



**Arizona Department of Health Services
Office of Tobacco Education and Prevention Program**

**Hispanic Adult Tobacco Survey
2005 Report**

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Executive Summary

Spanish Arizona Adult Tobacco Surveys 2005

Adult tobacco use represents an important and ongoing morbidity, mortality and health care cost problem. The Arizona Department of Health Services Tobacco Education and Prevention Program (ADHS TEPP) has been working since 1996 to reduce tobacco use in Arizona. This report presents data from the 2005 Adult Tobacco Surveys in Spanish on adult tobacco use prevalence rates, cessation behaviors, and home smoking bans.

Nearly thirteen percent of the 1059 Spanish-speaking Hispanic residents of Arizona surveyed are current smokers, and about one out of five individuals report being former smokers.

Smoking prevalence differed dramatically for the two sexes. Males were almost four times more likely to report being current smokers than females (20% vs. 5%).

Spanish-speaking Hispanic current smokers reported substantially lower cigarette consumption than the general population of Arizona (8 packs per month vs. 18 packs per month, median values).

In most surveys, there is a strong inverse relationship between smoking and educational attainment, with the most educated showing a substantially lower rate of smoking than the least educated. In these surveys, however, the opposite was true: respondents reporting the highest education (college degree) had the highest smoking prevalence (18%) and respondents reporting high school degrees reported the lowest smoking rate (9%).

About 58 percent of current smokers reported that they had refrained from smoking for one day or longer in order to quit, and over 60 percent of current smokers reported that they intended to quit within the next six months. Nearly half of current smokers reported intending to quit within the next thirty days.

The vast majority of Spanish-speaking Hispanic survey respondents reported a complete smoking ban inside their homes (88%), and only two percent reported allowing smoking in all locations inside the home. This rate differed between smokers and non-smokers. Ninety-two percent of non-smokers, but only 78 percent of current smokers, reported a complete smoking ban inside the home.

1. Background

1.1. Hispanic Spanish-speaking population of Arizona

It is clear that Hispanic Spanish-speaking residents constitute a very important target for tobacco control efforts and public health in general because this subpopulation may encounter language and cultural barriers to accessing services and health care. These residents constitute a particularly important opportunity because their numbers are growing rapidly.

Between 1990 and 2000, the state of Arizona was the second fastest growing state in the US, with a 40 percent overall population growth.¹ In fact, the Arizona Department of Economic

Security estimates an 18 percent overall Arizona population growth from 2000 to 2005. Maricopa County was ranked highest in absolute population growth, and Pinal County was ranked highest in relative population growth.²

From 1990 to 2000, the proportion of self-identified Hispanic residents in the US grew from 9 percent to 13 percent. Within the same time frame, the US population that speaks primarily English at home decreased from 86 percent in 1990 to 82 percent, and the population that speaks primarily Spanish at home increased from 8 percent to 11 percent. In Arizona, the population of self-identified Hispanic individuals was identified as the most rapidly growing subpopulation within the state, with a growth from 19 percent in 1990 to 25 percent in 2000³. In the same time frame, the percentage of people speaking primarily Spanish at home in Arizona increased from 14 percent to 20 percent⁴. Of respondents that reported speaking primarily Spanish at home, about 47 percent reported speaking English less than “very well”⁵. The Hispanic population of Arizona is highly concentrated within the southern half of state (see Table 1). No information was available on the specific geographic distribution of Spanish-speaking individuals, although the high correlation in our data of self-identified Hispanic ethnicity with Spanish spoken at home suggests that these two populations largely overlap.

Table 1. County of residence of Hispanic residents in AZ, CENSUS 2000

County	Total population	Hispanic population	Percentage Hispanic population
<i>Apache</i>	69,423	3,119	4.5
<i>Cochise</i>	117,755	36,134	30.7
<i>Coconino</i>	116,320	12,727	10.9
<i>Gila</i>	51,335	8,546	16.6
<i>Graham</i>	33,489	9,054	27
<i>Greenlee</i>	8,547	3,681	43.1
<i>La Paz</i>	19,715	4,420	22.4
<i>Maricopa</i>	3,072,149	763,341	24.8
<i>Mohave</i>	155,032	17,182	11.1
<i>Navajo</i>	97,470	8,011	8.2
<i>Pima</i>	843,746	247,578	29.3
<i>Pinal</i>	179,727	53,671	29.9
<i>Santa Cruz</i>	38,381	31,005	80.8
<i>Yavapai</i>	167,517	16,376	9.8
<i>Yuma</i>	160,026	80,772	50.5

Because ADHS TEPP identified the need to better understand the tobacco-related behaviors and attitudes of Hispanic predominantly Spanish-speaking residents of Arizona, two Spanish-language tobacco surveys were fielded in 2005.

2. Methodology

2.1. Surveys and Sampling Strategies

Data from two surveys were combined to produce this report. The Shortened Spanish Adult Tobacco Survey (SS-ATS) was fielded concurrently with the Adult Tobacco Survey (ATS) 2005 for the general population of Arizona. No special sampling procedure was used to select for Spanish-speaking residents. Those respondents who preferred to answer the ATS in Spanish were provided with these items, which were a subset of the full ATS. Details about the design

and sampling procedure of the ATS 2005 can be found in the Arizona Department of Health Services Adult Tobacco Survey Report 2005⁶. Five hundred sixty-three respondents completed the Shortened Spanish ATS.

The second survey, the Full Spanish ATS, used purposive sampling specifically designed to yield Spanish-speaking respondents. Two pilot phases were conducted to assure proper translation of the English ATS instrument and to test the feasibility of the sampling and the methods. The major strategy for reaching Hispanic Spanish-speaking respondents consisted of identifying high density Hispanic residential blocks that were tagged as Spanish-speaking households. The Northern Arizona University Social Research Laboratory (NAU SRL) concluded from the pilot phases that this procedure dramatically increased contact with this population. NAU SRL staff used computer-assisted telephone interviewing (CATI) to deliver the survey and collect data. Five hundred eighty respondents completed the Full Spanish ATS.

Details about the final dataset that was used for this report are outlined in the following section.

The findings are based on standardized measures of tobacco use and attitudes towards tobacco developed by the Centers for Disease Control (CDC). To measure smoking prevalence, the surveys both used the two standard screening measures developed by the CDC. These measures categorize respondents as current smokers, former smokers, or never-smokers. To qualify as a current smoker, respondents have to indicate that they have smoked at least 100 cigarettes in their lifetime and smoke “everyday” or “some days” at the time of the interview. Former smokers are defined as having smoked at least 100 lifetime cigarettes, but smoke “not at all” at the time of the interview. Never-smokers are defined by having smoked fewer than 100 cigarettes in their lifetime.

2.2. Report Sample

The major purpose of this report is to shed light on the tobacco-use behaviors and attitudes of the Spanish-speaking Hispanic community in Arizona. To this end, the data from both surveys were combined to provide an aggregated sample of self-identified Hispanic residents.

The sample excluded all respondents who had missing data on both race and ethnicity items. The final dataset consists of 1059 eligible individuals: 531 individuals who self-identified as ‘Hispanic’ (or any of the Hispanic sub-groups provided) on the Shortened Spanish ATS (94% of all respondents), and 528 eligible individuals from the Full Spanish ATS (93% of all respondents).

2.3. Weighting

The pilot phase of the Full Spanish ATS indicated that there would be difficulties in reaching male Spanish-speaking Hispanics by the CATI method. Two strategies were implemented to increase rates of male responding: interviewers called from 9am until 9pm to cover after-work hours, and interviewers were trained to prompt for male respondents when a female picked up the phone. In spite of these efforts, the two Spanish Surveys yielded a sample heavily skewed towards females. The data were, therefore, weighted by sex to adjust the population towards 50 percent of each sex. It was necessary to control for sex by weighting because the scientific literature on health disparities and smoking suggest a drastically lower smoking prevalence for less-aculturated females from Mexico or of Mexican descent. Not adjusting for sex would most

likely bias all findings towards an underestimation of tobacco-related behaviors and attitudes among the Spanish-speaking Hispanic population of Arizona.

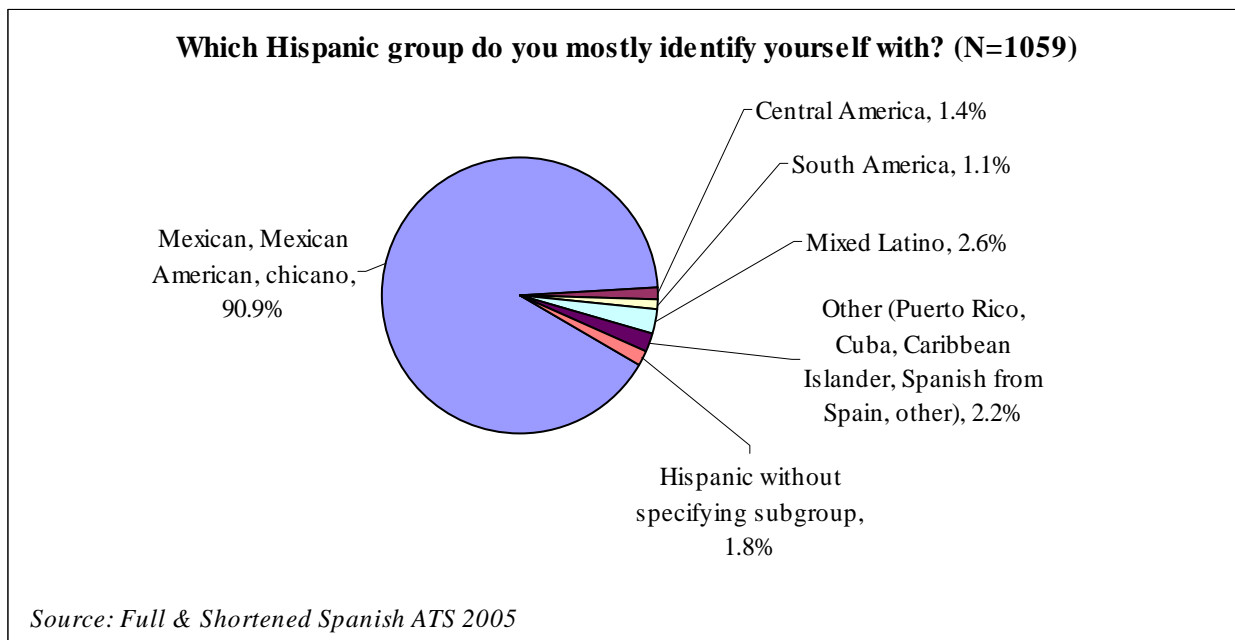
No weights were applied for other demographic features because there are few reliable demographic data available for Spanish-speaking Hispanic residents of Arizona. Weighted results are only presented for tobacco behavior and attitude items. Demographic features of the sample are reported from unweighted data.

2.4. Basic Demographics

Ethnic Identification

Figure 1 shows the distribution of Hispanic groups with which respondents were asked to identify. The overwhelming majority (91%) identified as Mexican or Mexican American.

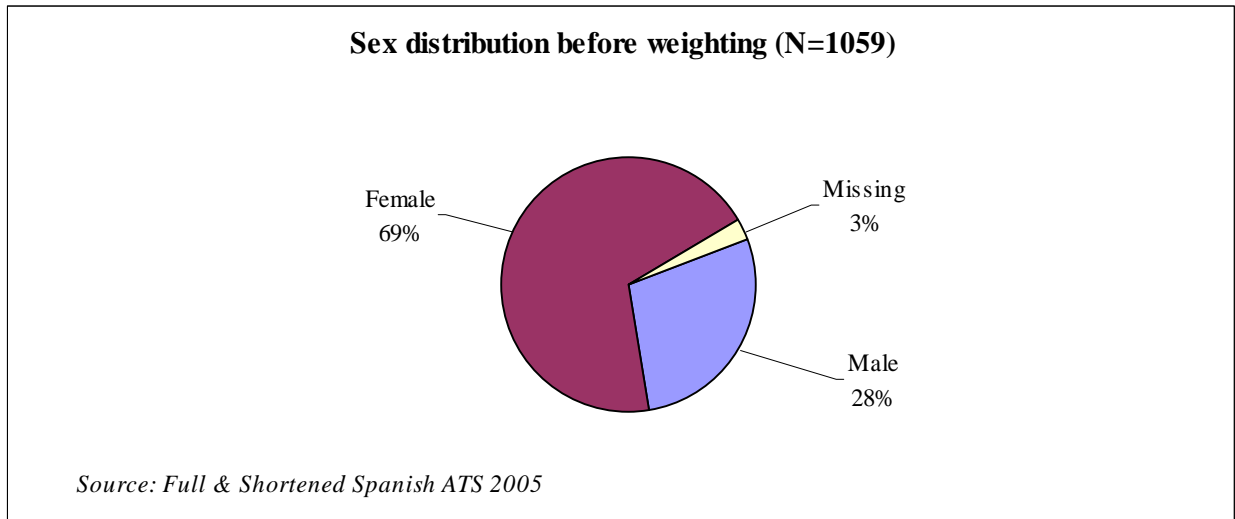
Figure 1. Ethnic affiliation of the final sample



Sex

As mentioned above, the sample was heavily skewed towards female respondents. Figure 2 displays the sex distribution of the sample before weighting.

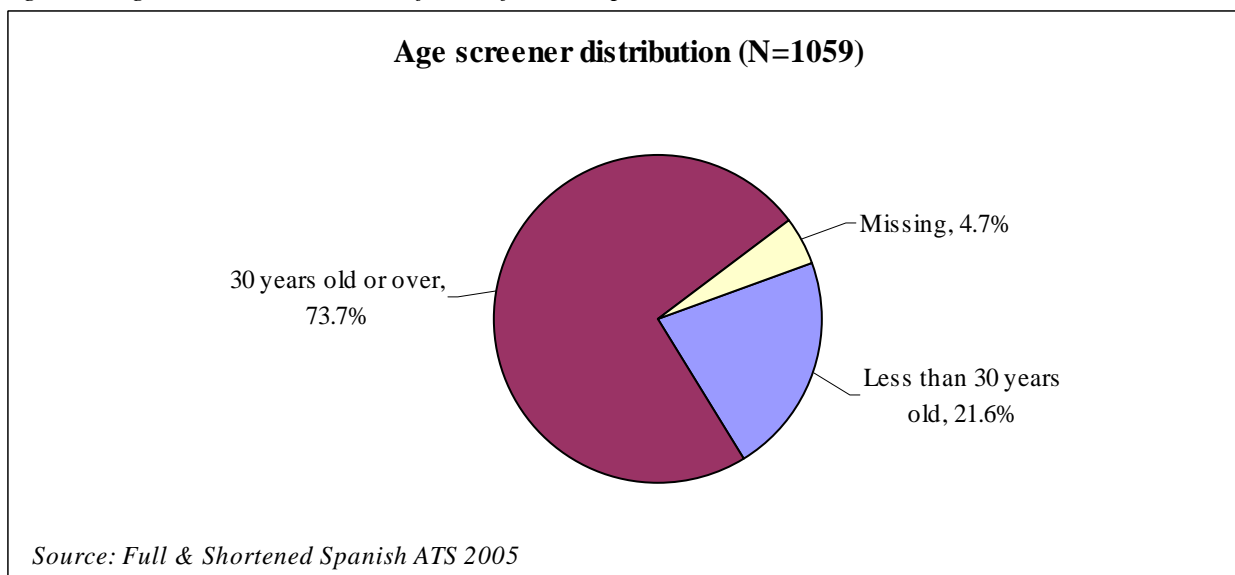
Figure 2. Unweighted sex distribution for the final sample



Age

Respondents to the Shortened Spanish ATS were only asked an age screener item, i.e. if they were 30 years old or older, or less than 30 years of age. Only respondents to the Full Spanish ATS reported their exact age. Therefore the final sample contained only information on the age screener question for all respondents. Findings for the age screener are displayed in Figure 3.

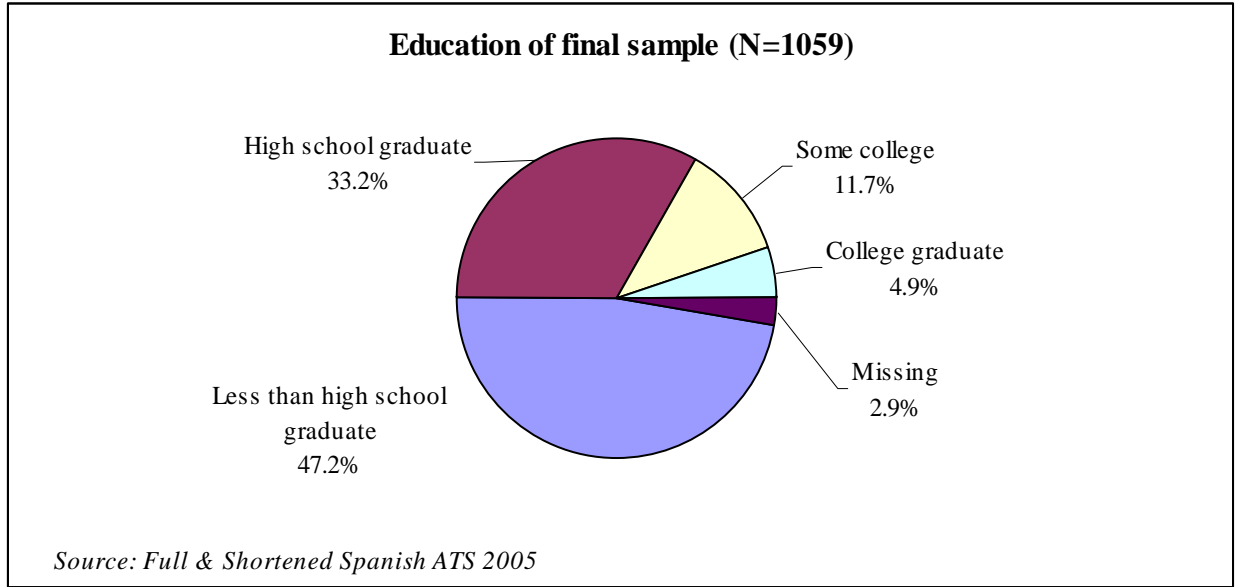
Figure 3. Age screener distribution for the final sample



Education

The large majority (80%) of the respondents in the final sample reported having a high school degree or less (see Figure 4).

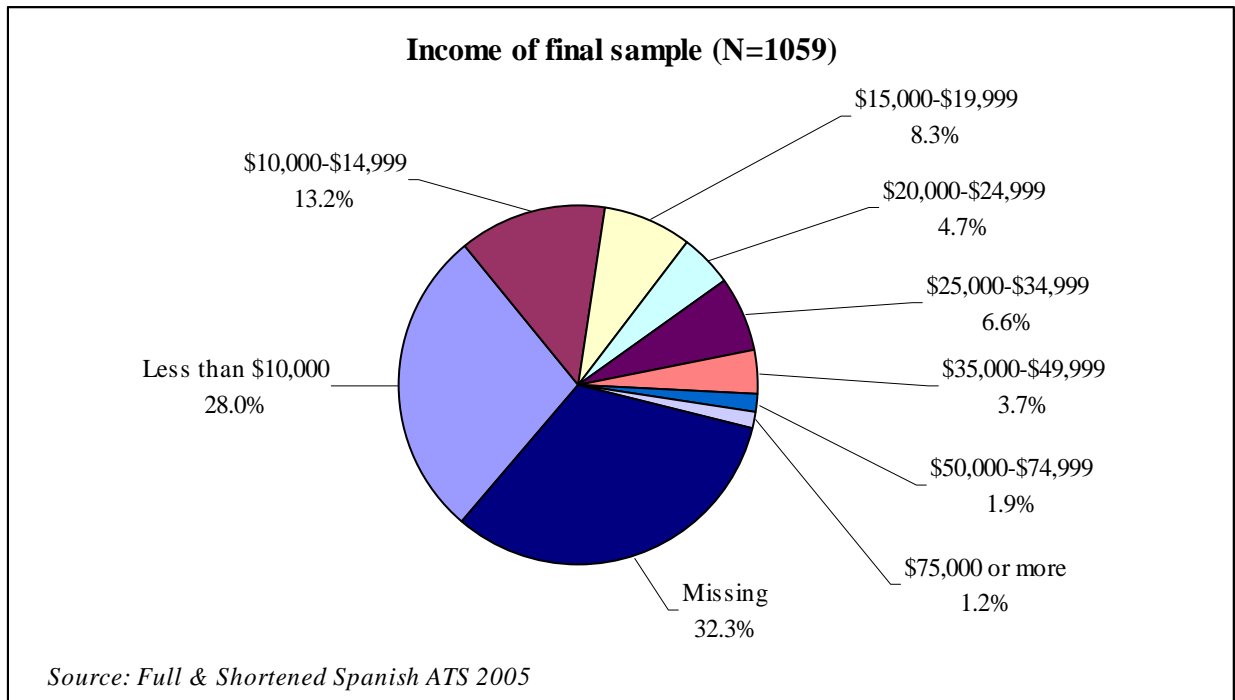
Figure 4. Education of the final sample



Income

Of those providing data on household income, the vast majority of the final sample reported incomes in the lowest ranges of given response options (see Figure 5).

Figure 5. Income of the final sample



Only 26 percent of all respondents with available data reported annual incomes higher than \$15,000 and only 7 percent have annual incomes higher than \$35,000.

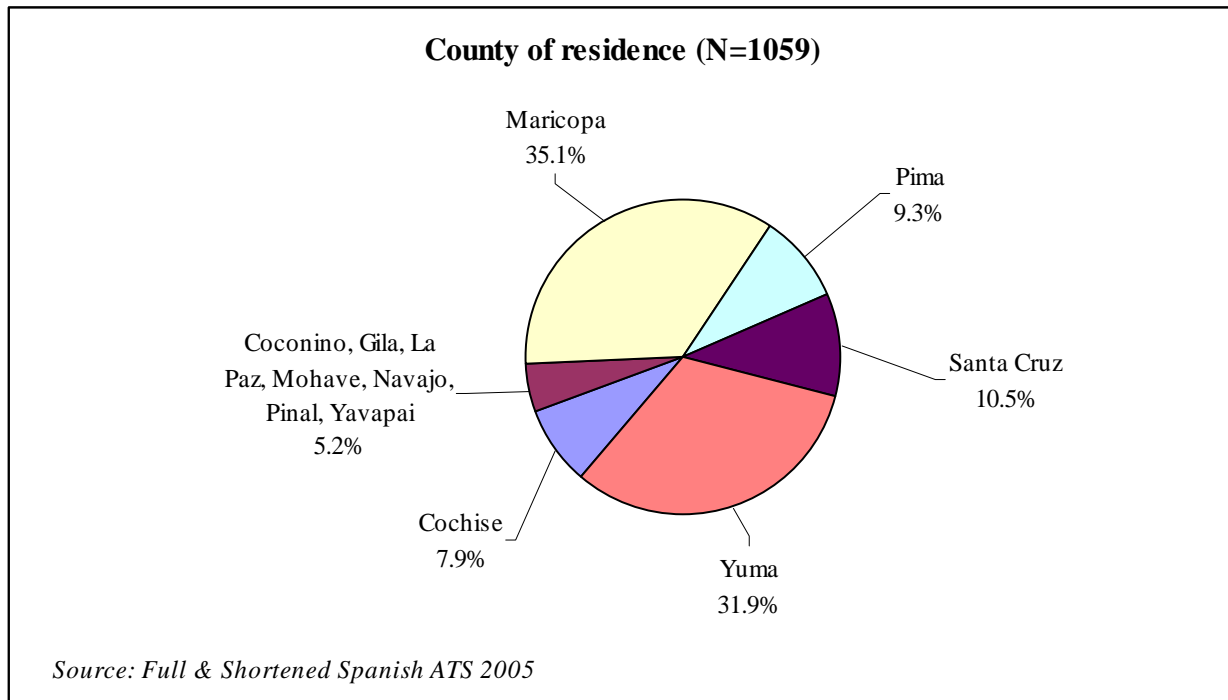
A closer investigation of the high percentage (32%) of people not providing data on income level revealed that the vast majority reported an education level of high school degree (32%) or less (49%). Only 13 percent of respondents who have missing data on income reported some college education or a college degree. Because formal education and income are very strongly correlated, it seems reasonable to assume that the vast majority of respondents not reporting income would be found to be in the lower ranges of the income spectrum.

The U.S. Census Bureau has set the poverty threshold for the year 2003 for a single person under the age of 65 years without children at \$9827. This means that even with the most cautious estimations, at least one out of three respondents and more likely over half, lives in poverty.

County of residence

Roughly 60 percent of all respondents in the final sample resided in counties directly bordering Mexico (Cochise, Pima, Santa Cruz and Yuma County). Apache, Graham and Greenlee County did not provide any respondents for the final sample (see Figure 6). About 35 percent reported residing in Maricopa County. In order to get a better understanding of the representativeness of the sample with respect to county of residence, population data were obtained from the American Community Survey 2004⁷. This survey provides data on language and ethnicity breakdowns within Maricopa and Pima County.

Figure 6. County of residence of the final sample



As can be seen in Table 2, rural Spanish-speaking Hispanics appear to be over-represented in the sample obtained for this report because 55.5 percent of all respondents reported residing in

counties other than Maricopa and Pima County which constitute the two most urbanized counties in the state.

Table 2. County of residence of Spanish speaking Hispanic people, ACS 2004 compared to report sample

	American Community Survey 2004*	Sample of this report**
Maricopa County	64.4%	35.1%
Pima County	18.7%	9.3%
Other Counties	16.9%	55.6%

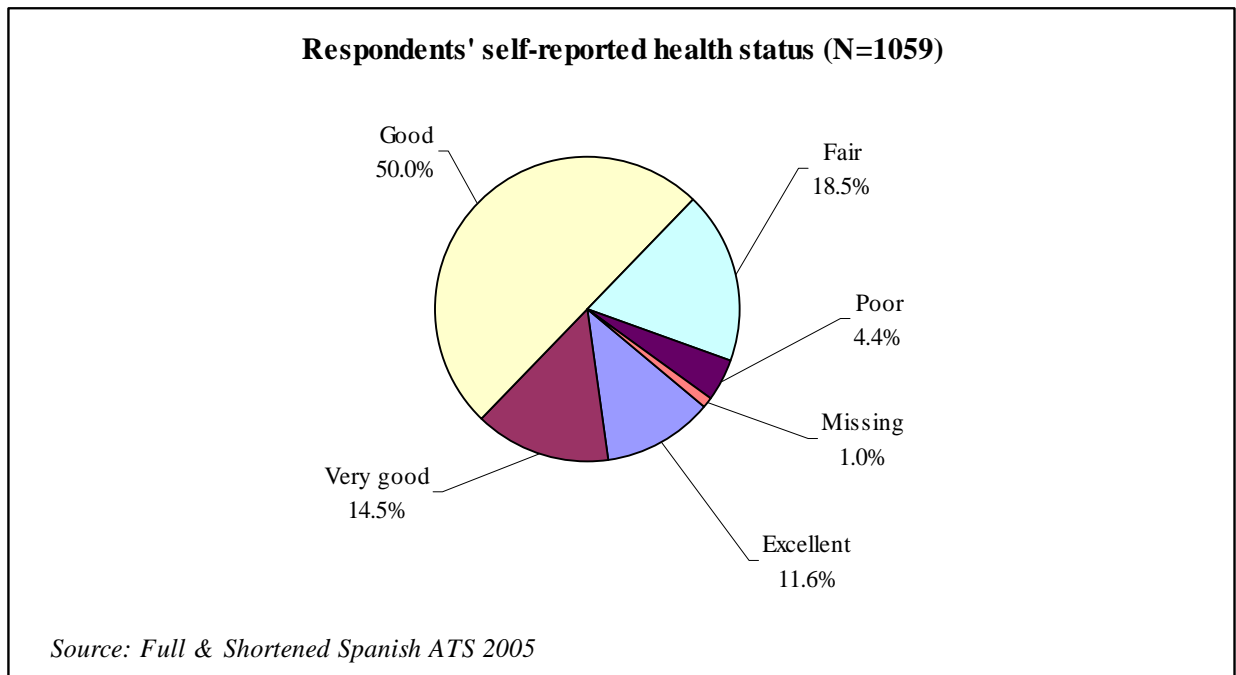
*Hispanic/Latino individuals who speak Spanish 5 years and older

**Hispanic/Latino population who speak Spanish 18 years and older

Self-reported health status and health care coverage

Respondents were asked to rate their health status on a scale ranging from 1 (excellent) to 5 (poor, see Figure 7). About one quarter of the respondents reported that their health was only fair, or poor.

Figure 7. Self-reported health status



About half of the sample (52%) reported having some kind of health care coverage.

2.5. Acculturation-related demographics

This section describes the characteristics of the final sample on items that convey information about the likely acculturation status of the respondent.

Country of birth and time in the US

The vast majority (about 80%) of respondents are first-generation Arizona residents (see Figure 8). Virtually all respondents (95%) who reported being born outside of the US were born in Mexico (see Figure 9).

Figure 8. Place of birth

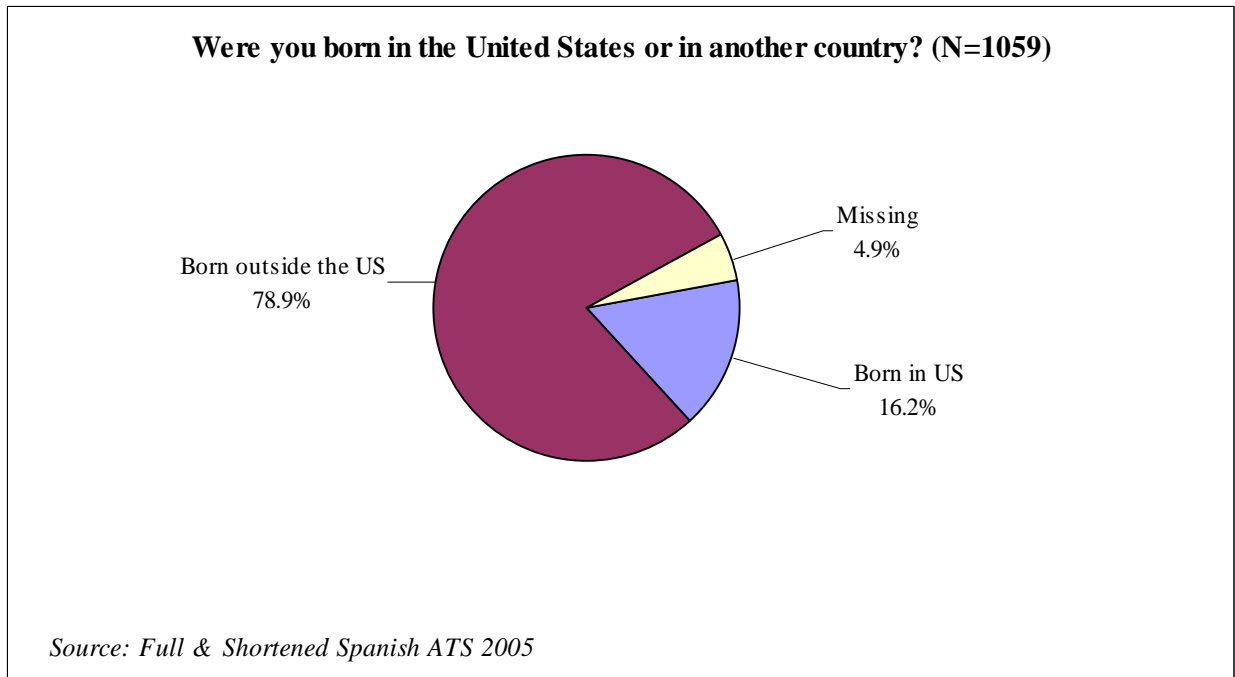
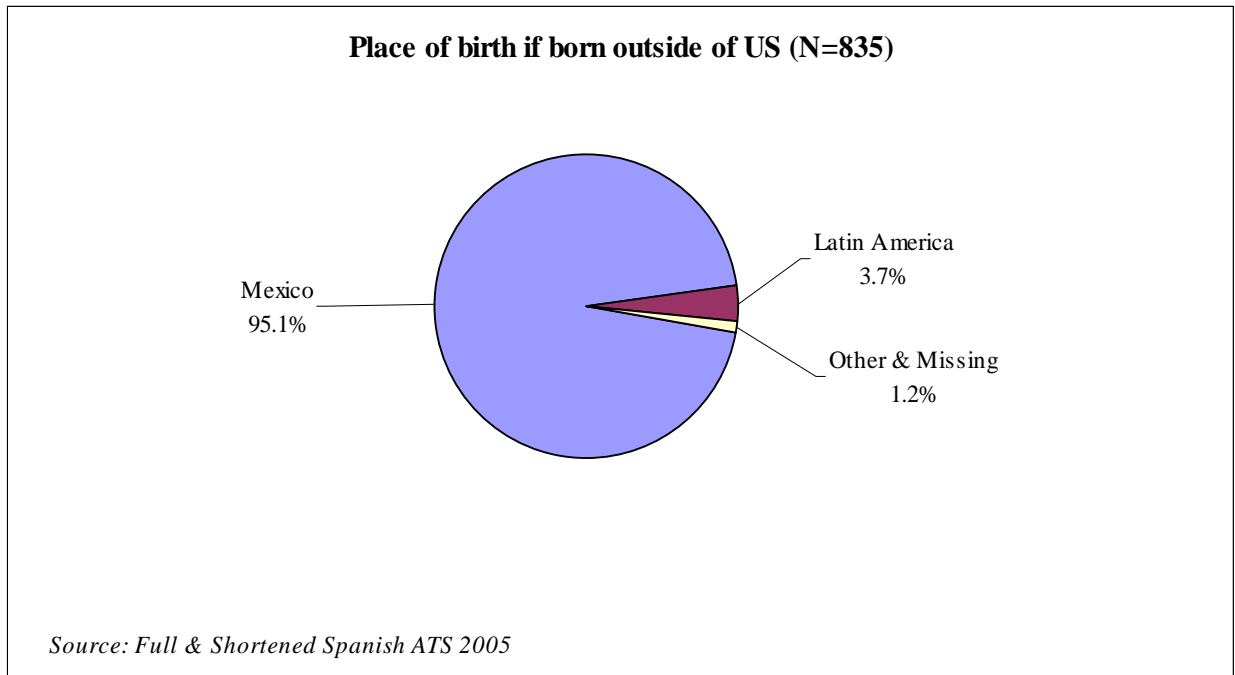


Figure 9. Place of birth if born outside of the US

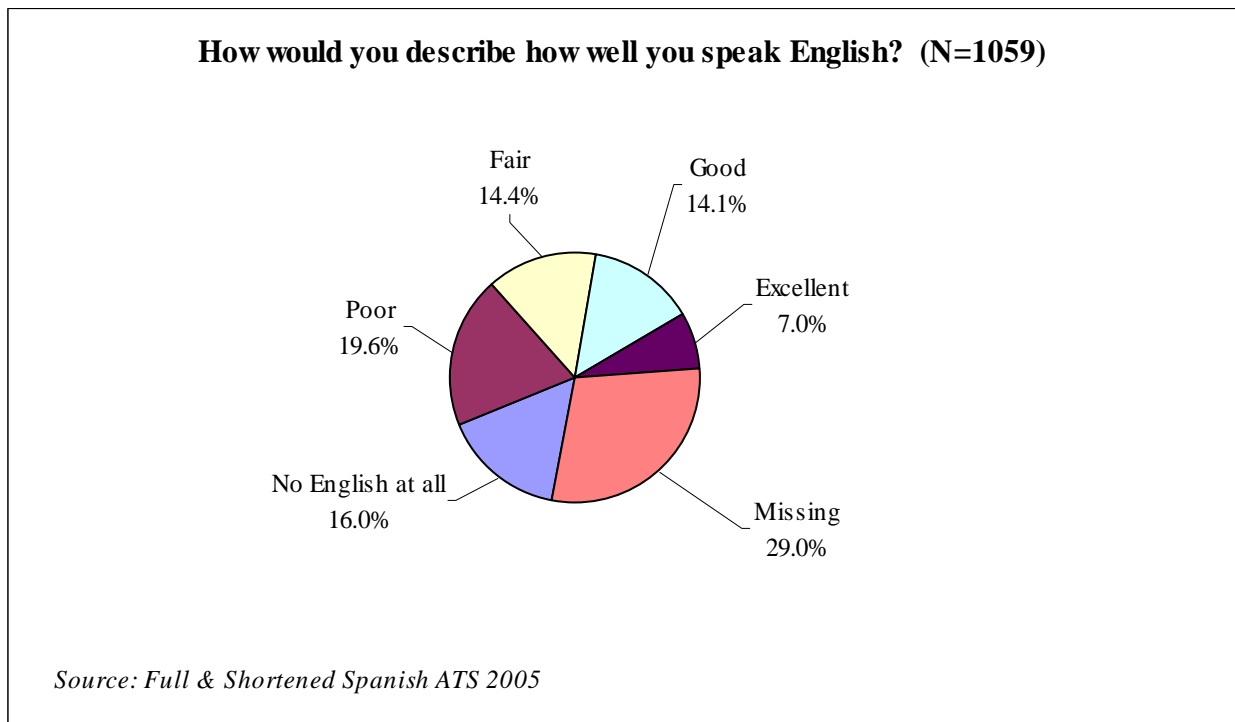


Only 31 percent of the first-generation sample provided enough information to calculate time of residence in the US (current age, and age of arriving in the US). Of those who responded, these residents were, on average, 44 years old (SD=15.8 years) and had been in the US for 24 years (SD = 14.3 years).

English proficiency

Respondents were asked to assess their proficiency in English. About one third indicated that they spoke English poorly or not at all (36%) and one out of five respondents reported good or excellent English skills (see Figure 10). No data were available for 29 percent of the sample.

Figure 10. How would you describe how well you speak English?



2.6. Comparison to Census demographics

To better assess whether the sample was representative for the respective population as a whole, demographics for the AZ Spanish ATS 2005 sample were compared to 2000 US Census data on those born in Mexico, because the vast majority (75%) of the sample reported having been born in Mexico (see also section 2.5, page 15).

Table 3. Comparison of key demographic indicators of Mexico-born US population (CENSUS 2000) and AZ Spanish ATS 2005

	% of AZ Spanish ATS 2005 sample	% of US Mexico-born population, CENSUS 2000
<i>Born in Mexico</i>	75	100
<i>Education - Less than HS</i>	83	86
<i>Sex - Female</i>	69	45
<i>English skills "less than very well"</i>	90	72
<i>Age - 30 years old or older</i>	74	67

When compared to the Mexico-born population of the general US, the (unweighted) sample of the Arizona Spanish ATS 2005 sample is approximately

- equivalent in lack of formal education
- heavily skewed towards females (most likely resulting from the telephone survey methodology)
- notably less proficient in English language
- about the same average age

3. Results related to smoking

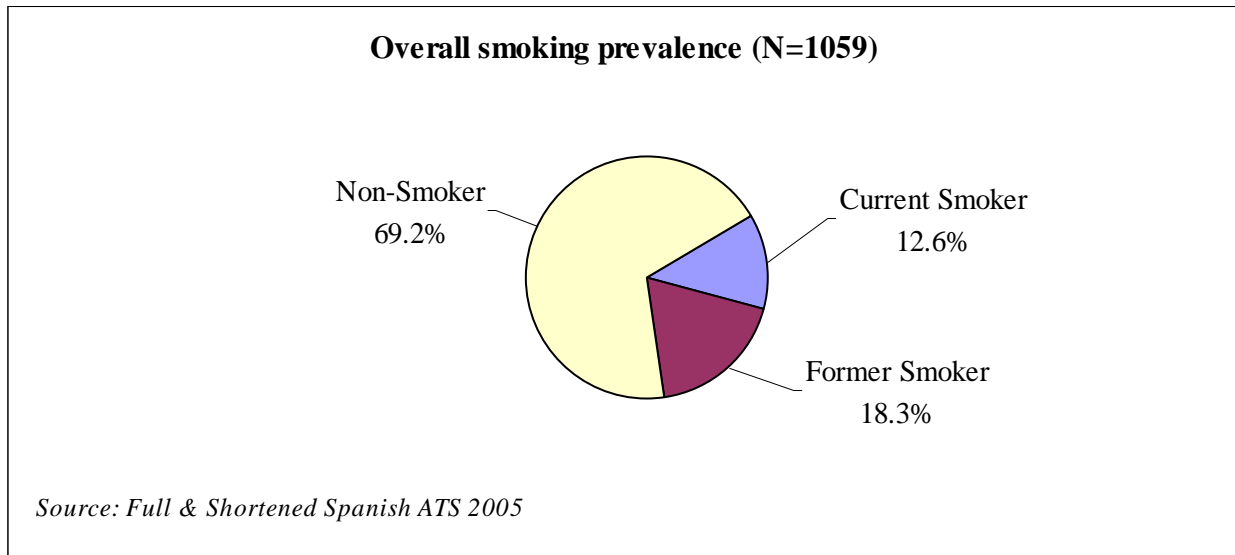
As described above, weighting was applied to adjust for a sample being heavily skewed towards females. The findings of the following section are based on weighted data.

3.1. Smoking Prevalence

Overall Smoking Prevalence

The overall smoking prevalence for the Spanish ATS sample is 13 percent. Figure 11 shows the distribution of Spanish-speaking Hispanic Arizonans' smoking status, that is, whether the respondent is a "never smoker" (has smoked less than 100 cigarettes in one's lifetime and does not currently smoke); a "former smoker" (has smoked 100 cigarettes or more in one's lifetime and does not currently smoke); or a "current smoker" (has smoked 100 cigarettes or more in one's lifetime and currently smokes). About three quarters are never smokers, roughly 18 percent are former smokers, and only 13 percent are current smokers. The smoking prevalence for this specific sample is distinctly lower than the 18.9 percent overall AZ prevalence for 2005⁸.

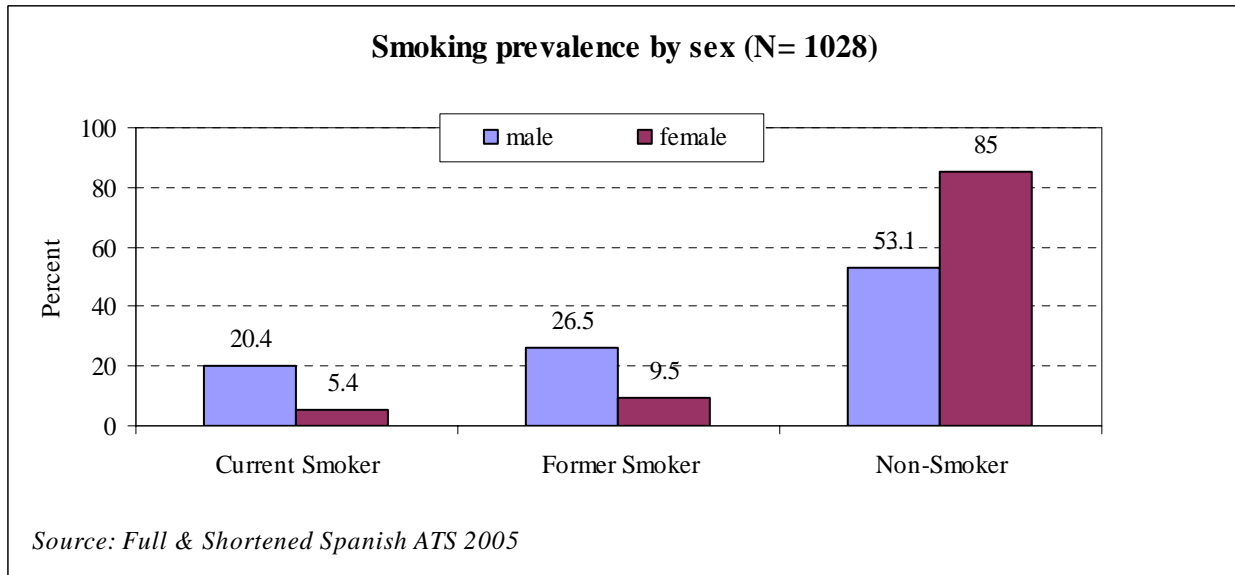
Figure 11. Overall Smoking Prevalence



Smoking Prevalence by Sex

The low overall smoking prevalence rate for Spanish-speaking Hispanic respondents results largely from the substantially lower rate for females in this population (see Figure 12). Only five percent of all female respondents reported that they currently smoke some days or everyday, compared to 20 percent of males. Although nearly half of all men reported that they had smoked at some point in their lives, 85 percent of females reported that they have never been smokers.

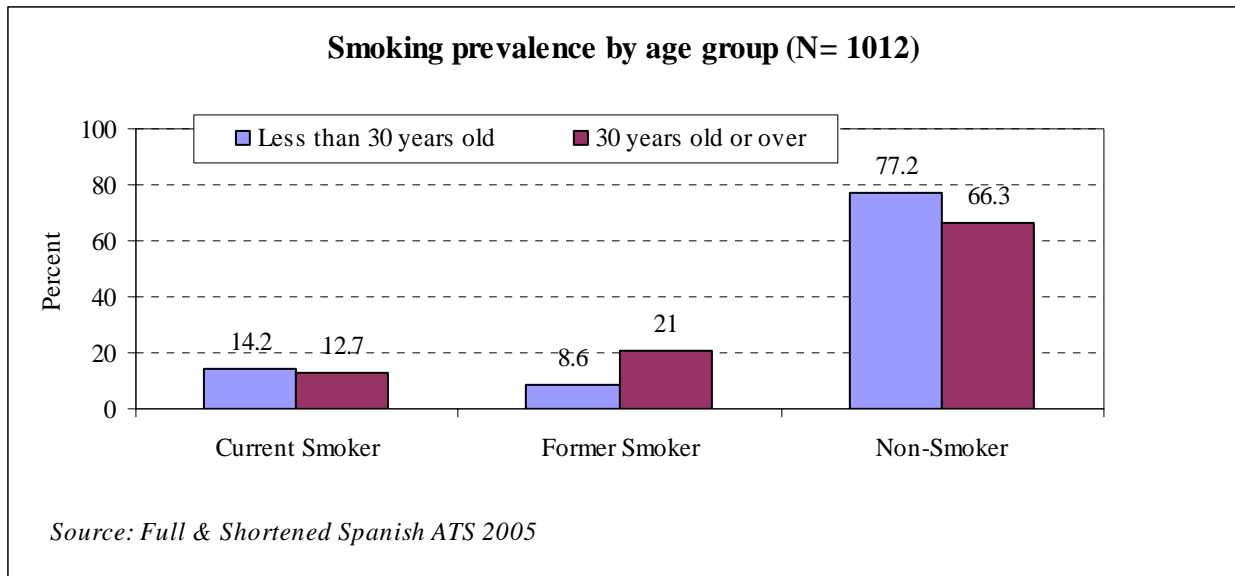
Figure 12. Smoking prevalence by sex



Smoking Prevalence by Age

Figure 13 shows that there were virtually no differences in prevalence between younger (under 30) and older (over 30) smokers in this sample (14% and 13%, respectively). A considerably higher percentage of older adults, however, reported that they had been former smokers.

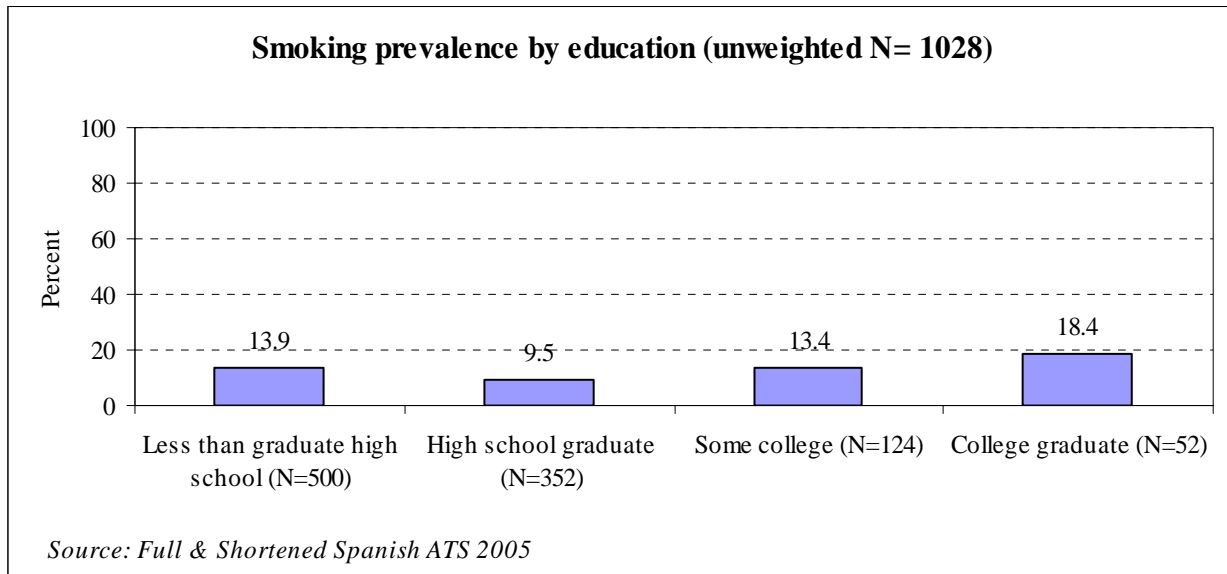
Figure 13 . Smoking prevalence by age group (age screener item only)



Smoking Prevalence by Education

The estimated prevalence rate of smoking differed across reported educational levels. The lowest rate (9%, see Figure 14) was found for respondents with a high school degree. Education and smoking prevalence are inversely related in the US general population: individuals with the lowest education typically have a greatly increased risk of smoking⁹. In contrast to this general pattern, Spanish-speaking, self-identified Hispanic respondents with a college degree reported the highest rate of current smoking (18%, see Figure 14). Those with less than a high school degree and those with some college education reported smoking rates of about 14 percent.

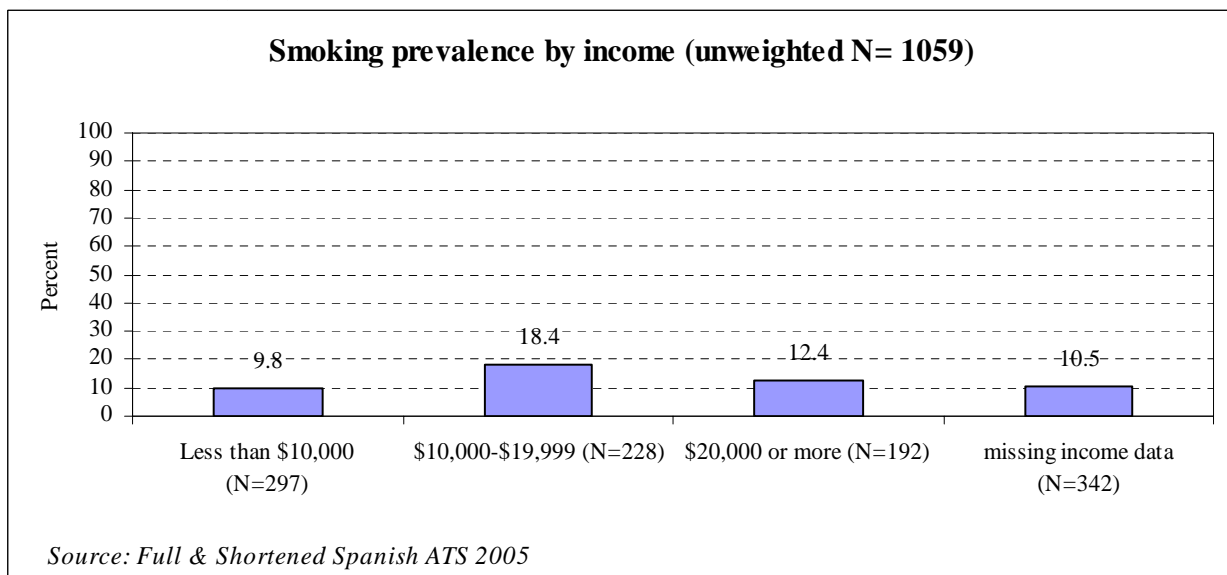
Figure 14 . Smoking prevalence by education



Smoking Prevalence by Income

As described in the section on demographic characteristics, survey respondents came primarily from low-income households. Because of the low number of individuals reporting income over \$20,000, all of the respondents reporting incomes of \$20,000 or more were combined into a single category (see Figure 15).

Figure 15 . Smoking prevalence by income

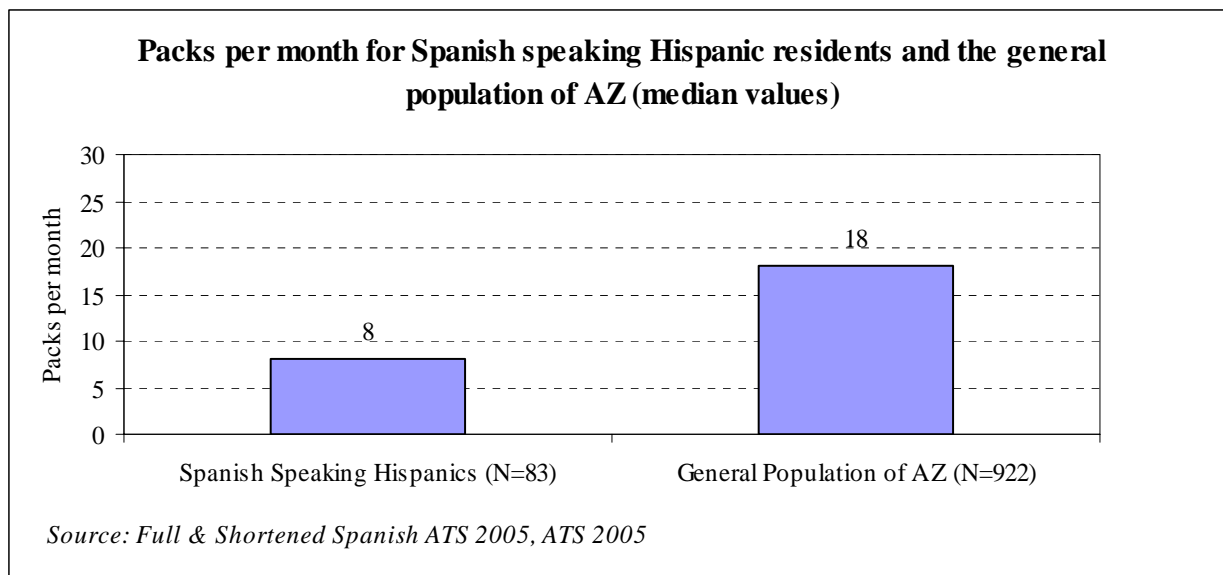


Roughly one in five respondents who reported an annual income between \$10,000 and \$19,999 were categorized as current smokers (see Figure 15). Those who reported the lowest incomes (less than \$10,000 per year) and the highest incomes (\$20,000 or over) were only half as likely to smoke (about 10% and 12%, respectively).

3.2. *Cigarette Consumption*

Figure 16 compares the median number of packs smoked in a month reported by the Spanish speaking Hispanic sample with the estimate for the general population of Arizona¹⁰. The consumption of Spanish-speaking Hispanic residents is considerably lower than that of the general population of Arizona.

Figure 16 . Packs per month for Spanish speaking Hispanic residents and the general population

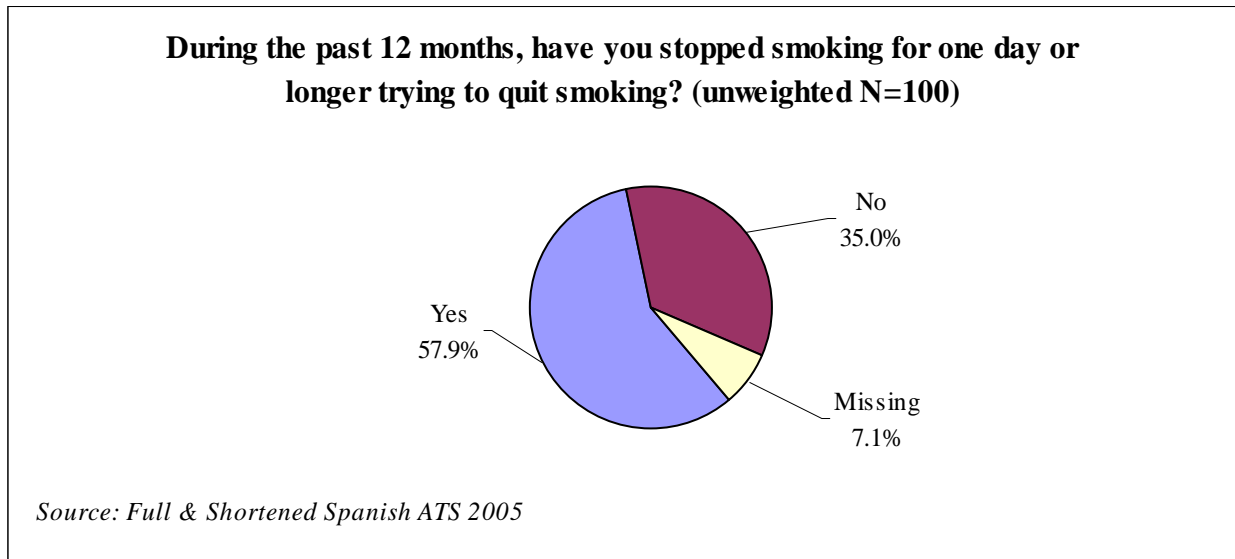


3.3. *Smoking Cessation*

Past and Future Quit Attempts

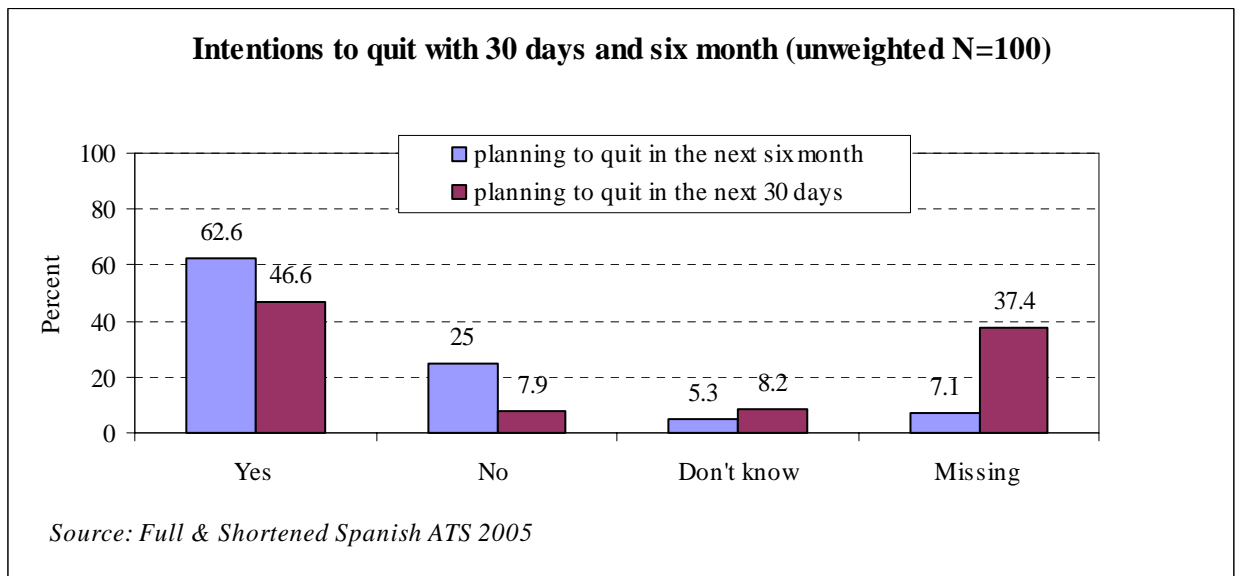
About fifty-eight percent of current smokers reported that they had not smoked for 24 hours or longer during the past year in order to quit smoking (see Figure 17).

Figure 17. Current smokers who made a quit attempt in the past year



About half of the respondents (47%) reported that they intended to quit within the next thirty days, and sixty-three percent reported that they intended to quit within the next six months (see Figure 18).

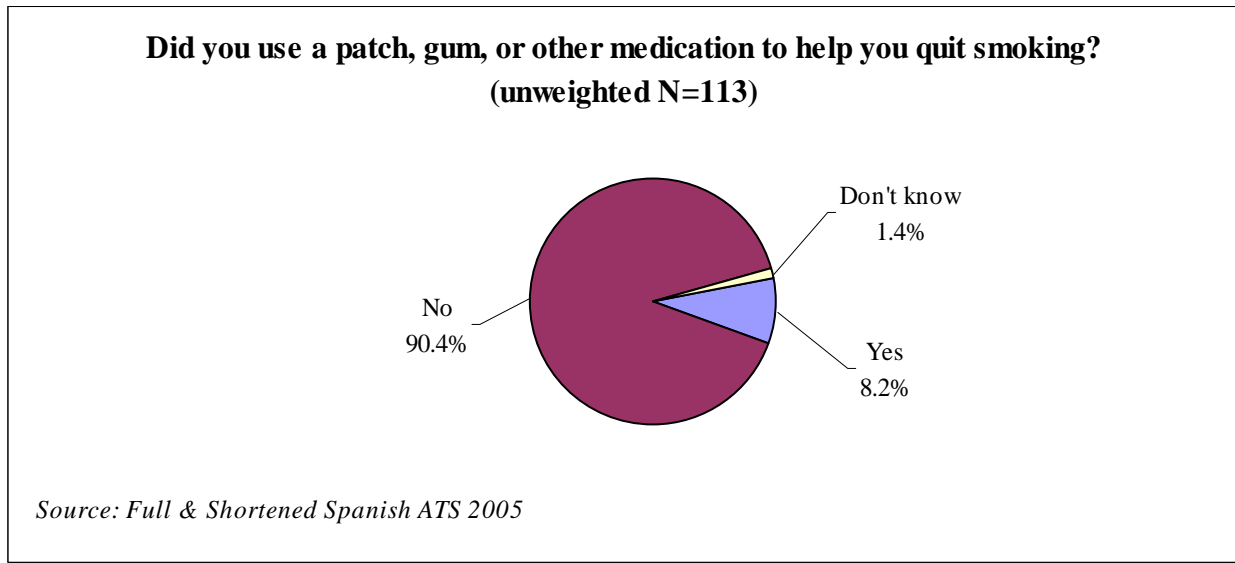
Figure 18. Intentions to quit within the following thirty days and the next six month



Types of Assistance Used to Quit

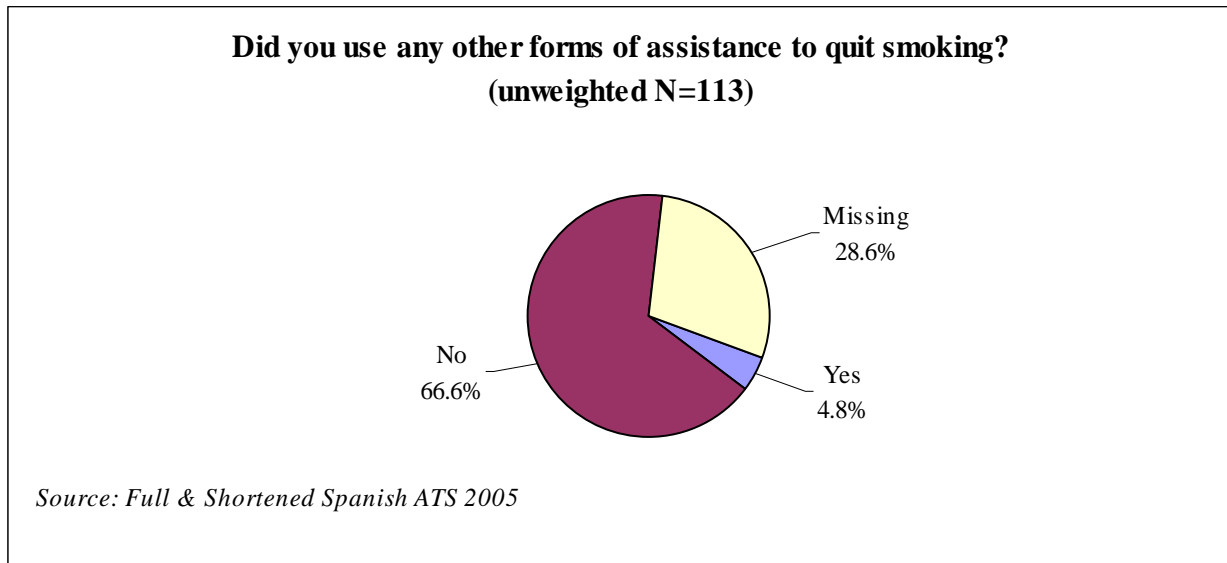
Both current smokers (for their last quit attempt) and former smokers (when they quit for good) were asked about the types of assistance they used to help them quit. The vast majority of eligible respondents did not use any medical/pharmaceutical aids to quit smoking (90 percent, see Figure 19). Only eight percent reported having used a patch, gum or other medication to quit smoking.

Figure 19. Medical/pharmaceutical helps to quit smoking



Only five percent of all eligible respondents reported having used any other form of help to quit (see Figure 20). Respondents were then given specific response options for other quit assistance they may have used, such as a class, clinic, telephone help line, one-on-one counseling. However, the large majority (67%) did not use any other form of quit assistance. These findings suggest that most Spanish-speaking Hispanic current smokers who made a quit attempt and most former smokers quit without any formal assistance.

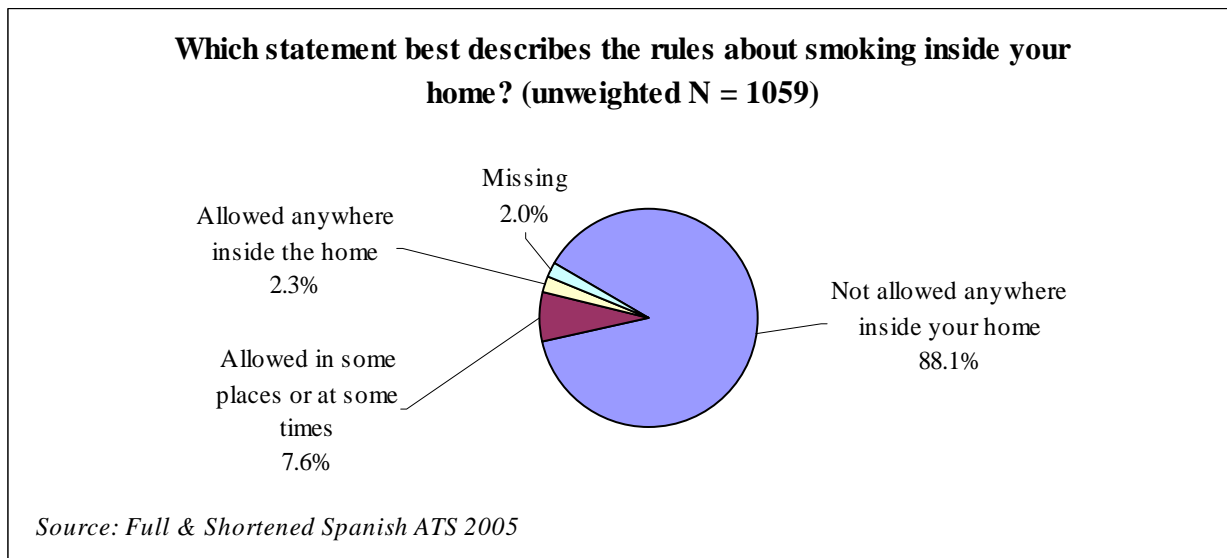
Figure 20. Did you use any other form of help to quit smoking?



3.4. Household Smoking Restrictions

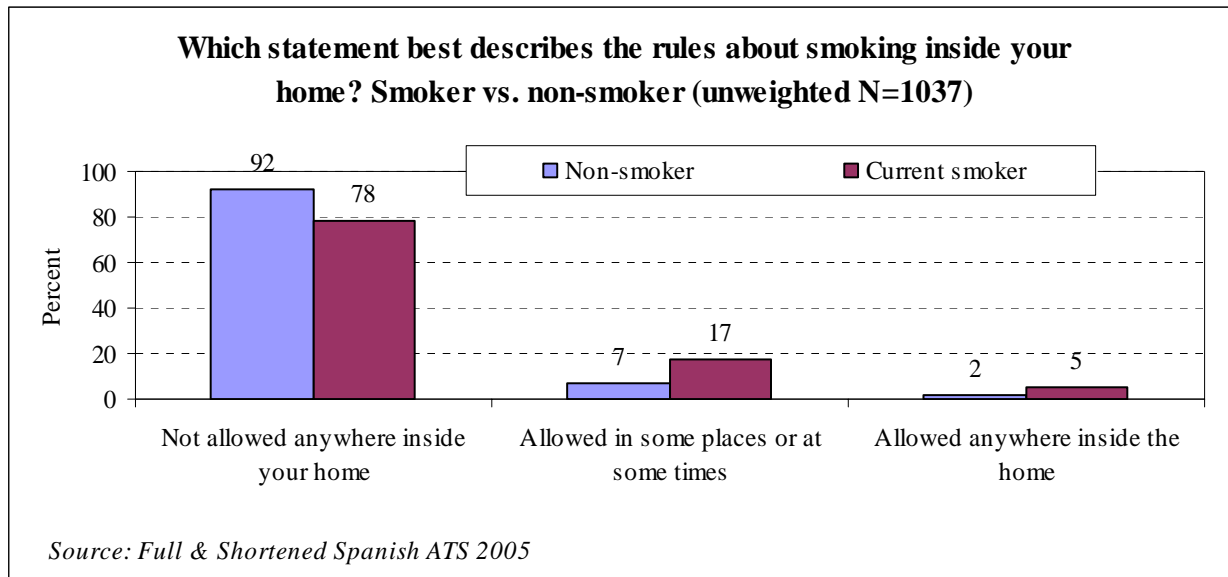
Eighty-eight percent of all respondents reported having a complete home smoking ban, that is, smoking is not allowed anywhere inside their home (see Figure 21). Only about two percent reported that smoking was allowed anywhere inside their home.

Figure 21. Household smoking rules.



A higher percentage of non-smokers reported home bans or restrictions than did smokers (see Figure 22).

Figure 22. Household smoking rules for smoker and non-smoker.



4. Discussion

This is the first report on the smoking behavior and attitudes of Spanish-speaking Hispanic residents of Arizona. Those sampled are likely to over-represent rural Spanish-speaking residents in the state, though to what extent is not clear because there is a lack of reliable demographic information on this subpopulation. Although not necessarily strictly representative of the population, these data provide a source of information on a growing, but largely understudied, subpopulation of Arizona.

The majority of respondents reached were female members of very low-income families. Even when weighting for this large sex difference, the overall prevalence rate for Spanish-speaking Hispanic residents is lower than the prevalence rate for the general population. However, this difference in prevalence is driven primarily by the extremely low rate reported by females; the male prevalence rate for Spanish-speaking Hispanic males is only slightly lower than the male rate in the general population. Because the majority of Spanish-speaking Hispanics reached for this report are first-generation residents from Mexico, this suggests that there are likely to be cultural factors surrounding women smoking that serve as restraining social norms. As this subpopulation becomes more acculturated, smoking rates appear to approach those in the general population (as evidenced by the higher rates among the college-educated and those with higher incomes).

Although smokers in this subpopulation report a desire to quit smoking, there are very low rates reported for the use of smoking cessation assistance, including medications or classes. It may be that Spanish-speaking residents are largely unfamiliar with these types of cessation aides; the a

large proportion of respondents chose not to answer the question, suggesting that they may not have understood what the question was asking. Social marketing in Spanish for available services and how to access them may provide support to the majority of Spanish-speaking smokers who report intending to quit.

The Spanish-speaking Hispanic population reached by these surveys report a high rate of home smoking bans. Supporting these and encouraging them among smokers' households can help to reduce exposure of children to secondhand smoke in these households.

¹ http://www.censusscope.org/us/s4/chart_popl.html

² <http://www.workforce.az.gov/?PAGEID=67&SUBID=137>

³ http://www.censusscope.org/us/s4/chart_race.html

⁴ http://www.censusscope.org/us/s4/chart_language.html

⁵ http://www.censusscope.org/us/s4/chart_language.html

⁶ Arizona Department of Health Services Adult Tobacco Survey 2005 Report

⁷ <http://www.census.gov/acs/www/>

⁸ Arizona Department of Health Services Adult Tobacco Survey 2005 Report

⁹ Wetter, D., Cofta-Gunn, L., Foulad, R., Irvin, J., Daza, P., Mazas, C., Wright, K., Cinciripini, P., Gritz, E. (2005). Understanding the associations among education, employment characteristics, and smoking. *Addictive Behaviors*, 30, 905–914.

¹⁰ Arizona Department of Health Services Adult Tobacco Survey 2005 Report