

**Wisconsin Southeast Asian Tobacco Prevalence
Survey—2006**

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**In cooperation with Wisconsin United Coalition of Mutual
Assistant Associations, Inc.**

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Methodology:

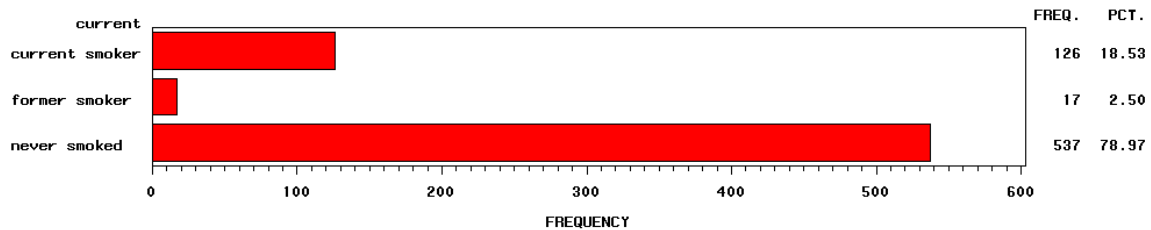
Scantron® (computer-read) questionnaires were given to the 16 Mutual Assistant Associations (MAAs) throughout Wisconsin. The surveys were distributed by convenience sampling by MAA trained staff to their clients and through workshops and other events coordinated by each MAA. Most questions from the survey have been validated through either the Behavioral Risk Factor Surveillance System or the Youth Risk Behavior survey, surveys given annually to a national sample. The only non-validated questions were ethnicity and traditional bamboo pipe usage. MAAs were part of the training teleconference and provided feedback. A Hmong-translated survey (to be filled out by hand) was also given to the MAAs for non-English speaking clients. Madison and Milwaukee MAA staff translated surveys into Lao, Vietnamese, and Cambodian as needed. Twelve hundred surveys were given out in proportion to each agency, with agencies in Madison and Milwaukee receiving a larger proportion to oversample other Southeast Asian groups besides Hmong (Laotian, Vietnamese, and Cambodian). In addition, copies of the non-Scantron version of the survey were distributed for those who opted not to fill out the Scantron sheets. Eight-hundred and sixty-five surveys were returned that were either able to be read by hand (non-Scantron forms) or the Scantron machine. For any given question, however, 100-200 of the surveys were blank or unreadable for that question. Please see the recommendations section below for 2007 suggested survey changes. Tobacco prevalence and policy questions were asked, as well as basic demographic information. Year 2 of the survey will include tobacco prevalence and attitude and knowledge, alternating with policy questions each year (see example below):

<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Prevalence	Prevalence	Prevalence	Prevalence	Prevalence
Policy	Attitudes	Policy	Attitudes	Policy
	Knowledge		Knowledge	

Tobacco Usage Data

Smoking prevalence

overall smoking status for all respondents



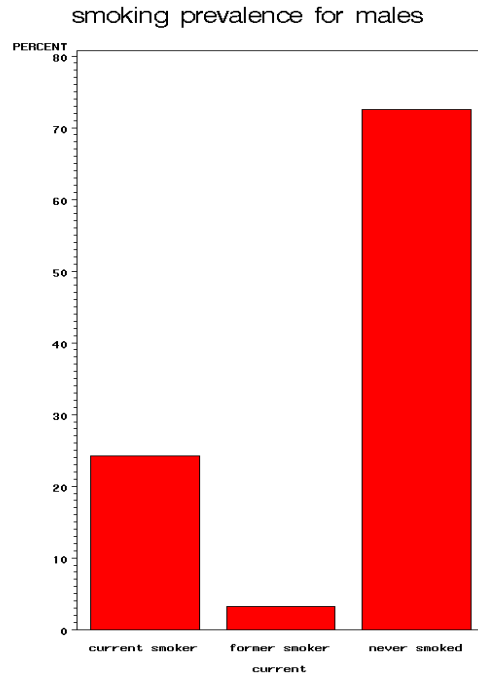
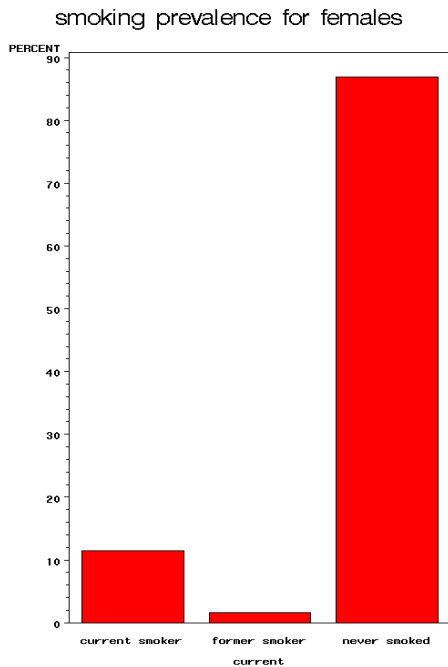
Overall, 18.5% of respondents identified themselves as current smokers. Almost 4/5 of all respondents had never smoked cigarettes in their lifetime (smoked less than 5 packs / 100 cigarettes total).

Smoking prevalence by ethnicity

	Cambodian	Hmong	Lao	Vietnamese	Other	Total
Current smokers	16 38.1%	89 17.6%	12 21.4%	6 12.8%	2 22.2%	125 18.9%
Former and never smokers	26 61.9%	417 82.4%	44 78.6%	41 87.2%	7 77.8%	535 81.1%
Total	42 100.0%	506 100.0%	56 100.0%	47 100.0%	9 100.0%	660 100.0%

Smoking rates by ethnicity varied from 12.8% (those self-identified as Vietnamese) to 38.1% (Cambodian). 17.6% of those who identified themselves as Hmong were current smokers.

Smoking prevalence by gender



There was a wide discrepancy between current male and female smokers. As expected, many fewer females smoked than males (11% compared with 24%). This difference is statistically significant ($p < 0.0001$).

Smoking prevalence by age (all ethnicities)

	11-13 Years old	18-24 Years old	25-44 Years old	45-64 Years old	65+ Years old	Total
Current smoker	N=0 0.0%	4 0.6%	72 11.4%	23 3.6%	21 3.3%	120 18.9%
Former smoker	0 0%	0 0%	10 1.6%	1 0.2%	5 0.8%	16 2.5%
Never smoked	1 0.2%	35 5.5%	245 38.6%	137 21.6%	80 12.6%	498 78.6%
Total	1 0.2%	39 6.2%	327 51.6%	161 25.4%	106 16.7%	634 100.0%

Due to the small numbers of those ≤ 24 years old, statistical differences in smoking by age were not possible (trend for $p=0.10$; with 5 categories <5 values). Therefore, it is impossible to tell by this survey alone whether age was related to smoking status.

When combining the former and never smoked categories, the results are similar (p -trend=0.16):

	11-13 Years old	18-24 Years old	25-44 Years old	45-64 Years old	65+ Years old	Total
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Current smoker	N=0 0.0%	4 0.6%	72 11.4%	23 3.6%	21 3.3%	120 18.9%
Former or never smoker	1 0.2%	35 5.5%	255 40.2%	138 21.8%	85 13.4%	514 81.1%
Total	1 0.2%	39 6.2%	327 51.6%	161 25.4%	106 16.7%	634 100.0%

Smoking prevalence by age (Hmong only)

	11-13 Years old	18-24 Years old	25-44 Years old	45-64 Years old	65+ Years old	Total
Current smoker	0 0.0%	3 0.6%	65 14.0%	9 2.0%	8 1.7%	85 18.2%
Former or never smoker	1 0.2%	35 7.5%	227 48.7%	75 16.1%	43 8.2%	381 81.8%
Total	1 0.2%	38 8.2%	292 62.7%	84 18.0%	51 10.9%	466 100.0%

Within the Hmong population, 25-44 year olds were the most likely to be current smokers (65 out of 292, 22.3%). Next likely to smoke were 65+ year olds (15.7%), 45-64 year olds (10.7%), and 18-24 year olds (7.9%). Since there were only 3 18-24 year old smokers identified in the survey and none below 18 years old, the 18-24 year old data should be considered unstable, while the older age groups are more likely to be representative of their population.

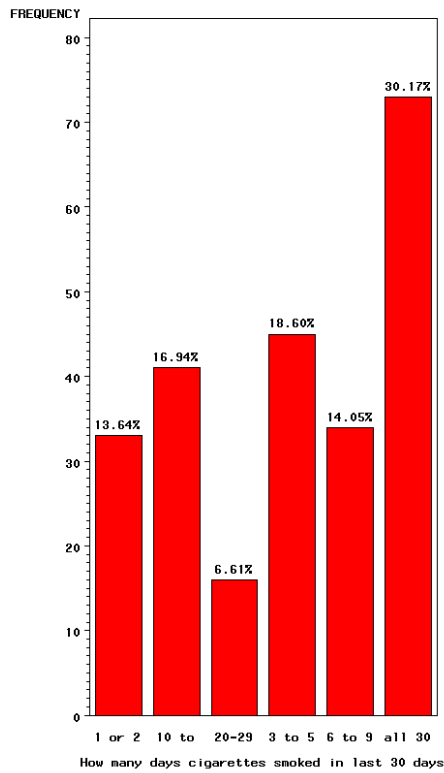
Education and smoking prevalence

	Completed high school or less	Some college or more	Total
Current Smokers	N=115 17.8%	9 1.4%	124 19.1%
Former and never smokers	462 71.3%	62 9.6%	524 80.9%
Total	577 89.0%	71 11.0%	648 100.0%

Less than 13% of those respondents with more than a high school education were current smokers, compared to approximately 20% of the respondents with a high school diploma, equivalent, or less. While this does suggest those in the Southeast Asian population with a greater education tend to be non-smokers, this trend is not significant ($p=0.14$), and thus no conclusion can be made, only an inference.

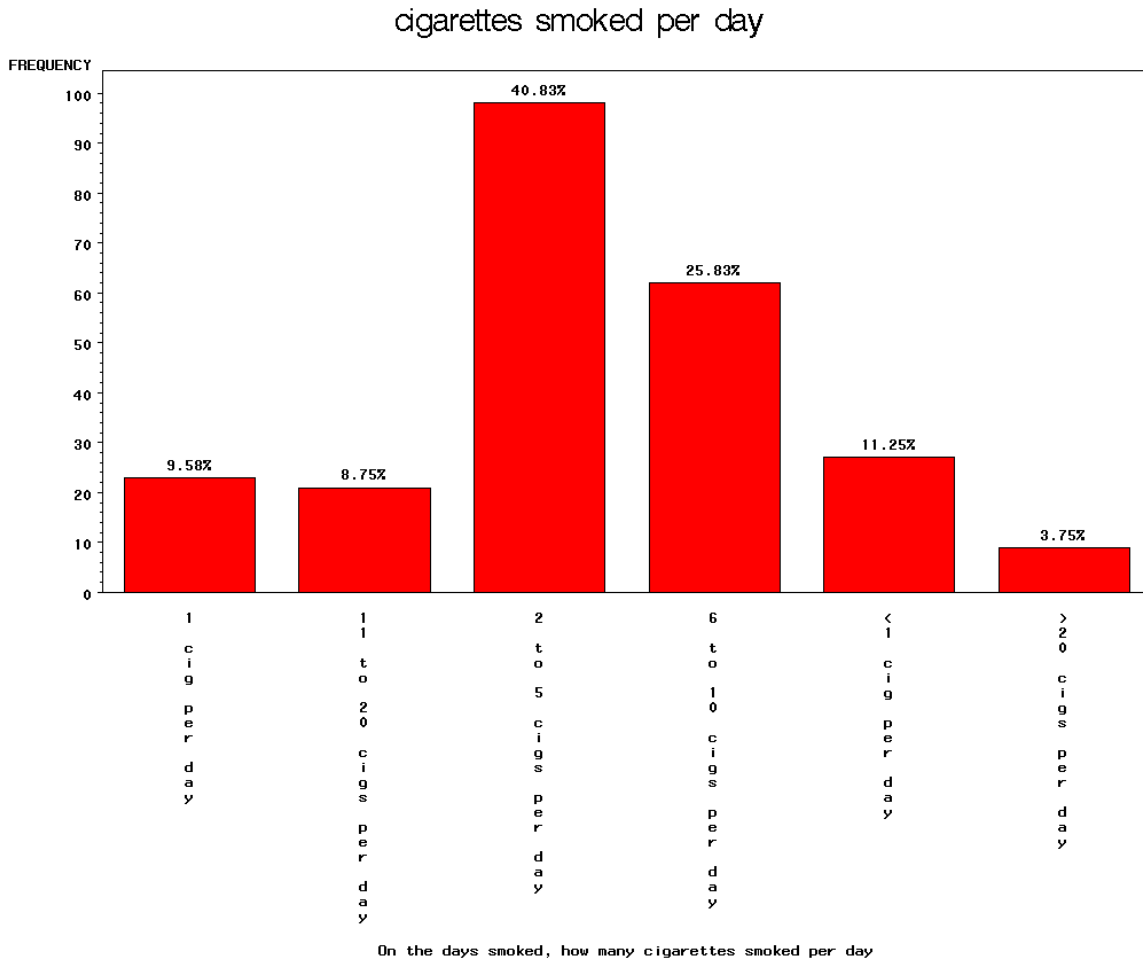
Days cigarette smoked by current smokers

amount of smoking by current smokers per day



Interestingly, of those who currently smoke, 30% smoke daily, compared with almost 14% who smoke 1 or 2 days per week. This suggest that among the 19% of the population that smoke, almost 1/3 are heavy smokers; that is they smoke and are the most likely to need intense intervention for cessation.

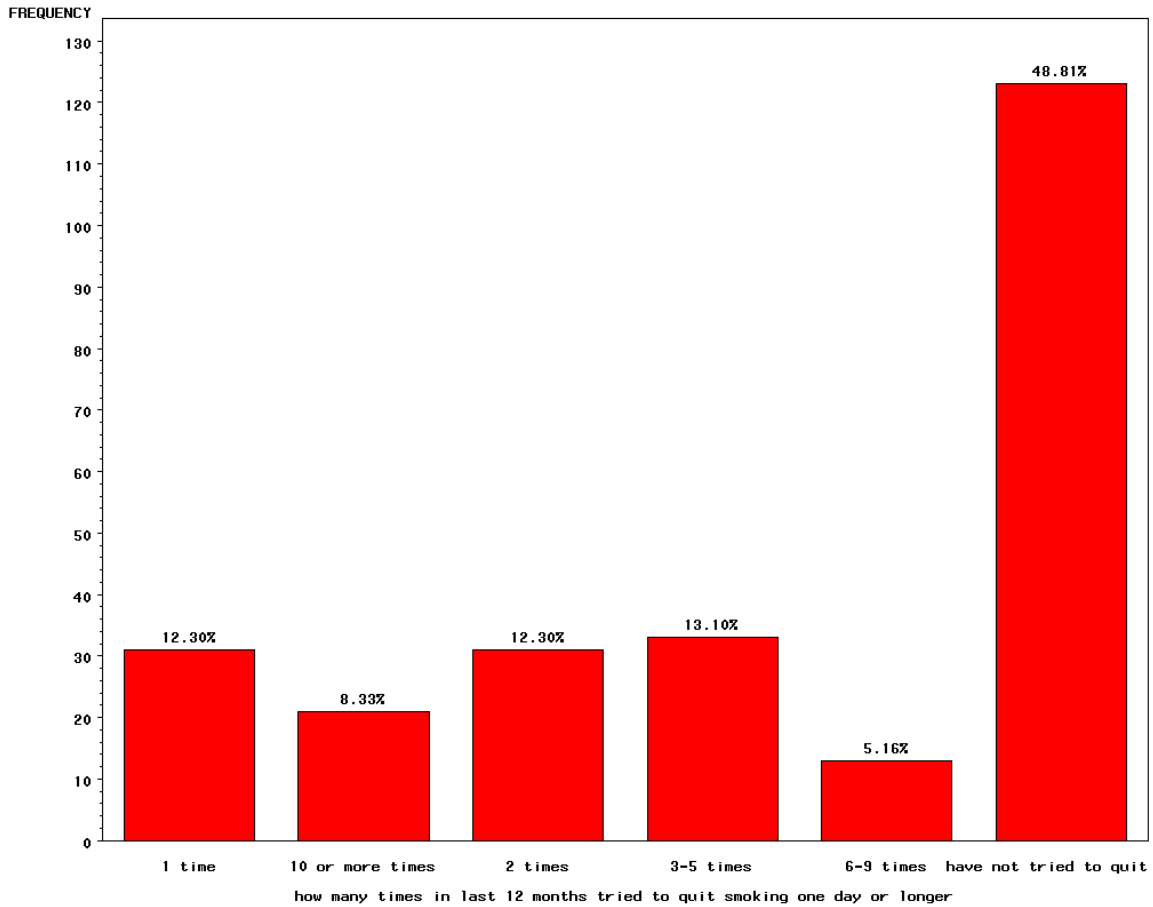
Amount of smoking per day by current smokers



Of current smokers, 40% smoke 2-5 cigarettes on the days they smoke. Thirteen percent smoke ½-1 or more packs per day when they smoke, the heaviest smokers of the group. In all 60% of current smokers smoke 5 cigarettes (1/4 pack) or less when they do smoke, suggesting that the majority of current smokers are not heavy smokers, thus likely increasing the success for smoking cessation services.

Quit attempts in the past month by current smokers

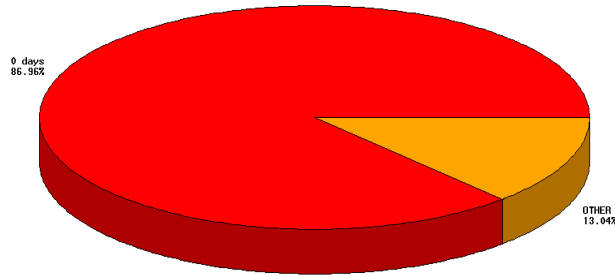
quit attempts in the last month by current smokers



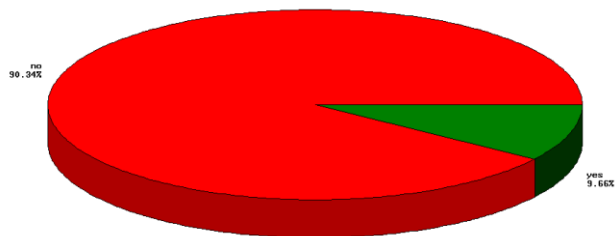
Almost half (49%) of current smokers did not attempt quitting in the last month. Over 8% conversely, tried to quit 10 or more times in the last year. A further assessment should be done asking participants their willingness to quit, to see if intervention services are worthwhile. Fifty-one percent of the current smokers tried to quit at least once during the last month, suggesting that at least half are willing to try cessation, perhaps using more formal services like counseling, patch distribution, and follow-up.

Cigars and related items, Yeeb thooj usage

Frequency of cigars, cigarillos, or little cigars smoked in last 30 days



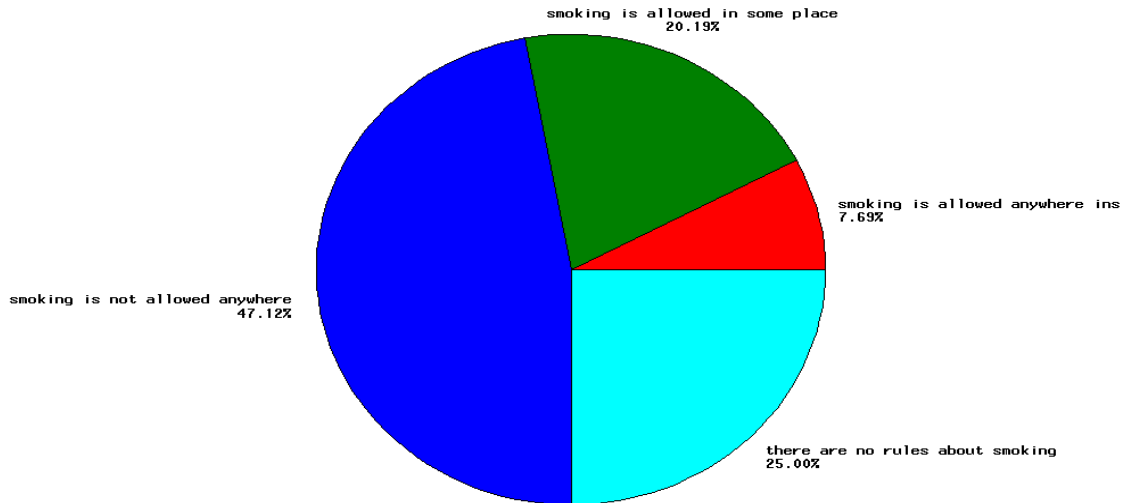
Ever smoked bamboo pipe (Yeeb Thooj)



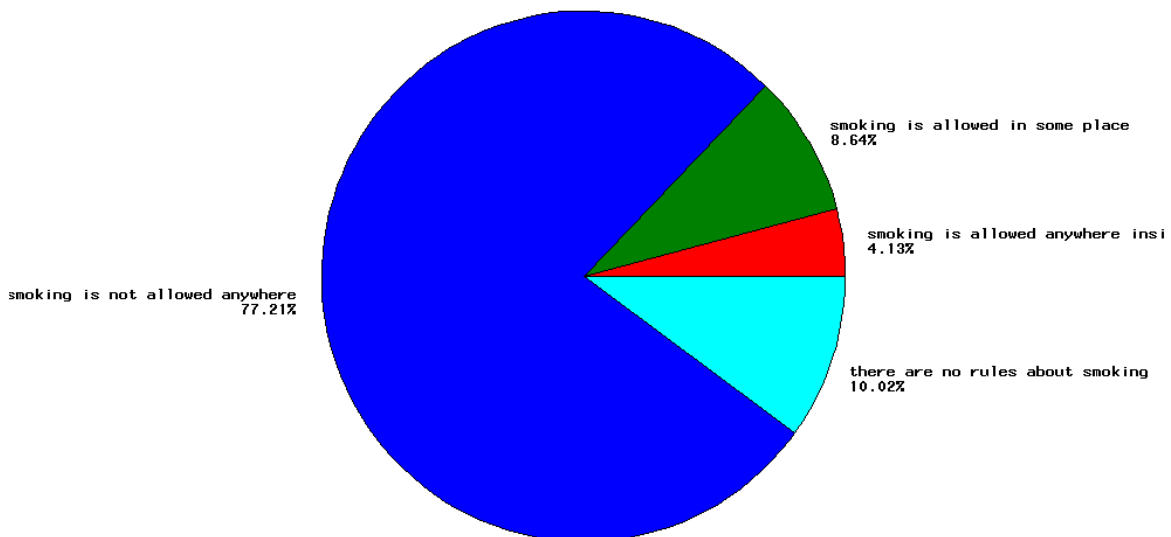
Eight-seven percent of respondents had not smoked a cigar or related item in the past thirty days and less than 10% of those surveyed had ever smoked a traditional bamboo pipe (Yeeb thooj). This suggests these items are not prevalent in the Southeast Asian population, and the focus of preventive work should be on cigarette cessation.

SMOKING POLICY DATA

smoking policy at home for current smokers

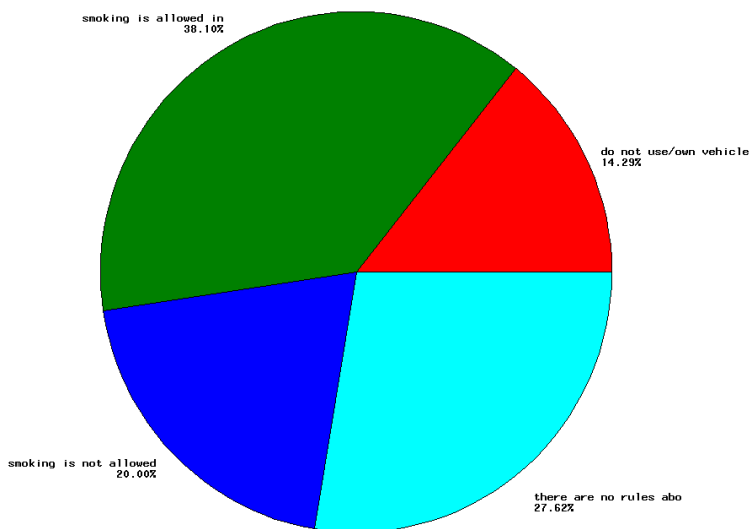


smoking policy for at home never/former smokers

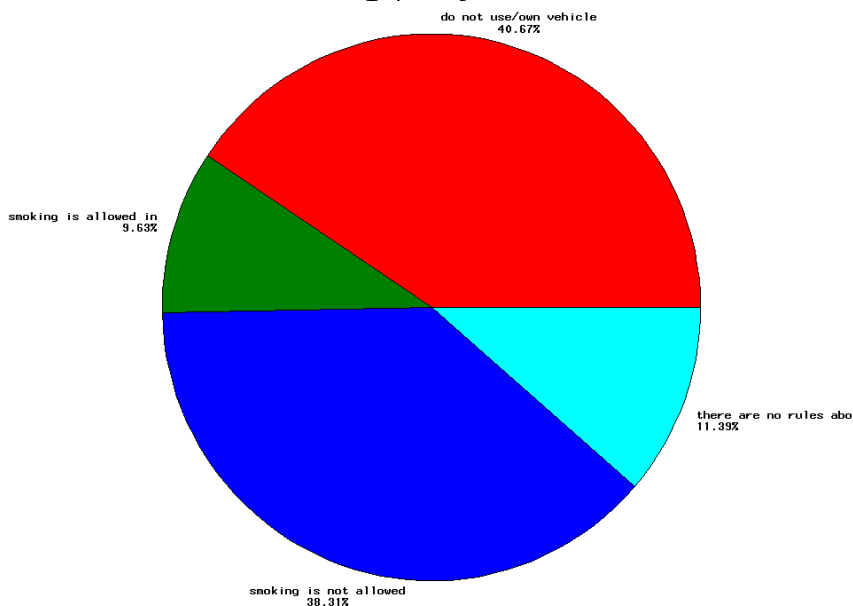


Never or former smokers are much more likely to not allow smoking inside their homes (77% vs. 47%), while current smokers tend to allow smoking in some places, anywhere, or have no rules for smoking at home (53% vs. 22% for former or never smokers). Since the home can be a significant source of second hand smoke exposure for families and children and has been linked to increased asthma prevalence as well as increased risk for lung cancer, this suggests a possible campaign to educate Southeast Asian populations, particularly smokers, about the harmful effects of second-hand smoke on their families.

vehicle smoking policy for current smokers

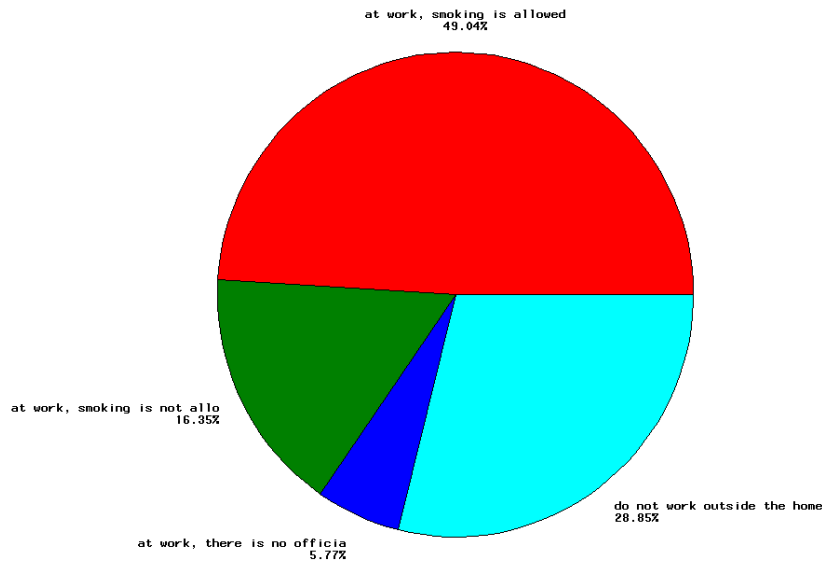


vehicle smoking policy for at home never/former smokers

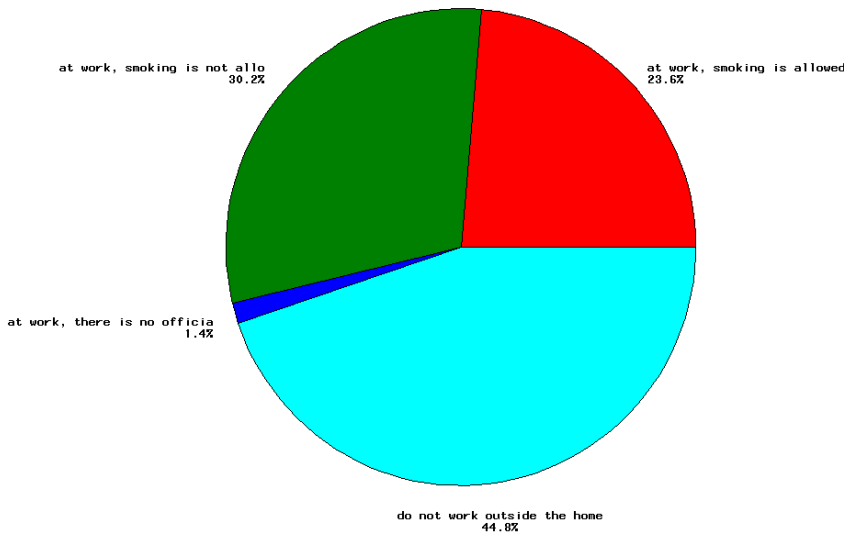


Former or never smokers are almost twice as likely (38% vs. 20%) to ban smoking from their vehicles, while smoking is allowed in 38% of current smoker's vehicles. This suggests yet another possible exposure for family and children to second hand smoke and the need for educating smokers on the benefits of maintaining a smoke-free vehicle.

smoking policy for public work areas for current smokers

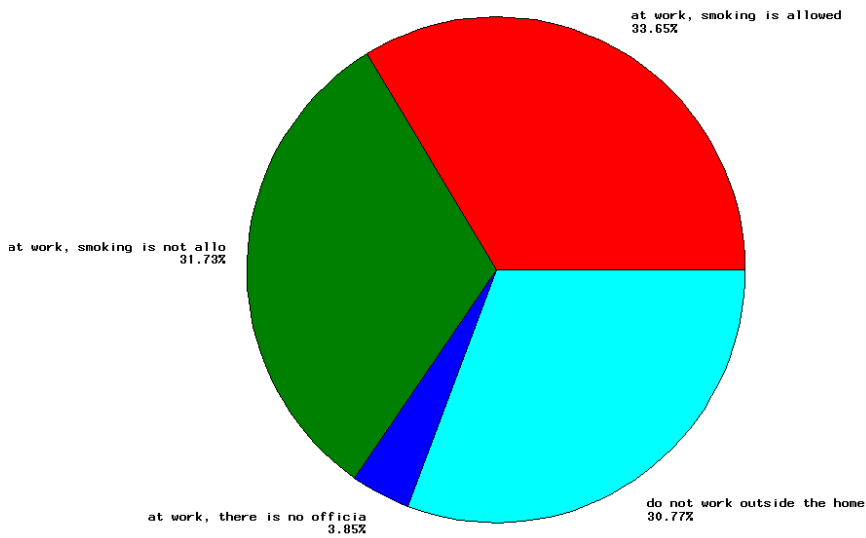


smoking policy for public work areas for never/former smokers

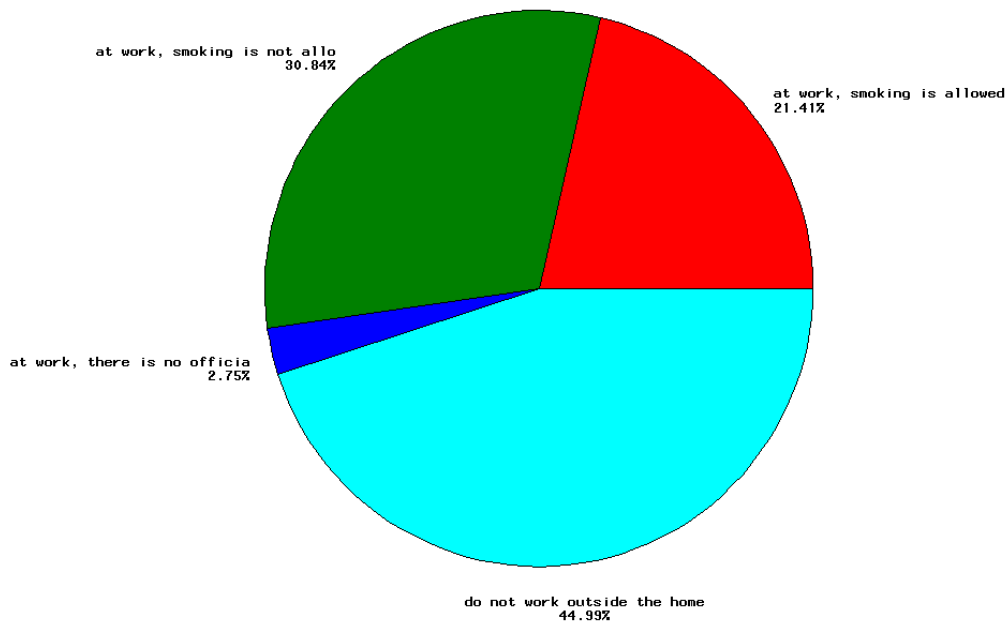


Current smokers were twice as likely to work in an environment that allowed smoking in public places compared to former and never smokers (49% vs. 24%). Most offices had some form of policy for smoking in public areas (fewer than 6%). Since this data is cross-sectional, it is impossible to assume that people who smoke tend to apply for work in places with more lenient public smoking policies, or whether policies increase (at least in part) smoking cessation.

smoking policy for individual work areas for current smokers



smoking policy for individual work areas for never/former smokers

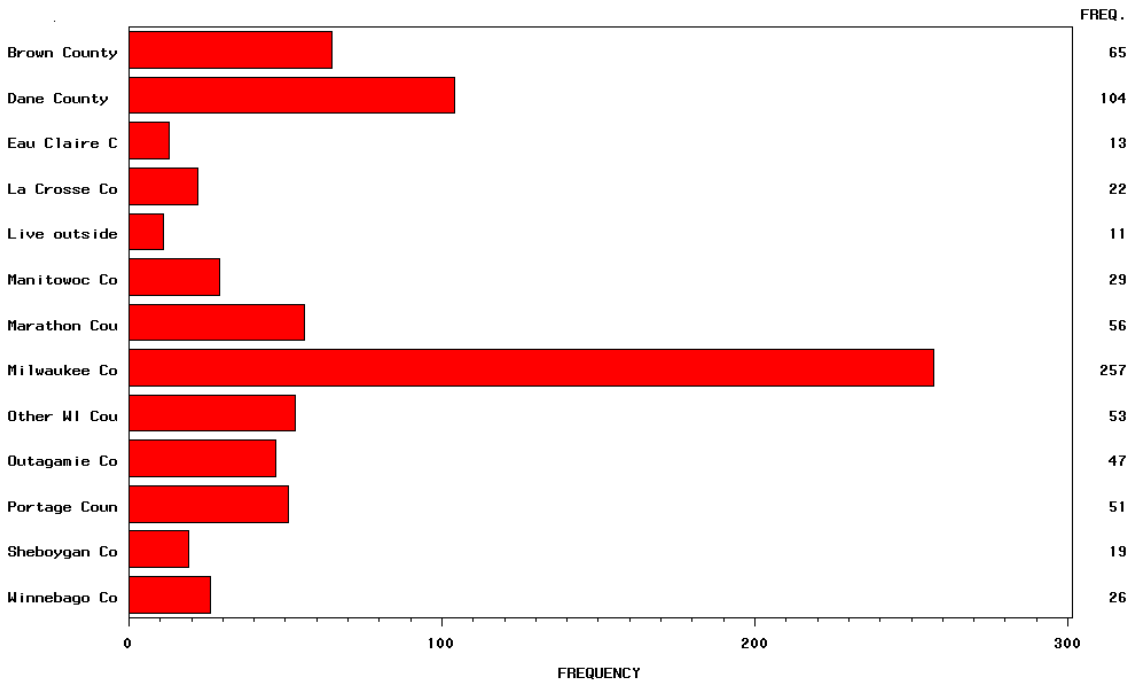


The differences seen in the previous page (smoking in public work areas) is not nearly as pronounced as individual work areas. A roughly equal amount of workplaces do not allow smoking in individual, private areas (given the small sample size of current smokers, both estimates fall within the same range of confidence intervals). Smoking is allowed in slightly more work areas for current smokers, although once again this is not nearly as pronounced as the previous page.

DEMOGRAPHIC INFORMATION

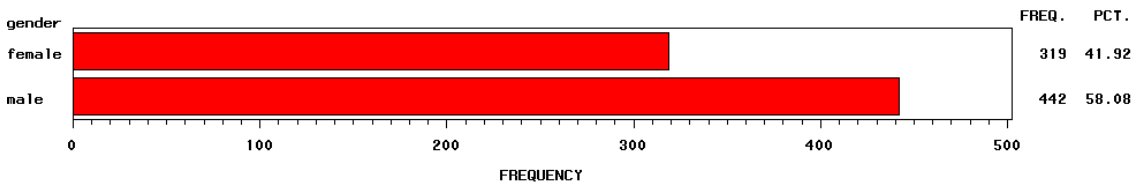
Residency of survey respondents:

county of residence



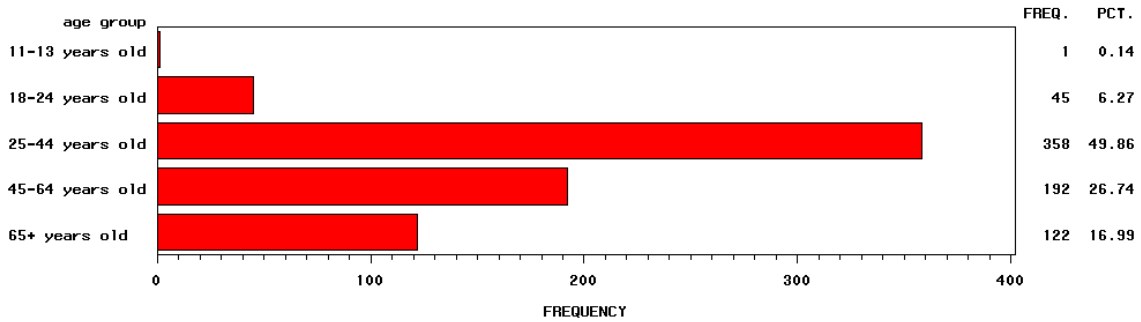
As shown above, Milwaukee county had the greatest number of respondents (257), while Eau Claire County had the fewest (13). Fifty-three of the respondents lived outside the primary service counties for the MAAs, and 11 respondents did not live in Wisconsin.

Gender



Of the respondents identifying their gender, more than 58% were male.

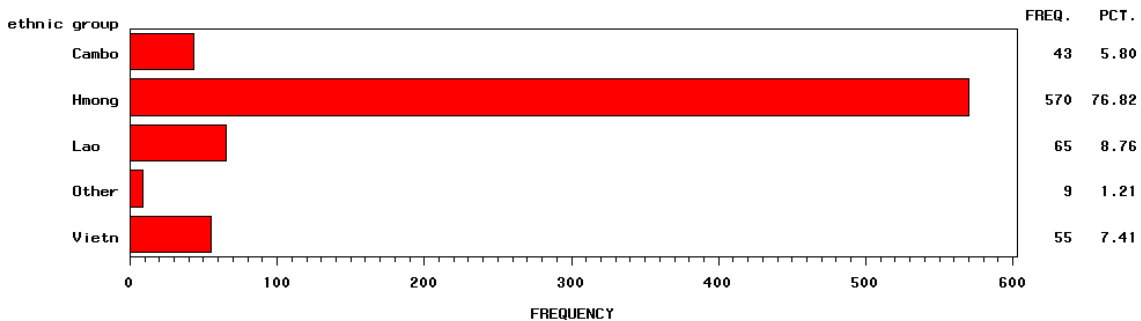
Age



Almost half of the respondents were 25-44. Unfortunately, less than 6.5% of the respondents were within the 18-24 year old group, a significant underestimation of the population. For future surveys, those 18-24 will be over-sampled to compensate for the small response rate.

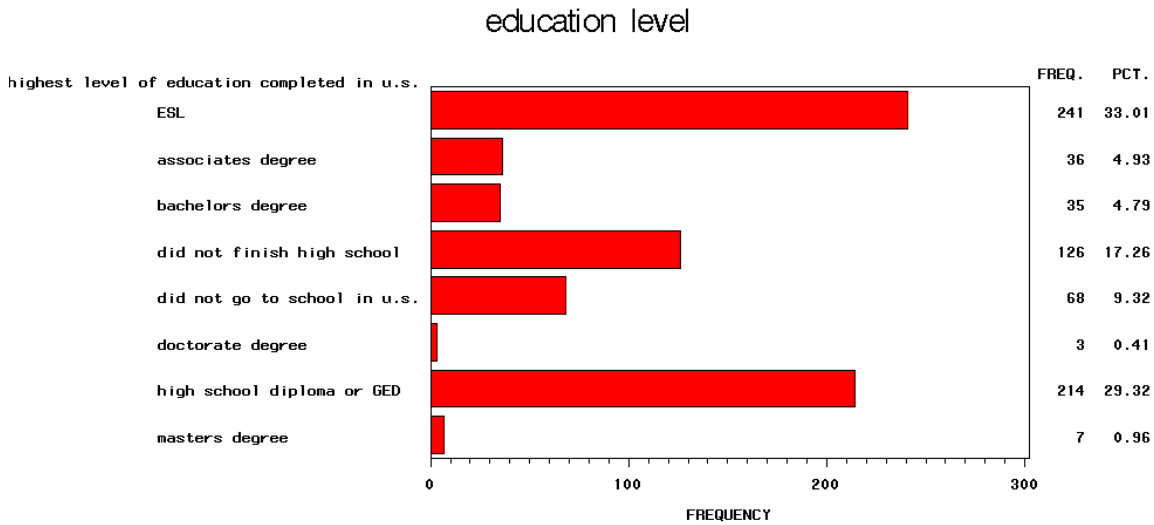
Ethnicity

self-identified ethnicity



More than 76% of the respondents were Hmong, as expected. However do to over-sampling, more than 50 persons of Lao and Vietnamese ethnicity responded to the survey. Forty-three self-identified persons of Cambodian descent also participated in the survey.

Education



Less than 10% of the respondents did not have any kind of schooling in the U.S. 1/3 of the participants had English as a Second Language (ESL) training, nearly 30% had a high school diploma or equivalent, and slightly more than 10% has entered or completed some level of college. Given the lack of 18-24 year olds in this sample, this result is not unexpected. Those with a completed high school diploma and equivalent and those attending college should increase when the 18-24 year old population is no longer under-sampled, starting with year 2 of the data.

Conclusions

As mentioned previously, the age of the participants tended to be 25 and over, with few youth and younger adults participating in this convenience sample. As a result, it is recommended that youth up to age 24 be over-sampled for the 2007 survey, not relying on convenience samples at each MAA office. It is recommended that survey volunteers use MAA or other sponsored youth programs to distribute the survey. Participation through schools (both high schools and colleges) may be another option for 2007. As the number of Southeast Asian youth increases disproportionately to the overall Southeast Asian population, it is important to get a good representation of this demographic.

It is also recommended that next year, the use of Scantron forms be eliminated and simple paper forms be used. With a large amount of missing data and the use of Scantron forms as a possible barrier to completion, I recommend that hand-written forms be used and double audited in the data collection process. To achieve a better representative sample and more accurate estimation of smoking prevalence, next year a goal of 1500 completed surveys is recommended.

Regarding tobacco usage, it is unsurprising that smoking prevalence decreases as educational attainment increases. This is a nationwide trend and will likely remain so, although the numbers presented here are too small to give a significant p-value, another benefit of increasing sample size for 2007. More than 96% of current smokers smoked

less than one pack per day, and encouraging sign for intervention through cessation, since light smokers may be more likely to quit successfully. Also, approximately half of the respondents who were current smokers tried quitting at least once in the last year, suggesting that while the quit attempt(s) failed, there is a willingness to try again, and a possible gateway for increased cessation through peer counseling, classes, patches, and other proven methods that increase the rate of success. The current smoking rate of 18.5% is slightly smaller than the BRFSS 2005 rate of 20.7% for Wisconsin, but once again, given the size limitation, both numbers cannot be shown to be significantly different ($p < 0.05$). Also, increasing the youth responses next year will provide a more complete picture of tobacco use among Southeast Asians in Wisconsin. Of note, there was little interest in cigars (or similar substances) or the traditional bamboo pipe used for smoking, suggesting that targeting cigarettes is the most significant way to reduce tobacco use among Southeast Asians in Wisconsin.

The smoking policy questions did show a difference between current smokers and former or never smokers (defined as non-smokers for this document). Non-smokers had much more stringent policies for smoking in homes and vehicles, thus reducing exposure to second-hand smoke. This effect also carries over to public areas in the workplace, where non-smokers tend to work for businesses that have more restrictive policies for public areas.

It is strongly suggested not to compare these results to those of the Year 3 HABIT (Hmong Against Big Industry Tobacco) survey. The HABIT program was an interventional study which over-sampled young adults. In the current survey, over 90% of participants were older than 24 years of age. Second, surveys for the HABIT grant were for three counties (La Crosse, Dunn, and Eau Claire), whereas this survey was conducted throughout the major Southeast Asian areas in the state. If the recommendations above are implemented, year 2 results of this survey should be more representative of the Southeast Asian population.