



**AMERICAN UNIVERSITY OF ARMENIA
CENTER FOR HEALTH SERVICES RESEARCH AND
DEVELOPMENT**

**KNOWLEDGE, ATTITUDES AND PRACTICES ON
TOBACCO CONTROL POLICIES
IN ADULT POPULATION IN ARMENIA
A FOLLOW-UP SURVEY**

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Executive Summary

Armenia joined the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) on November 29 of 2004, followed by the adoption of the national tobacco control law "On Restrictions of Tobacco Sales, Consumption, and Use". Both, the international treaty and the national law were enacted early in 2005.

In May-June 2005, the Center for Health Services Research and Development (CHSR) at the American University of Armenia (AUA) conducted a baseline population-based survey within the framework of a larger tobacco control policy project supported by the Open Society Institute Network Public Health Program. The purpose of this population-based study was three-fold: 1) collect data about knowledge, attitudes, and practices on tobacco control policy among Armenian adult population, 2) advise tobacco control policy implementation and improvement, and 3) serve as a baseline for mid-term evaluation of the national tobacco control policies. The findings from the baseline survey demonstrated that despite the existing strong public support toward anti-smoking measures, the adopted regulations were not properly enforced and, furthermore, the majority of the population was unaware of the legal restrictions.

In 2007, the CHSR/AUA implemented a follow up survey with support from the Research for International Tobacco Control (RITC) program of the Canadian International Development Research Centre. A multi-stage cluster sampling methodology was used in the same urban and rural locations. However, different households were surveyed because of a random selection of cluster starting points. Trained interviewers surveyed equal number of men (360) and women (360) in the age group 18-60 years. The Institutional Review Board of the American University of Armenia approved the research protocol.

The results demonstrated that respondents of the follow up survey (2007) were more aware of the links between smoking and adverse health effects than those at the baseline survey (2005). They were also more aware of the health risks of an exposure to secondhand tobacco smoke.

A proportion of TV watchers who observed tobacco advertisement on TV dropped from 53.5% in 2005 to 25.9% in 2007. Similarly, fewer respondents reported hearing tobacco advertisement on radio in 2007 than in 2005 (19.9% vs. 9.5%).

The respondents awareness of the law regulating tobacco sale did not improve and remained as low as 14.9% compared to 12.0% in the baseline. However, in 2007, less people observed a minor buying cigarettes (81.8% vs. 77.3%) and selling cigarettes (53.6% vs. 34.9%). Similarly, respondents in 2007 were less likely to observe selling of cigarettes per item (60.3% vs. 51.1%).

A greater proportion of the follow up survey respondents (57.6%) perceived tobacco products as affordable compared to the baseline (43.1%); and more respondents agreed that the price of cigarettes should be increased (24.6% vs. 27.7%).

Respondents showed a stronger support for a smoking ban in restaurants and cafes in 2007 than in 2005 (58.2% vs. 65.6%). Similarly, more people favored having separate smoking sections in restaurants and cafes (81.1% vs. 89.0%).

No significant differences in smoking-related worksite practices were reported. About 37.0% of employed respondents claimed that their worksite was smoke-free indoors in 2007 compared to 35.1% in 2005. Similarly, 63.6% of those respondents who used public transportation reported observing smoking there in 2007 and this number was 61.0% in 2005. Nevertheless, respondents of the follow up survey reported observing smoking in educational, medical or cultural institutions less often than in the baseline (57.0% vs. 39.7.0%). Importantly, respondents' awareness of the law restricting smoking in public areas in Armenia has significantly improved (13.8% in 2005 vs. 35.3% in 2007).

Based on these findings we can speculate that there were relatively successful informational interventions undertaken in two years between the baseline and follow up surveys leading to increased awareness and improved the public's attitudes.

The absence of detectable changes in practices suggested that the adopted tobacco control policy has not been effective in enforcing the existing regulations and protecting people from exposure to secondhand smoke at worksites. This calls for a thorough analysis of the adopted policy to understand its weaknesses and implementation barriers to propose necessary policy revisions. These findings also suggest that continuing information campaigns are of critical importance for further awareness raising, improving public attitudes and supporting tobacco control policies.

1. Introduction

Armenia officially joined the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) on November 29 of 2004 [1]. Shortly after this milestone event, in December 2004, the National Assembly adopted a national tobacco control law "On Restrictions of Tobacco Sales, Consumption, and Use" [2]. Both, the international treaty and the national law were enacted early in 2005. According to the Armenian tobacco control law, smoking is banned in health, education, culture facilities, and public transport, and restricted in most other places (*see* Annex 1). To assess the level of public knowledge, attitudes and practices related to adopted tobacco control policies, the Center for Health Services Research and Development (CHSR) at the American University of Armenia (AUA) implemented a population-based survey in spring 2005 [3]. The CHSR conducted this baseline survey within the framework of a larger tobacco control policy project supported by the Open Society Institute Network Public Health Program [4]. The purpose of this population-based study was three-fold: 1) collect data about knowledge, attitudes, and practices on tobacco control policy among Armenian adult population, 2) advise tobacco control policy implementation and improvement, and 3) serve as a baseline for mid-term evaluation of the national tobacco control policies. The 2005 survey was implemented in three of eleven provinces in Armenia and revealed the following:

- Population awareness of health effects of smoking in general was very high; however, smokers were less aware of risks of development of specific smoking-attributable conditions (e.g., impotence in male smokers) compared to non- and ex-smokers.
- The majority of respondents demonstrated negative attitude toward advertising and promotion of tobacco products. In particular, about 73.0% of respondents supported ban of cigarette advertising in the media and sports events, 66.8% favored ban of billboards ads and 60.1% disapproved distribution of promotional items.
- Billboard advertisement was reportedly the most common type of exposure to tobacco advertisement (67.9%). Importantly, such exposure was the most intense in the younger (<25yrs.) age group (78.1%).
- The majority of respondents (81.8%) observed minors buying cigarettes, and more than half of respondents (53.6%) observed a minor selling cigarettes. About 48.1% witnessed per item sale of cigarettes.
- One third of employed respondents (34.8%) stated that their workplace was smoke-free, and only 7.8% had special indoor places designated for smoking.
- More than half (55.3%) of the respondents who visited educational, medical or cultural institutions observed smoking in these institutions. Similarly, 58.7% of those who used any means of public transportation observed smoking.

- An alarmingly low proportion of adults (11.0%-13.8%) was aware of the legal restrictions of smoking in public places, ban of tobacco media advertisement and ban of tobacco sale to minors.

These findings demonstrated that existing regulations have not been properly enforced and that overwhelming majority of the population is not aware of the existing regulations.

Recognizing the need in periodic assessments of the tobacco control policy impact on public attitudes and practices, the CHSR proposed to the Canadian Research for International Tobacco Control (RITC) program of the International Development Research Centre (IDRC), a follow up survey to address the above mentioned issues. The proposed research project has been funded under the auspices of the Small Grants Research Competition to support and inform the ratification, implementation and enforcement of the Framework Convention on Tobacco Control (round 3), supported by RITC/IDRC, the Canadian Tobacco Control Research Initiative, the American Cancer Society, Cancer Research UK, the “Institut National du Cancer” of France and the Department for International Development, UK. The study aimed to evaluate possible changes in adults’ knowledge, attitudes and practices related to tobacco control policies after two years since the enactment of the national tobacco control law in Armenia (see Annex 1).

2. Methods

2.1. Research objectives

The research objectives were:

- a) to assess knowledge, attitudes and practices (KAP) of the adult population (18-60 years old) living in Armenia related to tobacco control policies in the country;
- b) to measure changes in knowledge, attitudes and practices of the adult population in Armenia from 2005 to 2007;
- c) to inform policy makers on trends in the population’s attitudes and practices and advise them on tobacco control policy implementation.

Due to limited resources, the same three marzes as in the baseline survey¹ were purposively selected for the follow-up survey: the capital city of Yerevan and two geographically diverse marzes (Shirak situated in the north and Syunik in the south of the country).

2.2. Sample size and sample distribution

The sample size of 720 respondents was calculated using Epi Info 2000 sample size calculation function for 95.5% confidence interval. The overall sample size was equally distributed for each

¹ Armenia has 11 administrative units (marzes), including the capital city of Yerevan.

of the three geographical regions (240 people for each) and gender (360 males and 360 females). This distribution allows valid comparisons between marzes of interest and gender-related analysis.

2.3. Study design

Within each marz, a multi-stage cluster sampling, probability proportional to population size was used. Clusters of sampling elements were chosen first and then the elements (actual respondents). It was a cross-sectional survey with a sample size of 720 adults, equivalent to 120 clusters of size 6. Trained interviewers administrated the survey.

2.4. Study population

The survey population was comprised of 360 men and 360 women from 18 to 60 years old and living in 39 urban and rural locations in three marzes of Armenia, who were approached at home and agreed to take part in the survey.

2.5. Sampling strategy

Step 1: Identification of the number of clusters in Syunik and Shirak marzes

The CHSR team calculated a number of clusters to be drawn to ensure the proportional representation of each settlement area (city, town and village) in the selected marzes (calculations based on 2001 Census data) [5]. The CHSR team tabulated the overall population size from each of the settlement areas, selected a random starting point and then calculated the number of clusters to be drawn in an ordered manner. The number of clusters to be drawn from each settlement area depended on a size of its *de jure* population, i.e. bigger the population, more clusters were drawn. Similar sampling strategy was used earlier by the CHSR in household surveys [6].

Step 2: Identification of the number of clusters in Yerevan

The research team collected information on pediatric population served by each Yerevan polyclinic, then tabulated and calculated the number of clusters to be drawn using the same methodology as described in Step 1.

Step 3: Selection of starting points

To select starting points for each cluster, the CHSR team used registries of children from 0 to 12 months. The rationale for this approach is the assumption of proper accuracy of such registries (due to high compliance with the required vaccination schedule in children of this age) and representativeness of population density [7]. In cities, the study team randomly selected the needed number of clusters from several districts served by the polyclinic. This was done by

assigning a number to each district and then using a calculator's RANDI function to generate random figures. Next, a starting address for each cluster was randomly selected from the district's list of children less than one year old. A database of the starting addresses was generated to facilitate the administration of the survey. In small villages where a health clinic was not available, the cluster's starting point was picked by identifying the last live birth in a village.

Step 4: Selection of households

For each cluster the interviewers had the address of the randomly selected starting point. To avoid biasing the sample toward including more households with children less than one year old, the interviewer began interviewing at the household next to the starting address and then visited each next door household moving always in the same direction (right/up) until the required number of interviews for the cluster was completed.

Step 5. Selection of respondents

To select a respondent from the household, the interviewer listed household members aged from 18 to 60 and selected the person with the most recent birthday. One interview per household was conducted. To ensure equal gender distribution in the sample, each cluster had to include equal numbers of male and female respondents.

2.6. Survey instrument

The follow-up study used the instrument from the 2005 baseline survey (slightly modifying some of the questions), which in turn was based on the instruments from 2002 California Tobacco Survey and International Tobacco Control Policy Evaluation Survey [8,9]. The survey instrument contained 102 questions on knowledge, practice and attitude (Appendix 1), grouped into the following sections:

- socio-demographic
- smoking status
- smoking hazards
- tobacco advertisement
- tobacco sales
- tobacco taxation
- limitations of smoking
- packaging/design of tobacco products.

The interviewer-administered questionnaire required about 20 minutes (on average) to complete.

2.7. Interviewers training

The CHSR team organized one-day trainings to prepare interviewer teams in Yerevan, Syunik and Shirak marzes. Slightly modified 2005 training manual was used to assist the training process. The training included a field practice, during which the CHSR senior staff observed, assessed and commented on the interviewers' performance and acquired skills. In Yerevan, the interviewers pre-tested the instrument and made final adjustments.

2.8. Data collection

Three teams of 4 full-time interviewers, one team in each marz, collected data from May to June 2007.

2.9. Ethical considerations

The AUA Institutional Research Board (IRB) approved the research protocol and the instruments. Oral consent was obtained from each participant.

2.10. Data processing and analysis

The research team completed data entry and cleaning using SPSS 11.0. STATA 8.0 software was used for the data analysis in addition to the SPSS 11.0. Subgroups were compared using Chi-square and Fisher's exact test for differences between proportions.

3. Results

3.1. Response rate

Due to residents' absence, an initial contact was established in 70.8% (1637) of randomly selected households in Yerevan, Syunik and Shirak marzes. In households with at least one resident at home during the initial contact, the response rate was 45.4% with variations across the regions (36.4% in Yerevan, 46.9% in Shirak, and 57.5% in Syunik). The primary reasons for non-response were: absence of eligible respondents at home during the visit (17.1%), no eligible respondents in the household (11.3%), and not meeting gender-related criteria (11.0%). Refusal to participate by the initial household contact was 11.6%, with only 2.7% refusal rate among the eligible selected respondents (explicit refusal rate).

3.2. Socio-demographic characteristics and smoking status

Socio-demographic information. In total, 720 persons (360 men and 360 women) aged 18-60 years old participated in the survey. The mean age of respondents was 38.7 with the median of 38.0 (sd=13.0). Middle-age respondents (25-45 yr.) comprised the largest proportion in the survey sample (42.5%), while the younger (18-24 yr.) and older (45-60 yr) groups comprised respectively 23.8% and 33.7%.

Most of the respondents (70.8%) were married, 8.8% were widowed, 2.2% were divorced or lived apart, and 18.2% were single. The largest proportions of respondents were comprised of persons with university degree including students (49.1%) and those with secondary school education (27.6%). Respondents with specialized secondary (vocational) and incomplete secondary education comprised 19.2% and 4.2% of the sample, respectively.

Employed (except self-employed) respondents comprised 41.0% of the survey population. Other details about the employment status are shown in Table 1.

The presence of luxury/convenience items in the household was evaluated as a proxy to socio-economic status. The mean number of these items in the sample was 7.3, ranging from 1 to 13 out of 13 possible items. More than half of the respondents (57.4%) had from 7 to 10. In addition, 34.4% of the surveyed population had from 3 to 6 out of 13 possible items. About 7.5% had more than 10 items. The presence of these luxury/convenience items significantly differed in various geographic regions ($p < 0.01$); the participants from Yerevan and Syunik had more convenience items than the participants from Shirak (Table 2).

Household composition. The mean number of adults living in the surveyed households was 3.5 (ranging from 1 to 11), while the mean number of children per household was 1.3 (ranging from 0 to 7). The results showed that the mean number of smokers in the household was 1.2 (ranging from 0 to 6).

Smoking status. Smokers were defined as persons who currently smoke and smoked over 100 cigarettes over lifetime. More than half of the respondents were non-smokers (55.7%), smokers comprised 35.8% of the sample, and 8.6% of respondents were ex-smokers.

Table 3 presents the detailed information on socio-demographic characteristics and place of residence of the surveyed population by their smoking status. The proportion of smokers was 12 times higher in men compared to women (67.4% vs. 5.2%, respectively) (Figure 1).

3.3. Knowledge on health effects of smoking

3.3.1. Effects of direct smoking

The overwhelming majority of the respondents (94.6%) believed that smoking was hazardous to smoker's health. Almost all non-smokers (97.5%) either agreed or strongly agreed with this statement. However, the proportion was slightly lower for those who were ex-smokers (93.5%) and current smokers (90.5%) (Figure 2).

Female respondents were more likely to acknowledge that smoking was harmful to a smoker's health than male (97.2% vs. 91.8%).

Respondents were more aware of the link between smoking and the development of lung cancer (90.0%) while the risk of coronary heart disease and stroke was acknowledged less often (71.0% and 70.1%, respectively). In addition, most of the respondents recognized that smoking increases chances for chronic bronchitis (83.1%), cancer of the larynx or voice box (83.4%) and bronchial asthma (75.9%). The least awareness was reported by the respondents related to the link between tobacco use and impotence in male smokers (45.7%).

Women more frequently than men acknowledged that smoking was associated with chronic diseases like bronchitis, stroke, cancer of the larynx and voice box, lung cancer ($p < 0.05$) (Table 4).

There was a significant relationship between the smoking status and awareness about harmful effects of smoking on the development of specific medical conditions: current smokers were far less aware of the risk of development of specific smoking-attributable diseases than non- and ex-smokers (Table 5).

In addition, awareness of the respondents on health effects of direct smoking varied across the regions (Table 6).

3.3.2. Effects of passive smoking

The respondents' knowledge on hazards of passive smoking was assessed by asking if secondhand smoke increases the chances of development of bronchial asthma, lung cancer and coronary heart disease. The majority of surveyed population acknowledged the link between the passive smoking and bronchial asthma (61.4%). Additionally, more than half of respondents were aware of harmful effect of passive smoking on development of lung cancer and coronary heart disease (58.2% and 52.0%, respectively). Awareness of passive smoking hazards was not associated with the smoking status (Table 7) but it was significantly associated with age, education and place of residence of the respondents ($p < 0.01$).

3.4. Beliefs about cigars and light cigarettes

The majority of respondents (55.7%) stated that cigars were less harmful than regular cigarettes. The belief that light cigarettes were less harmful than regular ones was shared by 78.6% of respondents. Only 16.4% of the respondents disagreed with the statement that light cigarettes were less harmful. Interestingly, ex-smokers more often disagreed that light cigarettes were less hazardous (30.5%) than current smokers (13.4%) or non-smokers (13.3%).

3.5. Tobacco advertising and marketing

3.5.1. Knowledge on tobacco advertising effects and its regulation

Most of the respondents (68.6%) agreed that advertising of tobacco products promotes use of cigarettes among youth. Respondents in Yerevan and Shirak regions cited that tobacco products advertising promote use of tobacco among young more often than in Syunik region (76.3%, 73.8%, and 53.0%, respectively).

More than half of the respondents (54.5%) were not aware of the law banning advertising of tobacco products in Armenia and only 28.4% knew about it. Ex-smokers were aware of this law more often than non- and current smokers (45.9% vs. 27.5% and 26.0%, $p < 0.05$).

3.5.2. Attitudes towards tobacco marketing strategies

Most respondents stated that cigarette advertising on billboards (72.9%) and advertising tobacco products at sports events should be banned (72.0%). Respondents in Yerevan and Shirak supported far more often cigarette advertising ban on billboards (78.8% and 77.6%, respectively) than in Syunik (62.3%) region. Less than half of the respondents in Syunik (40.0%) agreed that

cigarette advertising at sport events should be banned as compared to 50.0% and 66.5% of respondents in Yerevan and Shirak, respectively.

Most of the respondents (69.6%) stated that tobacco companies should be prohibited to spread promotional items, such as t-shirt, mugs, and other items. Similarly, the majority of respondents (77.4%) cited that tobacco companies should be prohibited to offer free samples of cigarettes. Nevertheless, respondents from Syunik were far less convinced that tobacco companies should be prohibited to spread promotional items (55.8%) than respondents from Yerevan (70.4%) and Shirak regions (82.5%).

Most of the respondents (76.2%) cited that tobacco and tobacco company advertising in the media should be banned. Significant differences were revealed in attitudes toward media tobacco advertisement across the regions (Table 8). Additionally, people in higher income categories demonstrated less support for banning media advertising of tobacco and tobacco companies (Table 9).

About 52.3% of the respondents supported the ban of sponsorship for sports and cultural events by tobacco companies, and 34.6% of respondents disagreed. The majority of interviewed persons in Shirak (66.5%) either agreed or strongly agreed with this ban; this percentage was much lower in Yerevan (50.5%) and Syunik (40.0%).

3.5.3. Exposure to tobacco industry marketing

About half of the respondents (53.8%) reported seeing tobacco advertisement on billboards during the last one month. Importantly, the respondents in the youngest age group (<25 yr.) noticed billboard tobacco advertisement far more often than those in the older group (45 yr. and above) (61.6% vs. 47.3%). Exposure to billboard advertisement among respondents in urban locations² is presented in Table 10.

Only a small proportion of respondents reported being offered promotional items and free tobacco products (4.8% and 4.0%, respectively). However, male respondents more often than female respondents were offered promotional items (6.3% vs. 3.3%, $p<0.05$) and free cigarettes (6.0% vs. 2.2%, $p<0.008$). Also, current smokers and ex-smokers were offered promotional items about twice more often than non-smokers (7.5% and 5.0% vs. 3.1%). Exposure to industry marketing

² Industry marketing activities in Armenia, such as billboard advertising and distribution of promotional items, were limited to urban locations.

practices differed between geographic regions ($p < 0.001$). Table 11 depicts differences in exposure to tobacco industry promotion across surveyed cities.

Information was obtained concerning tobacco advertising at points of purchase. The majority of survey participants (76.3%) reported observing tobacco advertising at points of purchase. Additionally, 16.6% of respondents reported exposure to lottery offer either at point of purchase or via pack inserts. This exposure differed across gender, place of residence and smoking status of the respondents (Table 12).

In general, advertising of tobacco products by media and during public or political events was cited less often than by means of billboard. The majority of respondents who claimed listening to radio (90.5%) never noticed any tobacco company advertisement on the radio. Respondents stated that more frequently tobacco advertising occurred on TV than on radio. About 25.9% of respondents mentioned about tobacco advertising on TV and only 9.5% on radio. The majority of respondents (89.7%) cited that there was less TV and radio advertising at the time of the follow up survey than 6 months before.

The majority of respondents (76.0%) never listened/watched a smoking-related program or read an article on this issue within the last month. Only 23.3% cited that they were exposed to a smoking-related program or an article. Most of them assessed these materials as anti-smoking (Table 13).

3.6. Tobacco sales

Most of the respondents (83.9%) agreed that tobacco products are easily accessible to children. However, attitudes differed between the capital and the regions (Table 14).

The overwhelming majority of respondents believed that the law should prohibit the sale of tobacco products to minors (93.0%) and that the law should prohibit minors to sell tobacco products (83.6%). Less often people stated that the law should prohibit sale of tobacco products per item (68.7%). In general, respondents' attitudes toward provisions of the law varied depending on a smoking status (Table 15) as well as a place of residence (Table 16).

Surprisingly, an inverse relationship was found between a level of education and support for cigarette sale bans. Specifically, people with university degree believed less often that the law should prohibit sale of tobacco products by minors (79.7%) than people with secondary (84.1%) or primary school education (88.6% of respondents). Similarly, people with university degree stated

less often that the law should prohibit sale of tobacco products per items (63.2%) than people with secondary (73.3%) or primary school education (74.0%).

The overwhelming majority of respondents (92.1%) believed that tobacco sale to minors should be prohibited with a stronger support to this ban in Yerevan and Syunik as opposed to Shirak (97.0% and 96.3% vs. 82.5%, correspondingly). The majority of respondents (69.9%) stated that police should be responsible for enforcing laws against tobacco sales to minors. There were attitudinal variations across the regions. Specifically, only 56.7% of Yerevan respondents considered police as the responsible party for enforcing this law in contrast to 70.5% and 82.8% respondents in Shirak and Syunik regions.

The majority of respondents supported imposing financial penalties for the sale of tobacco products to minors (87.6%), and gradually increased penalties for store owners who repeatedly sold cigarettes to minors (86.5%).

Only about 14.9% of the surveyed population was aware of the law that regulates sales of cigarettes in Armenia. Respondents in Syunik were less aware of the existence of this law (7.6% of respondents) compared to Yerevan and Shirak residents (17.5% and 19.6%, respectively).

Finally, information was gathered on respondents' practices related to tobacco sales to minors. The majority (70.6%) mentioned that they have never sent a minor to buy cigarettes, about 20.1% of respondents acknowledged sending a minor for cigarettes. These practices, however, significantly differed depending on the smoking status of respondents and across geographic regions (Table 17).

The majority of respondents (77.3%) observed minors buying cigarettes; about third of them (34.9%) observed minors selling cigarettes. Per item sale of cigarettes was reportedly observed by 46.3% of respondents.

3.7. Cost of tobacco products

The majority of the survey participants (57.6%) thought that tobacco products are affordable, about 32.8% disagreed. Tobacco products were perceived more often as affordable in Syunik region than in Yerevan and Shirak (75.3% vs. 48.7% and 48.8%, correspondingly).

However, most respondents (60.1%) did not support the idea of cigarette price increase. Females, youngest respondents, and those with university degree were more likely to support the increase of cigarette price. Current smokers more often than ex-smokers and non-smokers disagreed that the price of cigarettes should be increased (74.4% vs. 59.0% and 51.7%, respectively)

More than half of the respondents (58.1%) failed to acknowledge that increase of prices of cigarettes would prevent youth from starting to smoke. However, a significant proportion of respondents believed that cigarette price may influence on a desire to quit and the amount of cigarettes smoked (44.2% and 70.0%, correspondingly). Current smokers shared these beliefs significantly less often than non-smokers.

The overwhelming majority of respondents (87.2%) agreed that cigarette taxes should be used to pay for smoking-related health care costs and/or to pay for anti-tobacco campaigns and prevention of smoking-related diseases. About 64.2% of respondents believed that tobacco was taxed because of its very high profitability. Only about 54.7% stated that tobacco products were taxed with excise tax because tobacco was harmful to health; young and middle age respondents supported this statement more often than the older ones (56.2%, 59.1%, and 48.1%, respectively).

3.8. Smoking restrictions

3.8.1. Attitudes toward smoking restrictions

The overwhelming majority of respondents agreed or strongly agreed that breathing smoke from another person's cigarette was harmful to health (94.3 % of respondents). The vast majority of respondents stated that smoking should be restricted inside houses and banned in medical, cultural and educational institutions and in public transportation (Table 18).

Majority of the survey participants (65.6%) would support a smoking ban in restaurants and cafes. Having separate smoking sections in restaurants and cafes and all worksites was favored by 89.0% and 95.3% of respondents, correspondingly.

Tables 19 and 20 present the attitudes of respondents toward smoking restrictions by smoking status ($p < 0.01$) and geographic region ($p < 0.01$).

3.8.2. Household smoking practices

More than half of respondents (69.1%) reported not having any restrictions on smoking in their household; only 10.3% noted that smoking was banned for everyone in their household, including guests. The majority of respondents (71.1%) reported frequent occurrence of smoking in their households. Only 12.9% of respondents mentioned that nobody smoked in their household during the last month (Table 21).

Respondents with a university degree more often reported that smoking was banned in their household than those with school education (38.4% vs. 19.0%, respectively). The respondents from Yerevan reported more often that smoking was banned in their household than residents in Shirak or Syunik (35.8% vs. 28.0% and 28.8%, respectively). Ex-smokers reported far more often that smoking was banned in their household (52.5% of ex-smokers) compared with non-smokers (35.5%) and current smokers (18.4%). Tables 22 and 23 present detailed information on household practices of the survey respondents.

3.8.3. Readiness to ask for not smoking

The anti-smoking activism was measured by assessing respondents' readiness to ask for not smoking. Only 28.1% acknowledged asking for not smoking at their home in the last two weeks. Women reported this more than twice often as men (41.9% vs. 13.9%, $p < 0.01$). However, much less often respondents asked not to smoke in public places and their workplace (13.2% and 17.8% of respondents, respectively). People with a university degree asked more often not to smoke in public places (17.8%) compared to those with primary (9.9%) or secondary school (7.0%) education. Non-smokers and ex-smokers were more likely in general to ask someone not to smoke (75.0% and 72.2%, respectively) than current smokers (52.9%) (Table 23).

3.8.4. Worksite smoking practices

One-third of employed respondents (37.0%) stated that their workplace was smoke-free indoors, 12.1% of them reported having special indoor places for smoking, and half of employed participants reported that their workplace was not smoke-free (50.9%). Male employees less often worked in smoke-free workplaces compared with women, (27.2% vs. 51.4%, respectively). Worksite smoking practices by occupational setting are presented in Table 24.

Respondents in younger and middle age groups stated more often that their workplace was smoke-free compared to older respondents (50.0% and 40.4% vs. 23.8%, respectively). Respondents with a university degree stated more often that their workplace was smoke-free than respondents with

secondary and vocational (specialized secondary) education (44.4% vs. 20.0% and 27.5%, respectively). More than half of people in Syunik claimed their workplace as smoke-free (51.7%) compared to only 20.6% in Yerevan and 35.0% in Shirak. Non-smokers were more likely to claim that their workplace was smoke-free (50.4%) than ex-smokers and current smokers (36.0% and 23.1%, respectively).

In the worksites that were not smoke-free, smoking occurred more often in special smoking rooms (38.4%) or in a hallway or lobby (34.2% of respondents) and less often in a break room or cafeteria (23.2% of employed respondents).

The majority of respondents (63.6%) who used any means of public transportation reported seeing smoking inside. Far less often respondents, who visited educational, medical or cultural institutions, observed smoking in these institutions (39.7%).

3.8.5. Attitudes toward and awareness of the law

The study assessed a perceived need in the law that would restrict smoking in public areas in Armenia. Majority of respondents stated that such law should be adopted (88.5%). More people in Syunik cited the necessity of such law (91.7%) compared to Yerevan and Shirak regions (87.5% vs. 85.0%, respectively).

About half of respondents (49.3%) were not aware of the law restricting smoking in public areas in Armenia, 15.4% were uncertain about it, and 35.3% knew there was such a law in Armenia, including 19.8% of respondents who stated that the law existed but did not work. The awareness about the law was higher among respondents from Yerevan (42.5.0%) and Shirak (44.2%) than in Syunik (18.3%). Respondents with a university degree were more often aware of this law than people with secondary and vocational education (41.3% vs. 28.2% and 30.7%, respectively). Majority of respondents (71.2%) acknowledged that the current policy should be tightened.

3.9. Packaging/Labeling of tobacco products

Participant perceptions of the effectiveness of health warning messages on tobacco product packs varied depending on smoking status and region. In particular, ex-smokers were more likely to find warning labels ineffective compared to non-smokers and current smokers (68.9% vs. 46.7% and 44.3%, respectively). Also, 79.6% of Yerevan-based respondents found that the warning labels were not effective compared to 45.9% and 24.2% of respondents in Shirak and Syunik regions, respectively. Every second respondent supported having textual and visual health warnings on

cigarette packs. Almost half of the respondents stated that they prefer larger warning labels (Table 25).

4. Comparative analysis of the baseline and follow up survey results

4.1. Survey sample

Baseline and follow up survey samples did not differ by respondent's age and smoking status. However, two samples significantly differed by educational and socioeconomic status ($p < 0.0001$). Specifically, a higher proportion of respondents in 2007 (49.1%) had university education than in 2005 (37.5%). Respondents in 2007 reported having higher income ($p < 0.0001$); the mean score for socioeconomic status was 7.3 (sd=2.0) in 2007 vs. 6.5 (sd=2.2) in 2005 (Table 26).

4.2. Knowledge on health effects of smoking

Respondents of the follow up survey (2007) were more aware of the links between smoking and adverse health effects than those at the baseline survey (2005): for the link between smoking and stroke - 58.2% in 2005 vs. 70.1% in 2007, $p < 0.001$, and smoking and coronary heart disease - 62.6% vs. 71.0%, $p = 0.000$. Similarly, people acknowledged more often at the follow-up the risk between smoking and impotence in male smokers (35.8% vs. 45.7%, $p = 0.0003$). Respondents' knowledge of the link between smoking and lung cancer remained high (88.0% in 2005 and 90.0% in 2007). At the same time, more people acknowledged the link of passive smoking with coronary artery disease (47.1% in 2005 vs. 52.0% in 2007, $p = 0.000$).

4.3. Tobacco advertising and marketing

The respondents' awareness of the law banning advertising of tobacco products in Armenia in the follow up survey was more than two times higher of that at the baseline (11.0% vs. 28.4%, $p < 0.0001$). The proportion of TV watchers who observed tobacco advertisement on TV dropped from 53.5% in 2005 to 25.9% in 2007 ($p < 0.0001$). Similarly, more respondents stated in 2005 that they heard tobacco advertisement on radio than in 2007 (19.9% vs. 9.5%, $p = 0.0003$).

Reported exposure to smoking related TV/radio programs or articles decreased from 30.0% in 2005 to 23.3% in 2007 ($p = 0.0004$). However, the majority of those programs and articles were of anti-smoking nature.

4.4. Tobacco sales and tobacco cost

The respondents' awareness of the law regulating tobacco sales did not change from 2005 to 2007 and remained low (12.0% and 14.9%, correspondingly). Meanwhile, in 2007, less people observed a minor buying cigarettes (81.8% vs. 77.3%, $p=0.0001$) and selling cigarettes (53.6% vs. 34.9%, $p=0.0001$). Similarly, respondents in 2007 were less likely to observe selling of cigarettes per item (60.3% vs. 51.1%, $p=0.0001$).

A greater proportion of the follow up survey respondents considered tobacco products as affordable (43.1% vs. 57.6%, $p<0.00001$), and more respondents stated that the price of cigarettes should be increased (24.6% vs. 27.7%, $p=0.03$).

4.5. Smoking restrictions

A higher proportion of respondents in 2007 supported the smoking ban in restaurants and cafes than in 2005 (58.2% vs. 65.6%, $p<0.0001$). Similarly, more people favored having separate smoking sections in restaurants and cafes (81.1% vs. 89.0%, $p<0.0001$) (Table 27).

However, no difference was detected in worksite smoking practices. In particular, 37.0% of employed respondents claimed that their worksite was smoke-free indoors in 2007 and that proportion was 35.1% in 2005. Similarly, 63.6% of those respondents who used public transportation reported observing smoking there in 2007 (in 2005 this number was 61.0%). The good news was that smoking in educational, medical or cultural institutions was reported less often in 2007 than in 2005 (57.0% vs. 39.7.0%, $p<0.00001$).

4.6. Awareness of the law restricting smoking in public places

Respondents' awareness of the law restricting smoking in public areas in Armenia has improved. The follow up survey respondents were much better informed about the existence of this law than participants of the baseline survey (13.8% in 2005 vs. 35.3% in 2007, $p<0.0001$).

5. Conclusion

This study demonstrated that population knowledge on disease-specific risks of smoking has increased; it also documented a positive change in attitudes toward tobacco control measures, as well as raised awareness on the adopted tobacco control policies. However, the comparative study did not document any tangible shifts in smoking-related worksite practices.

Based on these findings we can speculate that there were relatively successful informational interventions undertaken during the two years between the baseline and follow up surveys which led to increased awareness and improved attitudes.

The absence of detectable changes in practices suggested that the adopted tobacco control policy has not been effective in enforcing the existing law and protecting people from exposure to secondhand smoke at worksites. This calls for a thorough analysis of the adopted policy to understand its weaknesses and implementation barriers for proposing appropriate policy revisions.

REFERENCES

1. World Health Organization (WHO) Updated status of the WHO Framework Convention on Tobacco Control. <http://www.who.int/tobacco/framework/countrylist/en/index.html>. Accessed on April 10, 2008.
2. Official Bulletin of the Republic of Armenia, 8 (380): 172-176. 2005
3. Movsisyan N, Sahakyan K, Petrosyan V, Mkrtchyan Z, Thompson ME. Knowledge, attitudes, and practices on tobacco control policies in adult population in Armenia. American University of Armenia, Center for Health Services Research and Development, Yerevan, Armenia, June 2006 [http://www.auachsr.com/publications_reports2006.php]
4. Taking on Goliath: Civil Society's Leadership Role in Tobacco Control. Open Society Institute. New York, 2007.
5. National Statistical Service of the Republic of Armenia (NSS) and the Center for International Programs of the U.S. Results of 2001 Census of the Republic of Armenia (Figures of the Republic of Armenia). Statistical Handbook. Yerevan, 2003.
6. Thompson ME, Demirchyan A., Babajanyan A. Baseline Household Health Assessment in Armavir Marz, Armenia. American University of Armenia, Center for Health Services Research and Development. Yerevan June 2001.
7. Ministry of Health of the Republic of Armenia and UNICEF/Armenia (MOH/UNICEF). Evaluation of the National Immunization Program of the Republic of Armenia. Yerevan, Ministry of Health of the Republic of Armenia and UNICEF/Armenia, December 1999.
8. International Tobacco Control Policy Evaluation Survey. Wave 2 Integrated Survey (M2)- For Cohort. Version: April 12, 2004.
9. Technical Report on Analytic Methods and Approaches Used in the 2002 California Tobacco Survey Analysis. Volume 1. Data Collection Methodology. Report to the California Department of Health Services. June 13, 2003.

TABLES 1-27

Table 1. Socio-demographic characteristics by employment status

Variables	Categories	Employment status	
		Unemployed %(N)	Employed %(N)
Gender [#]	Female	68.6%(242)	33.3%(121)
	Male	31.4%(111)	66.7%(242)
Age [#]	<25 years old	33.4%(117)	14.7%(53)
	25-45 years old	34.0%(119)	50.8%(183)
	>45 years old	34.4%(124)	34.4%(124)
Education [#]	School education*	38.6%(136)	25.3%(91)
	Secondary special education**	18.5%(65)	19.4%(70)
	Higher education***	42.9%(151)	55.3%(199)

* (complete, incomplete)

** (complete, incomplete)

*** (undergraduate, graduate complete, incomplete)

The difference is statistically significant, p<0.05

Table 2. Presence of convenience items in households by place of residence

Convenience items ##	Place of residence		
	Yerevan %(N)	Shirak %(N)	Sunik %(N)
0-2	0.8%(2)	1.3%(3)	-
3-6	22.3%(53)	52.9%(126)	27.9%(67)
7-10	71.8%(171)	38.7%(92)	61.7%(148)
More than 10	5.0%(12)	7.1%(17)	10.4%(25)

The difference between at least two of the groups (defined as place of residence) is statistically significant, p<0.01

Table 3. Socio-demographic characteristics and place of residence of respondents by smoking status

Variables	Categories	Smoking status		
		Non-smokers %(N)	Ex-smokers %(N)	Current smokers %(N)
Gender [#]	Female	84.8%(336)	11.5%(7)	7.5%(19)
	Male	15.2%(60)	88.5%(54)	92.5%(236)
Age [#]	<25 years old	28.2%(111)	14.8%(9)	19.4%(49)
	25-45 years old	42.2%(166)	31.1%(19)	46.0%(116)
	>45 years old	29.5%(116)	54.1%(33)	34.5%(87)
Marital status	Married	69.9%(276)	65.0%(39)	73.9%(187)
	Divorced, living apart, widowed	10.6%(42)	21.7%(13)	9.1%(23)
	Single	19.5%(77)	13.3%(8)	17.0%(43)
Education [#]	School education*	26.8%(106)	33.9%(20)	39.0%(99)
	Secondary special education**	20.0%(79)	16.9%(10)	18.5%(47)
	Higher education***	53.2%(210)	49.2%(29)	42.5%(108)
Residence [#]	Yerevan	33.0%(131)	44.3%(27)	31.0%(79)
	Shirak	32.2%(128)	41.0%(25)	33.3%(85)
	Syunik	34.8%(138)	14.8%(9)	35.7%(91)
Presence of convenience items in the household	0-2 items	0.8%(3)	1.6%(1)	0.4%(1)
	3-6 items	36.5%(145)	31.1%(19)	31.9%(80)
	7-10 items	58.2%(231)	55.7%(34)	56.2%(141)
	> 10 items	4.5%(18)	11.5%(7)	11.6%(29)

* (complete, incomplete)

** (complete, incomplete)

*** (undergraduate, graduate complete, incomplete)

The difference is statistically significant, $p < 0.05$

Table 4. Knowledge on hazards of smoking by gender

QS: "Do you think smoking increases person's chances of getting the following medical conditions?"

	Yes		No		Don't know	
	Females	Males	Females	Males	Females	Males
Chronic bronchitis [#]	87.4%(319)	78.7%(277)	2.7%(10)	6.8%(24)	9.9%(36)	14.5%(51)
Stroke [#]	4.0%(271)	66.2%(233)	8.5%(31)	14.5%(51)	17.5%(64)	19.3%(68)
Lung cancer [#]	93.7%(343)	86.1%(303)	2.5%(9)	5.1%(18)	3.8%(14)	8.8%(31)
Coronary heart disease	71.3%(259)	70.5%(246)	9.1%(33)	13.2%(46)	19.6%(71)	16.3%(57)
Bronchial asthma	78.4%(287)	73.3%(258)	7.7%(28)	9.7%(34)	13.9%(51)	17.0%(60)
Impotence in male smokers [#]	45.7%(166)	45.9%(161)	15.2%(55)	29.1%(102)	39.1%(142)	25.1%(88)

* The difference by gender is statistically significant, p<0.01

Table 5. Knowledge on effects of direct smoking by smoking status

Qs: "Do you think smoking increases person's chances of getting the following medical conditions?"

	Yes			No		
	Non-smokers	Ex-smokers	Current smokers	Non-smokers	Ex-smokers	Current smokers
Chronic bronchitis [#]	87.1%(345)	80.3%(49)	77.6%(197)	2.3%(9)	8.2%(5)	7.5%(19)
Stroke [#]	73.6%(292)	65.6%(40)	65.4%(166)	7.8%(31)	13.1%(8)	16.5%(42)
Lung cancer [#]	94.5%(375)	78.7%(48)	85.8%(218)	2.0%(8)	6.6%(4)	5.5%(14)
Coronary heart disease	71.1%(280)	73.3%(44)	70.2%(177)	9.4%(37)	11.7%(7)	13.5%(34)
Bronchial asthma	79.6%(316)	75.4%(46)	70.1%(178)	7.3%(29)	11.5%(7)	9.8%(25)
Impotence in male smokers [#]	46.7%(184)	55.7%(34)	41.1%(104)	16.2%(64)	19.7%(12)	31.6%(80)

The difference is statistically significant for responses related to health effects of direct smoking between at least two of the groups (defined as smokers, non-smokers, ex-smokers), $p < 0.01$

Table 6. Knowledge on effects of direct smoking by place of residence

Qs: "Do you think smoking increases person's chances of getting the following medical conditions?"

	Yes			No		
	Yerevan	Shirak	Syunik	Yerevan	Shirak	Syunik
Chronic bronchitis [#]	79.5%(190)	83.3%(200)	86.6%(207)	8.8%(21)	1.7%(4)	3.8%(9)
Stroke [#]	58.3%(140)	75.7%(181)	76.3%(183)	16.3%(39)	6.7%(16)	11.3%(27)
Lung cancer [#]	82.1%(197)	92.9%(223)	95.0%(227)	8.3%(20)	-	2.9%(7)
Coronary heart disease [#]	64.2%(154)	73.5%(175)	75.3%(177)	15.8%(38)	7.6%(18)	9.8%(23)
Bronchial asthma [#]	65.0%(156)	82.9%(199)	79.9%(191)	15.8%(38)	3.8%(9)	6.3%(15)
Impotence in male smokers*	33.8%(81)	63.9%(152)	39.7%(94)	24.2%(58)	10.5%(25)	31.2%(74)

* The difference is statistically significant for responses related to health effects of direct smoking between at least two of the groups (defined as place of residence), $p < 0.05$

Table 7. Knowledge on effects of passive smoking by smoking status

Qs: "Do you think that breathing smoke from another person's cigarette increases a person's chances of getting bronchial asthma, lung cancer and coronary heart disease?"

	Yes			No		
	Non-smokers	Ex-smokers	Current smokers	Non-smokers	Ex-smokers	Current smokers
Bronchial asthma	65.2%(258)	65.6%(40)	54.3%(138)	10.3%(43)	9.8%(6)	13.4%(34)
Lung cancer	60.0%(237)	62.3%(38)	54.2%(137)	13.7%(54)	9.8%(6)	14.6%(37)
Coronary heart disease	52.3%(206)	59.0%(36)	49.6%(126)	17.0%(67)	13.1%(8)	17.3%(44)

Table 8. Attitudes toward media tobacco advertisement by regions

Statement: "Tobacco and tobacco company advertising in media should be banned".

Place of residence	Agree and strongly agree %(N)	Disagree and strongly disagree %(N)	Neither agree nor disagree %(N)
Yerevan	83.0%(199)	10.9%(26)	6.3%(15)
Shirak	82.4%(197)	5.9%(14)	11.7%(28)
Syunik	63.2%(151)	18.0%(43)	18.8%(45)

Table 9. Attitudes toward tobacco advertisement in media by income

Statement: Tobacco company advertising in the media should be banned.

Categorical score	Agree and strongly agree %(N)	Disagree and strongly disagree %(N)	Neither agree nor disagree %(N)
0-2	100.0%(5)	-	-
3-6	80.0%(196)	12.2%(30)	7.8%(19)
7-10	73.9%(303)	12.9%(53)	13.1%(54)
More than 10	75.9%(41)	7.4%(4)	16.7%(9)

Table 10. Exposure to billboard tobacco advertisement by place of residence

Qs: "Within the last month how frequently did you see billboards with tobacco advertising?"

Place of residence	Total %(N)	Frequently %(N)	Occasionally and seldom %(N)
Yerevan	68.5%(139)	36.5%(74)	32.0%(65)
Gyumri	53.1%(59)	36.0%(40)	17.1%(19)
Kapan	62.9%(39)	14.5%(9)	48.4%(30)
Goris	28.1%(9)	15.6%(5)	12.5%(4)
Sisian	21.1%(4)	15.8%(3)	5.3%(1)

Table 11. Exposure to promotion of free items and cigarette samples by place of residence

Place of residence	Offered promotional item %(N)	Offered free cigarette %(N)
Yerevan	9.6%(23)	7.1%(17)
Gyumri	1.5%(2)	3.1%(4)
Kapan	2.9%(2)	5.7%(4)
Goris	5.9%(2)	5.6%(2)
Sisian	-	4.2%(1)

Table 12. Exposure to lottery at point of purchase or via pack inserts

Variables	Categories	Offered participation in lottery % (N)
Gender [#]	Female	9.3%(34)
	Male	24.1%(85)
Age	<25 years old	13.5%(23)
	25-45 years old	18.2%(55)
	>45 years old	17.2%(41)
Residence [#]	Yerevan	32.6%(78)
	Shirak	10.0%(24)
	Syunik	7.1%(17)
Smoking status [#]	Non-smokers	8.1%(32)
	Ex-smokers	11.5%(7)
	Current smokers	30.3%(77)

* The difference is statistically significant, $p < 0.01$

Table 13. Respondents' exposure to smoking-related programs (n=161)

Qs: How did the programs/articles portray smoking?

Response	%(N)
Pro-smoking	10.6%(17)
Equally pro -and anti-smoking	29.9%(32)
Anti-smoking	69.6%(112)

Table 14. Attitude of people towards tobacco products accessibility to children

Statement: Tobacco products are easily accessible to children

Place of residence	Response		
	Agree or strongly agree %(N)	Disagree or strongly disagree %(N)	Neither agree nor disagree %(N)
Yerevan	75.8%(182)	3.3%(8)	20.9%(50)
Shirak	86.3%(207)	9.6%(23)	4.2%(10)
Syunik	89.6%(215)	2.1%(5)	8.4%(20)

Table 15. Attitudes toward sales of tobacco products to children under 18 years

Statement	Response	Non-smokers	Ex-smokers	Current smokers
To your opinion should the law in Armenia prohibit sale of tobacco products to children under 18 years*	Yes	94.6%(316)	85.4%(41)	92.0%(195)
	No	5.4%(18)	14.6%(7)	8.0%(17)
To your opinion should the law in Armenia prohibit sale of tobacco products by children under 18 years*	Yes	88.1%(280)	86.7%(39)	75.4%(153)
	No	11.9%(38)	13.3%(6)	24.6%(50)
To your opinion should the law in Armenia prohibit sale of tobacco products per item*	Yes	78.6%(235)	68.2%(30)	53.3%(105)
	No	21.4%(64)	31.8%(14)	46.7%(92)

* The difference is statistically significant for all cases, $p < 0.05$ **Table 16. Attitudes toward sales of tobacco products to children under 18 years by place of residence**

Statement	Response	Yerevan	Shirak	Syunik
To your opinion should the law in Armenia prohibit sale of tobacco products to children under 18 years*	Yes	96.4%(188)	84.0%(157)	97.7%(213)
	No	3.6%(7)	16.0%(30)	2.3%(5)
To your opinion should the law in Armenia prohibit sale of tobacco products by children under 18 years*	Yes	93.9%(186)	81.9%(149)	74.5%(143)
	No	6.1%(12)	18.1%(33)	25.5%(49)
To your opinion should the law in Armenia prohibit sale of tobacco products per item*	Yes	79.4%(150)	70.1%(122)	56.3%(103)
	No	20.6%(39)	29.9%(52)	43.7%(80)

* The difference is statistically significant, $p < 0.05$

Table 17. Practice of engaging of children under 18 years in purchase of tobacco products

Qs: Within last month how often did you send the person under 18 years to buy a cigarette for you or one of your family members?

Variables	Categories	Frequently	Occasionally	Never
		(almost every day)	and seldom	
		% (N)	% (N)	% (N)
Smoking status [#]	Non-smokers	15.2%(59)	8.2%(33)	76.5%(297)
	Ex-smokers	-	6.6%(4)	93.4%(57)
	Current smokers	21.8%(55)	22.6%(57)	55.6%(140)
Residence [#]	Yerevan	6.7%(16)	15.4%(37)	77.9%(187)
	Shirak	3.4%(8)	9.4%(22)	87.1%(203)
	Syunik	38.3%(90)	14.9%(35)	46.8%(110)

* The difference is statistically significant, $p < 0.001$

Table 18. Respondents' attitudes toward smoking restrictions

Statement	Agree or strongly agree	Disagree or strongly disagree	Neither agree nor disagree
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Smoking should be avoided inside the house/room	91.8%(660)	2.9%(21)	5.3%(38)
Smoking should be banned in all medical, educational and cultural institutions	96.7%(695)	0.8%(6)	2.5%(18)
Smoking should be banned in all state and private institutions	87.2%(626)	6.7%(48)	6.1%(44)
Smoking should be banned in all restaurants and cafes	65.6%(472)	25.7%(185)	8.6%(62)
Separate smoking sections for smokers should be designed in all restaurants and cafes	89.0%(640)	7.1%(51)	3.9%(28)
Separate smoking sections should be designed for smoking in all worksites	95.3%(684)	1.5%(11)	3.2%(23)
Smoking should be banned in all public transportation, including bus, micro-buses, taxis	96.8%(696)	0.7%(5)	2.5%(18)
Smoking should be allowed only outdoors	89.8%(644)	4.2%(30)	6.0%(43)

Table 19. Respondents' attitudes toward smoking restrictions by smoking status

Statement	Smoking status	Agree or strongly agree	Disagree or strongly disagree	Neither agree nor disagree
Smoking should be avoided inside the house/room	Non-smokers	98.2%(389)	0.8%(3)	1.0%(4)
	Ex-smokers	96.7%(59)	-	3.3%(2)
	Current smokers	80.3%(205)	7.1%(18)	12.5%(32)
Smoking should be banned in all medical, educational and cultural institutions	Non-smokers	98.7%(391)	0.3%(1)	1.0%(4)
	Ex-smokers	95.0%(58)	-	4.9%(3)
	Current smokers	94.1%(240)	2.0%(5)	3.9%(10)
Smoking should be banned in all state and private institutions	Non-smokers	92.5%(366)	3.0%(12)	4.5%(18)
	Ex-smokers	90.1%(55)	4.9%(3)	4.9%(3)
	Current smokers	78.8%(200)	12.6%(32)	8.7%(22)
Smoking should be banned in all restaurants and cafes	Non-smokers	79.5%(315)	14.2%(56)	6.3%(25)
	Ex-smokers	60.6%(37)	24.6%(15)	14.8%(9)
	Current smokers	45.1%(115)	44.3%(113)	10.6%(27)
Separate smoking sections for smokers should be designed in all restaurants and cafes	Non-smokers	96.2%(381)	1.5%(6)	2.3%(9)
	Ex-smokers	86.9%(53)	6.6%(4)	6.6%(4)
	Current smokers	78.5%(200)	5.9%(15)	5.9%(15)
Separate smoking sections should be designed for smoking in all worksites	Non-smokers	97.4%(385)	1.0%(4)	1.5(6)
	Ex-smokers	90.1%(55)	3.3%(2)	6.6%(4)
	Current smokers	92.9%(237)	2.0%(5)	5.1%(13)
Smoking should be banned on all public transportation, including bus, micro-buses, taxis	Non-smokers	99.0%(392)	-	1.0%(4)
	Ex-smokers	93.4%(57)	1.6%(1)	4.9%(3)
	Current smokers	94.1%(240)	1.6%(4)	4.3%(11)
Smoking should be allowed only outdoors	Non-smokers	94.4%(374)	3.0%(12)	2.5%(10)
	Ex-smokers	91.6%(55)	-	8.3%(5)
	Current smokers	83.1%(212)	6.3%(16)	10.6%(27)

Table 20. Respondents' attitudes toward smoking restrictions by place of residence

Statement	Smoking status	Agree or strongly agree	Disagree or strongly disagree	Neither agree nor disagree
Smoking should be avoided inside the house/room	Yerevan	95.5%(229)	3.3%(8)	1.3%(3)
	Shirak	84.6%(215)	2.9%(7)	7.5%(18)
	Syunik	90.4%(216)	2.5%(6)	7.1%(17)
Smoking should be banned in all medical, educational and cultural institutions	Yerevan	97.5%(234)	1.3%(3)	1.3%(3)
	Shirak	95.4%(229)	0.8%(2)	3.8%(9)
	Syunik	97.1%(232)	0.4%(1)	2.5%(6)
Smoking should be banned in all state and private institutions	Yerevan	81.7%(196)	13.3%(32)	5.0%(12)
	Shirak	85.4%(205)	4.6%(11)	10.0%(24)
	Syunik	94.5%(225)	2.1%(5)	3.4%(8)
Smoking should be banned in all restaurants and cafes	Yerevan	55.9%(134)	40.4%(97)	3.8%(9)
	Shirak	74.2%(178)	13.3%(32)	12.5%(30)
	Syunik	66.9%(160)	23.4%(56)	9.6%(23)
Separate smoking sections for smokers should be designed in all restaurants and cafes	Yerevan	90.0%(216)	8.8%(21)	1.3%(3)
	Shirak	91.3%(219)	2.5%(6)	6.3%(15)
	Syunik	85.7%(205)	10.1%(24)	4.2%(10)
Separate smoking sections should be designed for smoking in all worksites	Yerevan	94.1%(226)	2.9%(7)	2.9%(7)
	Shirak	95.4%(229)	0.4%(1)	4.2%(10)
	Syunik	96.2%(229)	1.2%(3)	2.5%(6)
Smoking should be banned on all public transportation, including bus, micro-buses, taxis	Yerevan	97.9%(235)	0.8%(2)	1.3%(3)
	Shirak	87.1%(209)	0.4%(1)	3.8%(9)
	Syunik	90.4%(231)	0.8%(2)	2.5%(6)
Smoking should be allowed only outdoors	Yerevan	92.1%(219)	4.6%(11)	3.4%(8)
	Shirak	87.1%(209)	2.9%(7)	10.0%(24)
	Syunik	90.4%(216)	5.1%(12)	4.6%(11)

Table 21. Smoking in households

Qs: "Within the last month how often did smoking occur in your household?"

Response	% (N)
Frequently (almost every day)	71.1%(474)
Occasionally (3-5 times a week)	4.3%(29)
Seldom (1-2 times a week)	11.7%(78)
Never	12.9%(86)

Table 22. Smoking rules/restrictions in household by education, place of residence and smoking status of respondents

Variables	Categories	Smoking restriction practice			
		Banned (including guests) % (N)	Banned % (N)	Allowed in some rooms % (N)	No restrictions % (N)
Smoking status [#]	Non-smokers	15.2%(60)	7.9%(31)	12.4%(49)	64.5%(254)
	Ex-smokers	6.6%(4)	32.8%(20)	13.1%(8)	47.5%(29)
	Current smokers	3.1%(8)	5.9%(15)	9.4%(24)	81.5%(207)
Place of residence [#]	Yerevan	7.9%(19)	12.5%(30)	15.4%(37)	64.2%(154)
	Shirak	10.0%(24)	8.8%(21)	9.2%(22)	72.1%(173)
	Syunik	13.1%(31)	6.4%(15)	9.3%(22)	71.2%(168)
Education [#]	School education*	7.1%(16)	4.4%(10)	7.5%(17)	81.0%(183)
	Secondary special education**	8.1%(11)	8.1%(11)	13.2%(18)	70.6%(96)
	Higher education***	12.6%(44)	2.6%(44)	13.2%(46)	60.7%(212)

* The difference is statistically significant, $p < 0.05$

Table 23. Likelihood of asking for not smoking by smoking status

Qs: "In general how likely would you ask someone not to smoke around you?"

Response	Smoking status		
	Non-smokers	Ex-smokers	Current smokers
Very likely	32.7%(129)	27.9%(17)	17.6%(45)
Likely	21.0%(83)	23.0%(14)	15.3%(39)
Somewhat likely	21.3%(84)	21.3%(13)	20.0%(51)
Unlikely	11.9%(47)	9.8%(6)	23.9%(61)
Very unlikely	13.2%(52)	18.0%(11)	23.1%(59)

Table 24. Worksite smoking practice by type of occupational setting (n=246)

Qs: "Is your place of work smoke-free?"

Occupational settings

	Industrial setting % (N)	Classrooms and hospitals % (N)	Restaurants and bars % (N)	Others % (N)
Completely smoke-free	12.5%(3)	52.2%(36)	-	37.3%(60)
Special indoor places for smoking	20.8%(5)	14.5%(10)	7.7%(1)	9.3%(15)
Not smoke-free	66.7%(16)	33.3%(23)	92.3%(12)	53.4%(86)

Table 25. Preferences for warning label design (n=246)

Qs: "Please tell us how would you prefer to see warning label design?"

	Yes %(N)	No %(N)	Don't know %(N)
Textual warning	49.9%(356)	31.6%(225)	18.5%(132)
Visual warning	52.1%(374)	30.4%(218)	17.5%(126)
Occupies more than 30% of space	46.2%(330)	34.6%(247)	19.2%(137)
Remain the same	37.0%(251)	45.1%(306)	18.0%(122)

Table 26. Socio-demographic characteristics of 2005 and 2007 survey participants

Variables	Categories	Survey date	
		2005 % (N)	2007 % (N)
Age	<25 years old	21.9%(158)	23.8%(170)
	25-45 years old	47.1%(339)	42.5%(303)
	>45 years old	31.0%(223)	33.7%(240)
Smoking status	Non-smokers	56.7%(408)	55.7%(397)
	Ex-smokers	6.5%(45)	8.6%(61)
	Current smokers	36.7%(264)	35.8%(255)
Income score	0-2 convenience items	2.7%(19)	0.7%(5)
	3-6 convenience items	49.9%(356)	34.4%(246)
	7-10 convenience items	43.4%(310)	57.4%(411)
	> 10 convenience items	4.1%(29)	7.5%(54)
Education [#]	School education*	34.1%(241)	31.7%(227)
	Secondary special education**	28.4%(201)	19.2%(137)
	University education***	37.5%(265)	49.1%(351)

* (complete, incomplete)

** (complete, incomplete)

*** (undergraduate, graduate complete, incomplete)

The difference is statistically significant, p<0.05

Table 27. Respondents' attitudes toward smoking restrictions in 2005 and 2007

Statement	Agree or strongly agree		Disagree or strongly disagree		Neither agree nor disagree	
	2005	2007	2005	2007	2005	2007
Smoking should be avoided inside the house/room	91.6%(659)	91.8%(660)	4.2%(30)	2.9%(21)	4.3%(31)	5.3%(38)
Smoking should be banned in all medical, educational and cultural institutions	92.8%(668)	96.7%(695)	2.8%(20)	0.8%(6)	4.4%(32)	2.5%(18)
Smoking should be banned in all state and private institutions	78.9%(568)	87.2%(626)	8.6%(62)	6.7%(48)	12.5%(90)	6.1%(44)
Smoking should be banned in all restaurants/cafes	58.2%(418)	65.6%(472)	24.8%(178)	25.7%(185)	17.0%(122)	8.6%(62)
Separate smoking sections for smokers should be designed in all restaurants/cafes#	81.1%(584)	89.0%(640)	11.5%(83)	7.1%(51)	7.4%(53)	3.9%(28)
Separate smoking sections should be designed for smoking in all worksites#	91.0%(655)	95.2%(684)	4.3%(31)	2.9%(7)	4.7%(34)	3.2%(23)
Smoking should be banned in public transportation, including bus, micro-buses, taxis	95.8%(690)	96.8%(696)	1.8%(13)	0.7%(5)	2.4%(17)	2.5%(18)
Smoking should be allowed only outdoors	87.3%(628)	89.8%(644)	5.5%(40)	4.2%(30)	7.1%(51)	6.0%(43)

The difference is statistically significant, $p < 0.05$

FIGURES 1-2

Figure 1. Gender of participants and smoking status

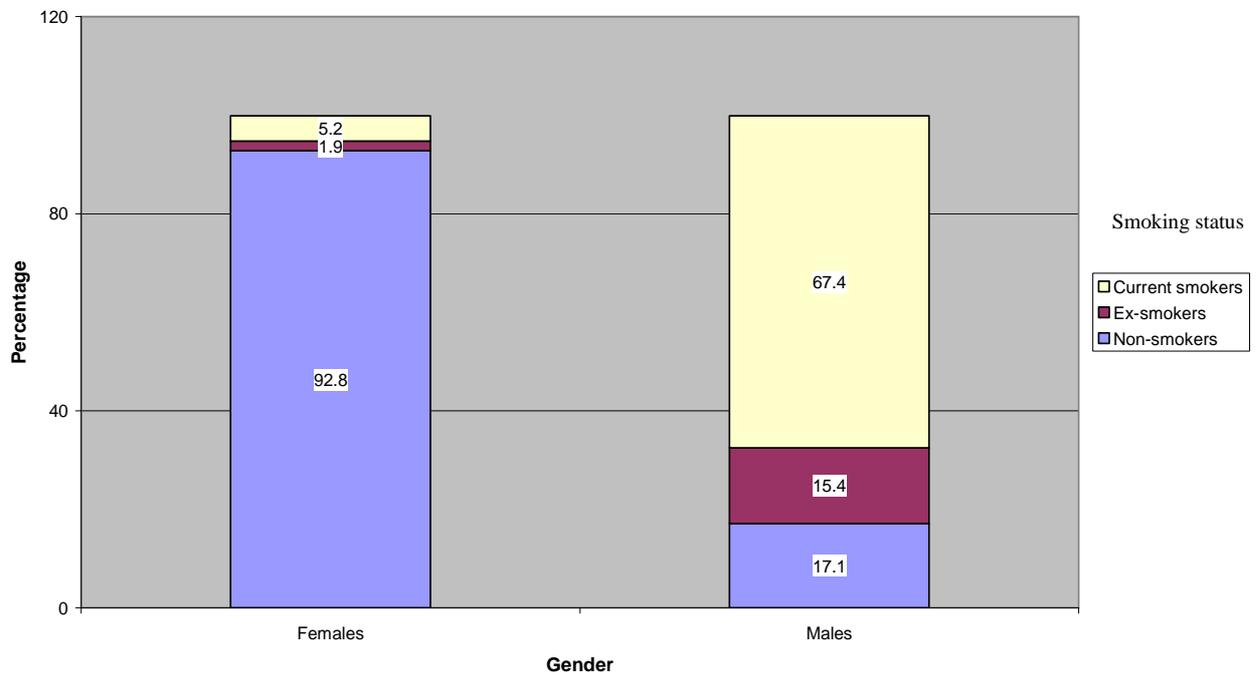
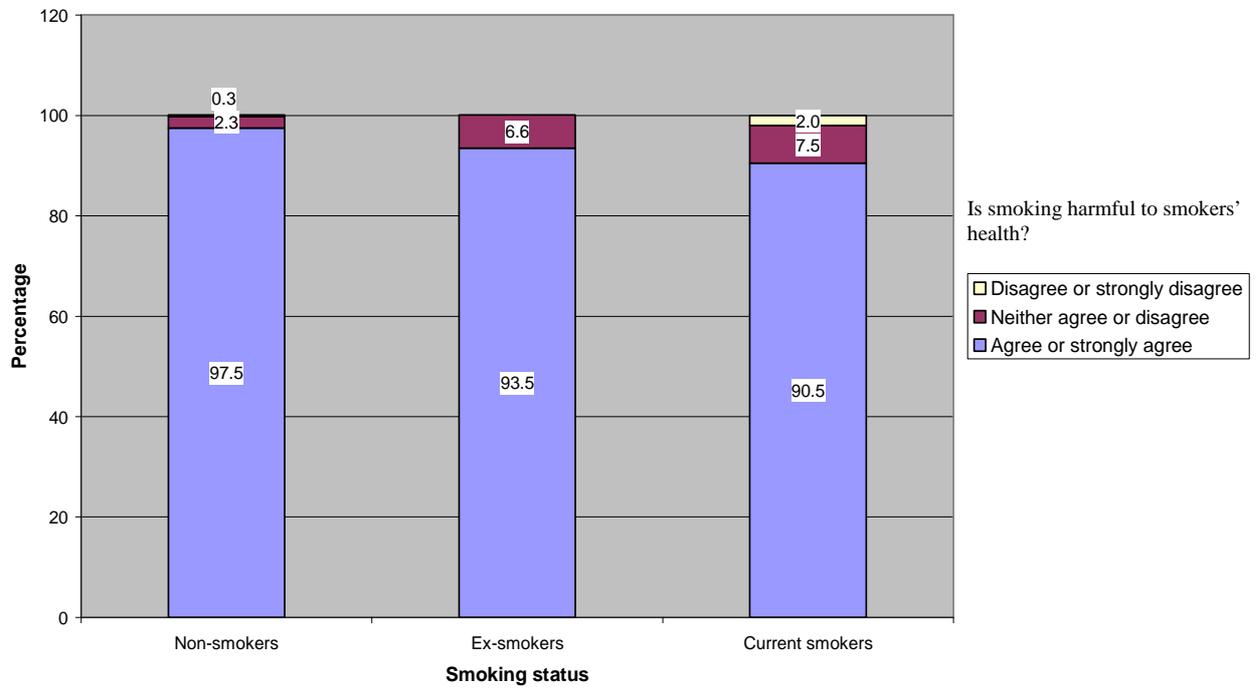


Figure 2. Knowledge of health effects of smoking



ATTACHMENT 1

**American University of Armenia
Center for Health Services Research and Development**

With support from the International Development Research Center, Ottawa, Canada

**KNOWLEDGE, ATTITUDES AND PRACTICES ON TOBACCO CONTROL POLICIES
IN ADULT POPULATION IN ARMENIA**

A FOLLOW-UP SURVEY QUESTIONNAIRE

ID NUMBER* _ _ / _ _ / _ _ _ _

The coding for ID number:

Digit 1-2	Region ID*
Digit 3-5	Cluster number
Digit 6-7	Number of visit from the journal form

***Region ID (digit 2-3 in the ID number)**

Yerevan	01
Gyumri	02
Artik	03
Maralik	04
Azatan	05
Akhurian	06
Amasia	07
Arapi	08
Bayandur	09
Gusanagyugh	10
Lernut	11
Haykavan	12
Hovit	13
Maisyan	14
Meghrashen	15
Voghchi	16
Jrarat	17
Saratak	18
Panik	19

Kapan	20
Agarak	21
Goris	22
Dastakert	23
Meghri	24
Sisian	25
Kajaran	26
Agarak	27
Ashotavan	28
Brnakot	29
Darbas	30
Khntsakh	31
Khot	32
Hartashen	33
Shaghat	34
Shinuhayr	35
Syunik community	36
Verin Khotanan	37
Tanzaver	38
Ujts	39

This questionnaire targets Armenian population (males and females) 18-60 years of age

RECORD INTERVIEW DATE

DAY		MONTH		YEAR	

INTERVIEWER: _____

TIME INTERVIEW STARTED: ___:___:___

A. GENERAL INFORMATION

1. How old are you?
AGE OF RESPONDENT IN YEARS: ____ ____ IF THE AGE OF THE RESPONDENT IS NOT 18-60 YEARS, STOP THE INTERVIEW
2. Gender
 1. Female
 2. Male
3. What is your marital status?
 1. Married
 2. Divorced/married but living apart
 3. Widowed/widower
 4. Single (never married)
 88. Don't know/Refuse to answer
4. What is your education status?
 1. Incomplete primary education
 2. School education (primary, secondary education)
 3. Incomplete secondary-special education (includes current students)
 4. Secondary-special education
 5. Incomplete undergraduate (includes current students of institutes and universities)
 6. Undergraduate (institute, universities)
 7. Incomplete graduate education (includes current post-graduate students and candidates to scientific degrees)
 8. Graduate (post-institute, post-university education, such as master degree, PhD, candidate of science)
 88. Don't know
 99. Refuse to answer
5. How many people live in your household including yourself?
 - a) _____ people, of them:
 - b) _____ adults (above 18 years old)
 - c) _____ children (18 and below)
6. How many of your family members are currently smoking?
_____ people
88. Don't know
99. Refuse to answer
7. Would you say that in general your health is READ
 1. Excellent
 2. Very good
 3. Good
 4. Fair
 5. Poor
 6. Very poor

B. SMOKING STATUS

Now I will ask you several questions regarding your smoking status and quitting practice (if any). Please respond to these questions sincerely. As I told before your answers are anonymous and confidential, they will be available only to the research team of the American University of Armenia, so please be as sincere as you can.

8. Have you ever smoked cigarettes? (smoke at least one cigarette)
1. Yes
 2. No → Skip to SECTION C
 88. Don't know
 99. Refuse to answer
9. Have you smoked at least 100 cigarettes during your lifetime?
1. Yes
 2. No → SKIP TO SECTION C
 88. Don't know
 99. Refuse to answer
10. How often do you smoke currently?
1. Every day
 2. Some days
 3. Not at all → SKIP TO QUESTION 13
 88. Don't know
 99. Refuse to answer
11. On average how many cigarettes do you smoke each day/on the day you smoke?
_____ pieces
12. How soon after you wake up do you smoke your first cigarette?
1. Within 5 minutes
 2. Within 5-30 minutes
 3. Within 31-60 minutes
 4. After 60 minutes
13. Do you usually buy cigarettes or roll your own?
1. Buy cigarettes
 2. Roll own
- GO TO QUESTION 18
14. When did you quit?
1. More than 1 year ago
 2. Within the last 12 months
 3. Within the last 3 months
 4. Within the last month
15. What were the reasons for quitting? (READ AND CIRCLE ALL THAT APPLY)
1. The cost of cigarettes
 2. Health problem/Doctor's advice
 3. Concern for health in the future
 4. The effect your smoking had on others
 5. Pressure from your family and friends
 6. Setting a good example for your children
 7. Public image
 8. Restriction of smoking at worksite
 9. Pregnancy
 10. Other reason (specify) _____
 88. Don't know
 99. Refuse to answer

16. Of all reasons you mentioned what was the most important reason for you to quit? (CHECK ONLY ONE RESPONSE)

1. The cost of cigarettes
2. Health problem/Doctor's advice
3. Concern for health in the future
4. The effect your smoking had on others
5. Pressure from your family and friends
6. Setting a good example for your children
7. Public image
8. Restriction of smoking at worksite
9. Pregnancy
10. Other reason (specify) _____
88. Don't know
99. Refuse to answer

17. What kind of assistance/support for quitting did you use? CIRCLE ALL THAT APPLY. **PROBE:** ANYTHING ELSE?

1. Psychological counseling/advice
2. Physician's advice
3. Books/booklets
4. Experience/advice of others
5. Nicotine gum
6. Nicotine patch
7. Zyban/Welbutrin
8. Tabex
9. Acupuncture
10. Gradually decreased the number
11. Hypnosis
12. No method
13. Other methods (Specify) _____
88. Don't know
99. Refuse to answer

18. How many times have you ever tried to quit smoking?

_____ times (INSERT NUMBER, IF THE RESPONDENT IS NOT RESPONDING IN A NUMBER FORMAT, PROBE TO GET A NUMBER) IF NEVER WRITE 0

ASK THESE QUESTIONS ONLY OF THE RESPONDENT IS CURRENT SMOKER, IF HE/SHE IS NOT A SMOKER SKIP TO SECTION C.

19. During the past month, have you intentionally stopped smoking for at least one day or longer because you were trying to quit smoking?

1. Yes
2. No
88. Don't know
99. Refuse to answer

20. During the past month, have you intentionally cut down on the number of cigarettes for at least one day or longer because you were trying to quit smoking?

1. Yes
2. No
88. Don't know
99. Refuse to answer

21. Do you plan to quit in the future?
1. Yes
 2. No → SKIP TO SECTION C
 88. Don't know SKIP TO SECTION C
 99. Refuse to answer SKIP TO SECTION C
22. If you plan to quit smoking, by when do you plan to quit?
1. In 3 months
 2. In 6 months
 3. In 12 months
 4. In later than 12 months
 88. Don't know
23. What kind of assistance/support for quitting do you plan to use? CIRCLE ALL THAT APPLY
1. Psychological counseling/advice
 2. Physician's advice
 3. Books/booklets
 4. Experience/advice of others
 5. Nicotine gum
 6. Nicotine patch
 7. Zyban/Welbutrin
 8. Tabex
 9. Acupuncture
 10. Gradually decreased the number
 11. Hypnosis
 12. No method
 13. Other methods (Specify) _____
 88. Don't know
 99. Refuse to answer

C. HEALTH EFFECTS OF SMOKING

Let's now talk about the health effects of smoking. Please give us your opinion for the following statements. You can respond strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

24. Please tell if you think that smoking is harmful to a smoker's health.
1. Strongly agree
 2. Agree
 3. Neither agree nor disagree
 4. Disagree
 5. Strongly disagree
25. Tell me if you think smoking or breathing smoke from another person's cigarette definitely increases, probably increases, probably does not, or definitely does not increase a person's chances of getting the following problems:
- | | Yes | No | DK |
|--|-----|----|----|
| a. Chronic bronchitis | 1 | 2 | 88 |
| b. Stroke | 1 | 2 | 88 |
| c. Cancer of the larynx or voice box | 1 | 2 | 88 |
| d. Lung cancer | 1 | 2 | 88 |
| e. Coronary heart disease | 1 | 2 | 88 |
| f. Bronchial asthma | 1 | 2 | 88 |
| g. Impotence in male smokers | 1 | 2 | 88 |
| h. Lung cancer from passive smoking | 1 | 2 | 88 |
| i. Coronary heart disease from passive smoking | 1 | 2 | 88 |

D. ADVERTISING

Now let's talk about your knowledge, attitude and experience regarding advertising of tobacco products. Please remember that this is not an exam or a test. Please be as honest as you can for responding to the questions. Please give us your opinion for the following statements. You can respond strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
26. Advertising of tobacco products promotes use of cigarettes among youth.	1	2	3	4	5
27. Tobacco companies should not be allowed to offer promotional items (such as t-shirts).	1	2	3	4	5
28. Tobacco companies should not be allowed to offer free samples of cigarettes.	1	2	3	4	5
29. Tobacco and tobacco company advertising in the media should be banned.	1	2	3	4	5
30. Cigarette advertising on the billboards should be banned.	1	2	3	4	5
31. Sponsorship of sports and cultural events by tobacco companies should be banned.	1	2	3	4	5
32. Advertising tobacco products at sports events should be banned.	1	2	3	4	5

33. To your knowledge is there a law banning advertising of the tobacco products in Armenia?

1. Yes
2. No → SKIP TO QUESTION 35
88. Don't know → SKIP TO QUESTION 35
99. Refuse to answer → SKIP TO QUESTION 35

34. What does this ban prohibit? READ THE RESPONSES, CIRCLE ALL THAT APPLY

	Yes	No	DK
1. Advertising in electronic media (TV, radio)			
2. Advertising in print media (magazines, newspapers)	1	2	88
3. Advertising on billboards	1	2	88
4. Offering free promotional items, such as t-shirts, etc	1	2	88
5. Offering free cigarettes.	1	2	88
6. Other (specify)_____	1	2	88

35. Within the last month how many times did you see tobacco or tobacco company advertising on the Armenian TV?

1. Frequently (almost everyday)
2. Occasionally (3-5 times a week)
3. Seldom (1-2 times a week)
4. Never
88. Do not watch TV

36. Within the last month how many times did you hear tobacco or tobacco company advertising on the Armenian radio?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Do not listen to radio

37. Would you say that there are more or less cigarette advertisements on Armenian TV and radio now as compared with 6 months ago?

- 1. There is more advertising now than 6 months ago
- 2. There is less advertising now than 6 months ago
- 3. There is equally advertising now and 6 months ago
- 88. Don't know
- 99. Refuse to answer

38. Now I want to ask you about the media more generally. First, recall media programs and/or articles about smoking or tobacco companies that might have been on TV, radio, or in the newspapers. In the last 1 month about how often have you seen or listen smoking related program or read an article?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never → SKIP TO QUESTION 40
- 5. Do not watch TV, listen radio or read newspapers
- 88. Don't know → SKIP TO QUESTION 40
- 99. Refuse to answer → SKIP TO QUESTION 40

39. On balance, how did the programs/articles portray smoking?

- 1. Pro-smoking
- 2. Equally pro- and anti-smoking
- 3. Anti-smoking

40. Within the last month how frequently did you see the billboards with tobacco advertising?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

41. Within last 6 months how often did you see tobacco advertising at sales points?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

42. Within the last 6 months how often did you see the tobacco advertising on the public/political events?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

43. Within the last 6 months have you been offered a promotional item, such as free t-shirt, mug, etc from a tobacco company?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

44. Within the last 6 months have you been offered to participate in a lottery with tobacco or other item awards at a point of sale or by cigarette pack inserts?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

45. Within the last 6 months have you been offered to try a free tobacco product by the tobacco company representative?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

E. TOBACCO SALES

Now we will talk a little bit about sales of tobacco products. Please indicate your level of agreement for the statements, which I will read. As in the earlier sections you can respond strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
46. Tobacco products are easily accessible for children.	1	2	3	4	5
47. Police should be responsible for enforcing laws against tobacco sales to minors.	1	2	3	4	5
48. Minors should not be allowed to buy cigarettes.	1	2	3	4	5
49. Laws should impose financial penalties for the sale of tobacco products to minors.	1	2	3	4	5
50. Store owners should need a license to sell cigarettes (just like alcoholic beverages).	1	2	3	4	5
51 Penalties should be gradually increased for store owners who repeatedly sell cigarettes to minors.	1	2	3	4	5

52. Within the last month how often did you sent a person under 18 to buy a cigarette for you or one of your family members?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

53. Within the last month how often did you see a minor selling a cigarette?

- 1. Frequently (almost everyday)

- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

54. Within the last month how often did you see a person under 18 buying a cigarette?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never
- 88. Don't know
- 99. Refuse to answer

55. Within the last month how often did you see the per item sale of cigarettes?

- 1. Frequently (almost everyday)
- 2. Occasionally (3-5 times a week)
- 3. Seldom (1-2 times a week)
- 4. Never

56. To your knowledge is there a law regulating sales of cigarettes in Armenia?

- 3. Yes
- 4. No → SKIP TO QUESTION 58
- 89. Don't know → SKIP TO QUESTION 58
- 99. Refuse to answer → SKIP TO QUESTION 58

57. To your knowledge what does this law prohibit? READ THE RESPONSES, CIRCLE ALL THAT APPLY

- 1. Sale of tobacco products to children under 18
- 2. Sale of tobacco products by children under 18
- 3. Sale of tobacco products per item
- 4. Other (specify) _____
- 88. Don't know
- 99. Refuse to answer

58. Do you think this law should prohibit... READ THE RESPONSES, CIRCLE ALL MENTIONED

	Yes	No	DK
1. Sale of tobacco products to children under 18	1	2	88
2. Sale of tobacco products by children under 18	1	2	88
3. Sale of tobacco products per item	1	2	88
4. Other (specify) _____	1	2	88
99. Refuse to answer			

59. To your knowledge are there any penalties to those who sell tobacco products to minors?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

F. TAXES AND FEES/COST OF TOBACCO PRODUCTS

In this section I will ask questions about fees and costs of tobacco products. Please indicate your level of agreement for the following statements. You can respond strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
60. Tobacco products are affordable.	1	2	3	4	5
61. Increase of prices of cigarettes will prevent youth from starting to smoke.	1	2	3	4	5
62. Cigarette taxes should be used to pay for smoking-related health care costs.	1	2	3	4	5
63. The price of cigarettes should be increased.	1	2	3	4	5
64. Cigarette taxes should be used to cover costs of anti-tobacco campaigns and prevention of smoking-related diseases.	1	2	3	4	5

65. Tobacco products have excise tax because... READ THE OPTIONS, CIRCLE ALL THAT APPLY

	Yes	No	DK
1. Tobacco is a harmful product	1	2	88
2. Tobacco production is very profitable	1	2	88
3. The excise tax covers health care costs	1	2	88
4. Other (specify) _____	1	2	88

66. Does the price of cigarettes influence on ... READ THE RESPONSES, MENTION ALL THAT APPLY

	Yes	No	DK
1. Their desire to quit	1	2	88
2. How much people smoke	1	2	88
3. On switching to cheap cigarettes	1	2	88
4. Other (specify) _____	1	2	88

G. RESTRICTION ON SMOKING

Please express your level of agreement with the following statements. You can answer strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
67. Breathing smoke from another person's cigarette is harmful to non-smoker's health.	1	2	3	4	5
68. Smoking should be avoided inside the house/room.	1	2	3	4	5
69. Smoking should be banned in all medical, educational and cultural institutions.	1	2	3	4	5
70. Smoking should be banned in all state and private establishments/institutions.	1	2	3	4	5
71. Smoking should be banned in all restaurants and cafes.	1	2	3	4	5
72. Separate smoking sections for smokers should be designed in all restaurants and cafes.	1	2	3	4	5
73. Special smoking areas should be designated for	1	2	3	4	5

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
smoking in all worksites.					
74. Smoking should be banned on all public transportation, including bus, micro-buses, taxis, etc.	1	2	3	4	5
75. Smoking should be allowed only outdoors.	1	2	3	4	5

76. What are the smoking rules/restrictions in your household, if any?

1. Smoking is *completely* banned for everyone, including guests → SKIP TO QUESTION 79
2. Smoking is *generally* banned for everyone
3. Smoking is allowed in some rooms only
4. There are no restrictions on smoking

77. Within the last month about how often did smoking occur in your household?

1. Frequently (almost everyday)
2. Occasionally (3-5 times a week)
3. Seldom (1-2 times a week)
4. Never

78. Now let's talk about exposure to smoking in the place where you work. Are you currently employed outside the home?

1. Yes
2. No → SKIP TO QUESTION 82
88. Don't know

79. Do you currently work in an indoor setting, such as an office, plant or store?

1. Yes
2. No → SKIP TO QUESTION 82
88. Don't know → SKIP TO QUESTION 82
99. Refused to answer → SKIP TO QUESTION 82

80. What does best describe where you currently work?

1. In an office
2. In a plant factory
3. In a store or warehouse
4. In a classroom
5. In a hospital
6. In a restaurant or bar
7. In a vehicle
8. In some other indoor setting
9. Outdoors
10. Other (specify) _____
88. Don't know
99. Refuse to answer

81. What is the total number of employees in the building where you work?

1. 1-5 employees
2. 6-50 employees
3. 51-100 employees
4. More than 101
88. Don't know

99. Refuse to answer

82. Is your place of work smoke-free?

1. Yes, completely smoke-free in-doors
2. There are special indoor places for smoking
3. No, it is not smoke-free
88. Don't know
99. Refuse to answer

83. For each of the following indoor areas at your workplace, is smoking allowed in...

	Yes	No	N/A	DK	RF
a. Any indoor work area?	1	2	77	88	99
b. A special smoking room or lounge?	1	2	77	88	99
c. A break room or cafeteria?	1	2	77	88	99
d. A hallway or lobby?	1	2	77	88	99

84. During the past two weeks has anyone smoked in the area in which you work?

1. Yes
2. No
3. Didn't work in the past two weeks
88. Don't know
99. Refuse to answer

85. During the past two weeks did you ask anyone not to smoke ...

	Yes	No	N/A
a. At your home	1	2	77
b. At your workplace	1	2	77
c. On the public	1	2	77

86. In general how likely would you ask someone not to smoke?

1. Very likely
2. Likely
3. Somewhat likely
4. Unlikely
5. Very unlikely

87. Within the last month have you been in educational, medical or cultural institutions?

1. Yes
2. No → SKIP TO QUESTION 89
88. Don't know → SKIP TO QUESTION 89
99. Refuse to answer → SKIP TO QUESTION 89

88. Within the last month have you seen someone smoking in educational, medical or cultural institutions?

1. Yes
2. No
88. Don't know
99. Refuse to answer

89. Within the last month have you used any means of public transportation, such as bus, micro-bus, taxi or other?

- 1. Yes
- 2. No → SKIP TO QUESTION 91
- 88. Don't know SKIP TO QUESTION 91
- 99. Refuse to answer SKIP TO QUESTION 91

90. Within the last month have you seen anyone smoking within the public transportation, including the driver?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

91. To your knowledge is there a law restricting smoking in public areas in Armenia?

- 1. Yes
- 2. No → SKIP TO QUESTION 93
- 88. Don't know → SKIP TO QUESTION 93
- 99. Refuse to answer → SKIP TO QUESTION 93

92. What public enclosed places this law refers to? READ THE OPTIONS, CIRCLE ALL THAT APPLY

	Yes	No	DK
1. Educational institutions	1	2	88
2. Medical institutions	1	2	88
3. Governmental buildings	1	2	88
4. Cafes/restaurants	1	2	88
5. Cultural institutions	1	2	88
6. Private offices	1	2	88
7. Public transportation	1	2	88
8. Other transportation	1	2	88
9. All worksites	1	2	88
10. Other (specify) _____	1	2	88

→ SKIP TO QUESTION 94

93. Do you think a law restricting smoking in public areas should be adopted in Armenia?

- 1. Yes
- 2. No
- 88. Don't know
- 99. Refuse to answer

94. Do you think that the current law should be modified/changed to add new restrictions?

- 1. Yes
- 2. No
- 3. Don't know details about the current law
- 88. Don't know
- 99. Refuse to answer

H. PACKAGING/LABELING/ LIGHT CIGARETTES

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
95. Would you agree that the warning label on cigarette packs is effective?	1	2	3	4	5
96. Would you agree that message and design of the warning labels should be changed?	1	2	3	4	5
97.. Would you agree that the Armenian national values should be used for advertising tobacco products	1	2	3	4	5

98. What type of warning labels you would like to see on cigarette packs?

	Yes	No	DK
1. Textual	1	2	88
2. Visual/ pictorial	1	2	88
3. More than 30 % of the cigarette packs area	1	2	88
4. Same as now	1	2	88

99. Cigars are less harmful than regular cigarettes.

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree
88. Don't know

100. Light cigarettes are less harmful than regular cigarettes.

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree
88. Don't know

We have two more questions to complete the interview

101. Please tell us: Last month, the approximate amount of household income spent by all household members was how many drams?

_____ drams: RECORD IN ARMENIAN DRAMS, IF THE REPOSSES IS NOT IN NUMBER FORMAT, PROBE TO GET A NUMBER

102. Please, mention whether this household or any member of it has the following working items
READ OPTIONS, CIRCLE ALL THAT APPLY

1. Indoor toilet
2. Hot water
3. Color television
4. VCR
5. Automobile
6. Auto washing machine
7. Telephone
8. Personal Computer
9. Cable/satellite TV
10. Vacation home/villa
11. Cellular phone
12. Refrigerator
13. Dish-washing machine
88. Nothing from mentioned list
99. Refuse to answer

RECORD INTERVIEW END TIME: __ __: __ __

Thank you for your time and participation in the survey.

ANNEX 1

Excerpts from the Law of Republic of Armenia “On Restrictions of Tobacco Sales, Consumption and Use”. The Law was adopted on December 24, 2004.

Article 8. Restrictions on Sales of Tobacco Products

1. The sale of tobacco products is prohibited:

- a. To persons under 18;
- b. By persons under 18;
- c. In open boxes or by the piece;
- d. Without direct participation of the seller (sale through automatic sales systems, through electronic or mechanical equipment) except for the places defined by the legislation of the Republic of Armenia where minors have no access;
- e. In health, training, children's, educational institutions, sport halls, complexes, stadiums, sanatoriums, etc;
- f. Without the excise stamp defined by the legislation of the Republic of Armenia;
- g. If the quantity of tobacco products is not mentioned on the box of tobacco product (accordingly by pieces or by grams).
- h. If the quantity of toxic ingredients (nicotine, tar) in the tobacco is not mentioned on the tobacco box or exceeds the allowed limit.
- i. If the health warning on harmful effects of tobacco use approved by the authorized body is not placed on the box.
- j. If the trademark is falsified or the manufacturing of the products conflicts with the Legislation of the Republic of Armenia.

2. In all places of tobacco sale next to the cashier's office or in any place close to it the following precautions are attached:

- o Tobacco is not sold to persons under 18.
- o Precautions by the authorized body about the negative impact of tobacco on public health.

3. All the people being occupied in the tobacco business are obliged not to sell tobacco and other tobacco products to those who appear to be under 18. If the customer presents identifying document (passport, driver's certificate or certificate of military service), then the tobacco seller may carry out the tobacco sale.

Article 9. Packaging of Tobacco Products

1. Each package of tobacco products includes the following information in the state language of the Republic of Armenia.

- 1) Information about the nicotine, tar content which must be written on the side of the box;
- 2) Health warning on harmful effects of tobacco use. The text of the warning is to be approved by the authorized body.

The text of the warning should occupy not less than 30 percent of the front and back walls of the consumer's package (tobacco's box) used in the wholesale and retail trade.

2. The warning text must be:

- 1) Clear and readable
- 2) In dark letters on the opposite background
- 3) Typed in a way difficult to clean up
- 4) Typed in a place impossible to damage while opening

3. The precaution text must not be:

- 1) Typed on transparent paper or on the external packing paper of the box
- 2) Hidden or covered by other typed note or picture
- 3) Typed on the excise stamp of the consumer's package (tobacco box).

Article 11. Limitations of tobacco usage

1. Smoking is prohibited in:

- 1) Educational institutions including: training institutions, schools, pre-school institutions, etc.
- 2) Cultural institutions including: theatres, cinemas, sport halls, circuses, concert-halls, museums, libraries, halls, auditoriums, exhibitions, as well as in the places envisaged for entertainment and amusement of the persons under 18.
- 3) Health institutions including: hospitals, polyclinics, ambulatories, sanatoriums, and other health facilities.
- 4) Inside building of all enterprises and organizations except for the places designated for smoking.
- 5) Those places where smoking is prohibited in accordance with the fire safety rules.
- 6) Urban transport including buses, minibuses, trains (except for cabins designated for smoking), as well as airports, bus and train stations, etc.

2. The heads of establishments and organizations initiate appropriate measures to provide separate zones for smoking. They ensure that the prohibition of smoking is posted in visible places.

3. The heads of establishments and organizations are obliged to initiate measures to create appropriate conditions for smoking inside the facilities during the working hours (including breaks and lunch breaks), with the purpose of not disturbing non-smokers, taking into account non-smokers; preferences. Such measures include but are not limited to:

- a) Provision of separate smoking areas during the breaks,
- b) Smoking permission in individual enclosed work premises.

There may be separated places, rooms, zones for smoking in restaurants, cafes and other dining facilities.