Prevalence of Trial of Snus Products Among Adult Smokers

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A 2008 survey assessed the proportion of smokers in 8 geographic areas who reported trying snus. In test markets, 10% of smokers had tried snus in the past year. Among young adult men, the trial rate was 29%. Trial was more likely among Whites than among minorities, among respondents with lower education than among those with higher education, and among those without immediate plans to quit smoking than among those intending to quit in the next 30 days. The association between trial and low cessation motivation is an important target for research. (*Am J Public Health*. 2011;101:1874–1876. doi: 10.2105/AJPH.2010.200097)

Tobacco control measures, such as increases in excise taxes on cigarettes, the spread of smoke-free ordinances, and growing antismoking norms, have resulted in a decline in cigarette smoking.[1–4] In response, the tobacco industry has attempted to diversify its product offerings in the United States.[5] In 2006, RJ Reynolds and Altria launched snus in several US test markets. This new tobacco product differs from conventional smokeless tobacco in that it (1) is lower in tobacco-specific nitrosamines, a major carcinogen; (2) does not require spitting; and (3) is packaged in small pouches that are placed under the upper lip and can be relatively unobtrusive when in use.

The introduction of snus in the United States has been controversial within the tobacco control community. Although snus is less harmful than cigarettes,[6–9] some argue that promoting snus for harm reduction could lead to a delay in smoking cessation and the erroneous perception that the products are safe.[8,10–15] Snus is currently being marketed to smokers as a way to enjoy tobacco in places where smoking is prohibited.[16] To date, advertising messages do not include claims of reduced risk, but companies are seeking permission from the US Food and Drug Administration to make such health claims.[17] It is difficult to predict how consumers will respond to these new spitless products, especially if they are advertised as less harmful than smoking.

The only published population-based study of awareness and trial of snus in US test markets took place in Indiana.[18] Results indicated that about 20% of male smokers reported having tried 1 of the products, but trial was rare (1.4%) among female smokers. The Indiana study was limited by relatively small samples of smokers, and findings reflected only 1 test market area. The current study included a larger sample of smokers in 8 designated market areas. Three of these included test markets for several snus products. We investigated associations between snus trial, demographic characteristics, and smoking patterns.

METHODS

The data were from the first 2 waves of an ongoing longitudinal evaluation of EX®, a national mass media smoking cessation campaign. Survey items on snus trial were added to the second wave. The baseline sample included smokers from 8 designated market areas, 3 of which were test markets for snus: Portland, OR; Kansas City, MO; and Columbus, OH. Identical surveys also were administered in 5 designated market areas that had not been designated as snus test markets: Birmingham, AL; Fort Smith/Fayetteville, AR; Houston, TX; Phoenix/Prescott, AZ; and Pittsburgh, PA.

We conducted the baseline random-digit–dialed survey between February 5, 2008, and April 15, 2008, to identify smokers 18 to 49 years of age. Screening interviews identified 8489 eligible respondents. A total of 5616 (66%) completed the interview. The follow-up survey, conducted between August 23, 2008, and October 19, 2008, was completed by 4067 smokers (retention rate=72%; overall response rate=48% among known eligible households when The American Association for Public Opinion Research response rate method 3 was used).[19]

The outcome measure—confirmed trial of snus—was included only on the follow-up survey. The 3 criteria for confirmed trial were (1) affirming having heard of "New tobacco products . . . that come in teabaglike pouches that are put in the mouth under the lip (and) do not involve chewing, spitting or smoking"; (2) reporting having used such a product in the past 12 months; and (3) identifying the product as 1 of the following: Taboka, Camel Snus, Skoal Dry, Marlboro Snus, Triumph Snus, Grand Prix Snus, or Tourney Snus.

Predictors included the following variables all measured at baseline: residence in a test market (yes or no), gender, age, minority status (White, non-Hispanic vs other), education level (high school or less vs more than high school), nicotine dependence (smoked ≥20 per day and had first cigarette within 30 minutes of waking or not), quitting intentions (planned to quit within 30 days or not), and exposure to smoking bans at work and at home. We also assessed smoking cessation on the basis of smoking status reported at follow-up.

RESULTS

Unadjusted odds ratios showed that trying snus was significantly more likely among test market residents than among non–test market residents; among males than among females; among younger adults than among older adults; among White, non-Hispanic respondents than among minority respondents; and among those with no more than a high-school education than among those with higher levels of education (see Table 1). Confirmed trial was significantly associated with lack of intention to quit smoking within 30 days but was not associated with level of nicotine dependence or with exposure to smoking bans at work or at home. Smoking cessation between the baseline and the follow-up survey also was unrelated to snus trial.

A multivariate logistic regression examined the independent effect of each of the predictors while controlling for the other predictors and confirmed that snus trial was almost 5 times more likely to occur in test markets than in non–test markets, 4 times more likely among males than among females, and 9 times more likely among young adult smokers aged 18 to 24 years than among smokers older than 36

TABLE 1—Levels of Snus Trial in Demographic and Smoking Subgroups Among 4067 Smokers in 8 Designated Market Areas: United States, August 23–October 19, 2008

	Tried Snus, No. (%)	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Snus test market			
Yes	1704 (10.4)	4.69* (2.87, 7.66)	4.87* (2.89, 8.21)
No (Ref)	2363 (2.4)	1.00	1.00
Gender			
Male	1840 (8.0)	4.21* (2.36, 7.50)	4.00* (2.22, 7.24)
Female (Ref)	2227 (2.0)	1.00	1.00
Age group, y			
18–24	616 (12.3)	9.21* (5.33, 15.93)	9.46* (5.21, 7.19)
25–35	1094 (5.6)	3.89* (2.20, 6.90)	3.77* (2.12, 6.69)
36–49 (Ref)	2357 (1.5)	1.00	1.00
Race/Ethnicity			
White, non-Hispanic	3013 (6.5)	2.69* (1.43, 5.05)	2.02* (1.07, 3.83)
Hispanic minority (Ref)	1054 (2.5)	1.00	1.00
Education level			
≤ High school	2414 (6.5)	1.96* (1.27, 3.03)	1.62 (0.99, 2.66)
> High school (Ref)	1653 (3.4)	1.00	1.00
Heavy smoking			
Yes	1521 (6.1)	1.25 (0.81, 1.94)	1.32 (0.74, 2.34)
No (Ref)	2546 (5.0)	1.00	1.00
Plans to quit			
Not in next 30 d	3397 (5.9)	2.38* (1.25, 4.54)	2.37* (1.12, 5.00)
Next 30 d (Ref)	670 (2.6)	1.00	1.00
Smoking ban at work			
Yes	1612 (6.1)	1.61 (0.95, 2.73)	1.31 (0.75, 2.29)
No	864 (6.6)	1.74 (0.98, 3.09)	1.21 (0.66, 2.24)
Doesn't work or works at home (Ref)	1591 (3.9)	1.00	1.00
Smoking ban at home			
Yes	1708 (5.8)	1.20 (0.79, 1.84)	1.19 (0.67, 2.10)
No (Ref)	2359 (4.9)	1.00	1.00
Smoking status at follow-up			
Quit	217 (5.9)	1.12 (0.53, 2.35)	1.92 (0.80, 4.61)
Still smoking (Ref)	3850 (5.3)		1.00

Note. CI = confidence interval; OR = odds ratio.
*Significant at the .05 level of confidence. Numbers are unweighted; percentages are weighted.

years. White smokers were twice as likely as minorities to try snus, and those with at most a high-school education were about 1.6 times more likely to try snus than were those with higher education. Finally, those with no immediate plans to quit were more than twice as likely to try snus as were those reporting an intention to quit in the next 30 days. Figure 1 shows that in the test market areas, almost one third of the youngest adult male smokers and about one tenth of the youngest adult female smokers had tried the new snus products. The products, as currently marketed, apparently have not been of much interest to smokers older than 36 years.

DISCUSSION

Although the current findings support earlier work reporting that these oral tobacco products are more likely to be tried by men than by women, our study was the first to identify the clear age gradient showing a high magnitude of interest among those aged 18 to 24 years, particularly males (29% of whom tried snus), and progressively lower levels of trial in the older age groups.

The fact that smokers who had no immediate plans to quit were more likely to try snus prompts the following question: Does having low motivation to quit smoking lead one to try snus, or does trying snus lower one's motivation to quit? We cannot determine the answer because we assessed snus trial only at follow-up, and trial might have occurred before the baseline measurement of quit intentions. If low motivation preceded snus trial (i.e., if snus is attractive to individuals who do not want to give up smoking but want to use it where smoking is banned), then using snus instead of going outside to smoke could potentially reduce health risks. However, if trial of snus leads to the lowering of motivation to quit smoking, then health risks would increase if the cessation rate were actually reduced by the product.

As the US Food and Drug Administration begins to implement regulation of tobacco products, it is essential that surveillance mechanisms of these new smokeless tobacco products be established. Because snus has the potential both to reduce exposure to tobacco toxins and to delay cessation, it is critical to better understand how the products will be used if we are to reduce the toll of the tobacco epidemic. ■

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L. Biener and K. McCausland led the writing of the brief, and L. Biener supervised the data analysis. All authors assisted in specifying and interpreting the data analysis and contributed to the editing and revision of the final brief.

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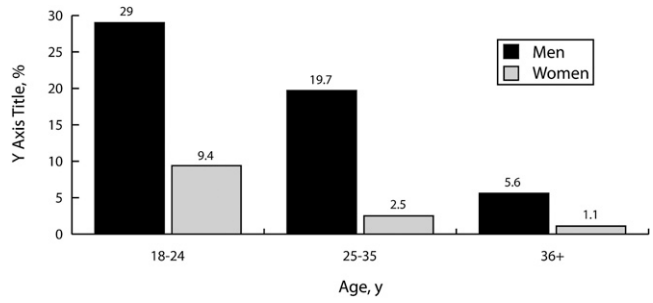

FIGURE 1—Trial of snus products by gender among 1074 smokers residing in test markets: Portland, OR; Kansas City, MO; and Columbus, OH, 2008.

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Human Participant Protection

This study was approved by the human subjects review committees of Westat, the data collection contractor, and Copernicus Group IRB, the external institutional review board used by the American Legacy Foundation.

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Increasing Hookah Use in California

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Hookah use is gaining popularity nationwide. We determined the correlates and trends for hookah use from the California Tobacco Survey. Between 2005 and 2008 hookah use increased more than 40%, and in 2008, 24.5% of young men reported ever using a hookah. Hookah use was more common among the young (18–24 years), the educated, the non-Hispanic Whites, and the cigarette smokers. Hookah use is increasing in California, especially among young adults, and in 2008 reached the highest prevalence ever reported for both genders. (*Am J Public Health.* 2011;101:1876–1879. doi:10.2105/AJPH.2011.300196)

Cigarette smoking has decreased in the United States nationwide, from 24.1% in 1998 to 20.6% in 2008,[1] and in California, from 16.1% in 1999 to 11.6% in 2008.[2] However, the use of hookah—water pipes used for smoking tobacco, often as the center of social gatherings—appears to be gaining popularity in the United States, especially among adolescents[3,4] and young adults.[5–11] Although hookah use is related to several preventable diseases[12–20] and may be more dangerous than cigarettes,[21–23] increased use may be caused by the belief that it is less harmful than cigarettes.[9,24–27]

California has long used a statewide tobacco surveillance tool, the California Tobacco Survey (CTS), to monitor early statewide trends in tobacco use. Using data from the CTS, we assessed the changes in hookah prevalence among California adults from 2005 to 2008.