



Research article

ALCOHOL CONSUMPTION IN A RUSSIAN METROPOLIS: FACTORS AND RISK GROUPS

I.V. Bogdan¹, M.D. Gornostalev¹, V.A. Kuzmenkov¹, T.A. Potyaeva², D.P. Chistyakova¹

¹Research Institute for Healthcare Organization and Medical Management, 9 Sharikopodshipnikovskaya Str., Moscow, 115088, Russian Federation

²Office of the Commissioner for Human Rights in Moscow, 14 Uspenskii Lane, bldg 1, Moscow, 127006, Russian Federation

In recent years, Russia has seen a considerable decrease in the number of consumers of alcoholic beverages. However, mortality from alcohol-related causes is still quite high. In the context of the Concept for lowering alcohol use in the Russian Federation up to 2030, it is promising to assess the risks of alcohol involvement of Muscovites as residents of a certain metropolitan region. The purpose of the study is to identify the characteristics of alcohol intake by Moscow residents, including factors and risk groups. An empirical sociological survey (CATI, randomized sample, N = 1002) was conducted in October 2022 among adult residents of Moscow. The study has showed that 78 % of Muscovites have consumed alcohol over the past year; the rate of heavy drinking is 14 % among male drinkers and 7 % among female drinkers, which is consistent with data from previous studies conducted on a nationwide sample. Also, 16 % of Muscovites note that they have consumed homemade alcohol over the past month, which means that they represent a potential risk group for poisoning. The study identified the structure of alcohol consumption, which served as the foundation for consumer classification: "bar type" (24 %), "homemade alcohol of various strengths" (21 %), "strong alcohol and homemade wine" (20 %), "wine" (18 %), "only vodka" (17 %). Alcohol abuse is uncommon among young individuals. Involvement in drinking alcohol is frequently influenced by relatives (including parents), colleagues and friends, highlighting the need to address alcoholism's social components. Respondents evaluate the current anti-alcohol measures in Moscow rather positively.

Keywords: alcohol, alcoholization, anti-alcohol policy, abuse, Moscow, unregistered alcohol, mortality, reduction in alcohol consumption.

The Ministry of Health of the Russian Federation has developed a draft Concept for lowering alcohol use in the Russian Federation up to 2030, which is currently undergoing public expertise. The draft proposes that by 2030 alcohol use per capita should decrease to 7.7 liters (9.1 liters in 2020), the death rate from alcohol abuse should be reduced to 23.3 people per 100,000 (32.5 persons in 2020)¹. This

document should contribute to the downward trend in the number of alcohol-addicted Russians that has been observed since the second half of the 2000s.

Thus, Russia is no longer listed among the countries with the highest rates of alcohol consumption. Also, according to the Higher School of Economics, the share of heavy alcohol-addicted is steadily decreasing: in 2017 it

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Ignat V. Bogdan – Candidate of Political Sciences, Head of Medical and Sociological Research Department (e-mail: BogdanIV@zdrav.mos.ru; tel.: +7 (495) 530-12-89 (ext. 154); ORCID: <https://orcid.org/0000-0002-7002-1646>).

Maksim D. Gornostalev – Candidate of Pedagogical Sciences, Analyst of Medical and Sociological Research Department (e-mail: GornostalevMD@zdrav.mos.ru; tel.: +7 (495) 530-12-89 (ext. 181); ORCID: <https://orcid.org/0009-0002-0989-5077>).

Vladimir A. Kuzmenkov – Candidate of Philosophy Sciences, Analyst of Medical and Sociological Research Department (e-mail: KuzmenkovVA@zdrav.mos.ru; tel.: +7 (495) 530-12-89 (ext. 184); ORCID: <https://orcid.org/0000-0002-9872-1417>).

Tatyana A. Potyaeva – Commissioner for Human Rights in Moscow (e-mail: info@ombudsman.mos.ru; tel.: +7 (495) 957-05-85).

Darya P. Chistyakova – Category II Analyst of Medical and Sociological Research Department (e-mail: chistyakovadp@zdrav.mos.ru; tel.: +7 (495) 530-12-89 (ext. 183); ORCID: <https://orcid.org/0000-0002-8729-9898>).

¹ Selivanova A. Minzdrav planiruet snizit' potreblenie alkogolya rossiyanami na 15 % k 2030 godu [The Ministry of Health plans to reduce alcohol consumption by Russians by 15 % by 2030]. *Rossiiskaya gazeta*. Available at: <https://rg.ru/2022/09/14/minzdrav-planiruet-snizit-potreblenie-alkogolia-rossiianami-na-15-k-2030-godu.html> (March 23, 2023) (in Russian).

amounted to 14.8 % among male drinkers and 7.8 % among female drinkers, which is about 12–14 % of the total number of current alcohol consumers [1]. 46.8 % of Russians do not drink alcohol at all or have not done it for a year [1].

These data represent not only the current decline in the number of alcohol consumers, but also fundamental changes in consumption patterns. Today, Russia has a “post-Soviet” model of alcohol consumption with lower consumption of vodka and liquor beverages (less than 5 liters per capita, adults, per year) and higher beer consumption (up to 4 liters per year) [2]. Today Russia is transitioning from the so-called “northern” alcohol consumption pattern to the “Central European” pattern where vodka competes with beer [3]. Subsequently, there is an increase in consumption of low-alcohol drinks and more expensive drinks [4]. Changes in patterns of alcohol consumption are also reflected in the socio-demographic changes of the alcohol-consuming population, and various studies reveal similar types of alcohol consumers [4, 5].

However, the current situation concerning alcohol consumption in the country is still far from ideal. Russia has a high rate of alcohol intake among drinkers, with alcohol contributing roughly 12 % of all premature deaths (alcohol-addicted are 25.5 times more likely to die prematurely [6]), and alcohol consumption costs the Russian economy at least 1.7 trillion rubles each year [7]. Due to excessive drinking, holidays represent a significant risk. The peak of alcohol mortality is registered on January 1, 7 and 14, February 23, March 8, May 1 and 9, June 12 and November 4 [8]. From 2011 to 2019, excess deaths from alcohol on birthdays amounted to 78,000 cases [8].

The official statistics of alcohol consumption do not include unregistered sales of homemade (illicit, unregistered, counterfeit, surrogate, etc.)² alcohol, which may significantly differ from official data, as it is hard to evalu-

ate it due to little knowledge about the gray market. The principal methodological challenge of researching homemade alcohol may be related to the fact that respondents tend to conceal the real amount of alcohol consumed due to its social unacceptability in Russia.

In this regard, expert assessments may be used along with survey data. In general, the World Health Organization estimates the consumption of unregistered alcohol in Russia at 3.2 liters of pure alcohol per capita³. According to the head of Federal Service for Alcohol Market Regulation (Rosalkogolregulirovanie), the share of unregistered vodka turnover in Russia is about 22 %; budget losses at all levels total more than 31 billion rubles [7]. Experts estimate that unregistered alcohol market accounts for between 28 and 45 % of all alcoholic beverages consumed [7, 9].

Consumption of illicit alcohol is dangerous to human health. People drinking moonshine (Russian home-distilled spirit called “samogon”) consume alcohol much more often than those who prefer legally produced beverages (1.5–2.5 times) [10, 11]. People who have relatives, neighbors, or acquaintances producing homemade alcoholic beverages tend to drink homemade alcohol 4–6 times more frequently than other consumers, depending on the type of alcohol [10]. Binge drinkers make a significant contribution not only to mortality rate due to alcohol poisoning, but also to total consumption indicators [11]. Nonetheless, a general decrease in binge alcohol intake was observed among consumers of homemade alcohol, specifically moonshine [12].

From this perspective, it is worthwhile to investigate the state of alcohol use in Moscow. Firstly, Moscow is the capital city with a sizable solvent population, so strictly economic measures, such as price increases, may be effective only to a certain extent. Thus, there is an urgent need to find alternate measures to reduce

² Please note that these concepts are not identical in their meaning, as illicit alcohol, such as stolen from manufacturing facility and sold later, does not have the same meaning as homemade alcohol beverages consumed by its producer. In our article, we will use these concepts in the context of alcohol distributed beyond state regulations.

³ Alcohol, unrecorded per capita (15+) consumption (in litres of pure alcohol) with 95 % CI. WHO. Available at: [https://www.who.int/data/gho/data/indicators/indicator-details/GHO/alcohol-unrecorded-per-capita-\(15-\)-consumption-\(in-litres-of-pure-alcohol\)-with-95-ci](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/alcohol-unrecorded-per-capita-(15-)-consumption-(in-litres-of-pure-alcohol)-with-95-ci) (March 22, 2023).

alcohol consumption. Secondly, acceptable levels of alcohol consumption among Moscow residents can be adopted by other regions, just as certain anti-alcohol measures in the capital can influence alcohol consumption in other regions (for example, drinking tours).

The **purpose** of the study is to identify the main characteristics of alcohol consumption by Moscow residents. Thus, it is necessary to analyze the general structure and places of alcohol drinking, consumer groups and their motivation, specific aspects of homemade spirits consumption. The study aims to identify main factors of alcohol abuse and risk groups, quantify those elements, and, in general, to create points of references in the execution of Moscow's anti-alcohol policy.

Materials and methods. From October 11 to October 19, 2022, an empirical sociological study with participation of adult citizens permanently residing in Moscow was carried out. The survey was conducted using a random stratified dual-frame sampling method of Moscow mobile and landline phone numbers (CATI). A total number of respondents was 1002. The sample is representative by sex and age based on the Federal State Statistics Service (Rosstat) data.

Respondents were interviewed using two versions of questionnaire. The short version included questions assessing general attitudes towards alcohol use, while the expanded version focused on personal binge drinking experiences. The expanded questionnaire was filled in by a limited number of respondents, however, there was enough information to conduct a quantitative data analysis. This approach allowed us to evaluate two research aspects at the same time: quantitative assessment and a deeper study of alcohol risk groups. Subsample sizes are mentioned in the text when the question was asked only to a certain group of respondents.

Data analysis was performed using IBM SPSS Statistics version 26.0. χ -square test and z-test were used. Confidence interval was selected at 95 % for all cases. Hierarchical clustering (Ward's method, Euclidean metric) was carried out. Verification of statistical criteria (links, comparison of shares, etc.) was performed on unweighted data.

Results and discussion. The results of our study performed by using the projective technique (sentence completion method) showed that the absolute majority (68 %) of Moscow residents considers questions about alcohol in terms of its consumption prevalence, and often there are statements that support the myths about rampant alcoholism in Russia. At the same time, many answers are formal and clichéd, which indicates a poor reflection on this issue.

The most common belief is that excessive alcohol intake is a global problem. Nonetheless, 13 % of Moscow citizens note that alcohol abuse is a national problem in Russia. Other vulnerable groups include young people, low-income households, male population, as well as residents from small settlements and certain regions of the country.

People think that society (13 %), an individual (7 %), government and authorities (5 %), family/relatives (4 %) are primarily responsible for presence and prevalence of this problem. Alcohol addiction is considered not only as a social problem (including education, 13 %), but also a biomedical (addiction as a disease, medicine-related problem, 7 %) and a psychological one (personal qualities and background, 5 %). Therefore, the collective consciousness to a certain extent has some ideas about the complex nature of the disease.

Dichotomous questions (Figure 1) allowed us to understand some ideas about socially accepted alcohol intake and situations that trigger alcohol use. For example, there is a popular opinion that it helps to build relationships. In particular, the impact of external conditions (economic, social and political agenda) is more often claimed by people with higher education (63 % vs. 43 % without higher education, $p < 0.001$) and young people under 35 compared to people over 50 (65 % vs. 51 %, respectively, $p < 0.05$).

The survey shows more than 3/4 of respondents have consumed alcohol beverages over the past year (78 %). Older people who describe their health as “poor” and “very poor” (42 % compared to 20 % as “fine” and 19 % as “good, excellent”, $p < 0.05$) tend to deny drinking more often than other age groups (31 %, the second place is 22 % for the group aged 35–49, $p < 0.05$).

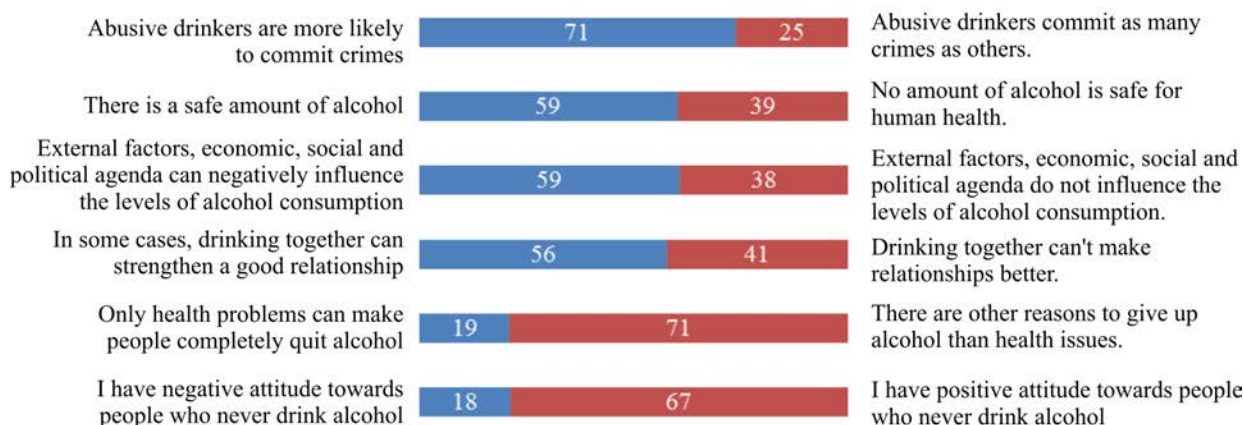


Figure 1. Dichotomous questions, % ($N = 1002$). The answer “Undecided” is not presented

Excessive alcohol consumption is a significant challenge for modern medicine. Alcohol intake is defined as excessive when the total consumption in grams per month is estimated to be more than moderate. The norm is differentiated by sex and amounts up to 800 grams of pure alcohol⁴ per month for men and up to 400 grams of pure alcohol for women [1]. The survey reveals that 14 % of male drinkers and 7 % of female drinkers are excessive alcohol consumers, which corresponds to the monitoring data from the all-Russian survey RLMS-HSE (The Russia Longitudinal Monitoring Survey, Higher School of Economics).

In the study, the respondents were also asked to make an individual assessment of excessive alcohol consumption, considering as excessive intake for a man of 5 or more servings of alcohol per day once a week or more, and 3 or more servings of alcohol for a woman (one serving of alcohol equals a shot of vodka or a can of beer or one glass of wine or champagne). 19 % of respondents have personal experience of excessive alcohol consumption, 58 % have alcohol abusers among relatives or acquaintances, 34 % admitted that they have never experienced alcohol abuse, and 1 % remained undecided. Thus, 19 % of respondents are in the risk group of alcohol consumption.

Alcohol consumption highly depends on a social circle. For example, men who drink alcohol excessively (67 %) are more aware of

alcohol abuse among close friends than those who drink moderately (38 %).

One of the most common reasons for taking alcoholic beverages is to improve the emotional climate in a team (friendly communication, easy talk, relationship strengthening) or the emotional state of an individual in distressing circumstances (moral stress, bad mood) (Figure 2). Thus, alcohol becomes a temporary and illusionary way to escape from everyday problems. Such way of emotional and physical stress relief is more common among men (13 % for emotional stress relief and 6 % for physical stress in men compared to 7 % and 1 % in women, respectively, $p < 0.01$).

Speaking about the causes of alcoholism prevalence, the respondents point out a significant role of personal factors both more objective, such as stress or life dissatisfaction, and judgmental, such as “self-indulgence”, “social parasitism”, and “desire to have fun”, which may be an indicator of a certain stigmatization of alcohol drinkers (67 %) as “immoral”.

Almost equal attention is paid to biomedical (hereditary factor or a disease – 24 %) and social factors (low quality of life, the current socio-political situation, no hobbies, unemployment, poor public awareness campaign – 19 %). Among social factors, respondents specifically mentioned bad company (8 %) or cultural influences related to traditions or holidays (4 %).

⁴ We used such parameters as: 40 % ABV for liquor and vodka beverages, 40 % – cognac, brandy, whiskey, rum and tequila, 40 % – moonshine, 5 % – industrial beer, 3 % – homemade beer and brew, 12 % – dry and sparkling wine, 18 % – fortified wine, 10 % – alcoholic cocktails, 40 % – others (various beverages from bitters to absinthe).

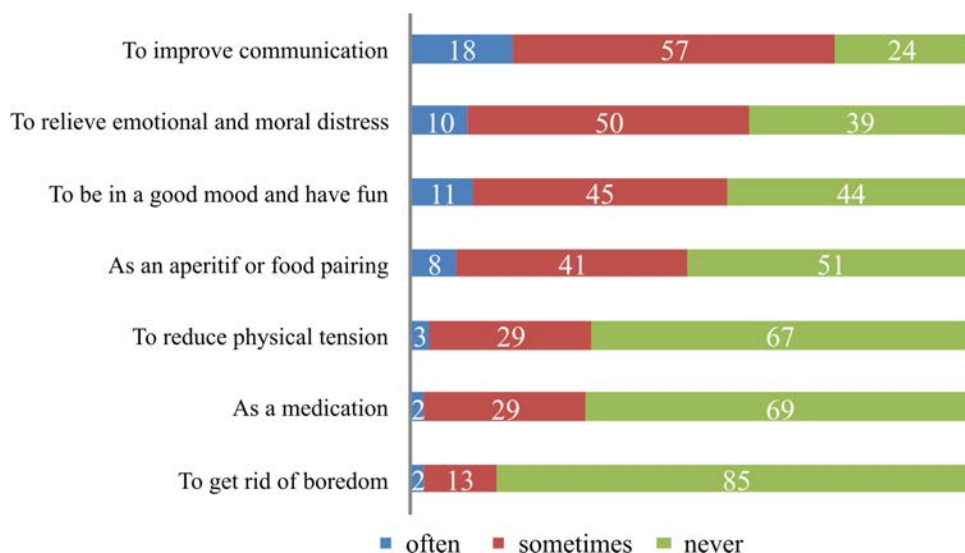


Figure 2. Distribution of answers to the question: “Now I will give you several situations when some people drink alcohol. Do you drink alcohol in these situations? If so, does it happen often or rarely?” (in % of those who consumed alcohol over the past 12 months or previously gave no answer, *N* = 781). The answer “Undecided” is not presented

Table 1

Structure of alcohol consumption by Muscovites

Alcohol type	Share of drinkers over the past 30 days, %	Average volume per day (ml/g)	Average number of days when alcohol consumption took place per month	Average volume of alcohol beverage consumed over the past month (ml/g)
Wine, sparkling wine (industrial)	45	286	3	858
Beer (industrial)	38	812	4.7	3816
Cognac, whiskey, liquor	25	163	2.5	408
Vodka	22	197	4.4	867
All kinds of homemade wine	11	230	2.6	598
Alcoholic cocktails	9	387	2.9	1122
Fortified wine (industrial)	6	248	1.5	372
Moonshine	6	229	2	458
Non-alcoholic beer	5	524	1.9	996
Other (40–70 % beverages)	3	145	3.3	479
Homemade beer	1	1469	3.3	4848
Brew	0	225	2.5	563

Note: A number of questions with additions / changes from the Monitoring of the health and economic welfare of households and individuals in the Russian Federation RLMS-HSE were used.

Table 1 shows the structure of alcohol consumption. In terms of consumption prevalence, wine and industrial beer are in the first and second places and were consumed by 45 and 38 % of drinkers over the past month. Strong alcohol beverages (vodka, cognac, whiskey, liquor and other strong drinks) are in the third place, in the past month they were consumed by about a quarter of drinkers among our respondents.

Certain circumstances can also influence the choice of alcoholic beverage. For example, those who tend to use alcohol to relieve emotional stress are more likely to choose beer or strong alcohol (vodka – 23 %, cognac, liquor – 19 %), rather than wine (9 %). Moreover, the choice of drinks is gender-dependent. Also moonshine is more commonly preferred as food pairing (25 %), rather than beer or wine (10 % and 9 %, respectively).

To determine the types of alcohol consumption and identify socio-demographic risk groups, a cluster analysis was carried out. It allowed us to identify the following clusters:

1. “Bar type” cluster (24 % of alcohol consumers over the past month), which includes beer, alcoholic cocktails, non-alcoholic beer. It is mainly presented by young people under 35 (42 %), a bit less often by people aged 35–49 (33 %). They characterize their health mainly as positive (55 % as “good” and “very good”, another 40 % as “fine”);

2. “Homemade alcohol of various strengths” (21 % of alcohol consumers over the past month). This cluster represents both homemade beer and moonshine consumers. 44 % of all respondents with school education belong to this group, while the share of people with higher education is significantly less – 19 % ($p < 0.05$);

3. “Strong alcohol and homemade wine” (20 % of alcohol consumers over the past month). Compared to other consumers, this cluster is characterized by more frequent alcohol intake. It includes cognac, whiskey, liquor, tequila, absinthe, rum, as well as homemade wine. It is a socially diverse group without

prevalence of any particular socio-demographic group ($p > 0.05$);

4. “Wine” (18 % of alcohol consumers over the past month), including fortified wines. This group is mainly presented by women (in this group 72 % of women and 28 % of men);

5. “Only vodka” (17 % of alcohol consumers over the past month). This group is mainly presented by men (75 %) and people over 50 (65 %).

All these clusters represent certain risk groups.

In our sample, 16 % of respondents have consumed homemade alcohol over the past month, which means that they represent a potential risk group for poisoning. Among Muscovites, intake of homemade wine (11 % have consumed it over the past month), beer and moonshine (6 % each) is quite common. Speaking of the main reasons for alcohol consumption, many respondents mentioned “company”, its “natural” ingredients and “quality” (Figure 3).

In general, the most popular places for alcohol consumption are homes (79 %), parties (64 %), cafes and restaurants (47 %) and bars (18 %) (more than one answer could be given, the resulting percentage of answers can exceed 100 %).



Figure 3. Distribution of answers to the question “You have mentioned earlier that you take homemade nonindustrial alcohol. What is the reason? Why do you prefer homemade alcohol?” (in % of those who consumed nonindustrial alcohol (homemade beer, wine, moonshine) over the past month $N = 124$.

Multiple-choice questions, the resulting percentage of answers can exceed 100 %)

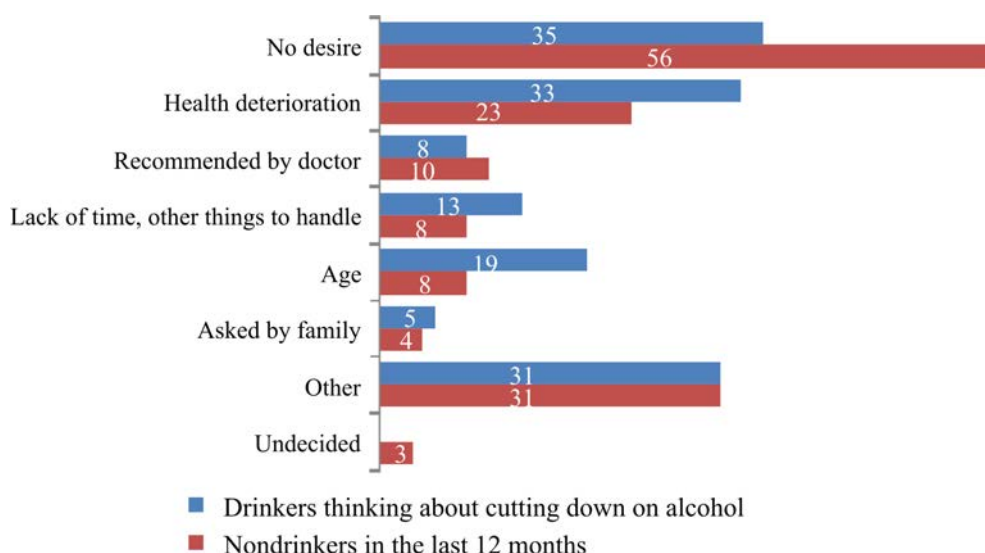


Figure 4. Distribution of answers to the question “Why do you think about cutting down on alcohol or stop drinking?” ($N = 505$. Multiple-choice questions, the resulting percentage of answers can exceed 100 %)

Young people under 35 prefer to drink alcohol in bars (39 % compared to 21 % aged 35–49 (the second highest value), $p < 0.001$). Women tend to meet at home or visit cafes and restaurants (68 % vs. 58 % for men, $p < 0.01$). As for home feasts, there is no typical group. It is the most common place of alcohol consumption for all population groups ($p > 0.05$).

Excessive drinking often leads to withdrawal syndrome. 19 % of Moscow drinkers use alcohol to relieve hangover symptoms. This indicator is observed significantly more often than in average sampling among men who consume excessive alcohol (48 %, $p < 0.05$). Alcohol intake as a way to manage hangover symptoms is unsafe as it creates a risk of further intoxication and episodes of heavy drinking.

Those Muscovites who do not plan to reduce alcohol consumption are more likely to face withdrawal syndrome. The majority of the respondents (61 %) have never thought about stopping drinking alcohol, therefore, they do not think that it might be a problem. 38 % of drinkers had thoughts about stopping drinking or reducing the amount of alcoholic beverages. A third of them explained it by health deterioration, and another third as the lack of desire to take alcohol.

The reasons that motivate people to give up alcohol are shown in Figure 4. As we can see, health deterioration and age are predominant in

the group of respondents thinking to stop alcohol intake compared to the group who stopped alcohol consumption over the past 12 months.

Among “Other” reasons, the most common are “I’m tired of drinking”, “I drink too much”, “My attitude have changed”, i.e. the desire to stop drinking is related to personal transformation and does not reflect external factors. There is also a religious factor. Also, it is interesting that some respondents who have had an experience of communication with alcohol addicts don’t want to resemble them. At the same time, respondents note that an increase in prices or changes in alcohol quality are not significant reasons for refusing it, which may indicate either certain limitation of strict economic and legal measures to reduce alcohol consumption or low public awareness of their effectiveness.

According to public opinion, the problem of excessive alcohol consumption in Moscow is not very relevant: the average assessment of its severity is 3.71 points out of 10. The attitude of Muscovites towards policy for reducing alcohol consumption can be described as “consistently positive”. 37 % said that the situation remained the same, 32 % think that it improved, 17 % observed some degradation, and 14 % could not answer the question.

The respondents positively (46 %) perceive the measures taken, usually because they

can observe real results such as restrictions on alcohol consumption, a decrease in number of alcohol consumers, relevant anti-alcohol advertising, etc. 28 % of Muscovites were negative towards the current alcohol consumption rates, 26 % found it difficult to answer.

The survey showed that, despite the experience of other countries, the increased price on alcoholic drinks did not seem to be a significant factor to stop drinking. Its effectiveness is estimated at 2.5 points out of 5. It does not mean that such measures are totally ineffective, but it should be taken into account when initiating anti-alcohol campaigns. Population thinks that anti-alcohol education (3.7 points) and certain legal restrictions (better control over drinking establishments – 3.7; ban on trade spots selling alcohol near schools, hospitals, parking lots – 3.5; prohibition on sale of alcohol drinks to intoxicated person – 3.4, increased minimum legal age for the sale of alcohol – 3.1) to be the most effective measures.

We would like to emphasize the following contradiction: Muscovites consider the alcoholization of population as a broad-scale phenomenon and at the same time believe that it is outside of their scope of interest. Such self-distancing reveals misjudgment of possible health risks. It could be explained by the current social stereotype about alcohol drinkers. They are presented as excluded from the society, declassed persons or people with low intelligence (“fools”, “boozers”): this image shows the negative stigmatization among population. But, in fact, such stereotypical thinking is harmful, because it can be interpreted as “Since I am not a part of mentioned population group, there are no negative consequences of alcohol drinking for me”. In general, the public mind has the concept of comprehensive nature of alcoholism. However, there are a lot of myths and an irrational attitude towards alcohol drinking as a social and health issue among many Muscovites.

Meanwhile, alcohol abuse is stigmatized and associated with abnormal behavior (criminality) and negative consequences. A large part of population positively views alcohol abstinence. Young people under 35 more often

than older people (over 50) say that they don't know any situation when alcohol helps to communicate more confidently, and admit the inability to define a safe dose of drink. The fact that youth is better informed about the harm of alcohol and avoids the circumstances for its drinking is definitely a good trend that we need to support.

According to the cluster analysis, Moscow has developed a post-Soviet model of alcohol drinking described by the decrease in heavy drinking and the increase of beer drinking, which is consistent with the early received data [2, 13]. The structure of drinking in Moscow corresponds to the national one, which means that the types of heavy drinkers' behavior are common. It is worth to use the knowledge about these types for elaborating public health policies in the city.

The identified causes of alcohol drinking point out the contribution of social and psychological factors to alcoholism. Therefore, it is crucial to conduct psychological work with the population, to broaden and extend the psychological support programs as well as to present a clear logic of social and political movement which will lessen public anxiety.

The average age of starting to drink alcohol in the sample is 16. On the one hand, this proves that the law which stipulates not to sell alcohol to persons under 18 can be violated. On the other hand, the first drink often happens at home with own family, under the parents' control. However, the side effect in this case is the involvement of children into alcohol drinking by the example of parents. Unfortunately, the scope of the study doesn't allow us to estimate the potential harm or benefit of this decision for people's lives.

About one sixth of Muscovites (16 %) admits to drinking homemade alcohol. Although this percentage should be considered as lowered in comparison with a real number due to the topic's sensitivity, we regard this estimate of prevalence as primary due to the lack of other data.

The main reasons of drinking homemade alcohol are “for company”, “organic nature” and “quality”. However, this raises the question

if Muscovites are capable to adequately assess the quality of alcohol and its ingredients. In that context, people will more deeply understand potential risks and give reason for not “taste testing” if we share the information about the possible health risks of someone else’s homemade alcohol, explain the impossibility to control the alcohol quality “to the taste” emphasize the prevalence of poisoning cases, etc.

Men constitute the risk group of alcohol abuse and poisoning: the volume of consumed homemade alcohol is 1.6 times higher (2394 g/month) among heavy drinkers of strong alcohol. It could be explained by the cheapness and accessibility of homemade drinks.

“Drinking in company” (41 %) is one of the most common reasons for choosing alcohol, which potentially creates a danger of consuming homemade alcohol. In this case, it is quite difficult to keep oneself within limits and it is very easy to overdrink and to get the alcohol withdrawal syndrome.

The following result is worrying too: one third of those who are thinking about reducing the alcohol consumption explains this decision by deteriorating health, and another third by not wanting to drink alcohol at all. Regarding alcohol abuse prevention, the fact that a large part of drinking citizens think about not consuming alcohol only after a decline of their health is absolutely a bad trend. Drinking alcohol could significantly harm health without external evidence for a very long time. The survey shows that there is no difference between the self-estimate of health status by abusive drinkers and by population overall: 11 % of Muscovites describe their health as “bad” or “very bad”, the same is relevant for 7 % of abusive male drinkers and 6 % of abusive female drinkers ($p < 0.05$).

The negative effects of alcohol consumption are associated with the impact of the closest social environment (friends, older relatives, parents and colleagues). In this context, alcohol-related diseases and poisonings are the socially induced events linked with the low level of health literacy among some social groups.

Drinking of illicit strong alcohol is also influenced by certain social group. A study on

shadow alcohol market emphasizes that the illicit alcohol is bought almost only by the members of a specific social environment where drinking of illicit alcohol is common and the information about points of sale is generally accessible [9]. A significant portion of the alcohol sold in stores is counterfeit, thus there is a very high risk of consuming alcohol that has not been registered [14]. Therefore, it is important to enforce control and audit operations toward alcohol manufacturers in order to decrease the amount of illicit alcohol consumed.

Theoretically, we assume that the anti-alcohol policy should not be oriented at the total consumption model of S. Ledermann and K. Bruun [15, 16] which says that any alcohol consumer is potentially an alcohol dependent person, so it is critical to reduce even light drinking of alcohol among the whole population. Instead, we would rather use the concept of social and cultural dependence of alcohol consumption formulated by O.-J. Skog [17]. It says that binge drinking of alcohol, including illicit drinks, is done collectively, spreads one by one and concerns specific social groups in the first place.

Moscow is generally characterized by the low level of alcohol abuse and the low rate of mortality from external causes and cardiovascular diseases while mentioned indicators are usually higher in the regions with frequent purchase of strong alcohol [18].

As a result, we would like to suggest some measures which could be useful in Moscow and regions under the Concept for lowering alcohol use in the Russian Federation up to 2030.

In terms of restrictions, the availability of strong alcohol could be temporarily limited during official Russian holidays in order to prevent the harm from binge drinking: at the end of December (before New Year), in the first part of January (after New Year), in the middle of February (on the Saint-Valentine Day and Defender of the Fatherland Day), in the first part of May (on the Workers’ Day and Victory Day), in the beginning of November (on National Unity Day). This measure could include 1) prohibiting to place alcohol near the cashiers’ area; 2) restricting the working hours of shops selling

strong alcohol; 3) closing the displays with strong alcohol products till shop's closing time; 4) prohibiting to sell alcohol to intoxicated persons [19, 20]. At the same time, some studies show that the temporary restrictions on selling alcohol for individual consumption reduce the purchase of legal and unregistered alcohol ("I have no possibility to buy alcohol, so I won't drink it") [21]. It is also crucial to fight with counterfeit alcohol sold as legal products, which could additionally decrease the consumption of homemade alcohol.

Unfortunately, the results of our survey show that alcohol drinking is still supported by some cultural attitudes. There are the patterns of alcohol consumption for "Russians", "normal people", "men", etc. [3]. That's the reason why the bureaucratic socio-economic and legal arrangements for fighting with binge drinking should be accompanied by creating a universal healthy lifestyle. It could eliminate the successive involvement in heavy drinking, for example, through the promotion of practices for family recreation and raising healthy children. Socio-economic and legal arrangements give primary, but limited outcomes; for example, the problem of higher prices of alcohol could be solved by the high level of income and the problem of legal restrictions by corruption. Therefore, the potential reduction of alcohol consumption is connected with elaborating the culture of drinking alcohol.

It is promising to introduce classes like Life Skills Training for avoiding the pressure of collectivity in the primary and secondary schools and the programs of drug use literacy in the high school and universities as well as to implement projects on healthy lifestyle, like Healthy Moscow pavilions, in collaboration with nonprofit organizations. In addition, we should agree that these educational activities should not be nominal, because academic lessons could raise the interest of young people in drugs and alcohol instead of eliminating it.

Limitations. Since this study is a large-scale standardized quantitative research conducted with the means of telephone survey, its nature limits the reliability of conclusions on the sensitive topics like consumption of illicit

alcohol, and doesn't fully cover certain social groups: alcohol dependent people, persons with alcohol-induced psychotic disorders and poisonings.

Conclusion. The study enables to define the following features of alcohol consumption in the Moscow metropolis.

General characteristics of alcohol consumption:

- the study demonstrates a relatively low level of alcohol involvement among population, although the greater part of people has had the experience of drinking alcohol for the last year;

- the structure of alcohol consumption in Moscow is quite similar to the structure in most Russian regions. There is difference in the amount of drunk alcohol, and not in the set of drinks or the social and demographic characteristics of consumers;

- Muscovites give a high enough evaluation to the current anti-alcohol measures in the city and define the situation of alcohol involvement as rather positive.

Important risk groups:

- Muscovites who have an experience of heavy drinking constitute a risk group for having alcohol-related diseases and / or poisonings. The current rate of heavy drinkers is 14 % among male drinkers and 7 % among female drinkers;

- About 16 % of Muscovites consume unregistered alcohol, including those who made it at home. Also, they are a part of risk group for alcohol poisoning;

- 19 % of drinkers have an elevated risk for having an episode of heavy drinking due to the use of alcohol for eliminating the alcohol withdrawal syndrome;

- Elderly Muscovites are more exposed to the risk of alcoholization, for example, in the study, we have identified a cluster of men aged 50+ consuming only vodka. At the same time, people under 35 elaborate a negative attitude towards alcohol.

Important factors of alcohol involvement:

- a general neutrality towards alcohol as a social issue and self-distancing from the problem;

– stress conditions of environment, sensitivity to experiencing certain social and personal events;

– lack of necessary criticism. The prevention of alcohol abuse is complicated by the fact that a great part of drinking citizens thinks about stopping to consume alcohol only after they subjectively perceive that their health has deteriorated;

– the main reasons of alcohol consumption are generally social, i.e. communication in a group. Firstly, we should emphasize the impact of the closest social environment – relatives, friends and colleagues. Some people are not capable to withstand peer pressure. Therefore, they are involved in alcohol consumption or perceive a collective consumption of alcohol as the norm. Besides that, parents often involve

their children in drinking alcohol even before the majority age, so they create a model of alcohol consumer behavior.

As a result, when developing an anti-alcohol policy, a priority should be put on the social aspects of alcoholization and the measures for preventing the involvement in collective consumption of alcohol.

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