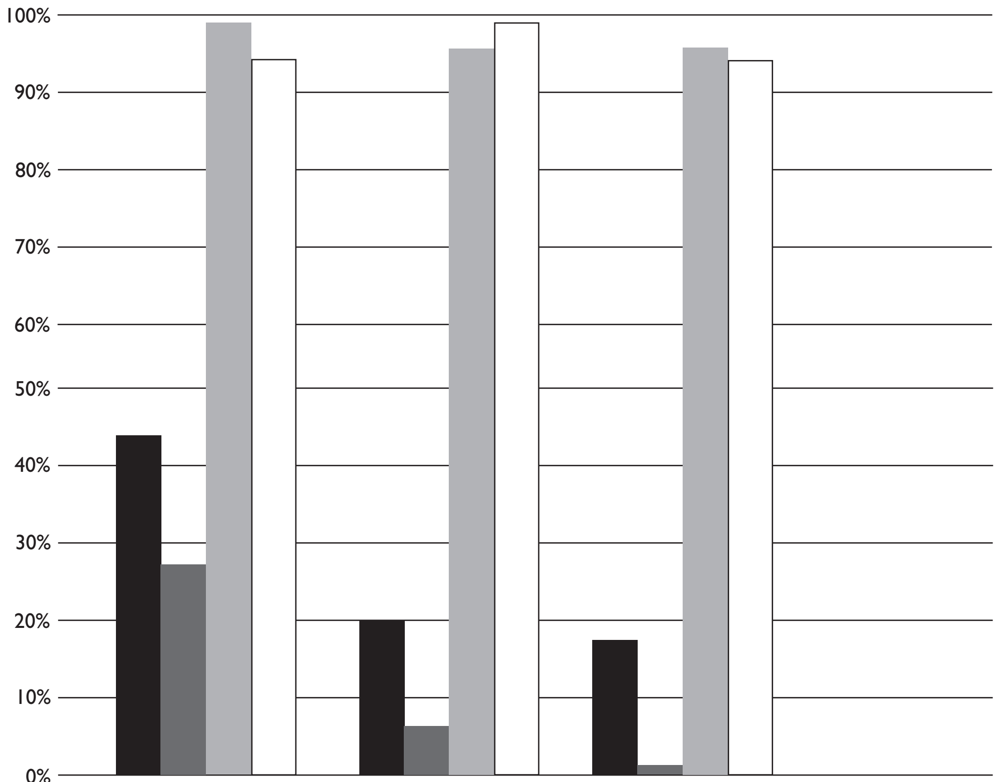
Had Some Formal Schooling in US



	25-35	36-49	50+
Cambodian Men	86%	46%	25%
Cambodian Women	75%	19%	1%

Completed High School/GED (in US)

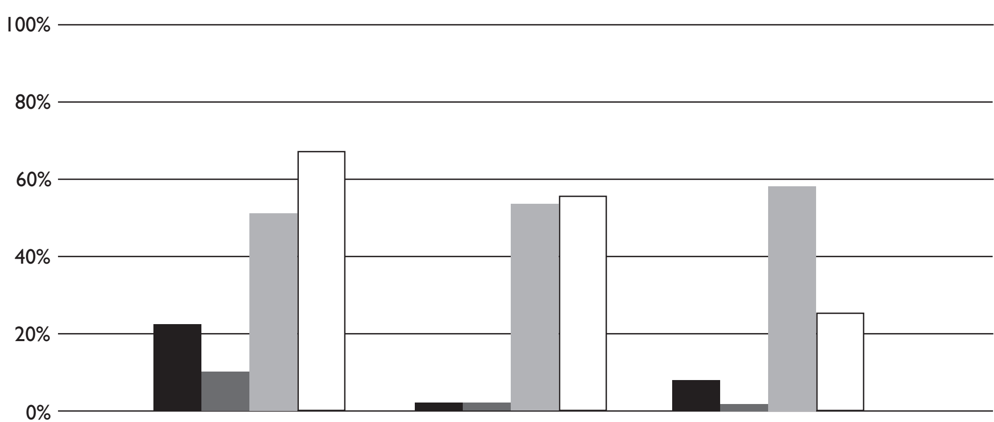
Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



	25-35	36-49	50+
Cambodian Men	43%	20%	17%
Cambodian Women	27%	6%	1%
MA Men	99%	97%	97%
MA Women	95%	99%	95%

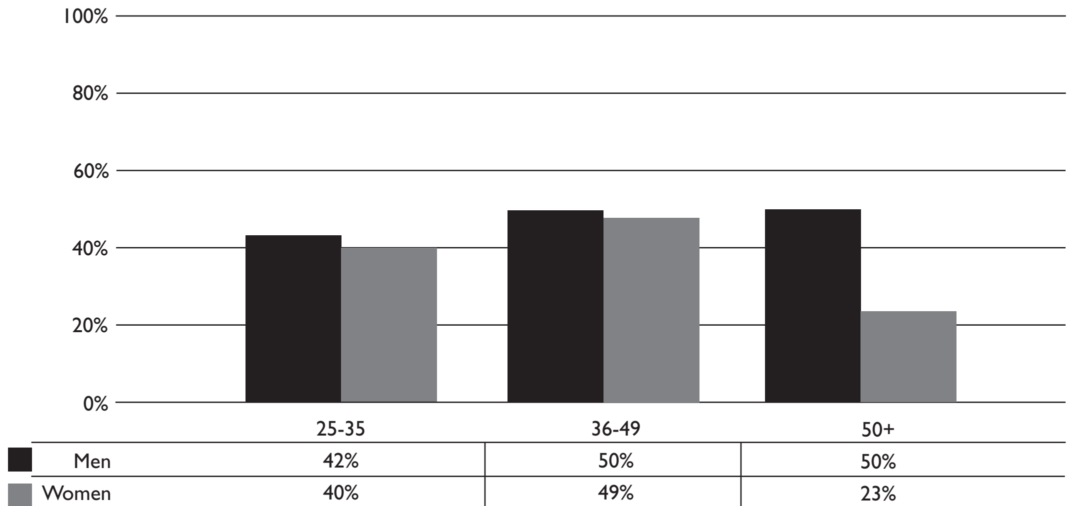
Completed College (in US)

Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



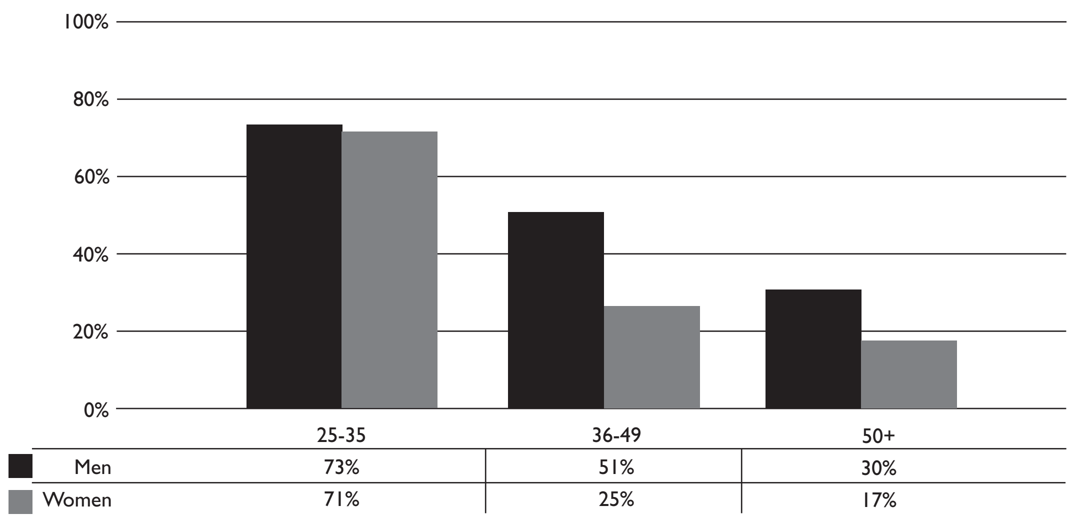
	25-35	36-49	50+
Cambodian Men	22%	2%	9%
Cambodian Women	11%	2%	1%
MA Men	51%	55%	59%
MA Women	66%	57%	46%

Reading in Khmer
Reads Newspaper, Book or Magazine Written in Khmer Most Weeks



	25-35	36-49	50+
Men	42%	50%	50%
Women	40%	49%	23%

Reading in English
Reads Newspaper, Book or Magazine Written in English Most Weeks



	25-35	36-49	50+
Men	73%	51%	30%
Women	71%	25%	17%

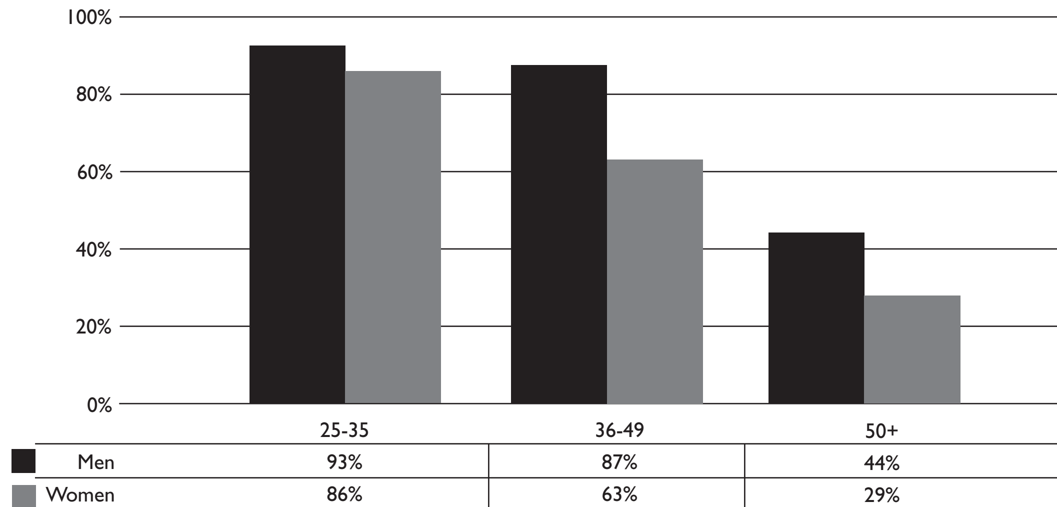
LANGUAGE USE, SOCIAL ACTIVITIES AND RELIGION

Most people reported that they were Buddhist, the traditional religion of Cambodia, and almost everyone we interviewed lived in a household where Khmer is always spoken. A large part of the community watched the local Khmer programming offered on cable. Although the majority spoke English well enough to have a conversation, older adults, and especially older women were less likely to be able to converse in English. In addition, less than half of older adults reported friendships with people who were not Cambodian.

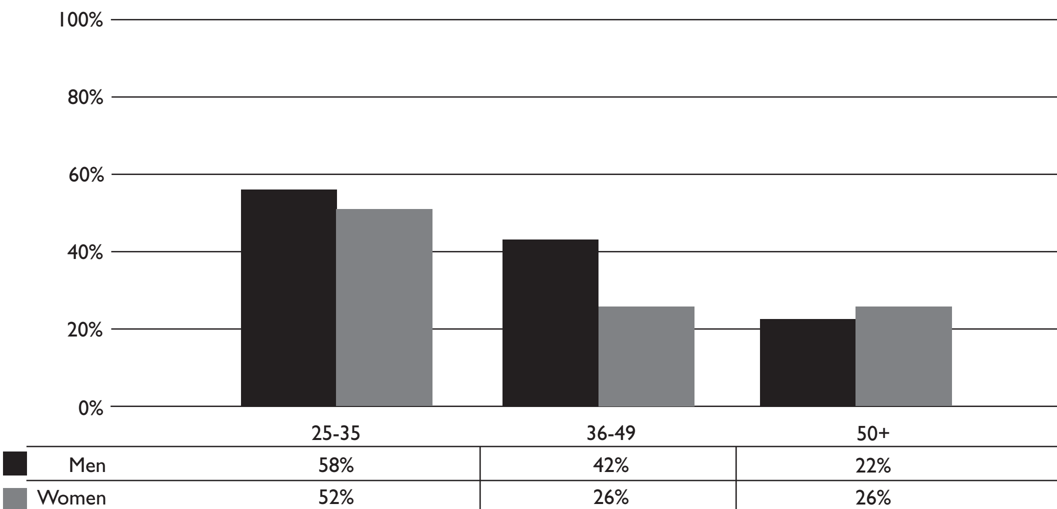
Among adults 25 and older:

- 87% reported being Buddhist
- 96% always spoke Khmer at home
- 81% watched the Khmer cable show in Lowell
- 66% spoke English well enough to have a conversation
- 36% had one or more non-Khmer friend
- 43% attended meetings or parties in the community at least once a month

Speaks English Well Enough to Converse



Non-Khmer Friends
Reported One or More



Health Behaviors

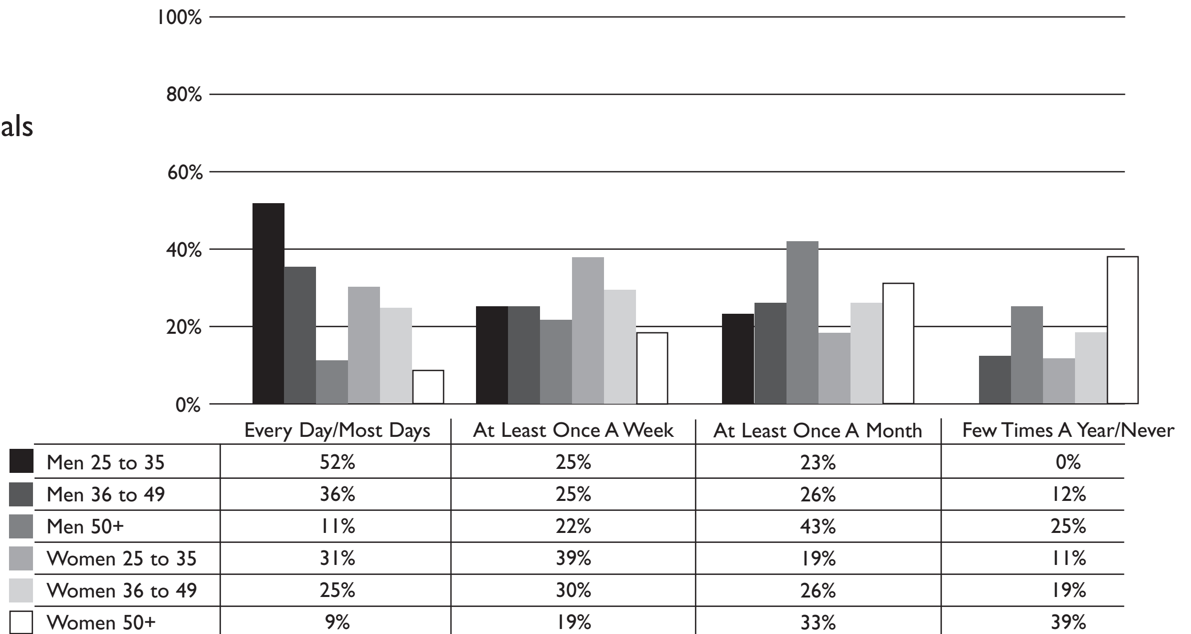
DIET

The survey found that most people, especially women and elders, ate a rice-based diet relatively high in fruits and vegetables. Younger people and men tended to eat more "American" meals and fast food.

Among adults 25 and older:

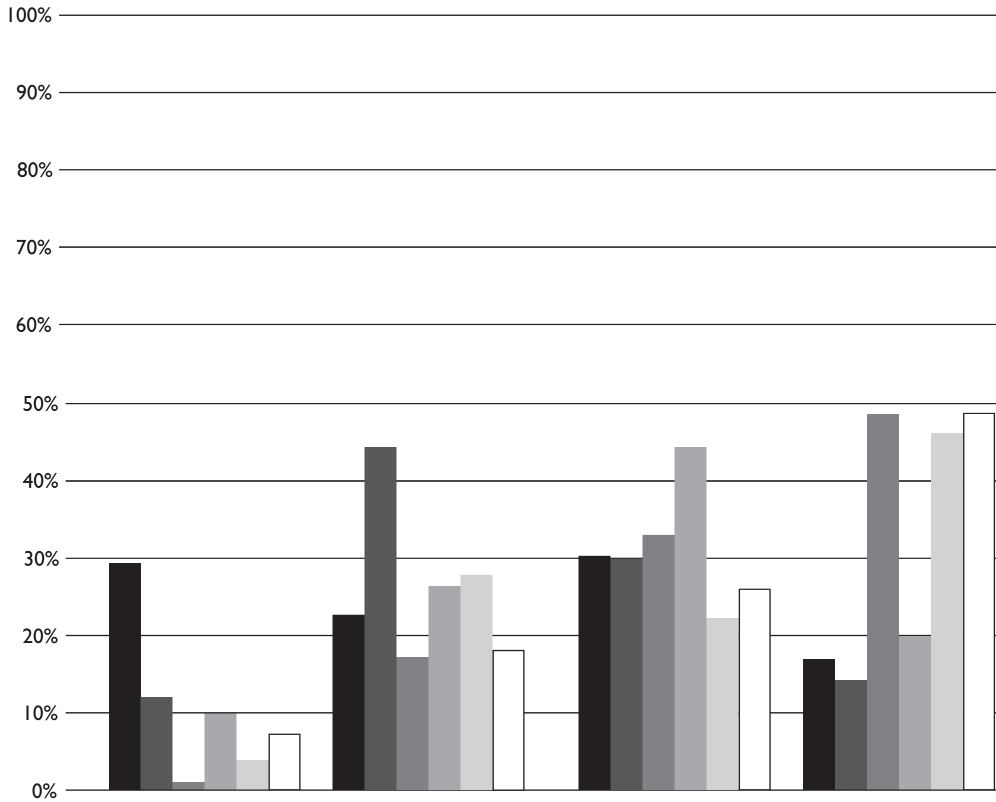
- ◆ 97% ate rice every day
- ◆ On days when people ate rice on average they ate 3.0 servings (bowls)
- ◆ 28% ate 5 or more servings of fruits and vegetables per day
- ◆ 26% of people ate "American" or non-Cambodian meals every day or most days
- ◆ 36% ate fast food at least once a week

Diet:
Eats Non-Cambodian or "American" Meals



	Every Day/Most Days	At Least Once A Week	At Least Once A Month	Few Times A Year/Never
Men 25 to 35	52%	25%	23%	0%
Men 36 to 49	36%	25%	26%	12%
Men 50+	11%	22%	43%	25%
Women 25 to 35	31%	39%	19%	11%
Women 36 to 49	25%	30%	26%	19%
Women 50+	9%	19%	33%	39%

Diet:
Eats Fast Food

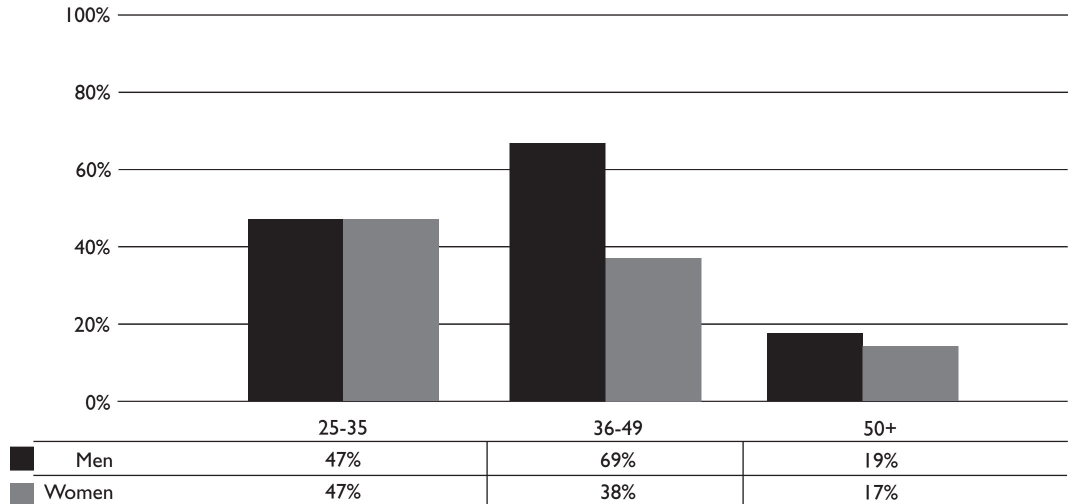


	Every Day/Most Days	At Least Once A Week	At Least Once A Month	Few Times A Year/Never
Men 25 to 35	29%	23%	31%	17%
Men 36 to 49	12%	44%	30%	14%
Men 50+	1%	17%	33%	48%
Women 25 to 35	10%	26%	44%	20%
Women 36 to 49	4%	28%	22%	46%
Women 50+	8%	18%	26%	48%

ACTIVITY

Our survey showed that most Cambodian adults were active. Many people walked for exercise or to get from place to place, and almost half did manual labor at work. The main activities reported included housework, exercise machines, yard work, and among adults 25 to 35 years old, weight lifting.

Reported Manual Labor at Work

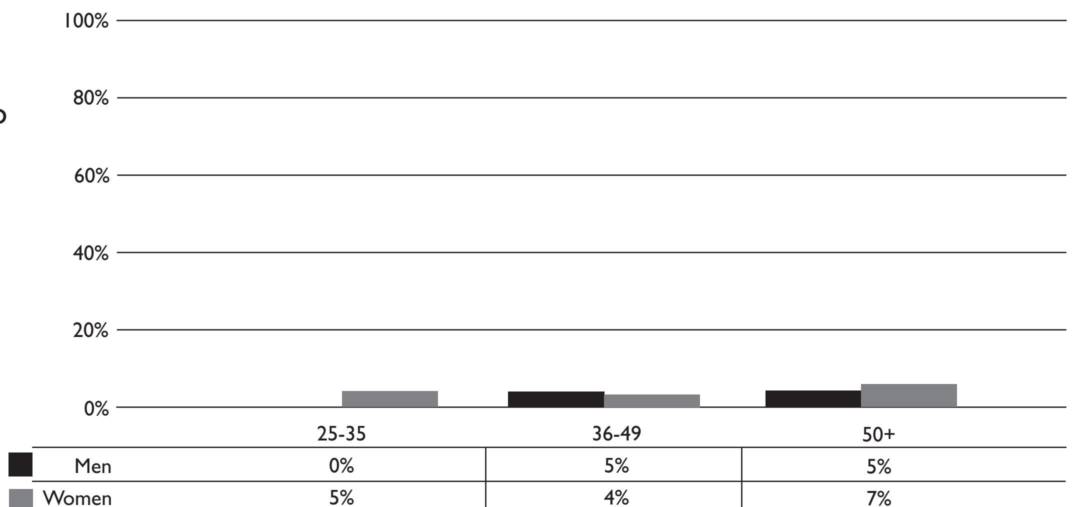


	25-35	36-49	50+
Men	47%	69%	19%
Women	47%	38%	17%

Among adults 25 and older:
- ◆ 62% reported walking for 10 minutes or more without stopping on 4 or more days per week and 95% said it was safe to walk during the day in their neighborhood
- ◆ 76% reported doing activities other than walking that made their heart rate increase for 10 minutes or more; they did these activities on 5.2 days in the typical week
- ◆ 39% reported doing manual labor at work
- ◆ 4% could be considered "inactive" - that is in the typical week they reported no physical activity and walking for 10 minutes or more on fewer than 2 days

"Inactive"

Walk One Day Per Week or Less, Do No Other Activities, and No Manual Labor at Work



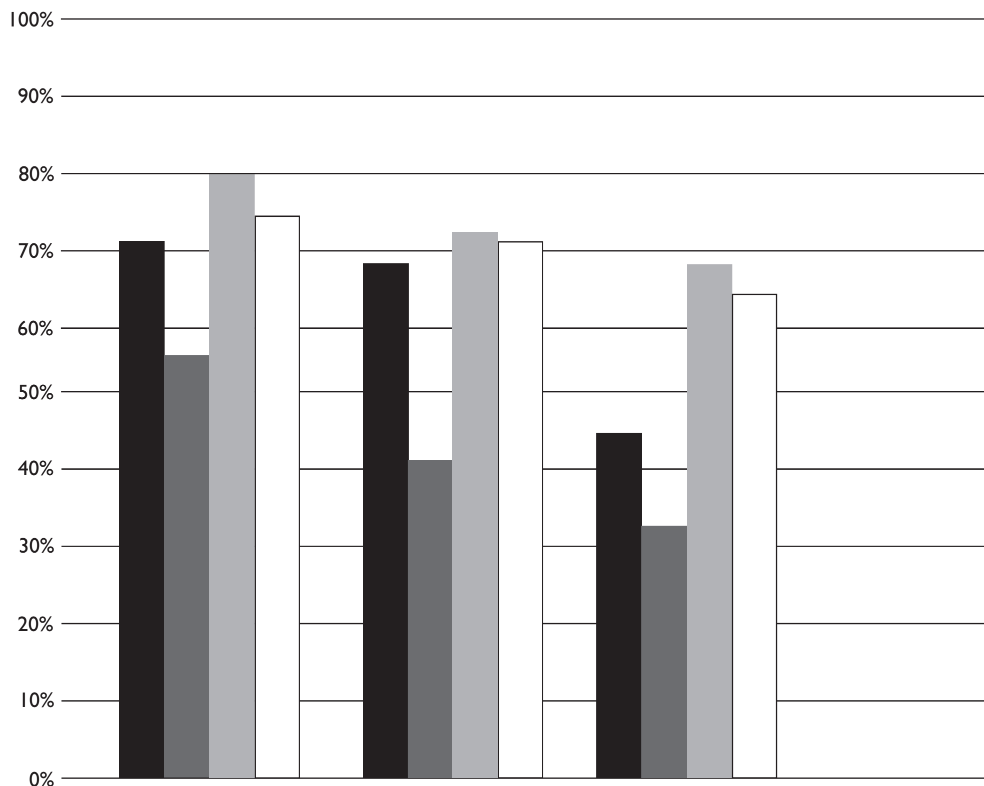
	25-35	36-49	50+
Men	0%	5%	5%
Women	5%	4%	7%

ALCOHOL

There may be stigma attached to answering the questions about alcohol consumption. While 181 people reported that they had had a drink of alcohol in the past month, only 41% of them went on to answer all of our questions about alcohol use. The numbers reported here about the frequency and amount of alcohol consumed in the past month should be interpreted with caution.

Among adults 25 and older:

- 60% of men reported that they had had a drink of alcohol in the past month
- The men who reported drinking in the past month drank on average 11.2 days of the month and had 2.2 drinks on those days
- 44% of women reported that they had had a drink of alcohol in the past month
- The women who reported drinking in the past month drank on average 10.3 days of the month and had 1.3 drinks on those days



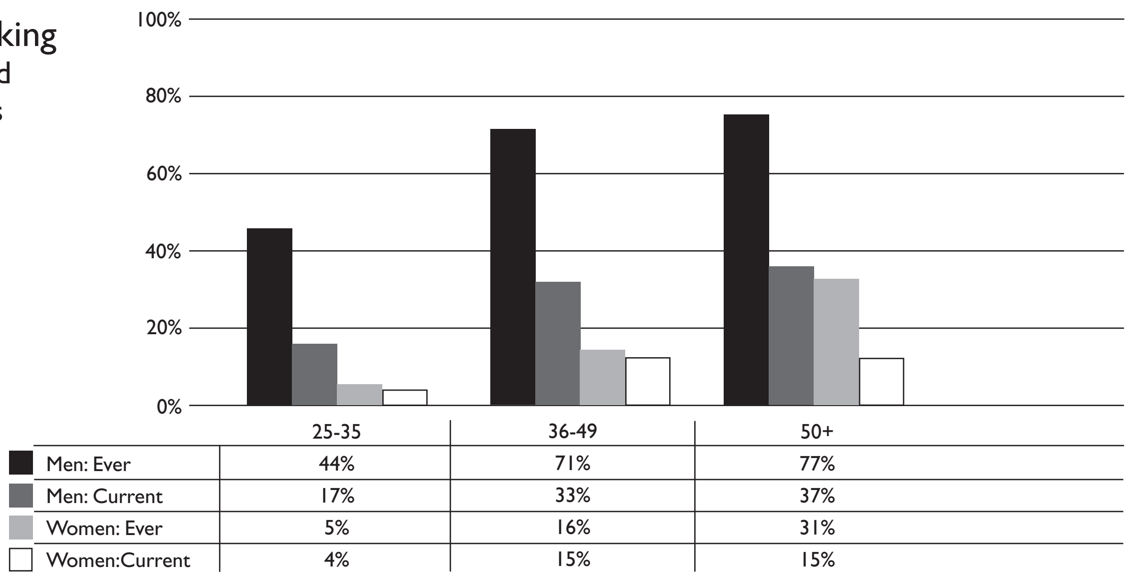
Alcohol Consumed in the Past Month
Lowell Cambodians and Massachusetts Residents (2001 BRFSS)

	25-35	36-49	50+
Cambodian Men	71%	69%	44%
Cambodian Women	56%	41%	33%
MA Men	80%	72%	69%
MA Women	74%	71%	65%

CIGARETTE SMOKING

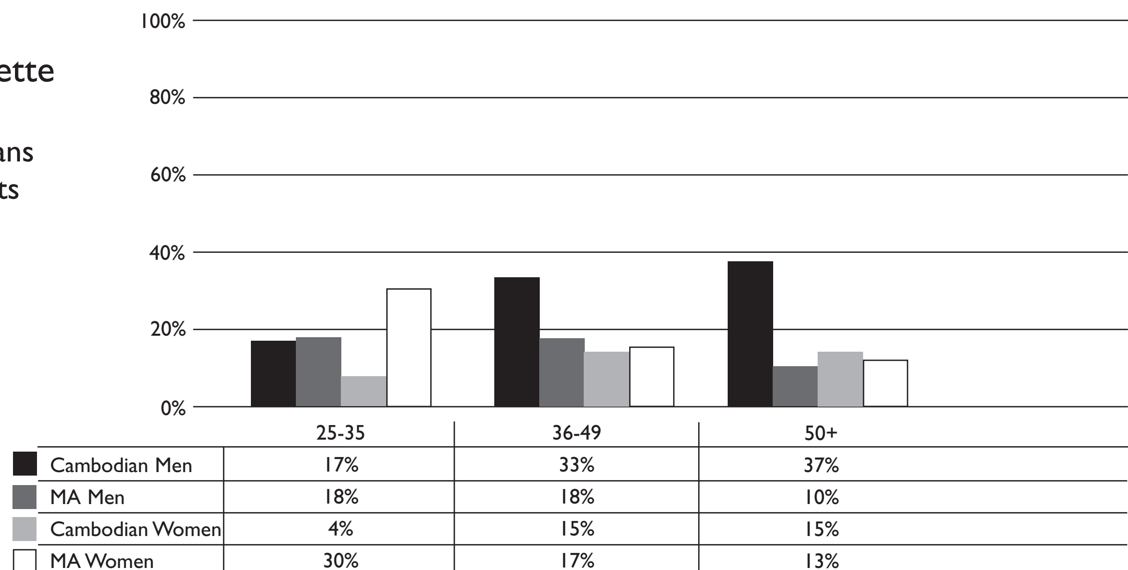
Cigarette smoking rates among Cambodian men appear to be declining, as there are many more men who report "ever smoking" than current smoking. Despite declining rates among Cambodian men, Cambodian men over 35 smoke at much higher rates than the general Massachusetts population. Cambodian women, especially younger women, smoke much less than other women in Massachusetts. It also appears that many of the current smokers in the Cambodian community have tried to quit or intend to quit smoking.

Cigarette Smoking
Ever Smokers and Current Smokers



	25-35	36-49	50+
Men: Ever	44%	71%	77%
Men: Current	17%	33%	37%
Women: Ever	5%	16%	31%
Women:Current	4%	15%	15%

Current Cigarette Smokers
Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



	25-35	36-49	50+
Cambodian Men	17%	33%	37%
MA Men	18%	18%	10%
Cambodian Women	4%	15%	15%
MA Women	30%	17%	13%

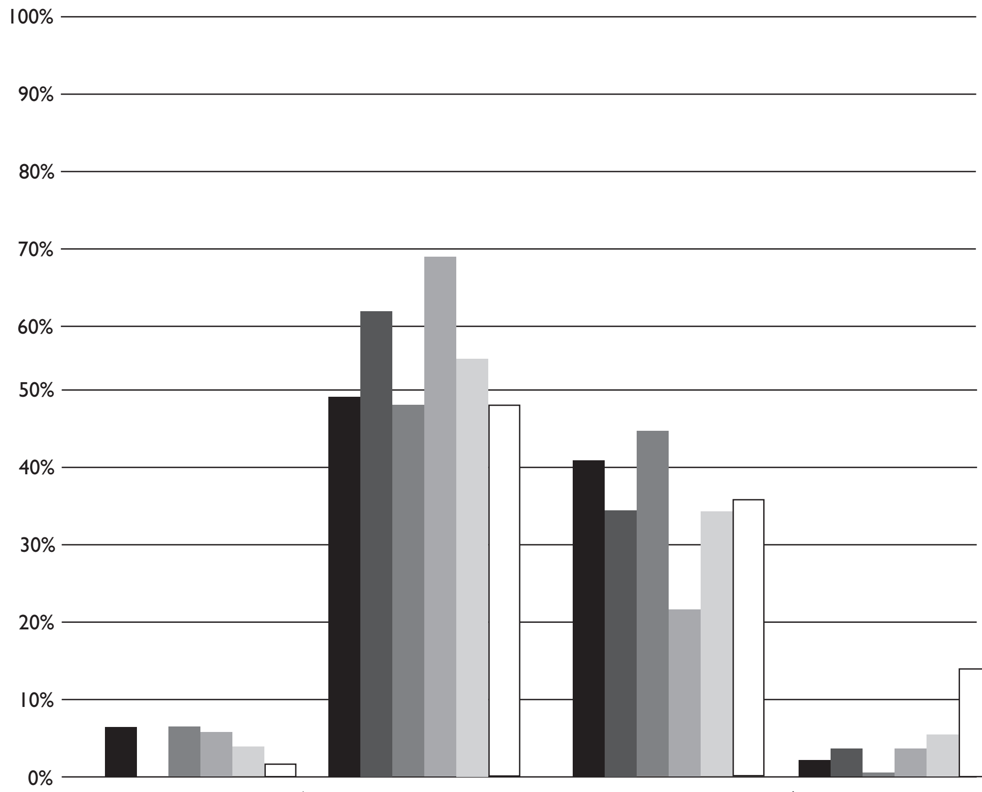
Among adults 25 and older:

- ◆ 67% of men and 16% of women had smoked 100 cigarettes or more in their lifetime
- ◆ 31% of men and 11% of women were current smokers, smoking everyday or some days
- ◆ Among those who smoke, 72% had quit for one day or longer in the past year
- ◆ Among those who smoke, 59% reported that they intended to quit in the next 30 days

WEIGHT

The majority of Cambodians were "normal" weight, that is, their Body Mass Index (BMI) indicates that their height and weight were proportional. However, more than a third can be considered overweight or obese. We divided people into the same weight categories as the Massachusetts Department of Public Health (BMI<18.5 = under weight, BMI 18.5-24.9 = normal weight, BMI 25-29.9 = overweight, BMI >30 = obese). BMIs were based on self-reported heights and weights.

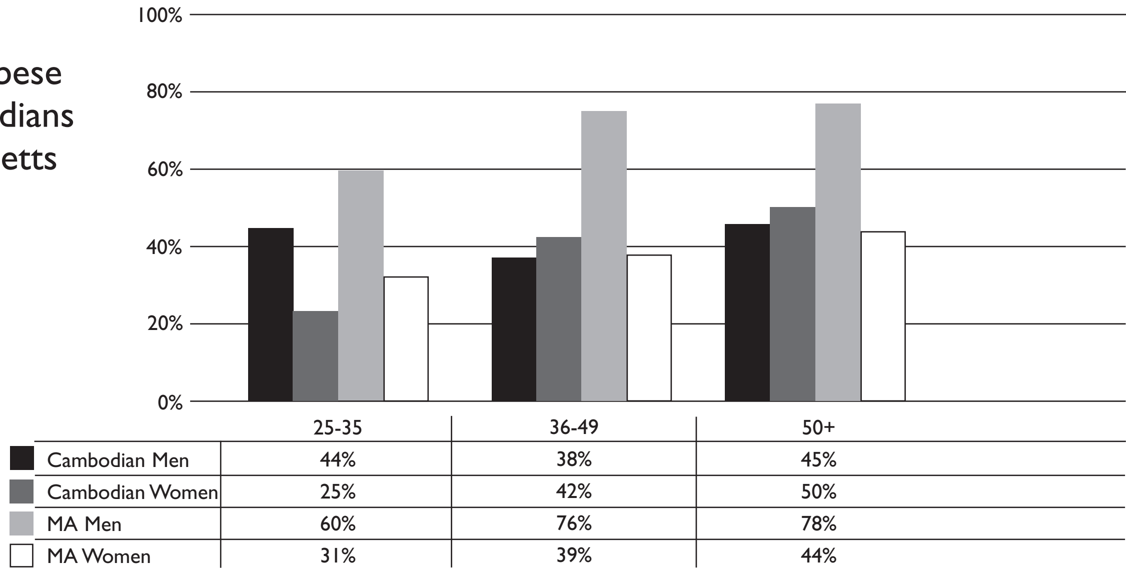
Weight
Body Mass Index



	Under Weight	Normal Weight	Over Weight	Obese
Men 25 to 35	7%	49%	41%	3%
Men 36 to 49	0%	62%	34%	4%
Men 50+	7%	48%	45%	1%
Women 25 to 35	6%	69%	21%	4%
Women 36 to 49	4%	54%	34%	8%
Women 50+	2%	48%	36%	14%

Among adults 25 and older:
- ◆ 57% were normal weight
- ◆ 33% were overweight
- ◆ 6% were obese

Weight: Over Weight and Obese Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



	25-35	36-49	50+
Cambodian Men	44%	38%	45%
Cambodian Women	25%	42%	50%
MA Men	60%	76%	78%
MA Women	31%	39%	44%

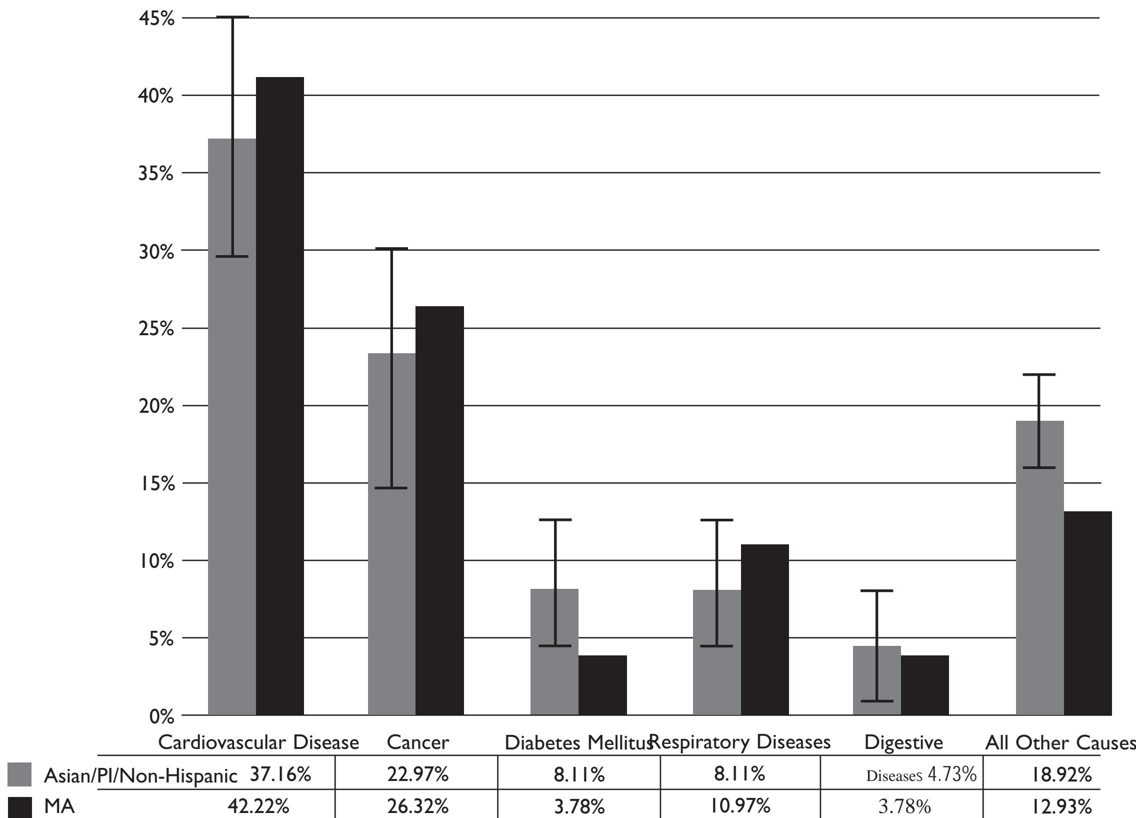
Health and Health Care Use

ASIAN HEALTH IN LOWELL

Here again, the Northeast Center for Healthy Communities gathered data from various sources (the Massachusetts Community Health Information Profile—MassCHIP-- Massachusetts Department of Public Health, the Massachusetts Health Data Consortium and the Census Counts MISER Estimates) on leading causes of death among Asians in Lowell, the Standardized Mortality Ratio Percents and the Standardized Hospitalization Ratio Percents. The following three charts were generated.

The chart on the next page compares the leading causes of death among Asians in Lowell 45 years old or older to those in the larger Massachusetts population of individuals 45 years old or older. The top three leading causes of death among Asian/Pacific Islander, non-Hispanics age 45 and older in Lowell were cardiovascular disease, cancer and diabetes mellitus. The top three leading causes of death in Massachusetts among those age 45 and older were cardiovascular disease, cancer and respiratory diseases, with diabetes mellitus being the 4th leading cause of death (tied with diseases of the digestive system). However, rates of death among Asians in Lowell 45+ due to cardiovascular disease, cancer, and diseases of the respiratory and digestive system were not significantly different than those rates among Massachusetts aged 45+. Rate of death due to diabetes among Asians 45+ in Lowell was slightly higher (statistically significant) than Massachusetts.

Leading Causes of Death Among Asians in Lowell and Massachusetts Age 45+ 1989-1998



	Cardiovascular Disease	Cancer	Diabetes Mellitus	Respiratory Diseases	Digestive Diseases	All Other Causes
Asian/PI/Non-Hispanic	37.16%	22.97%	8.11%	8.11%	4.73%	18.92%
MA	42.22%	26.32%	3.78%	10.97%	3.78%	12.93%

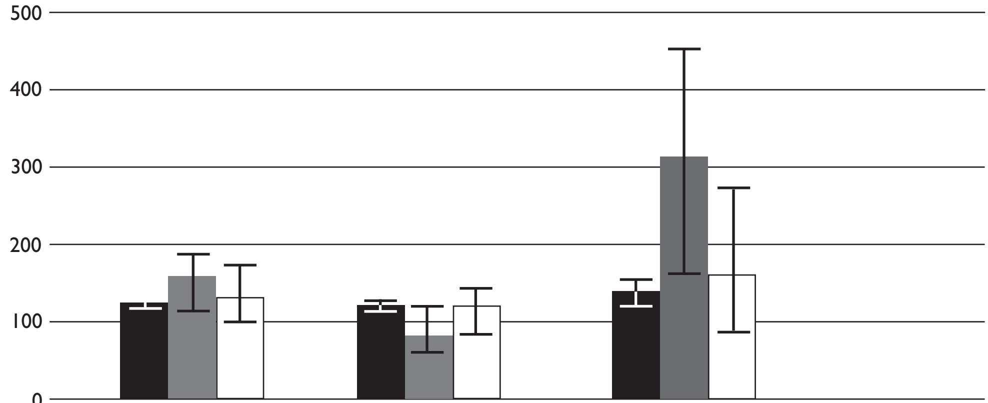
Total number of deaths
Non-Asians = 8,415; Asians=148
Source: Mortality (Vital Records) ICD-9 based Massachusetts Community Health Information Profile (MCIP) Massachusetts Department of Public Health version 2.8 r270.0 9/3/02

The Standardized Mortality Ratio (SMR) is used to compare the cause-specific death rate for particular groups of people to the death rates in a standard population. The standard population always has an SMR of 100 for the causes of death in question. In the chart below, the standard population is all Massachusetts residents and the SMRs for Asian Pacific Islanders, Hispanics, and Whites are shown. Thus, if a group has an SMR under 100 for a specific cause of death, for example cancer, then the rate of death for cancer will be lower in that group than in Massachusetts. On the other hand, if a group has an SMR for cancer that is greater than 100, then the rate of death for cancer would be higher in that group than in Massachusetts. The SMR should only be used to compare groups to the standard (Massachusetts), and should not be used to compare different groups (for example Whites with Asians).

Compared to the state, Asian/Pacific Islanders, non-Hispanics in Lowell had higher rates of death due to cardiovascular disease and diabetes mellitus. Rates of death due to cardiovascular disease, cancer and diabetes mellitus among White, non-Hispanics in Lowell was slightly higher than the state. Rates among Hispanics in Lowell did not differ significantly from the state.

Standardized Mortality Ratio Percent Lowell by Race 1990-1998

*Diabetes Mellitus rates for Asian/Pacific Islander and Hispanic populations are based on less than 20 deaths and should be considered unstable.
A Standardized Mortality Ratio (SMR) Percent (and CI) greater than 100 indicates rate is higher than the state rate. SMR Percents are for comparisons to the state and should not be compared across race.
Source:
Mortality (Vital Records) ICD-9 based, Massachusetts Community Health Information Profile (MassCHIP) Massachusetts Department of Public Health version 2.8r270.0 8/29/02



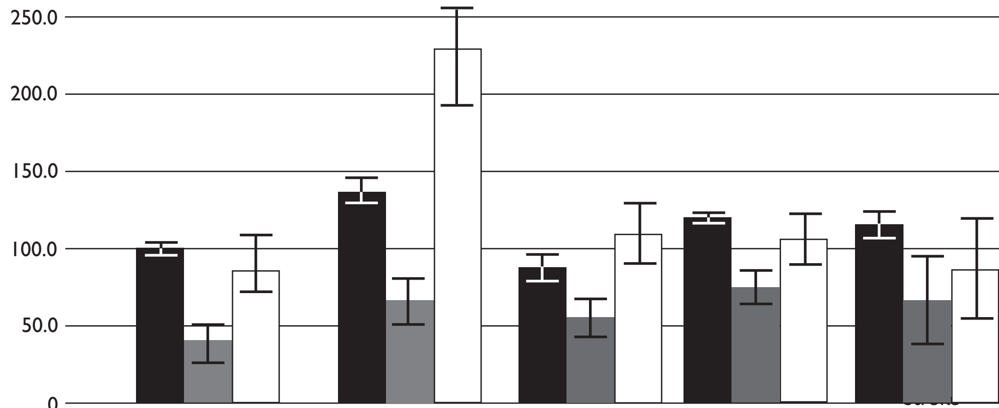
	Cardiovascular Disease	Cancer	Diabetes Mellitus*
White, Non-Hispanic	123.31%	114.25%	134.27%
Asian/PI, Non-Hispanic	152.47%	82.17%	312.45%
Hispanic	126.09%	113.2%	157.89%

Standard Hospitalization Ratio Percent is a ratio that compares the hospitalization rates of a population of interest with a standard (in this case Massachusetts). The standard population always has an SHR of 100 for the causes of hospitalization in question. In the chart below, the standard population is all Massachusetts residents and the SHRs for Asian Pacific Islanders, Hispanics, and Whites are shown. Thus, if a group has an SHR under 100 for a specific cause of hospitalization (e.g. coronary artery disease), then the rate of hospitalization for coronary artery disease will be lower in that group than in Massachusetts. On the other hand, if a group has an SHR for coronary artery disease that is greater than 100, then the rate of death for coronary artery disease would be higher in that group than in Massachusetts. The SHR should only be used to compare groups to the standard (Massachusetts), and should not be used to compare different groups (for example Whites with Asians).

Lowell Asian/Pacific Islanders, non-Hispanics had SHR Percents below 100 for coronary artery disease, diabetes, hypertension, other forms of heart disease and stroke indicating rates that were lower than the state rate.

Standardized Hospitalization Ratio Percents (SHR*) Lowell by Race, FY 1999-2000

*SHR (and Confidence Intervals) <100 indicates local rate is greater than state
Source: Massachusetts Health Data Consortium; MassCHIP Population File: Interpolations 1986-1989, Census Counts 1990 MISER Estimates 1985, 1991-2000 and MassCHIP Natality File



	Coronary Artery Disease	Diabetes	Hypertension	Other Heart	117.8
White, Non-Hispanic	100.5	137.8	91.5	Disease 124.2%	67.3
Asian/PI, Non-Hispanic	39.3	67.0	59.0	77.9%	88.6
Hispanic	90.2	225.8	111.2	109.4	

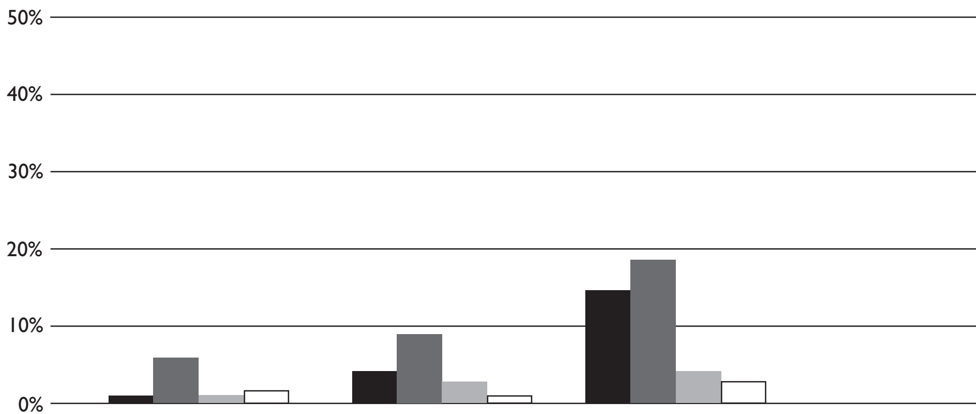
GENERAL HEALTH

Although the majority of Cambodians reported that their health was generally good, they were much more likely to report poor health than other Massachusetts residents. Women and elders were much more likely to have experienced days of poor physical health in the past month, and to have had their activities limited by poor health.

Among adults 25 and older:

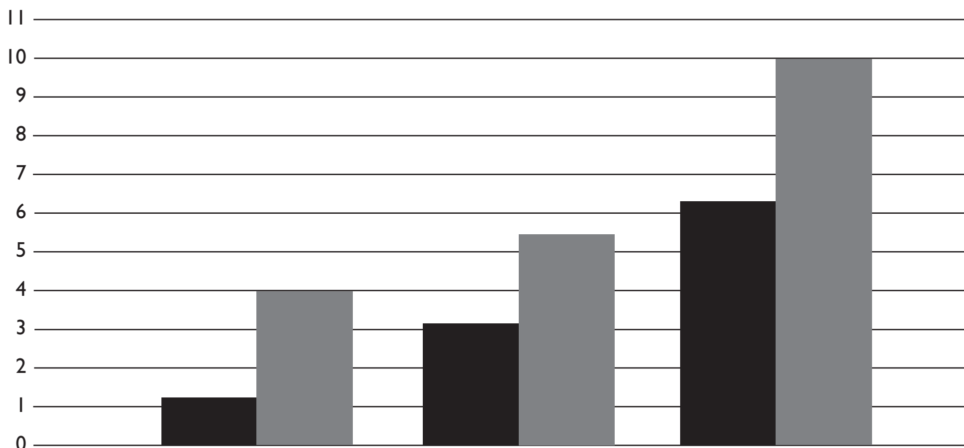
- ◆ 9% reported that in general their health was poor
- ◆ On average, people reported 5.4 days of poor physical health in the past month

Reported "Poor" General Health Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



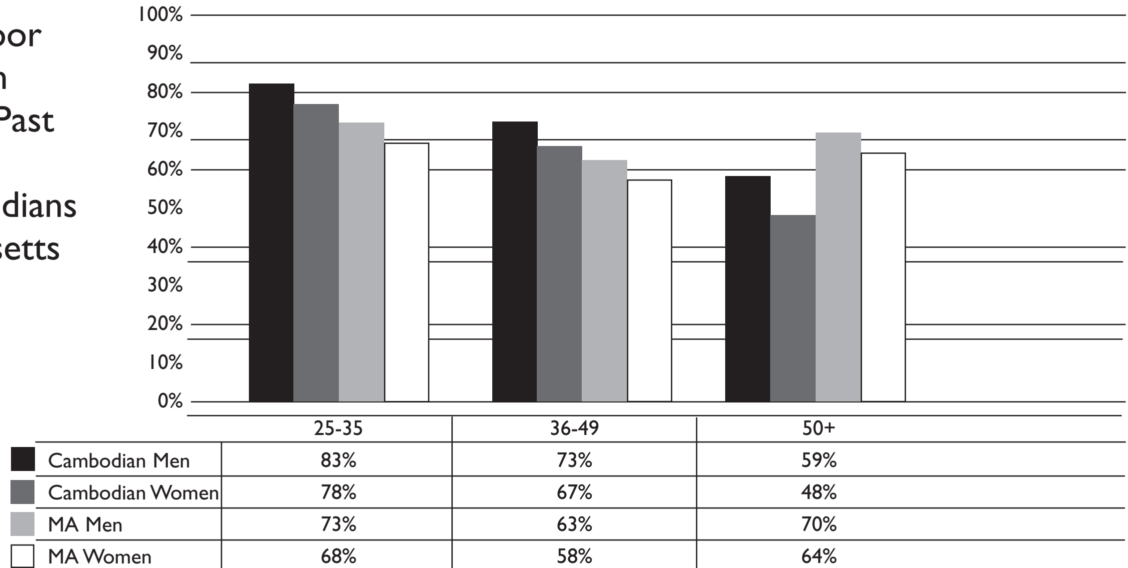
	25-35	36-49	50+
Cambodian Men	1%	4%	14%
Cambodian Women	6%	9%	19%
MA Men	1%	3%	4%
MA Women	2%	1%	3%

Days of Poor Physical Health Reported for Last Month



	25-35	36-49	50+
Men	1.2	3.1	6.2
Women	4	5.4	10

No Days of Poor Physical Health Reported for Past Month Lowell Cambodians and Massachusetts Residents (2001 BRFSS)



	25-35	36-49	50+
Cambodian Men	83%	73%	59%
Cambodian Women	78%	67%	48%
MA Men	73%	63%	70%
MA Women	68%	58%	64%

MENTAL HEALTH

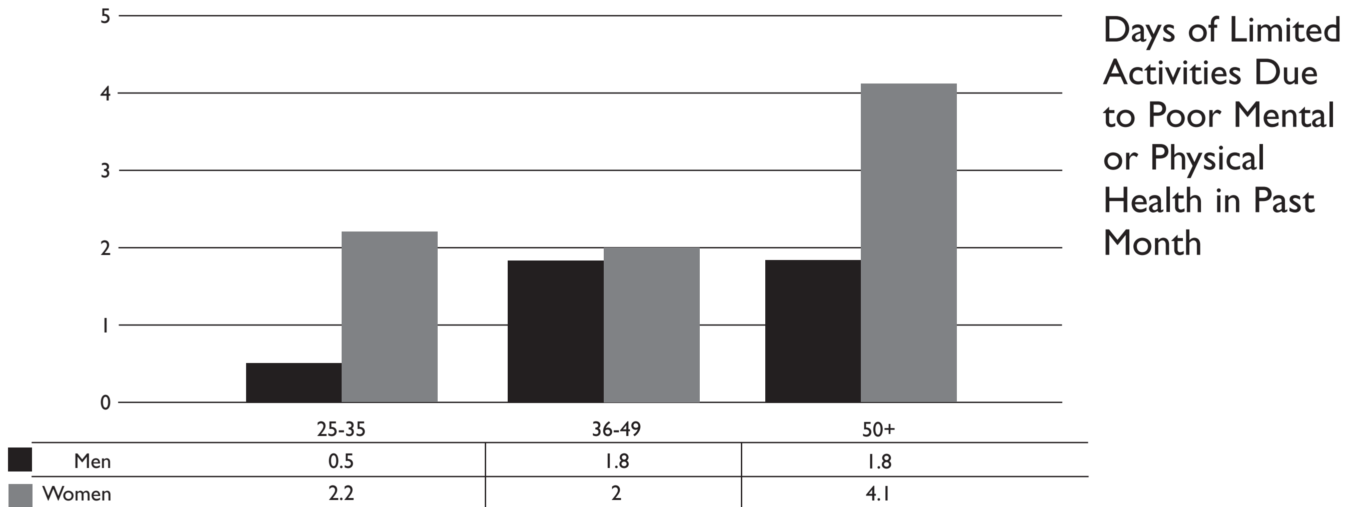
Our survey showed that many members of the Cambodian community might be depressed, and that women and elders were particularly at risk. To measure depression we used the Hopkins Scale, which was translated into Khmer and validated for use with Cambodians by researchers at the Harvard Program in Refugee Trauma. The Hopkins Scale does not diagnose depression, only a trained clinician can, but a high score on the scale means that a person is likely to be depressed if diagnosed more carefully.

According to results from the National Comorbidity Survey Replication published in the June 18, 2003 edition of the Journal of the American Medical Association (JAMA) 6.6% of US adults 18 and older could be considered depressed during a 12 month time period between February 2001 and December 2002. The results in JAMA were not based on the Hopkins Scale, rather a different assessment tool was used.

Among Cambodian adults 25 and older:

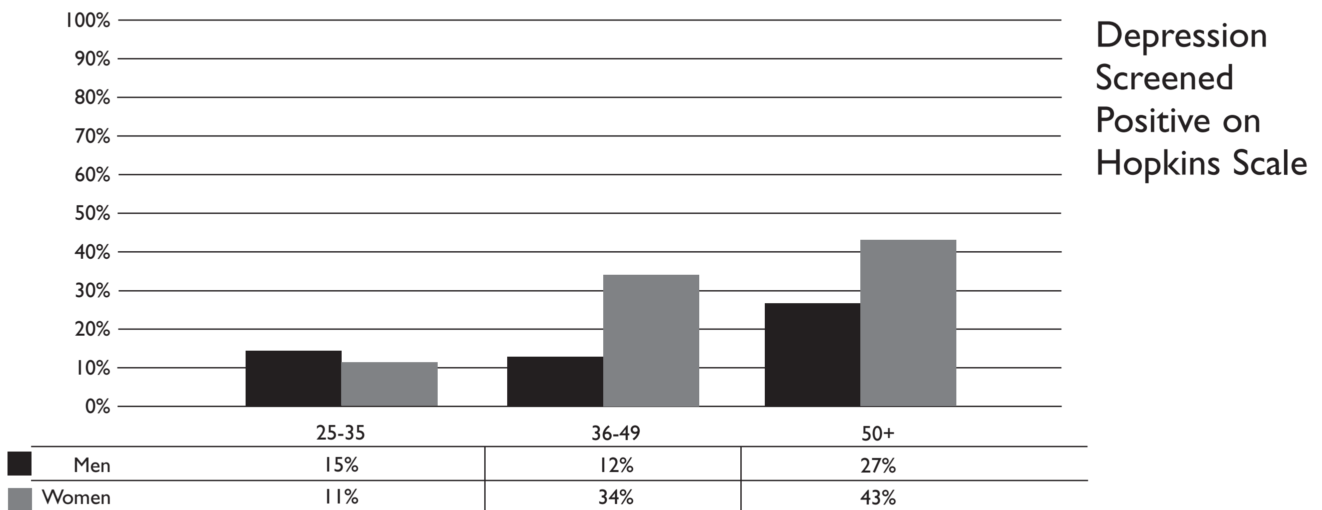
- On average, people reported 2.2 days on which poor mental or physical health limited their usual activities
- 67% had no days in the past month when poor mental or physical health limited their usual activities
- A quarter were symptomatic for depression, and the rate rose to 43% among women 50 and over

Days of Limited Activities Due to Poor Mental or Physical Health in Past Month



	25-35	36-49	50+
Men	0.5	1.8	1.8
Women	2.2	2	4.1

Depression Screened Positive on Hopkins Scale



	25-35	36-49	50+
Men	15%	12%	27%
Women	11%	34%	43%

DIABETES AND CARDIOVASCULAR DISEASE

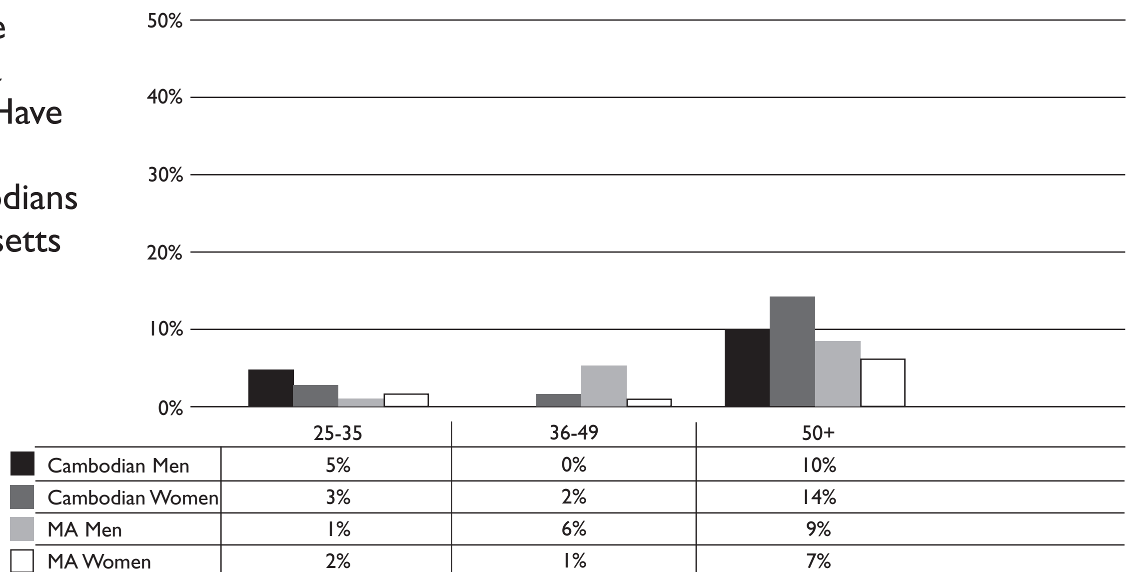
The self-reported rates of diabetes, high blood pressure, high cholesterol and stroke among Lowell Cambodians were the same or less than among all Massachusetts residents. However, since we also found that many men and women had never had a check-up, almost half had never had a cholesterol check, and only 12% of men had had a blood pressure check two or more years ago, we suspect that with better screening and more consistent use of health care, the rates of these conditions might actually be higher among Cambodians.

For example, we compared the rates of diabetes among men and women by age group for Cambodians in Lowell with the general Massachusetts population from the 2001 Behavioral Risk Factor Survey. We found that while no Cambodian man between the age of 36 and 45 reported diabetes, the rate of diabetes among Cambodians in every other group appeared to be higher than that of the general Massachusetts population.

Among adults 25 and older:

- ◆ 5% had been told by a doctor that they have diabetes
- ◆ 14% had been told by a doctor that they have high blood pressure
- ◆ 13% had been told by a doctor that they have high cholesterol
- ◆ Among adults 50 and older, 4% had been told by a doctor that they had had a stroke

Diabetes: Have Been Told by a Doctor They Have Diabetes Lowell Cambodians and Massachusetts Residents (2001 BRFSS)

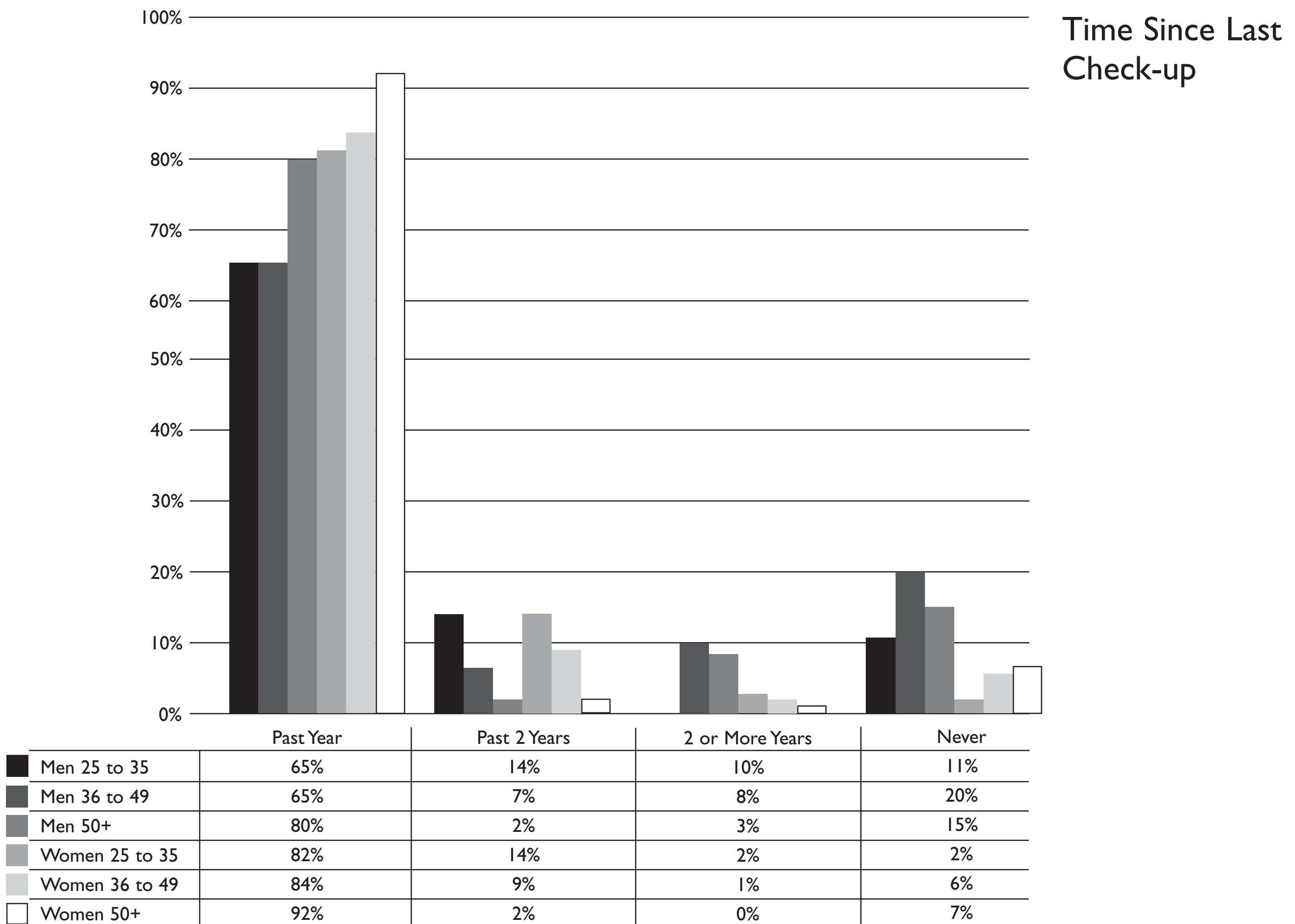


	25-35	36-49	50+
Cambodian Men	5%	0%	10%
Cambodian Women	3%	2%	14%
MA Men	1%	6%	9%
MA Women	2%	1%	7%

HEALTH CARE ACCESS/USE

Men and women differed in their use of health care. Women of all age groups were much more likely to report that they had seen a doctor for a check-up (a visit to the doctor when they were not sick). Transportation to medical appointments was a critical issue, and over a third of women relied on others for rides to medical appointments.

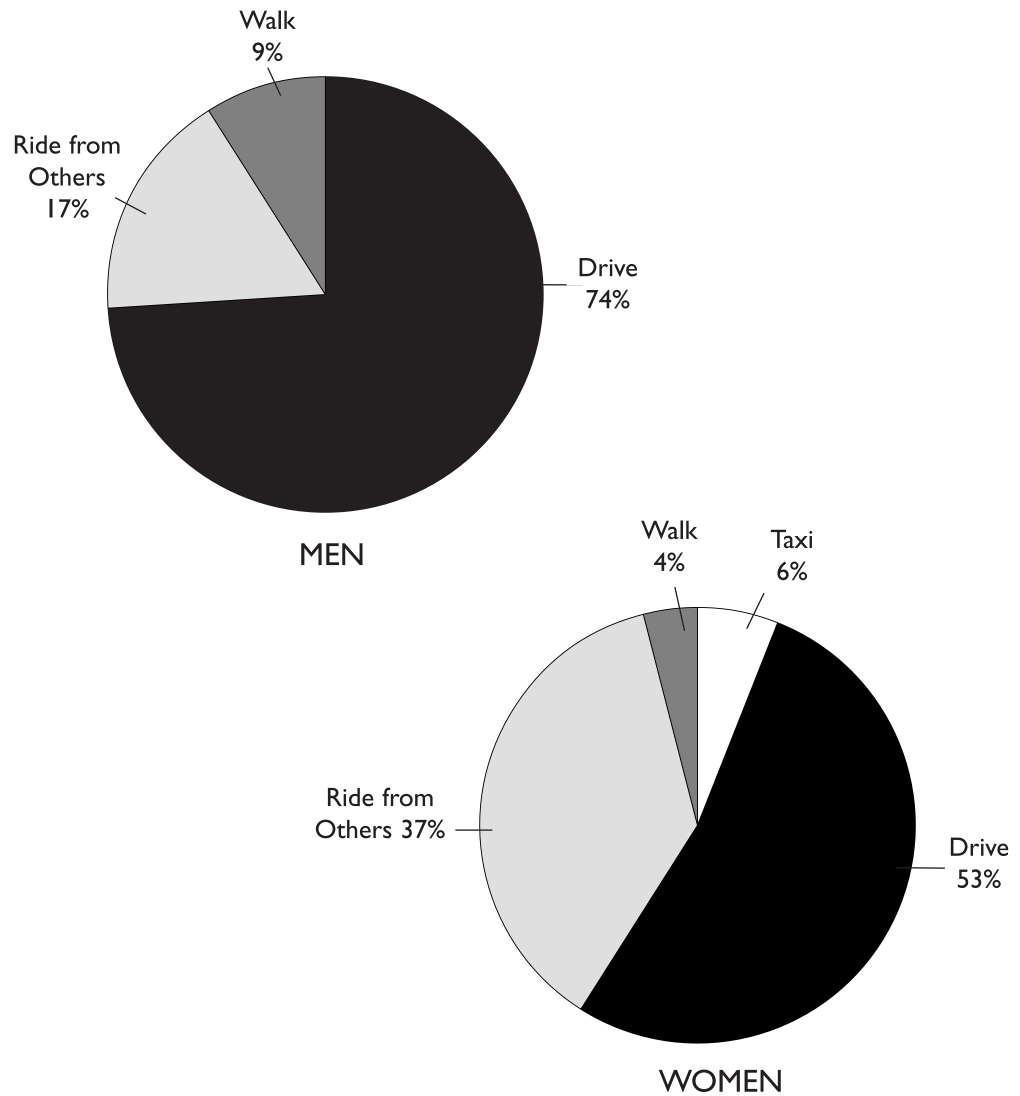
When we asked about the main method of payment for health care we did not show respondents comprehensive lists of plan names, pictures of plan cards, nor did we ask to see respondents' health insurance cards. For this reason we are not sure that people were able to distinguish between the HMO care provided by the state as compared to HMOs offered by employers. Thus we have only reported the percentage that reported they pay cash or have no coverage. Future research should rely on actual cards and other materials to assess health care coverage.



Time Since Last Check-up

	Past Year	Past 2 Years	2 or More Years	Never
Men 25 to 35	65%	14%	10%	11%
Men 36 to 49	65%	7%	8%	20%
Men 50+	80%	2%	3%	15%
Women 25 to 35	82%	14%	2%	2%
Women 36 to 49	84%	9%	1%	6%
Women 50+	92%	2%	0%	7%

Usual Transportation to See Doctor



Among adults 25 and older:
- ◆ 80% had a check-up in the past year
- ◆ 16% of men had never had a check-up
- ◆ 87% had their blood pressure checked in the past year
- ◆ 60% had their cholesterol checked
- ◆ 17% of men and 37% of women relied on others for a ride to their medical appointments
- ◆ 23% wanted to see a doctor in the last year but could not, 44% of them did not because of transportation problems
- ◆ 6% were uninsured

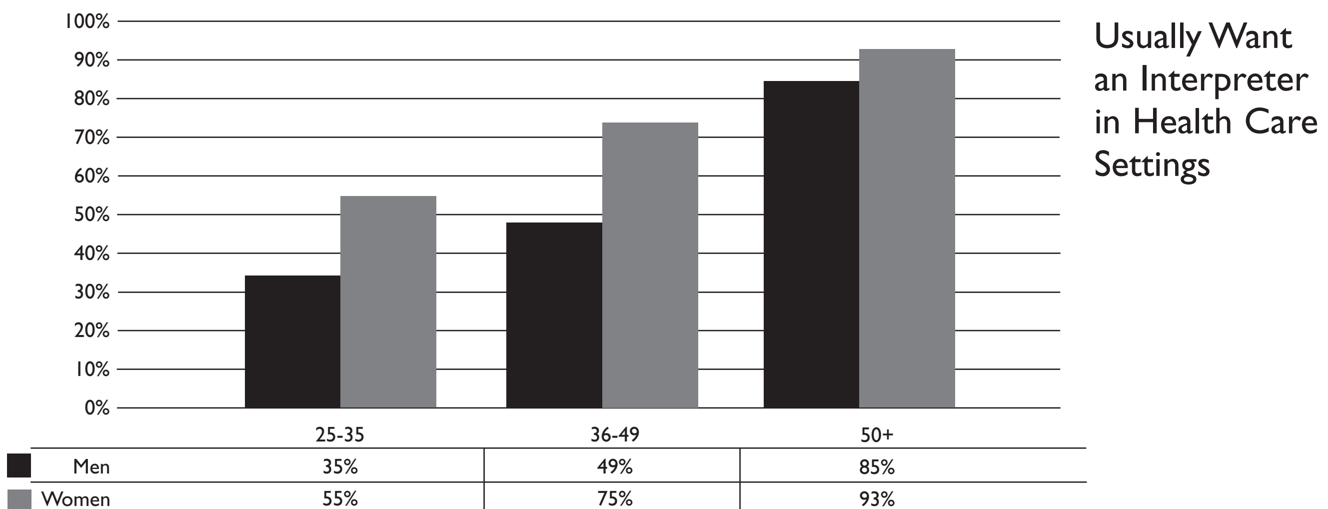
LANGUAGE AND INTERPRETERS IN HEALTH CARE SETTINGS

Over three-quarters of Cambodian adults in Lowell preferred the Khmer language for health information. We asked all respondents if there had been a time in the past year when they had needed but not had an interpreter in a health care setting and almost one-fifth said there had been. Men, especially older men, were more likely to find themselves without an interpreter when they needed one.

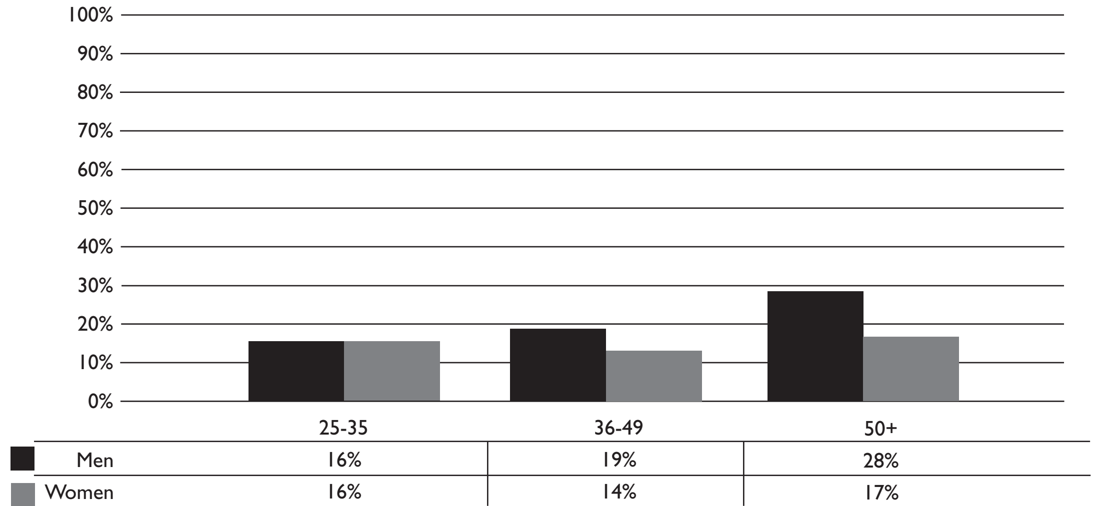
Over half wanted an interpreter when speaking with non-Khmer speaking doctors. Three-quarters of those who need interpreters usually had an interpreter from the hospital or health center they were visiting. When a professional interpreter was not used, women relied mainly on their children or spouses, men almost never did; men were more likely to have sought help from community agency staff.

Among adults 25 and older:

- ◆ 78% preferred to receive health information in Khmer
- ◆ 68% wanted an interpreter when talking to a non-Khmer speaking doctor
- ◆ Among those who preferred an interpreter, 76% usually relied on hospital or health center interpreters
- ◆ Among women who preferred interpreters, 18% usually relied on family members to interpret.
- ◆ Among men who preferred interpreters, 1% usually relied on family members
- ◆ In the past year, 18% reported a time when they needed an interpreter but did not have one

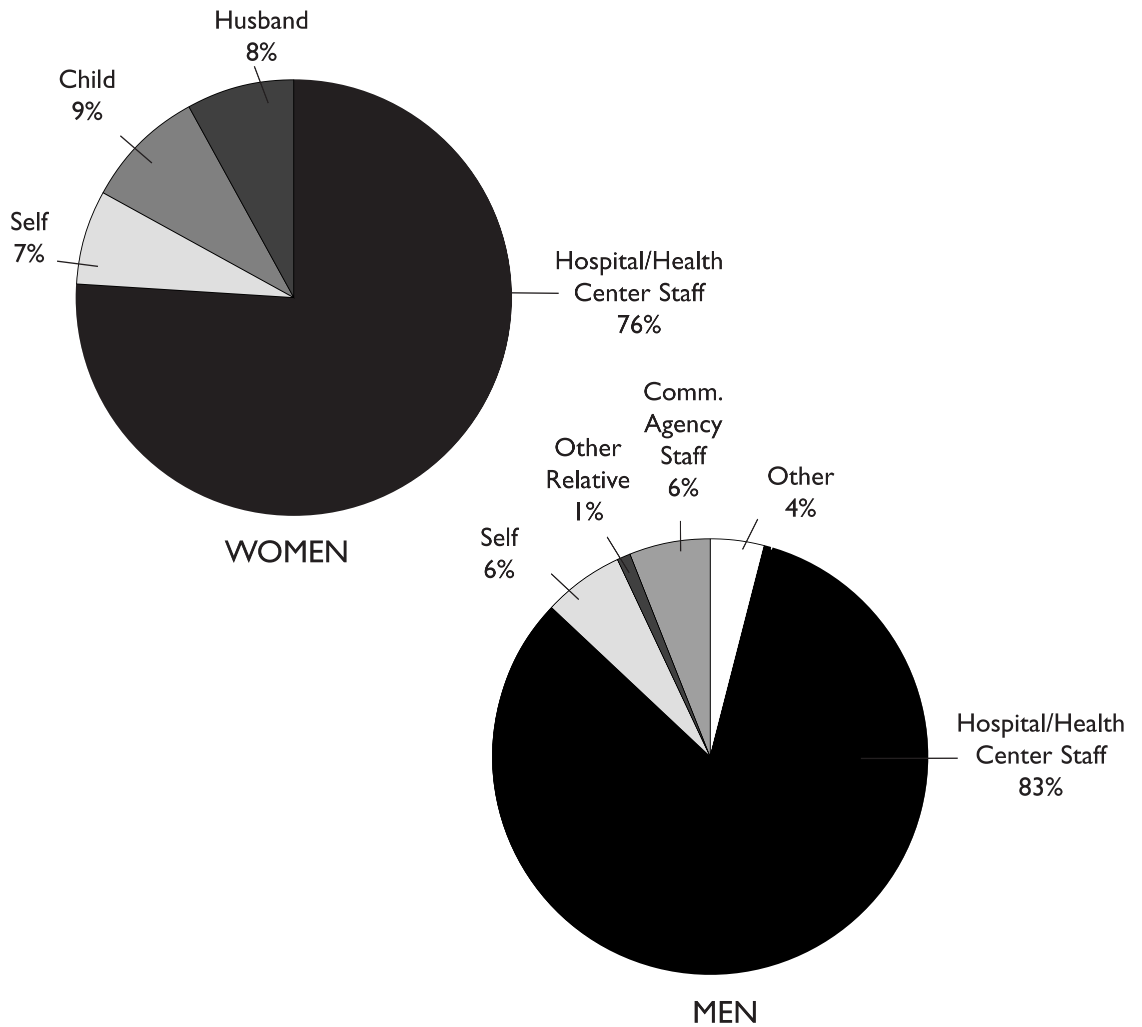


Needed a Health Care Interpreter in the Past Year and Did Not Have One



	25-35	36-49	50+
Men	16%	19%	28%
Women	16%	14%	17%

Usual Interpreter in Health Care Setting

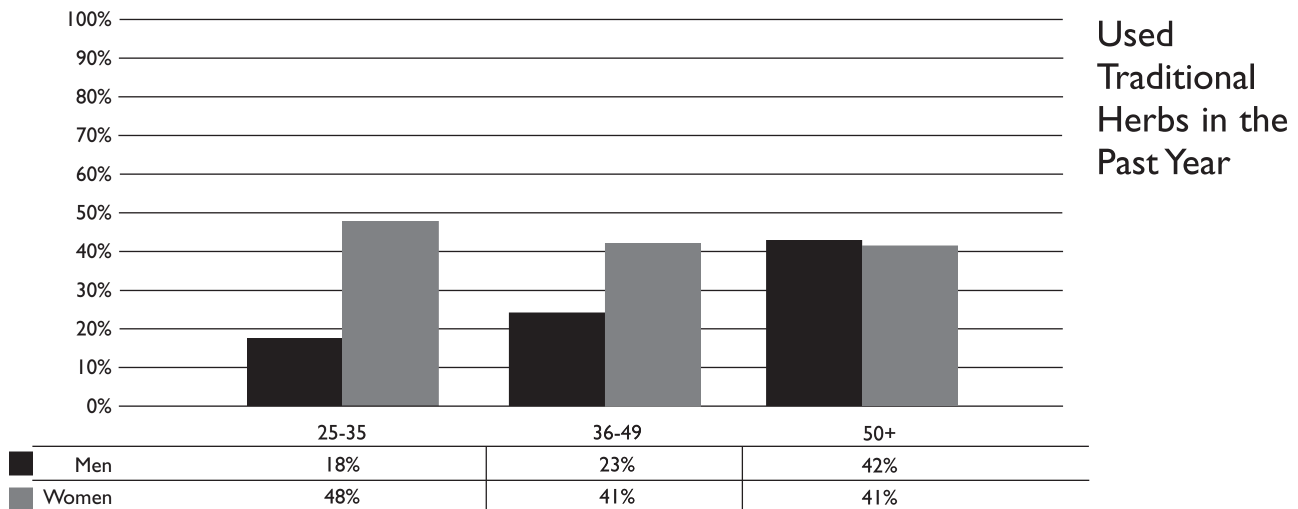


TRADITIONAL HEALTH PRACTICES

The use of traditional herbs and treatments was widespread in the community. The most commonly cited traditional treatment was coining, a practice in which a coin, dipped in tiger balm, is rubbed on the body raising a red welt. Some respondents indicated why they used herbs, and cited recovery from childbirth, appetite stimulation, aches and pains, to treat hemorrhoids, and cooling the body.

Among adults 25 and older:

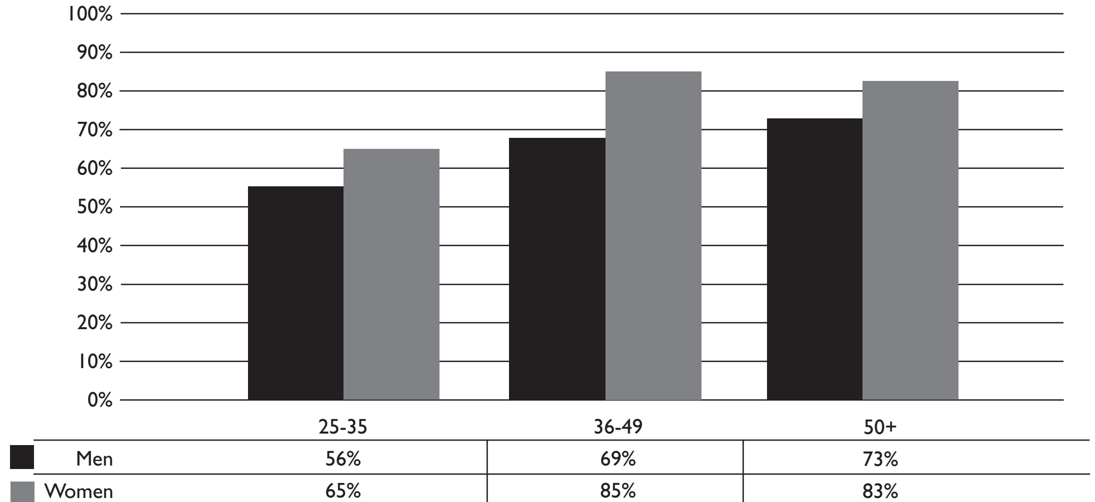
◆ 39% had used traditional herbs in the past year
◆ 73% had used traditional treatments in the past year
◆ 20% had not used any traditional herbs or treatments in the past year



	25-35	36-49	50+
Men	18%	23%	42%
Women	48%	41%	41%

Used Traditional Herbs in the Past Year

Used Traditional Treatment (such as Coining) in the Past Year



	25-35	36-49	50+
Men	56%	69%	73%
Women	65%	85%	83%

Health Knowledge

DIABETES AND CARDIOVASCULAR DISEASE

Overall, knowledge of diabetes and cardiovascular disease seemed low. Very few people knew the modifiable risk factors for cardiovascular disease and diabetes or that diabetes and high blood pressure were chronic diseases.

However, community education about diabetes did appear to be reaching the community; over half had received some information about diabetes in the past six months. Although people had trouble naming heart attack and stroke symptoms, most reported that they would call 911 if they thought someone was having a heart attack or stroke.

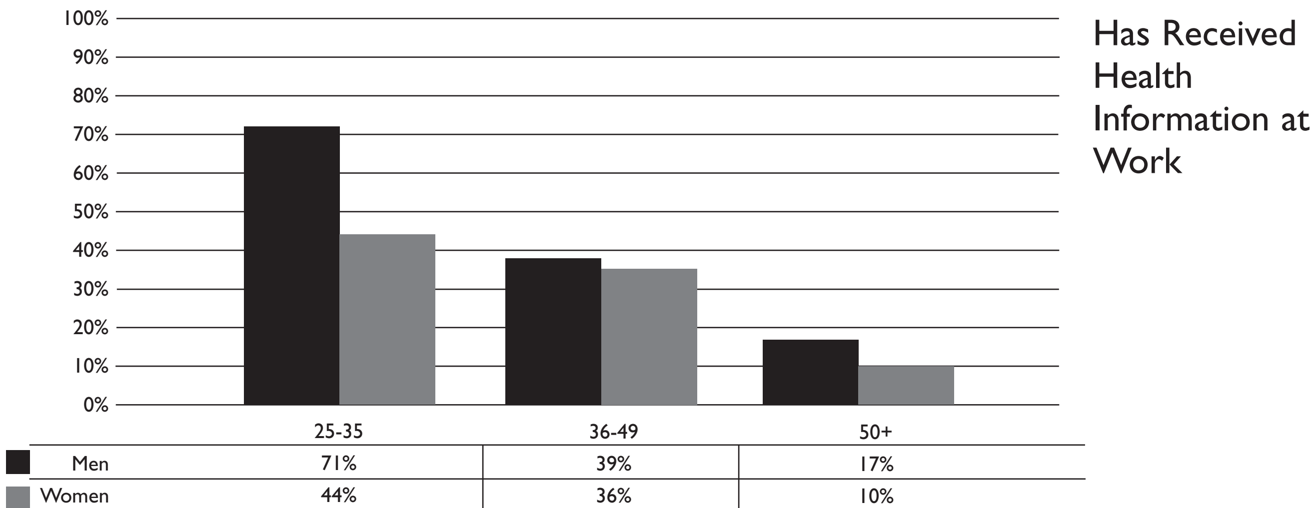
Among adults 25 and older:
- ◆ 22% named at least one diabetes risk factor
- ◆ 32% named at least one heart disease risk factor
- ◆ 10% knew that diabetes requires care for the rest of one's life
- ◆ 8% knew that high blood pressure requires care for the rest of one's life
- ◆ 51% had heard information about diabetes in the past six months
- ◆ 26% named at least one heart attack symptom
- ◆ 19% named at least one stroke symptom
- ◆ 82% would call 911 first if someone were having a heart attack or stroke

SOURCES OF HEALTH INFORMATION

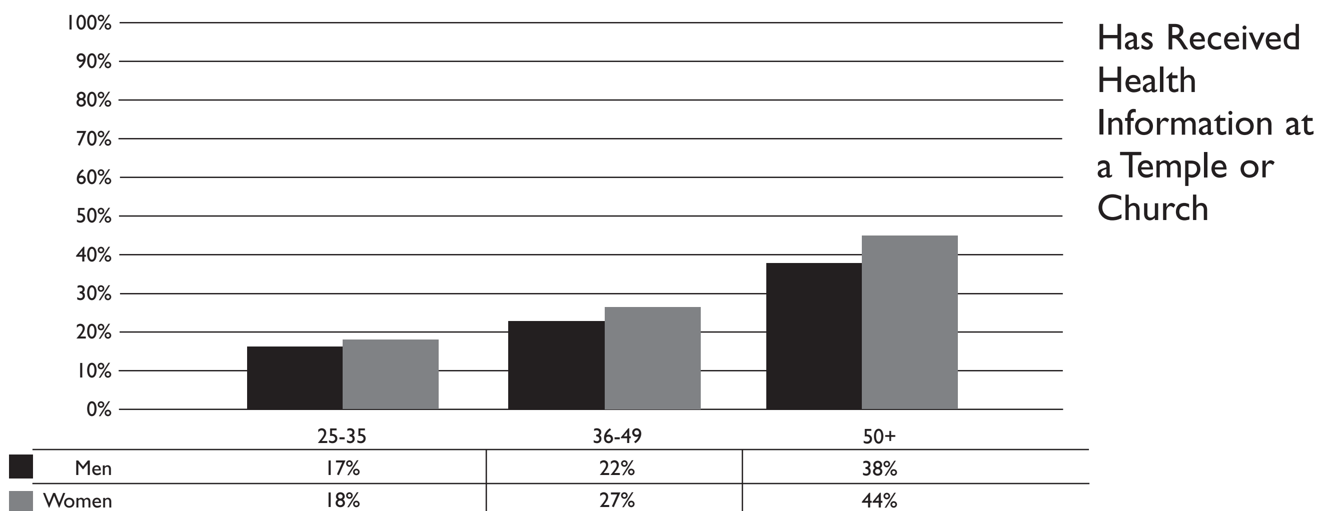
Health care providers, television, videos and community agency staff were the most cited sources of health information and were cited by men and women of all ages. However men and women in different age groups differed in citing work, temples, churches, traditional healers, radio, the Internet, and written materials as sources of health information. Interventions targeting specific groups should choose communication channels accordingly.

Among adults 25 and older:

- ◆ 85% got health information from doctors and nurses
- ◆ 68% got health information from television
- ◆ 54% got health information from videos
- ◆ 34% got health information from community agency staff

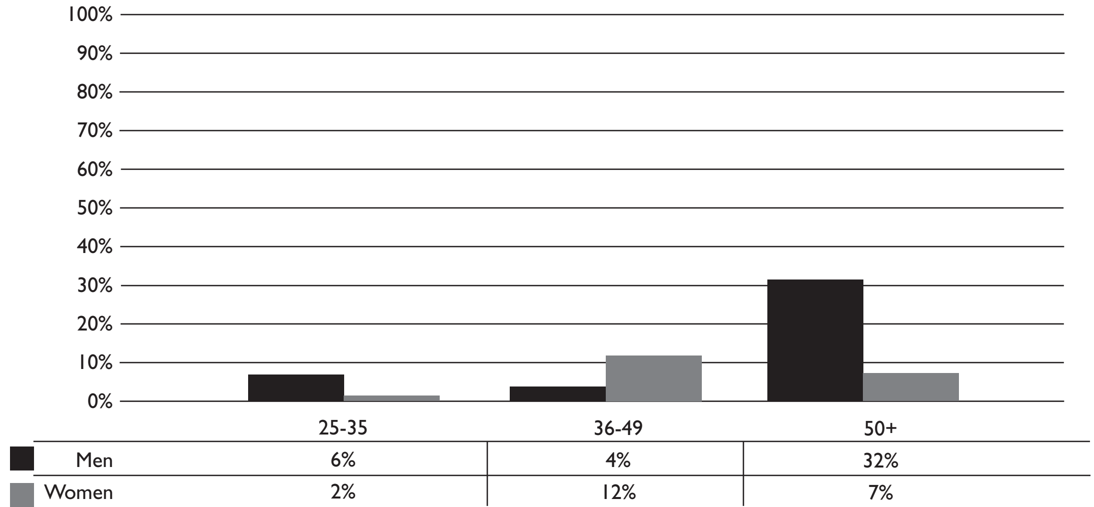


	25-35	36-49	50+
Men	71%	39%	17%
Women	44%	36%	10%



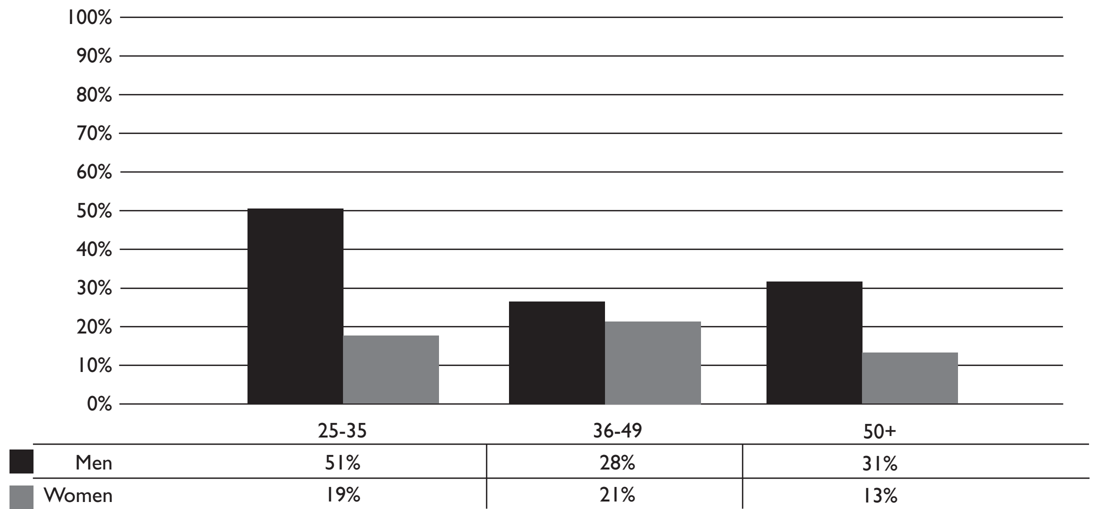
	25-35	36-49	50+
Men	17%	22%	38%
Women	18%	27%	44%

Has Received Health Information from a Traditional Healer



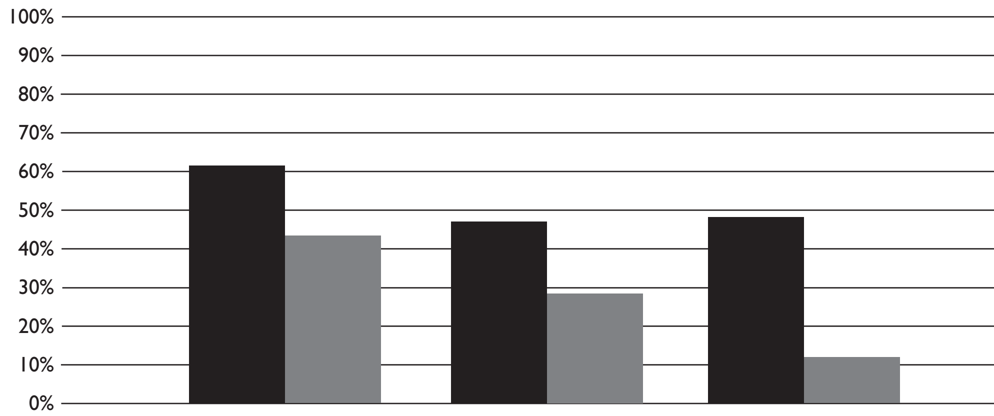
	25-35	36-49	50+
Men	6%	4%	32%
Women	2%	12%	7%

Has Received Health Information from the Radio



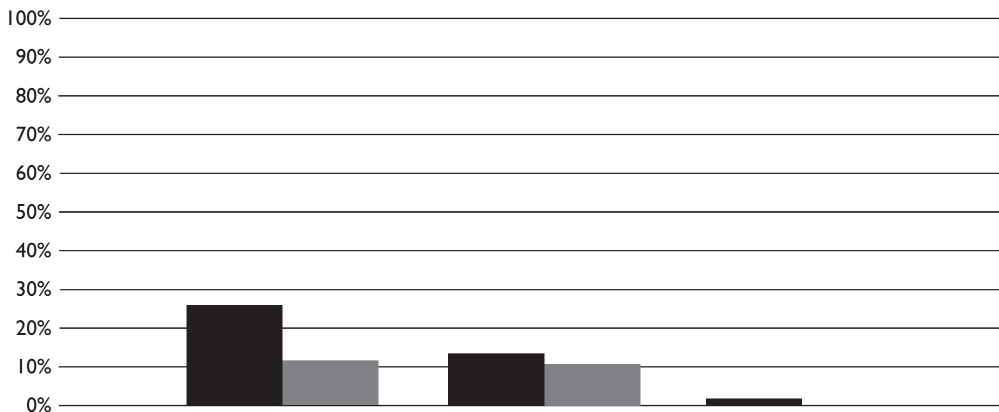
	25-35	36-49	50+
Men	51%	28%	31%
Women	19%	21%	13%

Has Received Health Information from Newspapers/ Magazines



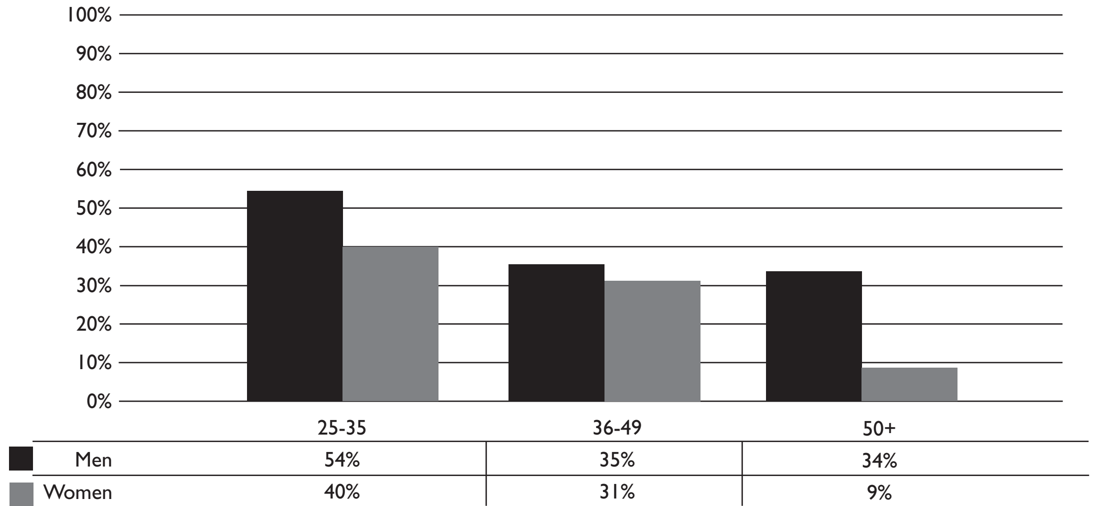
	25-35	36-49	50+
Men	61%	47%	48%
Women	44%	29%	12%

Has Received Health Information on the Internet



	25-35	36-49	50+
Men	25%	13%	2%
Women	12%	11%	0%

Has Received Health Information from Brochures



Summary/Conclusions

The staff of the CCH 2010 Project is pleased to provide data about the Cambodian community. This information is intended to help health care providers, community agency staff, educators and policy makers better serve Cambodians in Lowell. The survey results should help interested parties gain insight so that outreach and services will fit well with Cambodians as they live today in Lowell. The information may also be useful to health and human service providers in other Cambodian communities.

Key Facts and Findings for Adults 25 and Older

DEMOGRAPHICS
99% were born in Cambodia, 73% in a rural area
87% are Buddhist
85% spent time in a refugee camp
67% were married or living as a couple
64% were parenting children under 18
15% were widows or widowers; 51% of women 50 and over were widows
The average household includes 5 people; the largest 13

INCOME AND WORK
The median household income is $21,000
14% reported that they are looking for work
21% reported that they are unable to work/disabled
Among those who work, 82% work in manufacturing

EDUCATION
Men received an average of 5.6 years of schooling in Cambodia
Women received an average of 2.8 years of schooling in Cambodia
Among adults 25-35 years old 43% of men and 27% of women completed high school
Among adults 25-35 years old 22% of men and 11% of women completed college

LANGUAGE
96% always speak Khmer at home
66% speak English well enough to have a conversation
43% report reading something in Khmer most weeks
42% report reading something in English most weeks

HEALTH STATUS
25% were symptomatic for depression; among women 50 and over 43%
14% had been told by a doctor that they have high blood pressure
13% had been told by a doctor that they have high cholesterol
9% reported that in general their health was poor
5% had been told by a doctor that they have diabetes

DIET & EXERCISE
97% eat rice every day
28% eat 5 or more servings of fruits and vegetables per day
39% were overweight or obese
95% said it was safe to walk during the day in their neighborhood
76% report doing activities other than walking that made their heart rate increase for 10 minutes or more; they did these activities on 5.2 days in the typical week
62% report walking for 10 minutes or more without stopping on 4 or more days per week

SMOKING

67% of men and 16% of women had smoked 100 cigarettes or more in their lifetime
31% of men and 11% of women were current smokers, smoking everyday or some days

HEALTH CARE ACCESS

87% had their blood pressure checked in the past year
80% had a check-up in the past year
16% of men had never had a check-up
60% had their cholesterol checked
17% of men and 37% of women relied on others for a ride to their medical appointments
6% were uninsured

INTERPRETERS IN HEALTH CARE SETTINGS

68% wanted an interpreter when talking to a non-Khmer speaking doctor
In the past year, 18% reported a time when they needed an interpreter but did not have one

TRADITIONAL HEALTH PRACTICES

73% had used traditional treatments (such as coining) in the past year
39% had used traditional herbs in the past year

DIABETES AND CARDIOVASCULAR DISEASE KNOWLEDGE

32% named at least one heart disease risk factor
22% named at least one diabetes risk factor

Discussion

What can we learn from this important information about adult Cambodians living in Lowell? These findings provide a wealth of information about steps that are being taken and could be taken in the future to improve the health prospects of adult Cambodians in Lowell. For example:

MANY CAMBODIANS ARE ALREADY ACTIVE

Health care providers and community workers interested in promoting physical activity or helping community members quit smoking can build on existing community strengths. Our survey revealed that the Cambodian community is relatively active. Many people, especially elders, walk for exercise and to get from place to place. In addition, more than half of men under 50 years of age and almost as many women, engage in manual labor at work. The current CDC activity guidelines recommend moderate physical activity for at least 30 minutes per day, 5 days per week or vigorous physical activity for at least 20 minutes per day, 3 days per week. Although our questions did not determine the exact minutes of physical activities, 72% of adults reported engaging in activities that made their heart rate increase most weeks. The number of days they engaged in these activities averaged 5.2.

SMOKING RATES AMONG CAMBODIANS ARE DECLINING

Another encouraging finding was an apparent decline in smoking among Cambodian men. Half as many men in each age group reported that they smoke every day or some days as reported that they had ever smoked 100 cigarettes in their lifetime. Someone who has smoked 100 cigarettes in their lifetime can be considered a smoker, since they have smoked more cigarettes than someone who only briefly experimented with smoking. Many interventions have taken place in our community to encourage people to give up smoking. If judged by these survey results, the efforts have been quite successful. Program staff have told us that norms are now shifting in the community and that when children are present, smokers are now often asked to smoke outside. In addition, cigarettes were traditionally included in the wedding ceremony in the past; cigarettes are now usually absent from weddings.

Despite this apparent drop in smoking, 31% of Cambodian men still smoke. This rate is much higher than for the general Massachusetts population and warrants continued intervention. There appears to be a desire

for such intervention, as 59% of smokers reported that they intended to quit in the next 30 days. Many of these smokers might be able to stop with appropriate support.

THE GOOD NEWS AND THE BAD NEWS ABOUT EATING HABITS

The survey reveals areas of concern, especially in diet, weight, and health care access. The traditional Cambodian diet is rich in fruits and vegetables, but is also high in sodium and tropical oils. Rice is the main staple and almost everyone interviewed ate rice every day. For those who already suffer from diabetes, the amount of rice, usually white rice, is of concern, with the average consumption at 3 bowls per day. It also appears that fruit and vegetable consumption could increase. Only 28% reported eating the recommended 5 servings per day. This may be due to confusion about what constitutes a serving, as the average servings reported was 4 and that perhaps indicates that people eat fruits and vegetables 4 times a day and would clearly meet the 5 a day recommendation. However, it is also possible that meat, a luxury item in Cambodia, but much more affordable in the United States, has displaced vegetables in the diet. Further, although older adults and women appear to eat a more traditional diet, younger men reported eating more "American" meals. Younger men and women both reported eating more fast food than older adults. Perhaps as parents they are eating it with their children. Health care workers need to be aware of the traditional diet, but also inquire about the other foods their patients are eating and provide information about the limited nutritional value of fast foods.

WEIGHT IS AN ISSUE FOR SOME

While the majority of the adults we interviewed were "normal" weight, more than a third were overweight or obese. Of all groups, women over 50 were most likely to be obese. Among women, the rates of overweight and obesity were similar to the general Massachusetts population, while men had lower rates. This may be because extra weight has traditionally been considered a sign of health in older adults, especially women. Elders are also often encouraged to "take it easy" by their adult children and may not be as active as they could be. While not as critical an issue as in some other communities, weight should still be attended to in the Cambodian community, especially among older adults.

BARRIERS TO ACCESSING HEALTH CARE CONTINUE TO EXIST

Staying healthy requires health-promoting behaviors such as exercise and eating a diet rich in fruits and vegetables, but it is also important that regular screening tests are conducted to find problems before they become critical. Access to health care may be problematic for the many unemployed and those with limited income. Language issues and transportation also may keep people from getting optimal or timely care. Health insurance coverage appears to be high in the community; only 6% reported that they were uninsured. Only a small number reported that they had not seen a doctor when they wanted to because of cost. However, 16% of men reported that they had never had a checkup. In addition, 40% of adults had never had their cholesterol checked. Many people face transportation challenges when they want to see a doctor, especially women, 37% of whom relied on rides from others to medical appointments. Outreach efforts should focus on getting men into health care settings for routine checkups. Any effort should be mindful of transportation issues faced by many.

PERSONAL ASSESSMENTS OF PHYSICAL HEALTH

Although the survey asked about a number of specific chronic conditions, our numbers were too small to make comparisons with the general Massachusetts population. However, many health surveys, including this one, ask respondents to rate their own health choosing one of five descriptors ranging from excellent to poor. The question is included in surveys because it has been shown to be a reasonable assessment of health; people who report that their health is poor are more likely to develop problems in the future than those who feel their health is excellent. We found that Cambodian women were much more likely to report that their health was "poor" than were Massachusetts women in general. Further, Cambodian adults over 50 years of age were also much more likely to report that their health was poor than were the general Massachusetts population.

THERE ARE INDICATORS OF DEPRESSION IN THIS COMMUNITY

Of great concern are the high levels of depression we found through our screening questions. While it is difficult to compare figures on depression across communities and from different screening tools, the most recent national survey published in The Journal of the American Medical Association found that in a given year about 6.6% of U.S. adults could be considered depressed. We found that a quarter of the adults we interviewed could be considered depressed, and among women 50 and older 43% could be considered depressed. We did not make a clinical assessment; however the screening tool we used had been found to be reliable for Cambodians. It is critical that providers working with the community take the possibility of depression into account.

TRANSLATION IS JUST THE BEGINNING

The majority of adults we interviewed like to receive health information in Khmer and usually want an interpreter in health care settings. Women are slightly more likely than men to want an interpreter, and older adults are more likely than younger adults to prefer to have the assistance of an interpreter. However, even among men aged 25 to 35, 93% of whom reported that they speak English well enough to converse, 35% still usually wanted an interpreter in health care settings. The survey revealed that almost one-fifth of Cambodian adults in Lowell have found themselves in health care settings without an interpreter when they needed one. It is probably best to tactfully offer interpreters to Cambodian patients. Most of the time the interpreters used by respondents were hospital or health center staff, however, 18% of women had relied on family members to interpret. This is not ideal because family members do not usually know medical terminology. For women, many health issues are too personal for discussing with family members, especially children or males.

Language, culture, and literacy must be taken into account when designing interventions. Many, especially elderly and women, have limited English skills or social contact with non-Khmer people. Pamphlets and brochures in Khmer may help to reinforce health education efforts, however it is important to keep limited literacy levels in mind when offering such materials. We found that less than half of adults read something in Khmer most weeks, a sign that written materials will reach a limited audience.

THERE ARE DIFFERENCES AMONG MEN AND WOMEN OF ALL AGES

As the results from this study indicate, those working in the community are likely to find it valuable to keep the stark gender and age differences in mind. In the report we have presented charts that show the differences by gender and age. Perhaps most striking are the gender differences in smoking, which grow even more pronounced with age. In addition, education differences are pronounced, with women having received less education in Cambodia and in the United States, even in the 25 to 35 year old age group. Perhaps as a result of differences in education, the sources of health information vary substantially by age and gender. Eating patterns also differ for men and women, old and young. It appears that women of all ages are more likely to adhere to a traditional diet, as are older men, but men between 25 and 50 years of age are eating more western foods. Women are also more likely to use traditional herbs. Many reported using herbs in the post partum period. Also notable are the large number of widows among women over 50 years of age.

LESSONS LEARNED: SOME STRATEGIES FOR OUTREACH

The survey shows clearly that outreach efforts that depend on print only are likely to be unsuccessful in the Cambodian community. Many adults do not read much in English or Khmer. While it is respectful to have materials written in the Khmer language, and they will be used by some, it is unlikely that a health message will be effective when conveyed in the written form only. Places where presentations might be made depend on the audience one hopes to reach. For example, we found that almost three quarters of men ages 25 to 35 had received health information at work. In addition, among working people, 82% worked in manufacturing. There may be a few key worksites where Cambodians could be reached. In contrast, adults over 50 were more likely to have received health information at a temple or church, particularly women, with just under half receiving health information at their place of worship. Television reached all age groups equally, and 68% had obtained health information there, perhaps on the local Cambodian cable access shows, watched by 81% of adults.

Next Steps

Too often the results of research go unused; they sit on a shelf or become buried in a filing cabinet. We do not want this to happen with the Behavior Risk Factor Survey. The results of this breakthrough report can be used in many ways, including to strengthen decision-making on health care services for Cambodian adults in Lowell. The reduction of health disparities can be the ultimate result. We intend to make this report available to locations throughout the country with significant numbers of Cambodians as well as to those who do research in collaboration with the Cambodian community.

In deciding which audiences are crucial to reach, we have focused on the question of who is involved in decision-making and who are the most influential actors in reducing health disparities. We have also considered potential points in the decision-making chain where the information is likely to have the greatest impact. In our own community, there are several audiences—decision-makers, groups seeking to plan similar programs and obtain funding, and influential actors to which CCH 2010 would like to present the survey data. These audiences include:

- CCH 2010 Staff
- CCH 2010 Elder Council
- CCH 2010 Steering Committee
- Health care Providers
- Community members
- Other Cambodian agencies or groups
- Public Health researchers
- Government officials

We intend to present the survey results in the community through the local cable television and radio broadcasts, business and community meetings, faith-based arenas, and health care provider groups. CCH 2010 staff, with its extensive media experience, intend to develop broadcasts in Khmer to share what we have learned with the Cambodian Community at large. Also, CCH 2010 staff intend to enrich presentations already taking place with community groups, and to various health care providers, in order to both educate others as well as create an open dialogue of mutual understanding and learning.

We have two additional goals now: (1) to obtain feedback on the results and interpretation of the meaning of the results and (2) to develop strategies to address concerns and build on the community strengths identified in the survey. This report includes much useful information that can be shared; at the same time, there is still much to be learned from others. As we share information with others—including community members, colleagues, local providers, and other researchers—we hope to spark thoughtful discussion and informed action. Ours is a coalition that brings together many agencies and organizations in the Lowell area and together we strive to provide services that meet the needs of the individuals in our community. We also seek broader system change and change among change agents. In opening up a dialogue we expect to learn of many different initiatives in Lowell that are needed. We intend to build on the strengths and experiences of others and working in partnership, develop new strategies to fill gaps.

Finally, we want to encourage other organizations to use the data here to improve their programs and advocate in stronger ways for the community. Other organizations who serve newcomer groups are likely to find the data useful in reaching their constituents. Organizations in the health field that work with Cambodians are likely to find the data directly valuable. Others that work with Cambodians in different service areas are also likely to find the information useful as they seek to understand the people they serve.

Others are likely to find this information useful if they work with newcomer groups who are not Cambodian but who share similar access challenges as a result of language or cultural differences.

In the upcoming months we will focus some of our efforts on specific areas of concern raised in the report. For example, transportation of clients continues to be a pressing issue in need of concerted attention in order for CCH 2010 to be sustained beyond the funding years. The information gathered in this survey has become very useful in facilitating discussions about ways to tackle barriers such as those individuals face in accessing public and other forms of transportation.

This study provides an in depth understanding of the Cambodian community in Lowell, Massachusetts and it is our hope that everyone in Lowell will join together to use the report to address the health disparities that continue to pose challenges to Lowell's residents. For further information, please contact Sidney Liang, Program Director, (978) 746-7829.

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EVIDENCE OF CAMBODIAN/ASIAN HEALTH DISPARITIES

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DATA USED FOR COMPARISONS OF CCH 2010 COMMUNITY SURVEY RESULTS TO MA RESIDENTS

2001 Behavioral Risk Factor Surveillance System Data (ASCII). (Data Revised August 13, 2002) [Downloaded from http://www.cdc.gov/brfss/ti-surveydata2001.htm on 10/17/02]. Atlanta, GA: National Center for Chronic Disease Prevention and Health Promotion.

STATISTICAL AND DATA MANAGEMENT PROGRAMS USED

EpiInfo6 product of the CDC downloaded from [http://www.cdc.gov/epiinfo/].
The SAS System for Windows, Version 8.02, SAS Institute Inc., Carey, NC.

Websites Related to Survey Topics

DIABETES AND CARDIOVASCULAR DISEASE

The following two sites are designed for the general public and include information about disease processes, prevention, and treatment.

American Diabetes Association
http://www.diabetes.org
American Heart Association
http://www.americanheart.org

The next two sites include information sections for the general public, as well as sections for medical professionals and researchers.

National Institute of Diabetes & Digestive & Kidney Diseases
http://www.niddk.nih.gov/health/health.htm
National Heart, Lung and Blood Institute
http://www.nhlbi.nih.gov/

HEALTH INFORMATION ON ALL TOPICS

MEDLINEplus

http://www.nlm.nih.gov/medlineplus/

From the MEDLINEplus Director: “Welcome to MEDLINEplus, a goldmine of good health information from the world's largest medical library, the National Library of Medicine. Health professionals and consumers alike can depend on it for information that is authoritative and up to date. MEDLINEplus has extensive information from the National Institutes of Health and other trusted sources on over 600 diseases and conditions. There are also lists of hospitals and physicians, a medical encyclopedia and a medical dictionary, health information in Spanish, extensive information on prescription and nonprescription drugs, health information from the media, and links to thousands of clinical trials. MEDLINEplus is updated daily and can be bookmarked at the URL: medlineplus.gov. There is no advertising on this site, nor does MEDLINEplus endorse any company or product.”

Pubmed

http://www.ncbi.nlm.nih.gov/entrez/query.fcgi

From the website: “PubMed, a service of the National Library of Medicine, provides access to over 12 million MEDLINE citations back to the mid-1960's and additional life science journals. PubMed includes links to many sites providing full text articles and other related resources.”

Healthy People 2010

http://www.healthypeople.gov/

From the website: “Healthy People 2010 is the prevention agenda for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats.”

MINORITY HEALTH AND HEALTH DISPARITIES

Association of Asian Pacific Community Health Organizations http://www.aapcho.org

From the website: ”The Association of Asian Pacific Community Health Organizations (AAPCHO) is a national association representing community health organizations dedicated to promoting advocacy, collaboration and leadership that improves the health status and access of Asian Americans, Native Hawaiians and Pacific Islanders within the United States, its territories and freely associated states, primarily through our member community health clinics. Formed in 1987, AAPCHO advocates for policies and programs that will improve the provision of health care services that are community driven, financially affordable, linguistically accessible, and culturally appropriate. As a unified voice of its membership, AAPCHO shares its collective knowledge and experiences with policy makers at the national, state and local levels.” This site includes resources aimed at improving the health status of Asian American and Pacific Islander populations.

Racial and Ethnic Approaches to Community Health (REACH 2010) http://www.cdc.gov/reach2010/

From the website: ”The Federal Initiative to Eliminate Racial and Ethnic Health Disparities and Healthy People 2010, describes the nation's health objectives for the 21st century. They are public health initiatives that have fostered a renewed national interest in the area of racial and ethnic disparities with the Centers for Disease Control and Prevention (CDC) playing a major leadership role. At CDC, Racial and Ethnic Approaches to Community Health (REACH 2010) is a cornerstone initiative aimed at eliminating disparities in health status experienced by ethnic minority populations in key health areas.”

The site includes information about projects aimed at reducing health disparities.

Resource Centers for Minority Aging Research http://www.rcmar.ucla.edu/references.php

From the website: “In 1997, the National Institute on Aging/National Institutes of Health established the Resource Centers for Minority Aging Research (RCMAR) initiative as part of the effort to reduce health disparities between minority and non-minority older adults.

The RCMAR mission is to decrease these disparities by:

- ◆ Increasing the number of researchers who focus on the health of minority elders.
- ◆ Enhancing the diversity in the professional workforce by mentoring minority academic researchers for careers in minority elders health research.
- ◆ Improving recruitment and retention methods used to enlist minority elders in studies so that research can accurately identify and work toward solutions to health disparities.
- ◆ Creating culturally sensitive health measures that assess the health status of minority elders with greater precision, and increase the effectiveness of interventions designed to improve their health and well-being. "

The site includes useful resources for survey development.

Asian and Pacific Islander American Health Forum http://www.apiahf.org/links/links5.html
From the website: "Asian & Pacific Islander American Health Forum -- a national advocacy organization dedicated to promoting policy, program, and research efforts for the improvement of health status of all Asian American and Pacific Islander communities."
The site includes resources for working with API communities and information about API Health.

Office of Minority Health http://www.omhrc.gov/omhrc/
From the website: "The Office of Minority Health Resource Center was established by the U.S. Department of Health and Human Services Office of Minority Health in 1987. OMH-RC serves as a national resource and referral service on minority health issues."

SOURCES FOR HEALTH AND OTHER DATA

National Health Interview Survey
http://www.cdc.gov/nchs/nhis.htm

Behavioral Risk Factor Surveillance System
http://www.cdc.gov/brfss/index.htm

Massachusetts Department of Public Health
http://www.state.ma.us/dph/pubstats.htm

U.S. Census Bureau
http://factfinder.census.gov/servlet/BasicFactsServlet