



American University of Armenia
Հայաստանի Ամերիկյան Համալսարան
A US-accredited institution affiliated with the University of California.

Global  Bridges™
Healthcare Alliance for Tobacco Dependence Treatment

Availability, Affordability and Price of Smoking Cessation Products in Armenia

Study team:

Arusyak Harutyunyan, MD, MPH

Armine Abrahamyan, MS, MPH

Varduhi Petrosyan, MS, PhD

Yerevan

2015

Table of Contents

| | |
|---|-----|
| ACKNOWLEDGEMENTS | ii |
| ABBREVIATIONS | iii |
| EXECUTIVE SUMMARY | iv |
| INTRODUCTION..... | 1 |
| METHODS..... | 2 |
| 1. Pharmaceutical market research..... | 2 |
| 1.1 Desk review on availability of smoking cessation products..... | 3 |
| 1.2 Cross-sectional survey in pharmacies | 3 |
| 2. Qualitative research among representatives of pharmaceutical companies..... | 4 |
| 3. Affordability of smoking cessation healthcare interventions | 6 |
| RESULTS | 7 |
| 1. Results from pharmaceutical market research | 7 |
| 1.1 Results from the desk review on availability of smoking cessation products | 7 |
| 1.2 Results from the cross-sectional survey in pharmacies..... | 9 |
| 2. Results from the qualitative research among representatives of pharmaceutical companies..... | 13 |
| Availability of smoking cessation products..... | 13 |
| Price of the smoking cessation products..... | 14 |
| Demand for smoking cessation products..... | 15 |
| Current plans to promote smoking cessation products | 16 |
| Opportunities/possibilities to promote smoking cessation products | 17 |
| 3. Results from the affordability of smoking cessation healthcare interventions | 18 |
| CONCLUSIONS AND RECOMMENDATIONS | 21 |
| REFERENCES..... | 24 |
| APPENDICES..... | 25 |
| Appendix 1. Survey questionnaire (English and Armenian versions)..... | 25 |
| Appendix 2. Consent form (English and Armenian versions)..... | 27 |
| Appendix 3. In-depth interview guide (English and Armenian versions)..... | 29 |
| Appendix 4. Consent form (English and Armenian versions)..... | 31 |
| Appendix 5. Descriptions of tobacco cessation interventions analyzed in West et al. | 33 |

ACKNOWLEDGEMENTS

The research team is thankful to all participants for providing valuable information and bringing this needs assessment to fruition. We want to express our gratitude to Dr. Narine Movsisyan for developing the project proposal.

The greatest appreciation is reserved for Varduhi Hayrumyan for active involvement in data collection and analysis and Daron Aslanyan for contributing to the comparison of affordability of smoking cessation healthcare interventions.

The project is funded by the grant, presented by Global Bridges Healthcare Alliance for Tobacco Dependence Treatment, hosted by Mayo Clinic and Pfizer Independent Grants for Learning & Change.

ABBREVIATIONS

AUA - American University of Armenia

CHSR - Center for Health Services Research and Development

FCTC - Framework Convention on Tobacco Control

GDP - Gross Domestic Product

ICER - Incremental Cost Effectiveness Ratio

NRT - Nicotine Replacement Therapy

OTC - Over-The-Counter

SCDMTE - Scientific Center of Drug and Medical Technologies Expertise

WHO - World Health Organization

EXECUTIVE SUMMARY

Introduction

Smoking prevalence rate among Armenian adult male population is one of the highest in the European region (63%). In 2005 Armenia was the first former Soviet country to join the World Health Organization Framework Convention on Tobacco Control (WHO FCTC). One area where Armenia's progress was less than satisfactory is the FCTC Article 14. FCTC Article 14 emphasizes that countries should make available different types of tobacco dependence treatments, which are "the provision of behavioral support or medications, or both, to tobacco users, to help them stop their tobacco use". The Article 14 also states that "tobacco dependence treatment should be widely available, accessible and affordable, and should include education on the range of cessation options available". Though parties/countries should strengthen or create sustainable infrastructure to motivate attempts to quit, no focused investigation had been conducted to identify actions that Armenian government should take to facilitate or promote the introduction of tobacco cessation products to the country.

In order to address the gap the Center for Health Services Research and Development (CHSR) of the School of Public Health at the American University of Armenia (AUA) conducted this research to assess the current situation of the availability, affordability, and the price of tobacco cessation products in Armenia (a White Paper).

Methods

The research included two main components: pharmaceutical market research and qualitative research among representatives of pharmaceutical companies. In addition to this, the research team compared affordability of smoking cessation healthcare interventions in Armenia.

Pharmaceutical market research included two stages: desk review and cross-sectional survey in pharmacies. The desk review was conducted with the aim of finding information on the availability of smoking cessation products in Armenia. For the cross-sectional survey Yerevan was selected as the survey area, which was divided into twelve administrative districts (strata). A structured questionnaire was used for the survey with pharmacists. The research team attempted to visit 50 pharmacies and completed 42 interviews.

In order to further explore the price, availability and affordability of the registered smoking cessation products in Armenia, the research team developed and implemented a qualitative study through in-depth interviews with representatives of pharmaceutical companies. The companies representing registered smoking cessation products were selected for participation in the study. The research team developed a semi-structured guide based on the main research questions for moderating the in-depth interviews. Directed deductive content analysis technique was utilized to analyze the data. Overall, three representatives of the pharmaceutical companies participated in three in-depth interviews.

Based on the quantitative and qualitative research results, affordability of smoking cessation interventions were assessed based on the West et al paper.

Results

Desk review revealed that only Nicotine gum, Cytisine and Varenicline are registered and recommended in Armenia as smoking cessation products. Cross-sectional survey results showed that among the surveyed pharmacies (n=42), 30 pharmacies (71.43%) had at least one smoking cessation product and 12 pharmacies (28.57%) had no smoking cessation products. Varenicline (Champix) was not available in any of the visited pharmacies. Nicotine

gum (Nicorette gum) was found in 3 pharmacies (7.14%). Out of 42 pharmacies 29 (69.05%) mentioned having Cytisine (Tabex). The mean price for smoking cessation products in Armenia were the following: for one box (100 tabs 1.5mg) of Cytisine (Tabex) was 4510.889 AMD (9.44 USD), for Nicotine (Nicorette) gum was 4500 AMD (9.42 USD) (30 gums 2 mg). The respondents identified the following main reasons for low demand of smoking cessation products: high price of the smoking cessation drugs, lack of trust in the drugs, the belief that smoking cessation medications are not useful, not caring about own health and a tendency for individuals to rely on willpower for quitting rather than medications.

The representatives of pharmaceutical companies agreed that only limited number of smoking cessation products was available in the Armenian market and explained this fact with the low demand for those products. Participants highlighted that they were dissatisfied with the consumption/sales of smoking cessation products; however none of them mentioned having strategic plans for the active promotion of the smoking cessation products in the market. All of the respondents acknowledged the role of physicians and educational/public awareness campaigns for increasing the demand of smoking cessation products and promoting smoking cessation in Armenia.

Using the affordability calculator presented in the West et al paper, we revealed that brief advice on smoking cessation, behavioral support by telephone, and text messaging were the top three most affordable healthcare smoking cessation interventions in Armenia. Smoking cessation therapy with Cytisine was identified as the most affordable tobacco cessation method among pharmacotherapy interventions.

Conclusions/Recommendations

Based on the study findings, the research team developed a set of recommendations: 1) Discuss/ disseminate study findings with key stakeholders/policy makers to create sustainable infrastructure to ensure wide accessibility, availability, and affordability of smoking cessation products; 2) Develop, implement and evaluate smoking cessation training for primary healthcare physicians; 3) Increase demand for tobacco dependence treatment services through implementation of educational/public awareness campaigns and encouraging primary healthcare physicians to provide smoking cessation counseling; 4) Implement and monitor the most affordable smoking cessation interventions: to ensure that at least brief advise to all smokers and the most affordable smoking cessation medication is included into the list of the essential medications in Armenia.

INTRODUCTION

The tobacco epidemic is one of the biggest public health threats killing around 6 million people per year.¹ Eastern Europe has the highest smoking rates in Europe, yet tobacco dependence treatments are virtually unavailable to smokers in many Eastern European countries.² The smoking prevalence rate among Armenian adult male population is one of the highest in the European region (63%).³

Armenia was the first former soviet union country to accede to the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) (November 2004) with the following adoption of a national tobacco control law to ban smoking in healthcare, education, culture facilities and public transport. Armenia also banned tobacco advertising on TV and radio (2002) and on billboards (2006) and introduced larger health warnings on cigarette packs. One area where Armenia's progress was less than satisfactory is the FCTC Article 14. Though the Ministry of Health approved the "Guideline for tobacco cessation counseling and treatment" for use by primary healthcare physicians in 2009, no further steps were undertaken to enable physicians to implement the guideline.

The FCTC Article 14 describes steps countries should take to develop tobacco cessation support systems, and recommends that countries strengthen or create sustainable infrastructure to motivate quit attempts and ensure widespread access to cessation support.⁴ FCTC Article 14 emphasizes the need for widespread availability of evidence-based and culture specific tobacco cessation medications, among other tobacco control measures. It asserts that there is "clear scientific evidence that such treatment is an effective and cost effective health-care intervention, and thus it is a worthwhile investment for health-care systems".⁴ The recommendations assert that countries should make available different types of tobacco dependence treatments, which are "the provision of behavioral support or medications, or both, to tobacco users, to help them stop their tobacco use".⁴ The Article 14

states that “tobacco dependence treatment should be widely available, accessible and affordable, and should include education on the range of cessation options available”.⁴

Though parties/countries should strengthen or create sustainable infrastructure to motivate attempts to quit, no focused investigation had been conducted to identify actions that Armenia has taken to facilitate or promote the introduction of tobacco cessation products to the country.

Armenia has limited resources for developing an appropriate smoking cessation infrastructure and there is little evidence about access to different smoking cessation interventions, including pharmacotherapy. In order to address this gap the Center for Health Services Research and Development (CHSR) of the School of Public Health at the American University of Armenia (AUA) conducted both pharmaceutical market survey and qualitative research to assess the current situation regarding availability, affordability, and prices of tobacco cessation products in Armenia (a White Paper). The research team has also compared the affordability of medication and non-medication based tobacco dependence treatments in Armenia, through adapting data in West et al paper.⁵

METHODS

The research included two main components: pharmaceutical market research and qualitative research among representatives of pharmaceutical companies. Based on the research results, affordability of smoking cessation healthcare interventions in Armenia were assessed using the West et al paper.

1. Pharmaceutical market research

Pharmaceutical market research included two stages: desk review and cross-sectional survey in pharmacies. The desk review was conducted with the aim of finding information on the recommended and/or available smoking cessation products in Armenia. Cross-

sectional survey in pharmacies aimed to collect information on the availability, affordability and prices of these products.

1.1 Desk review on availability of smoking cessation products

The desk review consisted of three parts: 1) review of the “National guideline for tobacco cessation counseling and treatment” for primary healthcare physicians, 2) review of the “Scientific center of drug and medical technologies expertise” (SCDMTE) website⁶ and 3) checking the “drug hotline” as a source of additional information about availability of smoking cessation products in Armenia.

1.2 Cross-sectional survey in pharmacies

Study population: For the pharmaceutical market research, Yerevan was selected as a survey area, which is divided into twelve administrative districts (strata). Stratified random sampling was used to identify pharmacies in Yerevan. The list of the licensed 793 pharmacies provided by the SCDMTE⁶ was used as the sampling frame. From each stratum (administrative district), 5% of pharmacies were randomly selected and visited by 3 trained interviewers. Microsoft Excel software was used as a tool to generate random numbers (pharmacies). The pharmacists present at the time of the visit were considered as the participants of the survey.

Study instrument: A structured questionnaire was used for the survey with pharmacists (see Appendix 1), which was developed by the research team. The questionnaire contained 7 items on availability, price, demand and supply of the smoking cessation products, and was pre-tested in two pharmacies. The survey duration was up to 10 minutes, and was completed after obtaining the oral consent from the pharmacists (See Appendix 2).

Data collection was conducted in March 2015. The Institutional Review Board at the AUA approved the study protocols.

Data management and analysis: The collected data was reviewed and entered into SPSS statistical software and then analyzed using STATA statistical software. Availability was expressed as the percentage of the pharmacies where a smoking cessation product was available for sale the day of the interview. Price was expressed as a price per unit (tablet, dose, and box) in both local currency and in US dollars (the average exchange rate for March 2015 was used)⁷.

The affordability of the smoking cessation drugs was expressed as the ratio of the monthly tobacco dependence treatment cost (for the registered medications) to average and minimum monthly salary (defined by Law)^{8,9}. The ratio of the monthly tobacco dependence treatment cost to the monthly smoked tobacco price was also calculated. Monthly treatment cost was estimated based on the recommended doses for each of the registered products.¹⁰⁻¹²

2. Qualitative research among representatives of pharmaceutical companies

Study design: The research team developed and implemented a qualitative study through in-depth interviews with representatives of three pharmaceutical companies to collect information on the price, availability and affordability of the registered smoking cessation products in Armenia. The research team used purposive sampling for recruiting the study participants.

Study setting: In-depth interviews were carried out at the American University of Armenia as well as in places convenient for the participants.

Study participants: The in-depth interviews were conducted with the representatives of three pharmaceutical companies that are officially presenting the registered smoking cessation products in the Armenian market.

Research instrument: A semi-structured guide (Appendix 3) was developed based on the main research questions for moderating the in-depth interviews. The Centre for Health Services Research and Development (CHSR) team developed all guides in English and then translated them into Armenian.

Data collection and analysis: The data collection took place in June 2015. Each interview had a trained moderator and a note-taker. The sessions were audio recorded with the permission of all study participants. All interviews were transcribed. After data collection, the research team analyzed transcripts using directed deductive content analysis techniques.¹³ Overall, 3 representatives of pharmaceutical companies participated in 3 in-depth interviews. The mean duration of the interviews was 27 minutes.

Categorization of study participants: Direct quotes provided in the boxes in the Results section are taken from individual in-depth interviews. The individual informant identifiers (e.g., Pharm. Rep. 2.2.1.1) specify the category of participants who provided the quote (e.g., Pharm. Rep.), the subhead of the report (e.g.2.2.1) and the sequential number of the given category of participant who provided the quote for the given box (e.g., 1). If the same participant provided more than one quote within a single box, these quotes are provided under the same identifier. A single informant who provided quotes in more than one box has different identifiers for each box.

Ethical considerations: The Institutional Review Board of the American University of Armenia approved the study protocols for compliance with locally and internationally accepted ethical standards. All participants were informed about their rights (their participation was voluntary, they could stop at any time and refuse to answer any question they chose, and their anonymity and confidentiality were fully respected). Audio-recording was possible only with permission of the participant. The final report does not contain

respondents' names, positions, institutions, or any other details that could identify the participants.

3. Affordability of smoking cessation healthcare interventions

The article by West et al. aims to assist the process of implementing Article 14 of the FCTC by assessing the efficacy, effectiveness and affordability of the major healthcare interventions to promote and assist tobacco cessation.⁵ It provides a concise summary of the evidence which, with an accompanying affordability calculator spreadsheet, can be used in guideline development, and in selecting cessation interventions appropriate to a country's current situation and resources. West et al. described in their article a quantitative model to estimate the affordability of different tobacco cessation methods based on the effectiveness of the method compared to in-country factors.⁵ Effectiveness estimates of tobacco cessation methods is based on Cochrane library information, altered by various factors specific to countries and agreed by an international panel of smoking intervention experts.¹⁴ The model estimates affordability by calculating the incremental cost effectiveness ratio (ICER) of tobacco cessation methods, which provides an estimate of the incremental cost of an intervention to achieve an extra year of life. It then compares the ICER to a country's per capita GDP to assess the extent to which that intervention is affordable. Behavioral and pharmacological tobacco cessation methods assessed are presented in Appendix 5.

Effectiveness calculations for each tobacco cessation intervention were constant between countries. Other parts of the calculation were estimated for the paper based on country category rather than for individual countries themselves. We aimed to use this affordability calculator to calculate and compare the affordability of different cessation interventions specifically for Armenia's current situation and resources.

RESULTS

1. Results from pharmaceutical market research

1.1 Results from the desk review on availability of smoking cessation

products

Review of the “National guideline on smoking cessation”

The National guideline for tobacco cessation counseling and treatment” for primary healthcare physicians was considered for identifying recommended/registered products in Armenia. The medications described in the guideline are presented in Table 1.

Table 1: Recommended smoking cessation products according to the “National guideline for tobacco cessation counseling and treatment”

| Registered in Armenia (generic name_brand name) | Not registered but used internationally (generic name_brand name) |
|--|--|
| Varenicline _ Champix | Nicotine inhaler _ Nicotrol |
| Nicotine gum _ Nicorette gum | Nicotine nasal spray _ Nicotrol |
| Cytisine _ Tabex | Nicotine patch _ Nicoderm, Nicotrol |

Review of the “Scientific center of drug and medical technologies expertise” website

The list of registered smoking cessation products was identified from the Scientific Center of Drug and Medical Technologies Expertise website.⁶ This website is designed for finding information about the activities, structure, current projects and reforms of the SCDMTE, as well as legislation and news relevant to drug policies. Table 2 presents information on the registered smoking cessation products obtained from the SCDMTE website.

Table 2: Registered smoking cessation products in Armenia (data from SCDMTE website)

| N | Trade Name | Generic Name | Dosage form | Dosage Strength | Country | Manufacturer | Registered until | Dispensing by |
|---|------------------|------------------------------------|-----------------------------|---|----------|---|------------------|---------------|
| 1 | Nicorette 2mg | Nicotine | Gum chewing, menthol flavor | 2mg; (15/1x15/) in blister, (105/7x15/) in blister | Sweden | McNeli AB for Johnson & Johnson LLC, Russia | 13/03/2017 | OTC* |
| 2 | Nicorette 4mg | Nicotine | Gum chewing, menthol flavor | 2mg; (15/1x15/) in blister, (30/2x15/) in blister, (105/7x15/) in blister | Sweden | McNeli AB for Johnson & Johnson LLC, Russia | 13/03/2017 | OTC* |
| 3 | Tabex | Cytisine | Tablets film-coated | 1.5mg; (100/5x20/) in blister | Bulgaria | Sopharma JSC, Bulgaria | 01/02/2018 | OTC* |
| 4 | Champix | Varenicline (varenicline tartrate) | Tablets film-coated | 1mg; (28/2x14/) in blister | Germany | Pfizer Manufacturing Deutschland GmbH | 01/02/2018 | Prescription |

*-Over the counter

“Drug hotline”

For finding additional information about the available smoking cessation drugs in Armenia the “drug hotline” was used. The “drug hotline” is 24 hour telephone number that provides information on specific drugs and the overall pharmaceutical industry in the Republic of Armenia.¹⁵ The information gained from the hotline is provided in Table 3.

Table 3: Available smoking cessation products in Armenia obtained through “drug hotline”

| Registered and available in Armenia (generic name_brand name) | Not registered, but available in Armenia (generic name_brand name) |
|---|--|
| Nicotine gum _ Nicorette gum | Nicotine patch _ Nicoderm, Nicotrol |
| Cytisine _ Tabex | Smoke Free (Homeopathic combination) |

1.2 Results from the cross-sectional survey in pharmacies

The research team attempted to visit 50 pharmacies and completed 42 interviews, (7 were wrong addresses or no longer pharmacies, one pharmacist refused to participate in the survey). The final sample consisted of 42 pharmacies that agreed to participate in the study, resulting in the response rate of 97.7%. The distribution and the number of all pharmacies sampled are listed in Table 4.

Table 4: The distribution of pharmacies by district

| | Pharmacies' location (administrative district) | Number of pharmacies |
|----|--|----------------------|
| 1 | Ajapnyak | 5 |
| 2 | Arabkir | 5 |
| 3 | Avan | 2 |
| 4 | Davitashen | 1 |
| 5 | Erebuni | 3 |
| 6 | Kentron | 9 |
| 7 | Malatia-Sebastia | 4 |
| 8 | Nor Norq | 4 |
| 9 | Nork-Marash | 1 |
| 10 | Nubarashen | 1 |
| 11 | Qanaqer-Zeytun | 3 |
| 12 | Shengavit | 4 |
| | Total | 42 |

Availability: The pharmacists were asked to provide information about registered smoking cessation products available in their pharmacies. Among the pharmacies surveyed (n=42), 30 pharmacies (71.43%) had at least one smoking cessation product and 12 pharmacies (28.57%) had no smoking cessation product (Table 5).

Table 5: Availability of smoking cessation products

| Do you have any smoking cessation products in your pharmacy? | N (%) | | Name of the product | N (%) |
|--|-------------|-------------|---------------------|---------------------------|
| | Yes | 30 (71.43%) | | Cytisine and Nicotine gum |
| Only Cytisine | | | | 27 (64.30) |
| Only Nicotine gum | | | | 1 (2.38) |
| No | 12 (28.57%) | | - | - |

Varenicline (Champix) was not available in any of the visited pharmacies. Nicotine gum (Nicorette gum) was found in 3 pharmacies (7.14%).

Out of 42 pharmacies 29 (69.05%) mentioned having Cytisine (Tabex). Table 6 shows the distribution of pharmacies by district that had Cytisine at the time of the survey, which demonstrated that this product was available at least in one pharmacy in each district.

Table 6: The distribution of Cytisine (Tabex) by districts

| Pharmacies' location (administrative district) | No | Yes | Total |
|--|----|-----|-------|
| Ajapnyak | 4 | 1 | 5 |
| Arabkir | 0 | 5 | 5 |
| Davitashen | 0 | 2 | 2 |
| Erebuni | 0 | 1 | 1 |
| Kentron | 2 | 7 | 9 |
| Malatia-Sebastia | 2 | 2 | 4 |
| Nor Norq | 2 | 2 | 4 |
| Nork-Marash | 0 | 1 | 1 |
| Nubarashen | 0 | 1 | 1 |
| Qanaqer-Zeytun | 2 | 1 | 3 |
| Shengavit | 0 | 4 | 4 |
| Total | 13 | 29 | 42 |

The pharmacists were also asked to mention any other smoking cessation products that were available in their pharmacies. Out of 42 pharmacies, 2 (4.76%) mentioned having electronic cigarettes. Three pharmacies (7.14%) mentioned having Teturam (tablets used in treatment of chronic alcohol abuse) as a smoking cessation product.

Price: Whenever the product was available in the pharmacy, the pharmacist was asked to provide information on the price. Out of 3 pharmacies which had Nicotine (Nicorette) gum, one pharmacist refused to mention the price of the product and in other two pharmacies the price was the same, 4500 AMD (9.42 USD) (30 gums 2mg).

The mean price of one box (100 tabs 1.5mg) of Cytisine (Tabex) was 4511 AMD (SD=253 AMD) or 9.44 USD (SD=0.53 USD), ranging from 3914 AMD (8.19 USD) to 5000 AMD (10.46 USD). Only one respondent out of 29 refused to provide the price of Cytisine.

Electronic cigarettes were available to purchase in two pharmacies. In one pharmacy the price of electronic cigarettes was 3400 AMD (7.12 USD) and in the other one it was 4860 AMD (10.17 USD).

Demand for smoking cessation products and customer characteristics: Out of the 32 pharmacies which had at least one smoking cessation product, only 10 respondents (31.25%), mentioned that these products were regularly demanded. For instance, 19 pharmacists (65.6%) stated that they had sold 1 box or less Cytisine (Tabex) during the previous month.

Respondents mentioned different reasons for low demand for smoking cessation products including high price of the smoking cessation drugs, lack of trust in the drugs, the belief that smoking cessation medications are not useful, not caring about own health and a tendency for individuals to rely on willpower for quitting rather than medications.

According to pharmacists, the customers buying smoking cessation products were mainly males (mentioned by 81.25% (26/32) respondents) aged from 30 to 50 years (mentioned by 68.76% (22/32) of respondents).

Affordability: According to the Armenian national legislation, the minimum monthly salary is 55,000 AMD (115.10 USD).⁸ According to the National Statistical Service of the Republic of Armenia, the average monthly salary in Armenia is 176,723 AMD (365.65 USD).⁹ The mean price of a 20 cigarette pack in Armenia is considered to be 670.0 AMD (1.4 USD).¹⁶ If a person smokes 20 cigarettes (1 pack) per day, then he/she spends on average $30 \times 670 = 20,100$ AMD (42.07 USD) on tobacco (the further calculations were made based on this assumption) per month.

Cytisine (Tabex): For calculating the monthly cost for tobacco dependence treatment with Cytisine (Tabex) the recommended therapeutic scheme¹⁰ was used (see Table 7).

Table 7: Recommended therapeutic scheme of Tabex

| Day of Treatment | Intake Intervals | Total Daily Tablets |
|------------------|--------------------------|---------------------|
| Day 1 to 3 | 1 tablet every 2 hours | 6 tablets daily |
| Day 4 to 12 | 1 tablet every 2.5 hours | 5 tablets daily |
| Day 13 to 16 | 1 tablet every 3 hours | 5 tablets daily |
| Day 17 to 20 | 1 tablet every 4 hours | 3 tablets daily |
| Day 21 to 25 | 1 tablet every 6 hours | 2 tablets daily |

According to the therapeutic scheme, one pack of 100 tablets of 1.5mg Cytisine is appropriate for the monthly course of treatment, which costs 4511 AMD (9.44 USD). Comparing the average amount of money that is monthly spent on the treatment with Cytisine with the money spent on tobacco (4511 versus 20,100 AMD), it is clear that monthly Cytisine drug treatment is less expensive than the price paid for tobacco products.

The monthly treatment course with Cytisine (Tabex) is 8.2% ($4511/55,000=0.082$) of the monthly minimum salary and 2.6% ($4511/176,723=0.026$) of the monthly average salary, while average monthly expenditure for tobacco is 36.5% ($20,100/55,000=0.365$) of the minimum monthly salary and 11.4% ($20,100/176,723=0.114$) of the average monthly salary.

Nicotine gum (Nicorette gum): For having a better chance of success, it is recommended to use at least 9 pieces of Nicorette gum daily.¹¹ One box of Nicorette contains 30 gums (2mg) and costs approximately 4,500 AMD (9.42 USD). Therefore, 9 boxes are needed (270 pieces of Nicorette per month)¹¹ to complete a monthly course. According to this information, the monthly treatment cost with Nicorette gum is 40,500 AMD (84.76 USD). In terms of minimum and average monthly salaries the treatment cost with Nicorette gum is 73.64% ($40,500/55,000=0.7364$) and 22.92% ($40,500/176,723=0.2292$), respectively.

Varenicline (Champix): The recommended course of Champix includes 56 tablets (1mg) per month.¹² The mean price of Champix was 25,000 AMD (52.32 USD) (28 tablets) and the recommended monthly treatment cost is 50,000 AMD (104.64 USD). Therefore, a

recommended monthly course of Champix is 90.91% ($50,000/55,000=0.9091$) of the minimum monthly salary and 28.29% ($50,000/176,723=0.2829$) of average monthly salary.

Table 8: Affordability of smoking cessation products

| | Cytisine (1box/100tablets) | Nicotine gum (1box/30 gums) | Varenicline (1box/28tablets) |
|--|------------------------------------|------------------------------------|------------------------------------|
| Average price per box (AMD/USD) | 4,510.889/9.44 | 4,500/9.42 | 25,000/52.32 |
| Average price of monthly course (AMD/USD) | 4,510.889/9.44 | 40,500/84.76 | 50,000/104.64 |
| Ratio of monthly treatment cost to average salary (%) | 2.6% ($4510.889/176,723=0.026$) | 22.92% ($40,500/176,723=0.2292$) | 28.29% ($50,000/176,723=0.2829$) |
| Ratio of monthly treatment cost to minimum salary (%) | 8.20% ($4510.889/55,000=0.0820$) | 73.64% ($40,500/55,000=0.7364$) | 90.91% ($50,000/55,000=0.9091$) |
| Ratio of monthly treatment cost to monthly smoked tobacco | 0.224 ($4510.889/20,100$) | 2.015 ($40,500/20,100$) | 2.488 ($50,000/20,100$) |

2. Results from the qualitative research among representatives of pharmaceutical companies

Availability of smoking cessation products

The respondents were well aware of the problems related to the availability of the products in Armenian pharmaceutical market. All of them mentioned that only one smoking cessation product is available in both main/chain pharmacies and private pharmaceutical stores. Two representatives noted that they were planning to restart importing smoking cessation products in the near future. It is worth mentioning that all respondents emphasized that when their product is/was in the market they are/were trying to ensure that they are available in all pharmacies of Yerevan and the regions.

“Once it was imported into Armenia, after some time the import was stopped due to a number of reasons. Now there is no [the name of the smoking cessation product] available in the market. Currently there is no official import of this product”.

Pharm.Rep.3.1

“Our drug is available in the main network pharmacies, as well as in the private pharmacies. If a pharmacy does not have the drug at the moment it could be found in the next pharmacy, or pharmacists would suggest waiting till they obtain the drug because they do not want to lose their customers. Therefore, there is no problem in terms of availability”.

Pharm.Rep.3.2

“We are planning to import the drug and make it available for purchase, if not this year, then at the latest by the beginning of 2016, because we have assessed that the market is ready and there is increasing demand for this product”.

Pharm.Rep.3.1

All respondents reported that smoking cessation products are sold on the over-the-counter basis (OTC). One of the representatives mentioned that smoking cessation product represented by their company should be sold by prescription, though in the Armenian pharmaceutical market it was sold without prescription.

“It [name of the smoking cessation product] should need a prescription. The [name of the company] does not have products that are over-the-counter in Armenia; all should be sold by prescription. Though we know that in Armenia we can buy it without prescription.”

Pharm.Rep.3.3

Price of the smoking cessation products

The representatives of the pharmaceutical companies reported that smoking cessation products in Armenia were very variable in price. Some of the respondents argued that the low price was the main characteristic that determined the competitiveness of the product in the market. Meanwhile some of the participants highlighted that the high price of the product could not affect the competitiveness of the product because even if the smoking cessation product had relatively high price it was still beneficial to use that product for quitting rather than to continue smoking.

“I do not consider [name of smoking cessation product] as a serious competitor to our product because of its high price”.

Pharm.Rep.3.1

“If a person counts the amount of money he/she spends on cigarettes for a year, then this amount will not be comparable [will be higher] to the cost of the treatment [with name of smoking cessation

product] for 6 months. Even if these amounts are comparable, it [treatment with smoking cessation product] is beneficial for the future. In any case, if the person wants to quit smoking, the price [of treatment] is not the primary issue.”

Pharm.Rep.3.2

Demand for smoking cessation products

Overall the participants were not satisfied with the consumption/sales of the smoking cessation products and were emphasizing this as the justification for limited availability of these products in the market. The participants highlighted several factors that lead to low demand/sales of the smoking cessation products in the Armenian market, including lack of time and recourses for importing new products, limited types of registered NRT (nicotine replacement therapy) in the market, low awareness of physicians and consumers about smoking cessation products.

“The demand was so low that there were pharmacies that worked for only one consumer and ordered only very small amounts of the drug for that particular person”.

Pharm.Rep.3.1

“No, we were not satisfied with the results. We were in a hurry when importing this product, so we did not have reasonable amount of time to prepare the market for the product. This is an important precondition for promotion; we just distributed the drugs to the pharmacies”.

Pharm.Rep.3.2

“We were not satisfied [with the sales results] at all. For that reason we stopped the marketing [the name of the smoking cessation product]. It is not profitable at all both for the importing company and our company to sell 200 boxes in a month. It is not profitable for the pharmacy as well”.

Pharm.Rep.3.1

“The bad side of the Armenian market is that the whole spectrum of NRT is not represented, for example, it is possible that for the person chewing a gum is not pleasant but using the patches are more suitable. NRT gums have many alternatives, for example, inhalers, patches that are more preferable for some people. In Armenia we have NRT only in the form of gums. Now the other type of gums is going to be imported”.

Pharm.Rep.3.3

Some of the respondents mentioned that demand for smoking cessation products depended on smokers' willingness to quit which was related to their ability to acknowledge the harmful effects of smoking. Moreover, one of the respondents mentioned that there was a tendency to carry on smoking rather than to quit. According to another participant the reason

for low demand for smoking cessation products was the fact that smokers were not aware of smoking cessation products and relied solely on their willpower to quit.

“The demand [for smoking cessation products] comes from an individual’s consciousness. Potential patients should realize that they are addicted and need treatment. In case of treatment with [the name of the product], there is a precondition; a person should have the willingness to quit smoking. If the person does not want to quit, s/he will not take any smoking cessation drug (may stop taking the drug, or will take less than necessary)”.

Pharm.Rep.3.2

“If there is even a small group of people that want to quit smoking, usually it is just words (empty words); they need to have strong willpower for doing that”.

Pharm.Rep.3.1

“Firstly, it [reason for low demand] is the unawareness of people. Even if they want to quit smoking, they do not always know that there are medications that could be used and they think the most important thing needed to quit smoking is willpower. Secondly, some people do not want to quit smoking. I have noticed that there is a group of young people less than 30 years old (without any significant health problems) who do not want to quit and cannot imagine their daily life without smoking.

Pharm.Rep.3.3

“I do not see any tendency to quit smoking, I see more people who smoke. In my surrounding area there are more smokers who do not think about the harmful effect of smoking, rather than those who want to quit”.

Pharm.Rep.3.2

Current plans to promote smoking cessation products

Despite very low demand for smoking cessation products in Armenia reported by the respondents, the companies did not take any specific actions and did not have strategic plans for active promotion of the smoking cessation products in the future.

“There was no strategy for the promotion of the product. We wanted to collaborate with air companies and prepare a program that was giving [name of the smoking cessation product] to those who have desire for smoking during the flight. But when the product went out from the market the program stopped. When it returns to the market we will try to do something for the promotion of it [name of the smoking cessation product]”.

Pharm.Rep.3.1

“Having marketing plan is very important but currently we do not have any. We did not have any plan in the past as well. However, we would like to have this drug in our portfolio”.

Pharm.Rep.3.2

“There are no active marketing steps currently being carried out. We are planning some activities with pharmacies and doctors aimed at raising awareness, but when and how it will be done is not clear yet. We do not have a specific agenda”.

Pharm.Rep.3.3

Opportunities/possibilities to promote smoking cessation products

All respondents highlighted the crucial role of primary healthcare physicians in the process of increasing the demand for smoking cessation products in Armenia. Some respondents highlighted that even if smokers knew about smoking cessation products, mostly they did not know how to use them correctly (unaware of the recommended dosage, scheme and other details). In this case, primary health care physicians could advise them.

“They [primary health care physicians] have a very important role in increasing the demand of smoking cessation products. They first encounter the patients in polyclinics when they receive preventive services and the patients meet narrow specialists at the later stages of the [disease]”.

Pharm.Rep.3.1

Their [primary health care physicians] role is very important because people do not know what to do with these medications; they even do not read the instructions and think that with the help of one gum they will stop smoking”.

Pharm.Rep.3.2

“Of course, they have a role in this because when people develop cardiovascular and lung diseases, the most important preventative action they can take is to quit smoking and the role of primary health care professionals is influential in this”.

Pharm.Rep.3.3

“I think that it is always possible to increase the sales of such kind of drugs, I mean, if people (doctors, consumers) are more informed [about smoking cessation products], the sales will improve”.

Pharm.Rep.3.1

All the respondents agreed about the importance of public awareness campaigns for increasing demand for smoking cessation products in the market. The respondents also highlighted the role of the Armenian government in increasing the demand for smoking cessation products through policy changes, social advertisement, and media campaigns.

“First of all people’s awareness should be increased. There is no need to have a medical education to understand the harms of smoking. This [name of smoking cessation product] is a social product. Mostly people smoke habitually. There is no need for long lectures, or policy changes; just we should conduct social programs and advertising”.

Pharm.Rep.3.1

“People should be referred to the physicians with the help of different programs or advertisements and whenever they decide to quit they should be able to rely on the support of their doctor. From our side we will do everything to achieve 100% distribution of the product and if people want to buy [the name of the smoking cessation product] they will definitely find it, and the price will be

reasonable as well”.

Pharm.Rep.3.2

“For the promotion of smoking cessation drugs, I think, there could be awareness raising activities at universities, we should demonstrate to the students that there are such medications”.

Pharm.Rep.3.3

“Smoking in public places should be banned and the government should create disincentives for people to smoke which should reduce demand for smoking. In our country it is the opposite, the advertisement of cigarettes is allowed, which, in my opinion, is not acceptable. We are only 3 million people and we just do not have the “right” to smoke.

Pharm.Rep.3.2

3. Results from the affordability of smoking cessation healthcare

interventions

We updated the estimates used in the paper by West et al with more accurate data for Armenia and presented it in Table 9, along with sources and methodology for the updated data.

Table 9: GDP and salary data for Armenia (used in West et al article and updated data)

| Estimates (all current US\$) | West et al article | Updated data | Source of the updated data |
|--|--------------------|---|---|
| GDP per capita | 3,504.77 | 3,646.7 | World Bank data - http://data.worldbank.org/indicator/NY.GDP.PC.AP.CD |
| Physician salary (annually) | 26,254 | 4,139.79 (based on 165,000 AMD per month) | Monthly salary ¹⁷ Currency conversion using xe.com – on 10/08/2015 |
| Physician salary (hourly) | 39.07 | 1.99 (based on 2080 working hours a year) | 2080 working hours a year – based on an assumption of working 8 hours a day and 21.6 days a month |
| Other health worker salary (annually) | 16,215 | 1,881.71(based on 75,000 AMD per month) | Monthly salary ¹⁷ Currency conversion using xe.com – on 10/08/2015 |
| Other health worker salary (hourly) | 24.13 | 0.90 (based on 2080 working hours a year) | 2080 working hours a year – based on an assumption of working 8 hours a day and 21.6 days a month |

Estimates for price of smoking cessation products are also updated from the West et al estimates.⁵ Not all smoking cessation drugs are registered to be used in Armenia.¹⁸

Whenever the drug is not registered in Armenia a price was estimated using data from pricing in Russia. These data are presented in Table 10.

Table 10: Original and revised cost of tobacco cessation materials and drugs in Armenia (only including drugs registered to be used in Armenia + Bupropion)

| Estimate (all current US\$) | Figure in West et al | Updated Armenia figure | Rationale for revised costs of drugs/materials in Armenia |
|-----------------------------|----------------------|------------------------|---|
| Text messaging | 10 | 5 | This is a rough estimate based on the cost setting up and sending five text messages a day for the first 5 weeks and then three a week for the next 26 weeks. This figure is taken from: http://www.ncbi.nlm.nih.gov/pubmed/21722952 |
| Printed materials | 10 | 5 | A review of the effectiveness of printed materials did not find a significant difference between types and number of pages in printed materials, meaning this price could be interpreted as an upper estimate of the true price. |
| Single form NRT | 150 | 263.44 | There are many types of NRT, but nicotine gum (Nicorette) was used in the estimate price as it is the only form of NRT registered in Armenia. The cost of a pack of 30 2mg gums was taken at 4500AMD (from Pharmaceutical Market Research conducted by AUA/CHSR). A 12 week course of the gum (taking on average 10 a day) results in 28 packets being needed (126,000). This was converted in US\$ using xe.com on 10/08/2015. |
| Varenicline | 300 | 313.62 | It was estimated that a course of Varenicline in Armenia costs 150,000 AMD. This was converted in US\$ using xe.com on 10/08/2015. |
| Cytisine | 20 | 9.43 | In Pharmaceutical Market Research conducted by AUA/CHSR, the mean price of Cytisine (Tabex) was 4510.889 AMD/per one box. This was converted in US\$ using xe.com on 10/08/2015. |
| Bupropion | 100 | 69.47 | As Bupropion is not registered in Armenia, the price of Bupropion was estimated using the price in Russia of 40RUB per 150mg tablet. Following the West et al paper, it was estimated that a course of Bupropion consisted of 112 tablets (300mg a day for 8 weeks). The price in RUB was converted to US\$ on 10/08/2015. |

The affordability calculator includes physicians and other healthcare workers' hours per each intervention. Physicians and other health care workers hours per treatment is based on estimated contact time plus 100% for training and additional administrative work.

Physician time for medications is based on side effects profile that would need managing. Some estimates presented in the West et al paper⁵ for both physician and other health worker hours were adjusted (shifted) to emphasize the accepted leading role of

physicians rather than other health workers (nurses, etc.) in providing treatment services including smoking cessation in Armenia. That is why we shifted the numbers representing the time allocated for each service between physicians and nurses. The adjusted (shifted) hours are shown in Table 11.

Table 11: Adjusted physician and other health worker hours for each tobacco cessation method

| Intervention name | Physician hours (West et al) | Other health worker hours (West et al) | Physician hours (updated) | Other health worker hours (updated) |
|----------------------------------|------------------------------|--|---------------------------|-------------------------------------|
| Brief Advice | 0.6 | 0.0 | 0.6 | 0.0 |
| Behavioral support: in person | 0.0 | 3.0 | 3.0 | 0.0 |
| Behavioral support: in telephone | 0.0 | 2.0 | 0.0 | 2.0 |
| Text messaging | 0.0 | 0.0 | 0.0 | 0.0 |
| Printed materials | 0.0 | 0.2 | 0.2 | 0.0 |
| Single form NRT | 0.6 | 0.0 | 0.6 | 0.0 |
| Bupropion | 1.0 | 0.0 | 1.0 | 0.0 |
| Varenicline | 1.0 | 0.0 | 1.0 | 0.0 |
| Cytisine | 0.6 | 0.0 | 0.6 | 0.0 |
| In person support and single NRT | 0.6 | 4.0 | 4.0 | 0.6 |
| Dual NRT | 0.6 | 0.0 | 0.6 | 0.0 |
| In person support and dual NRT | 0.6 | 4.0 | 4.0 | 0.6 |

After updating the affordability calculator with the Armenian data, changes had been made in the ranking scale of different interventions. The changes in affordability estimates using the original West et al data⁵ and the revised data explained above is shown in Table 12 below.

Table 12: Comparison of affordability estimates from West et al. and updated data

| Intervention name | Affordability estimates | | | |
|----------------------------------|-------------------------|-----------------------------|---------|-----------------------------|
| | West et al. | Ranking (1=most affordable) | Updated | Ranking (1=most affordable) |
| Brief Advice | 2.30 | 4.00 | 45.15 | 1.00 |
| Behavioral support: in person | 1.49 | 6.00 | 18.06 | 4.00 |
| Behavioral support: in telephone | 1.68 | 5.00 | 44.70 | 2.00 |
| Text messaging | 10.78 | 1.00 | 21.57 | 3.00 |
| Printed materials | 3.64 | 3.00 | 9.99 | 6.00 |
| Single form NRT | 0.93 | 11.00 | 0.61 | 11.00 |
| Bupropion | 1.36 | 7.00 | 2.64 | 7.00 |
| Varenicline | 1.19 | 9.00 | 1.28 | 8.00 |
| Cytisine | 3.72 | 2.00 | 15.23 | 5.00 |
| In person support and single NRT | 1.00 | 10.00 | 0.99 | 10.00 |
| Dual NRT | 0.92 | 12.00 | 0.56 | 12.00 |
| In person support and dual NRT | 1.35 | 8.00 | 1.06 | 9.00 |

Table 12 shows that that the most affordable smoking cessation intervention in Armenia are brief advice on smoking cessation (1), followed by behavioral support by telephone (2), and text messaging (3). Smoking cessation therapy with Cytisine is the most affordable tobacco cessation method among pharmacotherapy interventions (5). The most affordable NRT containing intervention is in person support with dual NRT (9).

CONCLUSIONS AND RECOMMENDATIONS

Based on the study findings the research team made the following conclusions:

- Champix, Nicorette gum, and Tabex are registered and recommended smoking cessation products in Armenia.
- Among the pharmacies surveyed (n=42), 71.43% had at least one smoking cessation product and 28.57% had no smoking cessation product.
- The most widely available smoking cessation product in pharmacies was Cytisine: out of 42 pharmacies 69.05% mentioned having Cytisine (Tabex). Varenicline

(Champix) was not available in any of the visited pharmacies and Nicotine gum (Nicorette gum) was found only in 7.14%. The mean prices for smoking cessation products in Armenia were the following: for one box (100 tabs 1.5mg) of Cytisine (Tabex) 4,511 AMD (9.44 USD), for Nicotine (Nicorette) gum (30 gums 2mg) 4,500 AMD (9.42 USD).

- The respondents to the pharmacy surveys mentioned the following reasons for low demand of smoking cessation products: high prices of products, lack of trust in drugs, believes that smoking cessation medications are not useful, not caring about own health and a tendency for individuals to rely on willpower for quitting rather than medications.
- Representatives of pharmaceutical companies in Armenia explained the limited availability of these products in the market by low demand. Despite low demand for smoking cessation products in Armenia, pharmaceutical companies do not take any specific actions to actively promote smoking cessation products in Armenia.
- Representatives of pharmaceutical companies emphasized the important role of primary healthcare physicians and public awareness campaigns for increasing the demand for smoking cessation products in Armenia.
- The affordability calculator developed by West et al. revealed that the top 3 most affordable smoking cessation health care interventions in Armenia include brief advice on smoking cessation, behavioral support by telephone and text messaging. Smoking cessation therapy with Cytisine is the most affordable tobacco cessation method among pharmacotherapy interventions in Armenia.

Taking into consideration the study findings the research team developed the following recommendations:

- Discuss/disseminate the study findings among key stakeholders/policy makers to achieve broad consensus on the urgent need in strengthening the national smoking cessation infrastructure and to develop strategic plan for the implementation of FCTC Article 14 in Armenia, including:
 - Integration of tobacco dependence treatment into the national tobacco control program;
 - Development of sustainable infrastructure to ensure wide accessibility, availability, and affordability of smoking cessation products.
- Develop, implement and evaluate smoking cessation trainings for primary healthcare physicians in accordance with the existing scientific evidence and best practices.
- Increase demand for tobacco dependence treatment services through:
 - Implementing educational programs and public awareness campaigns promoting smoking cessation;
 - Creating up-to-date, easily accessible information system on available tobacco cessation services;
 - Encouraging primary healthcare physicians to provide smoking cessation counseling (e.g. performance-based reimbursement mechanism to motivate primary healthcare physicians to provide smoking cessation counseling);
- Implement and monitor the most affordable smoking cessation interventions.
 - Ensure that the provision of at least brief advise to all smokers is an essential part of standard medical practice;
 - Include the most affordable smoking cessation medications into the list of essential medications in Armenia.

REFERENCES

1. World Health Organization, Tobacco Fact sheet N°339. Updated at July 6, 2015. Available at: <http://www.who.int/mediacentre/factsheets/fs339/en/>.
2. World Health Organization report on the global tobacco epidemic, the MPOWER package. Geneva, World Health Organization, 2008. Available at: <http://www.who.int/tobacco/mpower/2008/en/>.
3. National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF International. 2012. Armenia Demographic and Health Survey 2010. Calverton, Maryland: National Statistical Service, Ministry of Health, and ICF International.
4. Framework Convention on Tobacco Control: Implementation Challenges in Armenia Civil Society Report 2005-2010. Available at: http://www.tobaccofreearmenia.am/wp-content/uploads/2011/06/shadow_report_eng.pdf.
5. West R, Raw M, McNeill A, et al. Health-care interventions to promote and assist tobacco cessation: a review of efficacy, effectiveness and affordability for use in national guideline development. *Addiction*. 2015;110(9):1388-1403. doi:10.1111/add.12998.
6. Scientific Center of Drug and Medical Technology Expertise. Available at: www.pharm.am.
7. Best exchange rates. Available at: <http://rate.am/>.
8. Armenian Legal Information System. Available at: <http://www.arlis.am/DocumentView.aspx?DocID=94688>.
9. National Statistical Service of the Republic of Armenia. Available at: <http://www.armstat.am/en/>.
10. A Modern And Reliable Method For Giving Up Smoking. Available at: <https://www.tabex.net/>.
11. Nicorette® Gum. Available at: <https://www.nicorette.com/products/nicorette-gum.html>.
12. Champix. Available at: <http://www.champix.co.nz/#/PreparingToStop/Directions>.
13. Hsieh H, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res*. 2005;15(9):1277-1288. doi:10.1177/1049732305276687.
14. Lancaster T. Summary of effectiveness data for smoking cessation interventions (abstinence at least six months) based on Cochrane Review. *BMJ Clin Res Ed*. 2002;325(7369):881-886. doi:10.1016/j.mena.2011.08.003.
15. Pharmaceutical hot-line. Available at: <http://www.danapharm.com/e/hot-line-090-00-00-33/our-drug-hotline-service>.
16. International Cigarette Prices. Available at: <http://www.cigaretteprices.net>.
17. Պետության կողմից երաշխավորված անվճար արտահիվանդանոցային բժշկական օգնություն եվ սպասարկում իրականացնող աշխատողների աշխատանքի վարձատրման մասին. Available at: http://www.moh.am/?section=static_pages/index&id=588#.
18. Registered drugs in Armenia. Available at: <http://www.med-practic.com/arm/drugs.html#Y19pZD05Jm1faWQ9NTM5JmXuZz1hcm0mcGFnZT0x>.

APPENDICES

Appendix 1. Survey questionnaire (English and Armenian versions)

Questionnaire

(on smoking cessation products availability in pharmacies)

| Interviewer _____ | « » _____ 2015թ. | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------|----------------------|-------------|----------------------|-----------------------|--|--------------------|--|---------------------------|--|--------------------|--|------------------|--|--------------------|--|----------------------|--|--------------------|--|-------------|--|--------------------|--|
| ID _____ | Pharmacy location (district) _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Do you have any smoking cessation products in your pharmacy? <input type="checkbox"/> yes <input type="checkbox"/> no (why) _____ (pass Q6) | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Which smoking cessation products are available in your pharmacy? How much do they cost and during last month how many drugs have been sold? <table border="1"> <thead> <tr> <th>Item</th> <th>Availability</th> <th>Price/per 1</th> <th>Sold items per month</th> </tr> </thead> <tbody> <tr> <td>Varenicline (Champix)</td> <td></td> <td>.....AMD /per.....</td> <td></td> </tr> <tr> <td>Nicotine gum (Nicorette)</td> <td></td> <td>.....AMD /per.....</td> <td></td> </tr> <tr> <td>Cytisine (Tabex)</td> <td></td> <td>.....AMD /per.....</td> <td></td> </tr> <tr> <td>Electronic cigarette</td> <td></td> <td>.....AMD /per.....</td> <td></td> </tr> <tr> <td>Other means</td> <td></td> <td>.....AMD /per.....</td> <td></td> </tr> </tbody> </table> | | Item | Availability | Price/per 1 | Sold items per month | Varenicline (Champix) | |AMD /per..... | | Nicotine gum (Nicorette) | |AMD /per..... | | Cytisine (Tabex) | |AMD /per..... | | Electronic cigarette | |AMD /per..... | | Other means | |AMD /per..... | |
| Item | Availability | Price/per 1 | Sold items per month | | | | | | | | | | | | | | | | | | | | | | |
| Varenicline (Champix) | |AMD /per..... | | | | | | | | | | | | | | | | | | | | | | | |
| Nicotine gum (Nicorette) | |AMD /per..... | | | | | | | | | | | | | | | | | | | | | | | |
| Cytisine (Tabex) | |AMD /per..... | | | | | | | | | | | | | | | | | | | | | | | |
| Electronic cigarette | |AMD /per..... | | | | | | | | | | | | | | | | | | | | | | | |
| Other means | |AMD /per..... | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Do smoking cessation products have demand? <input type="checkbox"/> yes (why) _____ <input type="checkbox"/> no (why) _____ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Who mostly buys smoking cessation products? | <input type="checkbox"/> male <input type="checkbox"/> female | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. On average how old are the customers who buy smoking cessation products? | <input type="checkbox"/> till 20 y/o <input type="checkbox"/> 20-30 y/o <input type="checkbox"/> 30-40 y/o <input type="checkbox"/> 40-50 y/o <input type="checkbox"/> 50-60 y/o <input type="checkbox"/> 60 y/o and more | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. Do you have any smoking cessation product posters or informational/educational material inside your pharmacy? | <input type="checkbox"/> yes <input type="checkbox"/> no | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Do you offer any smoking cessation products to your costumers? | <input type="checkbox"/> yes _____ <input type="checkbox"/> no | | | | | | | | | | | | | | | | | | | | | | | | |
| Notes _____ _____ _____ _____ | | | | | | | | | | | | | | | | | | | | | | | | | |

Հարցաթերթիկ

(դեղատներում ծխելը դադարեցնելու միջոցների առկայության վերաբերյալ)

| | | | |
|--|---------------------------------------|--|--------------------------------------|
| Հարցազրուցավար _____ | « » _____ 2015թ. | | |
| ID _____ | Դեղատան տեղակայում (համայնք) _____ | | |
| 1. Ձեր դեղատանը ծխելը դադարեցնելու որևէ միջոց ունե՞ք: <input type="checkbox"/> այո <input type="checkbox"/> ոչ (Ինչո՞ւ) _____ (անցնել Հ6) | | | |
| 2. Ձեր դեղատանը ծխելը դադարեցնելու միջոցներից որո՞նք են առկա, ի՞նչ արժեն և վերջին մեկ ամսվա ընթացքում որքա՞ն են վաճառվել: | | | |
| Ապրանք | Առկա | Գին/հատ | Վաճառքը 1 ամսվա ընթացքում/հատ |
| Վարենիկլին (Չամպիքս) | |դր /.....հատ | |
| Նիկոտինի մաստակ (Նիկոռետ) | |դր /.....հատ | |
| Ցիտիգին (Տարեքս) | |դր /.....հատ | |
| Էլեկտրոնային ծխախոտ | |դր /.....հատ | |
| Այլ միջոց | |դր /.....հատ | |
| 3. Արդյո՞ք ծխելը դադարեցնելու միջոցները պահանջարկ ունեն: <input type="checkbox"/> այո (Ինչո՞ւ) _____ <input type="checkbox"/> ոչ (Ինչո՞ւ) _____ | | | |
| 4. Ովքե՞ր են առավել հաճախ գնում ծխելը դադարեցնելու միջոցներ: | | <input type="checkbox"/> տղամարդիկ <input type="checkbox"/> կանայք | |
| 5. Միջինում քանի՞ տարեկան են ծխելը դադարեցնելու միջոցների գնորդները: | | <input type="checkbox"/> մինչև 20 տարեկան <input type="checkbox"/> 20-30 տարեկան <input type="checkbox"/> 30-40 տարեկան <input type="checkbox"/> 40-50 տարեկան <input type="checkbox"/> 50-60 տարեկան <input type="checkbox"/> 60 և ավելի | |
| 6. Ձեր դեղատան ներսում ծխելը դադարեցնելու միջոցների վերաբերյալ ունե՞ք որևէ պաստառ կամ տեղեկատվական/կրթական նյութ: | | <input type="checkbox"/> այո <input type="checkbox"/> ոչ | |
| 7. Դուք ծխելու դադարեցնելու որևէ միջոց առաջարկո՞ւմ եք Ձեր գնորդներին: | | <input type="checkbox"/> այո _____ <input type="checkbox"/> ոչ | |
| Այլ նշումներ _____ | | | |

Appendix 2. Consent form (English and Armenian versions)

American University of Armenia

Institutional Review Board #1

Hello! My name is... I am working at the Center for Health Services Research and Development within the School of Public Health at the American University of Armenia. American University of Armenia (AUA) is conducting a project that aims to collecting information from the registered pharmacies on the price, availability and affordability of smoking cessation drugs in Yerevan.

You are invited to participate in this interview because you are working in this pharmacy that has been randomly chosen from the list of the licensed 793 pharmacies in Yerevan provided by the Scientific Center of Drug and Medical Technology Expertise. Your participation will involve face-to-face interview with the duration of up to 10 minutes.

The information provided by you on smoking cessation drugs prices, availability and affordability will remain confidential and will be used only for current project. Only aggregate/summary data will be used in further research. The participation in this interview is completely voluntary. You will not be penalized in any way if you decide not to participate.

Participation in this interview does not have any direct benefit or harm to you, but your responses are valuable for us and will contribute to generate reliable information on the price, availability and affordability of smoking cessation drugs in Yerevan.

Here is the card with contact information for the research team. If you have any questions regarding this project you can call the Principal Investigator Dr. Arusyak Harutyunyan, (+37460) 612621 or (+374 94) 630077 (mobile).

If you feel you have not been treated fairly or think you have been hurt by joining the project you should contact Dr. Kristina Akopyan, the Human Subject Protection Administrator of the American University of Armenia (37460) 612561.

Do you agree to participate?

Thank you.

If yes, shall we continue?

Հայաստանի ամերիկյան համալսարան
Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով
Իրազեկ համաձայնության ձև

Բարև ձեզ, իմ անունն է: Ես աշխատում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետում: Հայաստանի ամերիկյան համալսարանի Առողջապահական ծառայությունների հետազոտությունների և զարգացման կենտրոնն իրականացնում է մի ծրագիր, որի նպատակն է Երևանում գրանցված դեղատներից տեղեկություն հավաքել ծխելը դադարեցնելու միջոցների գնի, մատչելիության և հասանելիության վերաբերյալ:

Դուք հրավիրված եք մասնակցելու այս հարցմանը, քանի որ աշխատում եք այն դեղատանը, որը պատահականության սկզբունքով ընտրվել է Դեղերի և բժշկական տեխնոլոգիաների փորձագիտական կենտրոնի կողմից տրամադրված Երևանում գործող դեղատների ցանկից:

Ձեր մասնակցությունը սահմանափակվում է միայն այս հարցազրույցով, որը կտևի 10 րոպե: Ձեր կողմից ծխելը դադարեցնելու միջոցների գնի, մատչելիության և հասանելիության վերաբերյալ տրամադրված տեղեկատվությունը կպահպանվի գաղտնի և կկիրառվի միայն տվյալ հետազոտության ընթացքում: Միայն ամփոփված տվյալները կներկայացվեն վերջնական զեկույցում: Ձեր մասնակցությունն այս ծրագրում կամավոր է: Ձեզ ոչինչ չի սպառնում, եթե Դուք հրաժարվեք մասնակցել այս հարցմանը:

Ձեր մասնակցությունն այս հարցմանը չի նախատեսում որևէ անմիջական օգուտ կամ վնաս, սակայն Ձեր անկեղծ պատասխանները չափազանց կարևոր են մեզ համար և կնպաստեն հավաստի տեղեկություն հավաքել ծխելը դադարեցնելու միջոցների գնի, մատչելիության և հասանելիության վերաբերյալ:

Եթե Դուք որևէ հարց ունենաք այս ծրագրի վերաբերյալ, ապա կարող եք այս այցեքարտում նշված հեռ. համարով զանգահարել գլխավոր հետազոտող Արուսյակ Հարությունյանին (374 60) 612621 կամ (374 94) 630077 (բջջային): Եթե Դուք կարծում եք, որ Ձեզ հետ արդարացի չենք վարվել կամ որևէ կերպ վնաս ենք պատճառել Ձեզ ծրագրի մասնակցության ընթացքում, ապա խնդրում ենք դիմել Հայաստանի ամերիկյան համալսարանի էթիկայի հանձնաժողովի համակարգող Քրիստինա Հակոբյանին հետևյալ հեռախոսահամարով՝ (374 60) 612561:

Դուք ցանկանո՞ւմ եք մասնակցել:

Շնորհակալություն:

Կարո՞ղ ենք սկսել:

Appendix 3. In-depth interview guide (English and Armenian versions)

- a. Please introduce your company. When it was established and what kind of activities does it perform.
- b. Please tell us a little bit about smoking cessation product (mention the name) you present.
 - How long the smoking cessation product (mention the name) is available in Armenian pharm. market?
 - For how long is the license valid for the smoking cessation product (mention the name)?
 - What is the approximate current market price?
 - To what extent does the smoking cessation product (name the name) exist in Armenian market? Where is it possible to find it?
 - Does the smoking cessation product sold by prescription or it is over-the-counter drug?
- c. From your point of view, is there demand for the smoking cessation products in Armenian market or not?
 - How would you assess the consumption/sales of smoking cessation products in Armenian market? Are you satisfied with the results?
 - In your opinion, does the smoking cessation product (mention the name) competitive in Armenian market? Who are the main competitors?
 - In recent years, is the demand/consumption of smoking cessation product (mention the name) changed?
2. Please note the factors that impede the greater demand for smoking cessation product (mention the name) in Armenian pharm. market. In your opinion what are the factors that promote certain smoking cessation product's sales/consumption (advertisement, sales, posters, pharmacy workers' presentation of smoking cessation products to the costumers, the price of the product, etc.)?
3. Does your company have a strategy/program for the promotion of the smoking cessation product (mention the name)?
4. In your opinion, what steps/measures could be implemented to increase demand for smoking cessation products in Armenian pharm. market?
 - In your opinion, do the primary health care physicians have or may have a role in the process of increasing the demand for the smoking cessation products?
5. Is there something you want to add?

Our interview is over.

Thank you for your participation and time.

Դեղագործական ընկերությունների պաշտոնական ներկայացուցիչների
հետ անհատական հարցազրույցի ուղեցույց

1. Խնդրում եմ ներկայացրեք Ձեր ընկերությունը, ե՞րբ է հիմնադրվել, ի՞նչ գործունեություն է իրականացնում:
2. Խնդրում եմ մի փոքր պատմեք ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի մասին:
Փորձնական հարցեր՝
 - Որքա՞ն ժամանակ է ծխելը դադարեցնելու (*նշել անվանումը*) միջոցն առկա հայաստանյան շուկայում:
 - Որքա՞ն ժամանակով է տրված լիցենզիան ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի համար:
 - Ո՞րն է ներկայիս մոտավոր շուկայական արժեքը:
 - Որքանո՞վ է ծխելը դադարեցնելու (*նշել անվանումը*) միջոցն առկա հայաստանյան շուկայում, որտե՞ղ է հնարավոր այն գտնել:
 - Ծխելը դադարեցնելու (*նշել անվանումը*) միջոցը վաճառվում է դեղատոմսով, թե ենթակա է ազատ վաճառքի:
3. Ձեր կարծիքով ընդհանրապես հայաստանյան շուկայում ծխելը դադարեցնելու միջոցները պահանջարկ ունեն, թե ոչ:
 - Ինչպե՞ս կգնահատեք հայաստանյան շուկայում ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի սպառումը/ վաճառքը: Բավարարվա՞ծ եք արդյոք այդ արդյունքներով:
 - Ձեր կարծիքով, մրցունա՞կ է արդյոք ծխելը դադարեցնելու (*նշել անվանումը*) միջոցը հայաստանյան շուկայում: Որո՞նք են հիմնական մրցակիցները:
 - Վերջին տարիների ընթացքում փոխվել է արդյո՞ք ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի պահանջարկը/սպառումը:
4. Խնդրում եմ նշել այն գործոնները, որոնք խոչընդոտում են ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի առավել մեծ պահանջարկի ձևավորմանը հայաստանյան շուկայում: Ձեր կարծիքով ընդհանրապես որո՞նք են տվյալ դեղամիջոցի պահանջը/սպառումը խթանող հիմնական գործոնները (գովազդ, ակցիաներ, պաստառներ, դեղատան աշխատողների՝ տվյալ ծխելը դադարեցնելու միջոցի ներկայացումը գնորդին, գինը և այլն):
5. Ձեր ընկերությունն ունի՞ որևէ ռազմավարություն/ծրագիր ծխելը դադարեցնելու (*նշել անվանումը*) միջոցի վաճառքի խթանման նպատակով:
6. Ձեր կարծիքով ի՞նչ քայլեր/միջոցառումներ կարելի է իրականացնել ընդհանրապես ծխելը դադարեցնելու միջոցների պահանջարկը հայաստանյան շուկայում խթանելու համար:
 - Ձեր կարծիքով արդյոք առաջնային օղակի բուժաշխատողները որևէ դեր ունեն/կամ կարող են ունենալ ծխելը դադարեցնելու միջոցների նկատմամբ պահանջարկի մեծացման գործընթացում:
7. Կա արդյոք որևէ բան, որ կցանկանայիք ավելացնել:

Մեր գրույցն ավարտվեց:

Շնորհակալ եմ մասնակցության և Ձեր տրամադրած ժամանակի համար:

Appendix 4. Consent form (English and Armenian versions)

American University of Armenia

Institutional Review Board #1

Hello! My name is... I am working at the Center for Health Services Research and Development within the School of Public Health at the American University of Armenia. American University of Armenia (AUA) is conducting a project that aims to collecting information on the price, availability and affordability of the registered smoking cessation products in Armenia.

You are invited to participate in this interview because you present the pharmaceutical company (mention the name) that represents (mention the name) smoking cessation product in Armenia.

Your participation will involve face-to-face interview with the duration of up to 30 minutes. Participation in this interview does not have any direct benefit or harm to you, but your responses are valuable for us and will contribute to generate reliable information on the price, availability and affordability of smoking cessation products in Armenia.

With your permission, I will use audio-recording to make sure that we will not miss any of the information you provide us with. The information provided by you will remain confidential and will be used only for current project. Only aggregate/summary data will be used in further research.

Here is the card with contact information for the research team. If you have any questions regarding this project you can call the Principal Investigator Dr. Arusyak Harutyunyan, (+37460) 612521 or (+374 94) 630077 (mobile).

If you feel you have not been treated fairly or think you have been hurt by joining the project you should contact Dr. Kristina Akopyan, the Human Subject Protection Administrator of the American University of Armenia (37460) 61 25 61.

Do you agree to participate?

Thank you.

If yes, shall we continue?

Հայաստանի ամերիկյան համալսարան
Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով
Իրազեկ համաձայնության ձև

Բարև ձեզ, իմ անունն է: Ես աշխատում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության ֆակուլտետում: Հայաստանի ամերիկյան համալսարանի Առողջապահական ծառայությունների հետազոտությունների և զարգացման կենտրոնն իրականացնում է մի ծրագիր, որի նպատակն է ուսումնասիրել Հայաստանում գրանցված ծխելը դադարեցնելու միջոցների գինը, մատչելիությունն ու հասանելիությունը: Դուք հրավիրված եք մասնակցելու այս հարցազրույցին, քանի որ ներկայացնում եք *(նշել ընկերության անվանումը)* դեղագործական ընկերությունը, որը հանդիսանում է ծխելու դադարեցնելու *(նշել անվանումը)* միջոցի պաշտոնական ներկրողը/ներկայացուցիչը Հայաստանում:

Ձեր մասնակցությունը սահմանափակվում է միայն այս հարցմամբ, որը կտևի մոտավորապես 30 րոպե: Ձեր մասնակցությունն այս հարցմանը չի նախատեսում որևէ անմիջական օգուտ կամ վնաս, սակայն Ձեր անկեղծ պատասխանները չափազանց կարևոր են մեզ համար և կնպաստեն հավաստի տեղեկություն ստանալ հայաստանյան շուկայում ծխելը դադարեցնելու միջոցների գնի, մատչելիության և հասանելիության վերաբերյալ: Ձեր թույլտվությամբ ես կձայնագրեմ մեր զրույցը՝ համոզված լինելու համար, որ ոչ մի կարևոր ինֆորմացիա բաց չեմ թողել: Ձեր կողմից տրամադրված տեղեկատվությունը կպահպանվի գաղտնի և կկիրառվի միայն հետազոտական նպատակներով: Միայն ամփոփված տվյալները կներկայացվեն վերջնական զեկույցում: Եթե Դուք որևէ հարց ունենաք այս ծրագրի վերաբերյալ, ապա կարող եք այս այցեքարտում նշված հեռ. համարով զանգահարել գլխավոր հետազոտող Արուսյակ Հարությունյանին (374 60)612521 կամ (374 94) 630077 (բջջային): Եթե Դուք կարծում եք, որ Ձեզ հետ արդարացի չենք վարվել կամ որևէ կերպ վնաս ենք պատճառել Ձեզ ծրագրի մասնակցության ընթացքում, ապա խնդրում ենք դիմել Հայաստանի ամերիկյան համալսարանի էթիկայի հանձնաժողովի համակարգող Քրիստինա Հակոբյանին հետևյալ հեռախոսահամարով՝ (374 60) 61 25 61:

Կարո՞ղ եմ շարունակել:

Appendix 5. Descriptions of tobacco cessation interventions analyzed in West et al.

| Intervention | Description (from West et al paper) |
|--|---|
| Brief Advice | Brief opportunistic advice involves a healthcare worker raising the topic of smoking with a patient, advising the patient to stop and/or offering support and follow-up. It would normally be expected to take no more than 20 minutes and most of the interventions evaluated took considerably less time than this (usually around 5 minutes). |
| Behavioral support: in person | Behavioral support involves advice, discussion and encouragement, and other activities designed to 1) maximize motivation to remain abstinent 2) minimize motivation to smoke 3) enhance the skills and capacity needed to avoid and resist urges to smoke and 4) optimize effective use of stop- smoking medication where available. It can be delivered individually or in groups. The studies conducted to date have usually involved multiple sessions provided by specially trained health professionals over a period from 1 to more than 4 weeks following a target quit date. |
| Behavioral support: by telephone | Telephone support involves similar broad categories of activity to face-to-face support. It can be 'proactive' or 'reactive'. In proactive support a trained counselor initiates calls, following an initial enquiry by the caller, to provide support according to an agreed schedule, while in a reactive model support is available on demand to people who call a quit line number. |
| Text messaging | Automated text messaging aims to deliver content similar to face-to-face behavioral support focusing on motivational messages, advice on coping with cravings and providing behavioral distraction when needed. |
| Printed materials | Printed self-help materials include leaflets, booklets and books designed to provide encouragement, advice and support to maximize motivation to stop smoking, reduce motivation to smoke, enhance self-regulatory skills and capacity and in some cases to optimize medication use. |
| Nicotine replacement therapy (NRT): <ul style="list-style-type: none"> • Single form • Dual form • Within person support | NRT consists of products designed to deliver nicotine into the body in a form that does not involve smoking or ingestion of other toxins. The forms currently licensed for use in at least some countries of the world are: 16 hour or 24 hour transdermal patches, 2mg or 4mg chewing gum, 1mg, 1.5mg, 2mg or 4mg nicotine lozenges, 2mg sublingual tablet, nasal spray, inhalator, buccal pouch and mouth spray. Other nicotine products (e.g., some types of electronic nicotine delivery devices) are likely to be added to this list of licensed medicines in the coming years. Smokers typically use these products starting on the designed target quit day and continuing for up to 12 weeks. Use can be started before the quit date and they can be used for smoking reduction with a view to quitting at a later date. Dual form involves more than one type of NRT being used concurrently. NRT can also be given to patients with support of healthcare workers. |
| Bupropion | Bupropion hydrochloride is an atypical antidepressant that has multiple actions in the brain involving dopamine and noradrenaline pathways and may also act as a nicotinic antagonist. A typical course is 300mg per day for 7-8 weeks, beginning a week prior to the designated quit date. |
| Nortriptyline | Nortriptyline is a tricyclic antidepressant. For smoking cessation the dose is typically 75-100mg per day for 12-14 weeks, starting 1 week before the quit date. Because of the side-effect profile, it needs close supervision to monitor and possible adjust the dose. |
| Varenicline | Varenicline is a partial agonist designed to bind with high affinity to the nicotinic acetylcholine receptor composed of alpha-4 beta-2 subunits. A standard course of treatment is 1mg per day beginning 1 week before the designated quit, then 11 weeks at 2mg per day. Minor side effects reported are nausea and sleep disturbance. These do not appear to lead to significant treatment discontinuation. Reports during post-marketing |

| | |
|-----------------|---|
| | surveillance of raised risk of serious neuropsychiatric and cardiac adverse events have not been confirmed by controlled studies. |
| Cytisine | Cytisine is a partial agonist binding with high affinity to the nicotinic acetylcholine receptor composed of alpha-4 beta-2 subunits. A standard course of treatment is 4 weeks, beginning 1 week before the designated quit date, with dosing regimen that reduces over time. It was the first medication ever to be licensed as a smoking cessation aid and has been in use in Eastern Europe for more than 40 years. In Russia and Poland it is available for purchase over the counter. No serious side effects have been detected. Nausea is a common minor side effect but does not lead to significant discontinuation of treatment. |