

Alcohol and Alcoholism in Russia

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Recent History

By

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**Cambridge
Scholars
Publishing**



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This book first published 2025

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

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ISBN: 978-1-0364-5347-3

ISBN (Ebook): 978-1-0364-5348-0

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INTRODUCTION

There is abundant literature on alcohol consumption and alcoholism in Russia. Earlier history is presented elsewhere (Bailey 2018; Herlihy 2002; Schrad 2004; White 1996) (Fig. 1). Here only the period since 1970 is discussed, sometimes depicted by Russian literature incompletely and/or tendentiously. The problem is immense; but nonetheless there has been a tendency to exaggerate it, a situation more obvious for inside observers, especially those working within the health care sector. Such exaggeration has sometimes been used to veil shortcomings of the health care system, with responsibility for the relatively low life expectancy especially among men shifted onto the patients, that is, self-inflicted diseases caused by excessive alcohol consumption. The purpose of this book is to draw attention to this and other problems related to alcohol consumption and health care, such as the unstable quality of alcoholic beverages, which have sometimes caused poisonings even after consumption of moderate amounts, crime against alcoholics and people with alcohol-related dementia aimed at appropriation of their immovable and other property. Family violence and elder abuse as well as other social aspects of alcohol consumption are discussed in separate chapters of this book.



Fig. 1. Medal “For drunkenness”. First half of the 18th century. Cast iron, weight 4.1 kg. State Historical Museum, Moscow.

CHAPTER 1

HISTORY OF ALCOHOL CONSUMPTION IN RUSSIA SINCE 1970

Summary

There is abundant literature on alcohol consumption and alcoholism in Russia. However, some papers deal mainly with truisms and generalities about health damage due to alcohol. Practical consequences of this approach were indiscriminate social policies such as the anti-alcohol campaign (1985-1989). Later, a questionable notion was propagated that the quantity rather than the quality of consumed alcohol is important for health. This coincided with a decrease in the quality of beverages. Industrial alcohol-containing liquids were sold in vodka bottles, causing severe poisoning. Following abolition of the state alcohol monopoly in 1992, the country was flooded with low-quality beverages sold through legally operating outlets. The quality has subsequently improved, while consumption has tended to decrease. It should be stressed that the government must give consideration to vulnerable members of society, including those suffering from substance use disorders and alcohol-related dementia. Such people can be poisoned by toxic beverages, and exploited by criminals. As regards future research, toxic admixtures are of particular importance. Addition of ethanol from non-edible sources should be prohibited, or its presence must at least be clearly indicated on labels. An interdisciplinary approach is necessary to objectively evaluate and monitor the problem.

Overview

There is abundant literature on alcohol consumption in Russia. Many publications deal with truisms and generalities about health damage from alcohol. A practical consequence of their approach has been the adoption of indiscriminate policies such as the anti-alcohol campaign (AAC) launched in 1985 and ending in failure by 1988-1989. Later, an unfounded notion was propagated that the quantity rather than the quality of consumed

alcohol is important for health (Nemtsov 2011). This coincided with a marked quality deterioration of beverages sold through legal outlets. Industrial alcohol-containing liquids were sold in vodka bottles, causing severe poisonings; details and references are given here. Alcohol misuse is an issue that extends beyond its physical and psychological consequences. An attempt is made here to apply an interdisciplinary approach, discussing toxicological, social and psychological aspects of the problem.

The AAC started in 1985 was initially effective, but ended in failure and was accompanied by increased consumption of home-made moonshine (samogon), technical liquids and eau-de-colognes. After 1987, alcohol consumption increased, while vodka enhanced its share in the total. The production of beer and especially of wine decreased considerably (White 1996). Apparently, the AAC and its predictable failure were exploited for political and economic purposes. The AAC destabilized Soviet society; widespread drunkenness in the 1990s acted like anaesthesia in surgery: workers and intelligentsia did not protest against privatization of the state property because of their drunkenness. During the AAC, many distilleries producing spirits from grain and potatoes were dismantled. At the same time, technical ethanol met no demand from the stagnating industry. Official permission to use alcohol from non-edible raw materials for production of beverages was issued during the 1990s (Nemtsov 2011). Some of this freedom was later revoked; but, in conditions of disregard for laws and regulations, the use of technical ethanol has continued.

It is known from practice and animal experiments that alcohol produced by synthesis from acetylene or by hydrolysis and fermentation from sawdust/woodchips is more toxic than that from edible sources (Luzhnikov et al. 2009; Nuzhnyi 1995). Later, purified ethanol from non-edible raw materials was claimed to be compatible with the standards required of beverage alcohol (Nemtsov 2011). But purification costs money, and one can never be sure that protocols are adequate. Bioassays may overestimate toxicity of alcohol produced from edible sources as the animals used in such assays are not adapted to it. Human consumption of alcohol predates recorded history and is theorized to have adaptive significance (MacKillop et al. 2022). An evolutionary adaptation to by-products of natural fermentation can be reasonably assumed. Alcohol from non-edible raw materials has a different spectrum of admixtures: higher concentrations of butanol, butanone, methyl butyl ketone, crotonaldehyde, acetone, diethyl ether, acetaldehyde etc. (Savchuk et al. 2016). Adaptation to some new by-products is likely to be lacking. This topic needs further research.

Claims that the quantity but not the quality of alcohol is important for health (Nemtsov 2011) distract public attention from the toxicity of some legally sold beverages. The concept that “Alcohol is the chief killer” in Russia (Nemtsov and Ogurtsov 2005; Razvodovsky 2017) disguises a shortage of public healthcare, shifting responsibility for the comparatively low life expectancy from authorities onto patients - i.e. supposedly self-inflicted diseases due to excessive alcohol consumption. In addition to alcohol abuse, inadequacies in the Russian health care system have contributed to increased mortality (Nikoloski et al. 2023). Excessive alcohol consumption is a known criminogenic factor; however, alcohol-related crime is exaggerated by some professional literature and the media. In this way organized crime and corruption are obfuscated. Moreover, alcohol is often mentioned in the context of family violence and child abuse. Without denying the problem, it should be commented that it is easier to denounce a socially unprotected offender, in particular, if he or she suffers a substance use disorder. Otherwise, various tools are applied to prevent a disclosure of domestic violence: denial of facts, allegations of slander, threats and provocations, appeals to preserve honour of the family or an ethnic/confessional community.

After 1990, together with inflation and transition to a market economy, the prices and qualities of beverages diversified. New labels appeared and disappeared; names and qualities correlated poorly. Imported products had sometimes been good in the beginning but later were replaced by imitations. Well-known wines and spirits changed their taste or were replaced by surrogates containing technical ethanol with flavour and colour additives (Govorin and Sakharov 2012; Shaidullina 2014; Urumbaeva 2008). The astringent taste of technical alcohol is known as it was regularly stolen from factories and scientific institutes, being often consumed during the AAC. The proportion of counterfeit beverages on sale is difficult to determine; apparently, it has been higher outside Moscow than in the Capital. The literature rightly discusses “the sale of illegal alcohol by legal retail outlets” (Bailey 2018). The following data have been published: in the late 1990s, ~60% of legally sold alcoholic beverages contained insufficiently purified ethanol produced by synthesis from acetylene or by hydrolysis of cellulose (sawdust) (Govorin and Sakharov 2012). In 2007 about a half of all vodka originated from illegal sources; wine and cognac being often falsified as well (Nemtsov 2011).

After 1991, consumption approached levels prior to the AAC (Nemtsov and Ogurtsov 2005). Following abolition of the state alcohol monopoly in 1992, the country was flooded by drinks of poor quality, sold through

shops and kiosks. For example, in Karelia, the incidence of lethal alcohol poisonings increased 3-fold, while the average blood ethanol concentration in such cases increased 1.4 times (Nemtsov 2011). Simultaneously, the mortality from acute alcohol poisonings in the Arkhangelsk province increased by 234.6% (Shelygin et al. 2010). For the whole Russian Federation (RF), mortality from alcoholic poisonings increased by 58% between 1998 and 2004 (Davydov et al. 2007). Among regions of RF, the highest mortality rates of alcohol poisonings in the period 2001-2010 were registered in Siberia (Sabaev and Goleva 2012), where vodka had been of low quality for decades. The following absolute figures of lethal poisonings with alcohol-containing fluids have been reported: 1998 - 21,800, 1999 - 24,100, 2000 - 27,200 (Pelipas and Miroshnichenko 2011). Among causes of death and autopsy findings in such cases were intravascular coagulation, acute tubular necrosis with renal failure, pancreonecrosis, bleeding erosions and ulcers of stomach and esophagus (Bogomolov et al. 2006). Unrecorded figures were certainly higher as many cases, remaining unclear for lack of toxicological tests or other reasons, were diagnosed post mortem with cardio- and cerebro-vascular diseases.

Some legally sold beverages caused severe poisonings. It is acknowledged in the professional literature that vodka was manufactured from technical liquids and then sold in vodka bottles (Novikova et al. 1997; Solodun et al. 2008), generally with the knowledge of the authorities. Numerous lethal intoxications after the intake of moderate doses were reported, while the blood ethanol concentration was relatively low (Govorin and Sakharov 2012; Novikova et al. 1997; Nuzhnyi et al. 1998). A tendency towards quality improvement has been noticed since approximately 2010. Reportedly, 27% of all alcoholic beverages were counterfeit in 2021 (Utkin 2024). The alcohol-related mortality in RF decreased in the period 2010-2019. Interestingly, mortality decreased also in the areas with a temporary increase in alcohol consumption (Sabaev 2021), which can be explained by the quality improvement of beverages and decline in heavy binge drinking. In general, alcohol consumption has been declining in Russia since approximately 2004-2005 (Bailey 2018; GISAH 2021). The current situation is difficult to evaluate due to questionable reliability of published statistics. It seems that today there are more inebriated people on Moscow's streets than 5-10 years ago. Poor-quality beverages are on sale now as before.

In 2006, a mass poisoning with jaundice in different regions of RF was supposedly caused by disinfectant Extrasept-1 sold in vodka bottles, which contained, apart from ethanol, 0.08-0.15% of diethyl phthalate and 0.1-

0.14 % polyhexamethylene guanidine hydrochloride (PHMG) (Bonitenko 2013). The number of reported poisonings in the period August-November 2006 was 12,611 cases, among them 1189 lethal (Luzhnikov 2014; Ostapenko et al. 2011); actual figures must have been higher. Histologically, “cholestatic hepatitis with a severe inflammatory component” was described (Ostapenko et al. 2011). Of note, PHMG is not particularly hepatotoxic; it is used worldwide for disinfection of swimming pools. The clinical picture with predominance of liver injury did not correspond to the toxicity profile of PGMG (Ivashkin and Buyeverov 2007). Reportedly, the mean lethal dose of Extrasept-1 in animal experiments is not much lower than that of purified ethanol: 9.7 vs. 12.3 mg/kg (Kuchina 2008). The median lethal dose (LD50) of PHMG, administered orally, has been around 450 mg/kg for mice and 630 mg/kg for rats (Lachenmeier et al. 2012), while the animals died with signs of injury not of the liver but of the nervous system (Asiedu-Gyekye et al. 2014, 2015; Kondrashov 1992; Tsisanova and Salomatin 2010). Lung lesions due to PHMG used in household humidifiers have been reported (Kim et al. 2016). Experimentally, the substance showed lower toxicity when given via routes other than inhalation (Song et al. 2022).

The proposal to develop global strategies learning from the Russian experience (Vågerö 2011) is precarious because some statistics from RF are of questionable reliability (Jargin 2020a). The data on the 2006 mass poisonings have been cited in the professional literature and could have influenced conclusions, which is potentially misleading for toxicity assessments of PHMG and the related substance polyhexamethylene biguanide (PHMB). The reported difference between LD50 estimates in rats for PHMG and PHMB by the same researchers in two consecutive studies was striking: 600 vs. 25.6 mg/kg (Asiedu-Gyekye et al. 2014, 2015). Note that general toxicity of both substances is comparable with LD50 values 500-800 mg/kg in rats when administered orally (Choi et al. 2022; Kuchina 2008). The question is whether the figure 25.6 mg/kg (Asiedu-Gyekye et al. 2015) could have resulted from added precaution due to the information on mass poisonings in RF (Ostapenko et al. 2011) cited by Asiedu-Gyekye et al. (2015). Recent papers on PHMB toxicity have also referred to the poisonings in RF, whereas the role of PHMG as a causative factor was not questioned (Choi et al. 2022; Song et al. 2022). The experimental study by Song et al. (2022) revealed no hepatotoxicity. Further objective research is needed. As for diethyl phthalate, its acute toxicity to mammals is low (Autian 1973; Wams 1987). Some phthalates induced liver injury in experiments, but it has not been confirmed when tested in primates (NCEH 2005).

Apart from PHMG, “chloride compounds” have been discussed as possible causative factors of the mass poisonings (Ivashkin and Buyeverov 2007; Khaltourina and Korotayev 2016). There is a hypothesis that carbon tetrachloride, dichloroethane or other organochlorides, used in dry cleaning of clothes, caused the intoxications (Nuzhnyi 2021; Nuzhnyi et al. 2010). In some individuals, supposed to have died after drinking Extracapt-1, carbon tetrachloride was found in tissues post mortem (Kuchina 2008). In many patients the onset of severe poisoning was related to the consumption of vodka purchased in a shop (Ivashkin and Buyeverov 2007). As discussed above, technical liquids were used for production of vodka, added to beer and wine. This has been veiled by certain writers creating the impression that consumers deliberately bought surrogates for drinking: “This outbreak was caused by the consumption of antiseptics with chloride compounds due to the deficit of other non-beverage alcohol” (Khaltourina and Korotayev 2016). This was also the standpoint of the Health Ministry (2006). In fact, there was not the “deficit of other non-beverage alcohol” (Khaltourina and Korotayev 2016) but a temporary deficit of vodka in 2006 caused by the elevation of excise duties (Pelipas and Miroshnichenko 2011). The shortage was compensated by surrogates sold in vodka bottles (Luzhnikov 2014). The same is true about Yuri Razvodovski (2013-2017), who repeatedly applied misquoting to exaggerate alcohol-related harm and consumption of non-recorded alcohol; commented by Jargin (2018, 2020b).

Furthermore, 74 lethal cases were reported from Irkutsk in 2016. According to published information, the poisoning was caused by the bath lotion Boyaryshnik (Hawthorn) containing up to 93% of ethyl alcohol (RT News 2016; Zobnin et al. 2017). Authors have found no reliable information on Hawthorn bath lotion containing 93% of ethanol. Inscriptions on labels may be misleading and contradicting to organoleptic properties. Note that concentrated solutions are usually more expensive per unit of the dissolved substance. It has been suspected that the cause of the poisonings was the medicinal hawthorn (*Crataegus*) tincture containing 70% of ethanol. The tincture is the pharmacy product consumed by some drinkers in Russia (Gil et al. 2009; Monakhova et al. 2011). Such tinctures are relatively expensive these days; some consumers buy them because they hope for a higher quality of alcohol than in vodka from the shop. The misinformation was probably intended to disguise the fact that methanol was used as a cheap substitute for medicinal ethanol. Many other examples have been published; for example, more than 400 died in the Far East after consuming Chinese alcohol to which ether and other substances had been

added at up to fifty times the permissible level (White 1996). Real numbers of victims are probably higher.

According to the World Health Organization (2011), “unrecorded alcohol... is produced, distributed and sold outside formal channels.” The concept of unrecorded alcohol is not directly applicable to RF without a comment that ethanol from non-edible sources has been used for production of beverages sold through legal shops, generally with the knowledge of the authorities (Nuzhnyi 1995; Nuzhnyi et al. 1998; Urumbaeva 2008). Exaggeration by some writers of “unrecorded” alcohol is shifting responsibility for poisonings onto consumers, who allegedly prefer surrogates (Razvodovsky 2013). Overtly misleading statements can be found in the current literature: “The consumption of non-beverage alcohol is the most concerning type of alcohol consumption in Russia. This type of alcohol includes industrial surrogates such as medical alcohol, aftershaves, antifreeze, tooth powders, glues, kerosene [emphasis added], and brake fluid. It was easily accessible and widely consumed” (Gugushvili et al. 2024). In fact, most vodka and liquor has been purchased through legally functioning retail stores and supermarkets. Apart from parochial sales of samogon (moonshine) mainly in rural areas, most vodka and liquor consumed by the population is purchased in the official retail stores (Khaltourina and Korotayev 2015). The Internet trade has been “typically for bulk orders only” (Neufeld et al. 2017). Without opening the bottle, consumers are usually unable to distinguish between branded and falsified vodka as it is sold at the same shops and looks identical. In the 1990s, slanting labels and lax closures were known as attributes of falsified vodka. Today, bottles with counterfeit beverages are externally “in good accordance with the original products” (Neufeld et al. 2017).

It is known that excessive alcohol consumption is associated with enhanced suicide rate (Walter et al. 2005). Remarkably, the rate of suicides without measurable blood alcohol concentration (BAC) slightly increased in Belarus after the start of the AAC (1985 ~6.25; 1988 ~6.6 per 100.000 of residents), then decreased to 6.1 after the AAC, which coincided with the peak of optimism at the beginning of the economic reforms around 1991. Thereafter, both the BAC-positive and BAC-negative suicide rates increased considerably, the latter up to approximately 10.4 in 2003 (Razvodovsky 2016). These figures indicate that dynamics of suicides depend not only on the amounts of consumed alcohol, but also on social factors. It can be reasonably assumed that the increase in the suicide rate after 1991 has been partly caused by deterioration of social assistance, when many unemployed people were abandoned in a desperate condition. Analogous

albeit less pronounced suicide dynamics were noticed in RF, except for the temporary decrease in 1991 (Nemtsov 2001). Admittedly, reliability of statistics is questionable.

During the AAC, launched by Mikhail Gorbachev in 1985 and ended by 1989, the consumption of non-beverage alcohol was widespread. Large-scale sales of cheap lotions, eau-de-colognes and window cleaners in some areas were tolerated by authorities. The drinking of alcohol-containing technical liquids and perfumery decreased abruptly after the AAC, when vodka and beer have become easily available and relatively cheap (Keenan et al. 2015). Numerous shops and kiosks were opened after 1990; there have been no queues as in the Soviet time. The average salary (pension) / vodka price ratio remained several times higher than it had been prior to the AAC; the price dynamics in relation to salaries and pensions have been summarized by Jargin (2017) (Table 1-1). The supposition that alcohol-dependent people would voluntarily drink surrogates when regular beverages are available is unrealistic. They have their experience, distinguish good and bad products, know their ailments that may exacerbate after the intake of poor-quality beverages. Alcohol consumption predictably increased after the AAC. It facilitated economic reforms of the early 1990s. As mentioned above, employees did not oppose privatization of the state property by administration and party functionaries due to the widespread drunkenness.

Table 1-1. Average monthly salaries and pensions vs. minimal vodka prices in Russia (roubles).

Year	Average salary	Average pension	Min. vodka price 0.5 l bottle	Salary/vodka price	Pension/vodka price
1984	200	80	5	40	16
2010	21,000	7,500	90	233	83
2014	32,500	10,800	220	148	49
2015	33,100	10,900	185	178	59

Comment: In 1984, Soviet roubles were not convertible. Early in 2015 one US dollar was equal to approximately 60 roubles.

High quality beverages can be found in well-known and reputable shops like the “Gastronome No. 1” within the famous GUM (Upper Trading Rows) in Moscow (Fig. 1-1). The same is true for the refectory upstairs in

the GUM (Fig. 1-2), where hors d'oeuvres are always fresh. Elsewhere, a product with the same foreign or domestic label may taste differently. The quality of counterfeit beverages depends on their origin: they can be produced by regular factories, being concealed from excise duties, or “in garages”, using technical ethanol diverted from industry or imported (Nemtsov 2011; Urumbaeva 2008). Since the 1990s, the Caucasus has been known as a nationwide source of cheap alcoholic drinks. Almost all vodka concealed from excise duties in North Ossetia was reported to be produced from technical ethanol (Shaidullina 2014). According to another source, in the early post-Soviet years, North Ossetia produced ~40% of vodka consumed in RF, most of it coming from illegal sources (Bailey 2018). Paradoxically, unrecorded alcohol manufactured by a regular factory can be good quality, while “recorded” vodka is sometimes made from sawdust being insufficiently purified, as has been the case in some places e.g. in Siberia for decades. The same pertains to wines fortified with alcohol of different quality.



Fig. 1-1. “Gastronome No. 1” within the famous GUM (Upper Trading Rows), built in the late 19th century in the Russian Revival style. The wine collection here is one of the best in Moscow.



Fig. 1-2. Refectory on the 3rd floor of the GUM always has fresh hors d'oeuvres and drinks of standard quality. This is not always the case in other places, even at a bar nearby.

Conclusion

It should be stressed in conclusion that the government must give consideration to vulnerable members of society, including those suffering from substance use disorders and alcohol-related dementia, because such people can be poisoned by toxic beverages, abused and exploited by criminals. The authorities should investigate cases in which alcohol-dependent, disabled and other people have been deprived of their apartments or houses as a result of criminal acts, and have thus become homeless. These people should be helped to obtain accommodation or shelter. Further protection should be accorded for some categories of compromised people. Alcoholics have been subjected to compulsory treatment and hypertherapy using invasive procedures, one of the motives being the training of medical personnel with the objective of preparation for war. Alcohol consumption and heavy binge drinking appear to have declined in Russia since approximately 2004 (Bailey 2018; GISAH 2021), but current levels are difficult to determine for lack of reliable statistics. In any case, alcohol remains a part of life, and it can be eliminated only together with life. The last AAC (1985-1989) has demonstrated this. Figuratively speaking, the AAC was a surgery performed without sufficient indications.

Addition of alcohol from non-edible sources to beverages should be prohibited, or its presence must at least be indicated on labels. To make rational choices, consumers have to be informed about qualities of what they consume, including risks to which they will be exposed (Sassi 2015).

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CHAPTER 2

ALCOHOL-RELATED POLICIES AND EPIDEMIOLOGY

After the anti-alcohol campaign (AAC), ended in failure in 1989, the average life expectancy in Russia decreased especially in men. For the period 1993-2001, this figure was estimated to be around 58-59 years (Davydov et al. 2007; Nemtsov 2011; Ryan 1995). The life expectancy has increased since then; but there are doubts about reliability of official statistics. Among the causes of the increased mortality has been limited availability of modern health care, late detection of malignancies, offences and crime against alcohol-dependent people resulting in homelessness and premature death.

The cause of the relatively high registered cardiovascular (CV) mortality in the former SU, and of its further increase after 1990, is evident to pathologists and other medical specialists. There is a tendency to overdiagnose CV diseases both at autopsies and in people dying at home, not undergoing autopsy. If a cause of death is not entirely clear, one of the standard post mortem diagnoses is “Ischemic heart disease with cardiac insufficiency” (Jargin 2017). Furthermore, the irregular treatment of arterial hypertension (Roberts et al. 2012) and diabetes mellitus contributes to the CV mortality. Not surprisingly, the deterioration of quality in pathology and other healthcare services in the 1990s coincided with the increase in CV mortality (Zatonski and Bhala 2012). This could be indirectly confirmed by the following citation: “Increases and decreases in mortality related to CV diseases... but not to myocardial infarction, the proportion of which in Russian CV mortality is extremely low” (Davydov et al. 2007). Indeed, the diagnosis of myocardial infarction is usually based on distinct clinical or morphological criteria, while ischemic or atherosclerotic heart disease with cardiac insufficiency is sometimes used post mortem without strong evidence. Furthermore, the overdiagnosis of CV diseases is compatible with the “absence of any substantial variation in mortality rates from neoplasms, including those related to alcohol, during the period 1984-1994” (Leon et al. 1997) because cancer is rarely diagnosed without

evidence. Remarkably, the mortality from lung cancer (requiring X-ray or autopsy for the diagnosis) in males decreased by 17% over the period 1998-2007, while that from breast cancer, rarely remaining undiagnosed, increased considerably (Davydov et al. 2007).

Certain Russian authors exaggerate the cause-effect relationships between alcohol and CV mortality e.g. (Paukov and Erokhin 2004), thus depicting the high mortality as partly self-inflicted by alcohol. This tendency is relatively new. An earlier epidemiological study reported that the prevalence of CV diseases including hypertension was not significantly higher among men who drank excessively than in the general male population (Kopyt and Gudzhabidze 1977). Furthermore, the heavy binge drinking was discussed as a determinant of the increased mortality in Russia (Razvodovsky 2012). Without denying the harm from this hazardous pattern of alcohol consumption, it should be noted that heavy binge drinking is visibly declining in Russia. Unlike the 20th century, it is difficult to meet a heavily drunk person today even among marginalized people. The drinking of vodka and fortified wine has been partly replaced by a moderate consumption of beer. As for young people, many of them adopt a moderate alcohol consumption style from the beginning.

The effects of recent “specific alcohol control policy measures” (Khaltourina and Korotayev 2015) on alcohol-related mortality have been discussed in some Russian literature as if alcohol were the most important factor determining the death rate. Other circumstances were not taken into account: availability and quality of health care, toxicity of some legally sold beverages, questionable reliability of statistics. Apparently, efficiency of governmental policies has been exaggerated by some writers e.g. (Khaltourina and Korotayev 2015; Radaev 2015). At the same time, there has been lack of advocacy for the public interest. The following citations are illustrative: “The effect of alcohol taxation measures is likely to be significant and moderately positive. However, its significance was outperformed with much stronger effects of the measures to reduce availability of non-beverage alcohol with very high alcohol content;” and “All these measures greatly reduced the amount of ethyl alcohol available...” (Khaltourina and Korotayev 2015). In fact, vodka, beer and other beverages have been easily available since the AAC (sold in supermarkets and other shops; no queues like in the Soviet time), while the average salary (pension) / vodka price ratio remained several times higher than it had been prior to AAC (Table 1-1). In their Russian-language book, Khaltourina and Korotayev (2012) discussed the role of the “crisis of medicine”, denying any significant role of this factor in the mortality

increase. Their argumentation is, however, unconvincing, for example, the unchanged since the Soviet time mortality from stroke despite its increased incidence. The overdiagnosis of cardio- and cerebrovascular diseases in unclear cases, both at autopsies and in people dying at home, was discussed above. The registered cardio- and cerebrovascular mortality elevation after 1990 reflected, in fact, the quality decline of post mortem diagnostics and of healthcare in general. The decrease in infant and maternal mortality since 1999, proposed as evidence of healthcare improvement by Khaltourina and Korotayev (2012), may reflect priorities but is unrelated to the higher mortality of middle-aged and older men (Shield and Rehm 2015), who are visibly underrepresented among patients in governmental polyclinics. There is also mistrust towards medicine because of its commercialization and uneven quality. For these and other reasons, many people stay at home even if they have symptoms, receiving no adequate therapy for chronic diseases.

As discussed and referenced above, consumption of technical liquids and perfumery decreased abruptly after AAC, so that the “non-beverage alcohol with very high alcohol content” (Khaltourina and Korotayev 2015) has hardly played any significant role as a cause of enhanced mortality after 1990. Illegally manufactured beverages, both by regular factories evading taxation and by non-industrial producers (so-called garage vodka), have been sold through legally operating retail, generally with the knowledge of the authorities (discussed in Chapter 1). The “specific alcohol control policy measures” (Khaltourina and Korotayev 2015), have been rather superficial, resulting in moderate oscillations of vodka price considering inflation, and no real decrease in physical availability of alcohol since the AAC. Some governmental measures may have contributed to a consumption of higher doses, e.g. disappearance of small (0.33l) beer cans and rareness of 150-200 ml vodka vials. The prohibition of alcohol sales between 23 p.m. and 8 a.m. since 2011 (beer since 2013) may result in purchasing by some people of larger amounts in advance with subsequent consumption. Physical restrictions of alcohol availability may cause some decrease in the total consumption but contribute to heavier occasional intoxications. Queues at bottle stores during the Soviet period appear to have had this effect: after queuing, larger amounts of alcohol were purchased and then consumed. Analogously, having waited in a queue at the entrance to a beerhouse (pivnoi bar), visitors usually stayed there for hours. This was a foreseeable consequence of the anti-alcohol measures restricting alcohol sales and maintaining queues at retail outlets during the Soviet era.

Pharmacy products, ethanol-containing tinctures and solutions are relatively expensive today. Some alcohol-containing antiseptics appeared during the Covid-19 pandemic e.g., Aseptolin (ethanol-glycerol mixture) recommended for skin disinfection and reportedly used for drinking (Fig. 2-1 left). In Moscow, a 100 ml vial cost the equivalent of about 1 US dollar, which was roughly equivalent to cheap vodka. The concentration indicated on the label (90%) can pertain to the ingredient named Glycerytan, which is the mixture. Organoleptically, the ethanol concentration is about 60% - the liquid is sweetish and tolerated by the oral mucosa. The same might be true for the published image (Fig. 2-1 right) of hand sanitizer with the unreadable small-printed text presented by Gil (2021) as 95% solution of ethanol. Only the inscription “Ethylic Alpha up to 95%” can be deciphered. An iPhone allows photographing readable text of this size. Concentrated solutions are usually more expensive per unit of the dissolved substance.

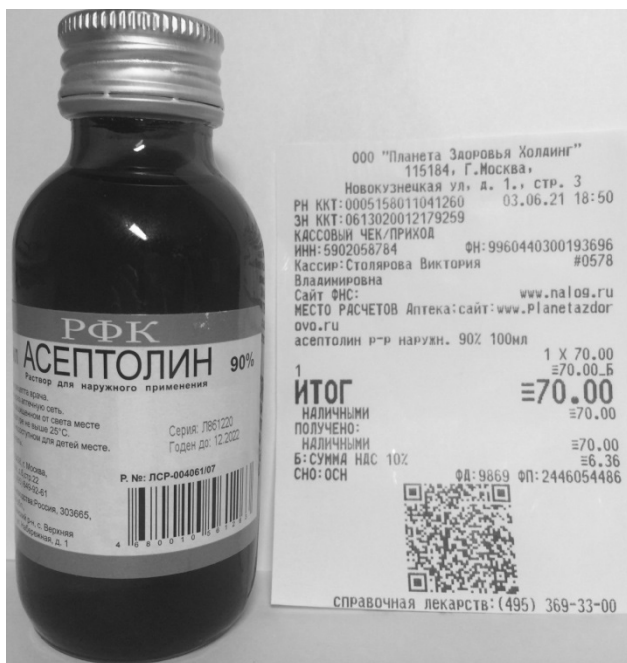




Fig. 2-1. Previous page - Aseptolin (ethanol-glycerol mixture) recommended for skin disinfection and reportedly used for drinking (see text); This page - hand sanitizer with the unreadable small-printed text; only “Ethylic Alpha up to 95%” can be read (adapted from Gil 2021). iPhone allows photographing readable text of this size.

Toxicologically, medicinal alcohol is not substantially different from that used for vodka production. Preparations such as Aseptolin would therefore not have a significantly higher impact on morbidity and mortality than would vodka; anyway, Aseptolin has disappeared from Moscow pharmacies. The hypothesis suggesting that “because of its greater strength, in combination with a lack of labeling, unrecorded alcohol may involve greater intake of ethanol per occasion, leading to over-proportional harm” (Lachenmeier 2021) is questionable for lack of associated stimuli, such as the pleasant taste and traditional atmosphere, predisposing to prolonged partying. Moreover, non-beverage alcohol would more readily provoke vomiting. Alcohol-dependent people have their experience, distinguish good and bad products, know their ailments that would worsen after the intake of surrogates with toxic ingredients. Not many people would

knowingly drink such surrogates today, when vodka and beer are easily available in supermarkets.

Adult per capita consumption of recorded vodka and other spirits declined in RF with some fluctuations since approximately 2004 (Bailey 2018). According to the Global Information System on Alcohol and Health (GISAH 2021), both the total (since 2004-2005) and recorded (data are available for the period 2010-2019) alcohol consumption is gradually declining in RF. The worldwide sharpest decreases were found in the formerly highest consuming nations including Russia (from 18.7 litres per capita in 2005 to 11.7 in 2016) and some other countries of the former SU. The number of alcohol psychosis cases in RF dropped over the period 2007-2016 from 52.3 to 20.5 per 100 000 population (WHO 2018). Mortality from toxic effects of alcohol decreased from 13.3 to 6.7 cases per 100 000 over the period 2010-2019. In Siberia this figure dropped more than threefold. The mortality rate associated with alcohol consumption, including that from acute alcohol poisonings, decreased considerably in the whole country (Sabaev and Pasechnik 2024). Heavy binge drinking is visibly in decline. Unlike the situation in the 20th century, it is difficult to encounter a heavily drunk person today even among marginalized people. The drinking of vodka and fortified wine has been partly replaced by a moderate consumption of beer. As for young people, many of them adopt a moderate alcohol consumption style from the beginning.

Apparently, the main cause of the decline in heavy binge drinking and overall alcohol consumption is the responsible way of life under the conditions of market economy. This pertains to the social classes that included the majority of alcohol consumers, that is, industrial workers and intelligentsia. Although workers were often skeptical about Soviet ideology, they were influenced by the propaganda about the supremacy of the working class, and were confident about their future. This confidence has largely been lost during the economic reforms of the 1990s. Many factories closed, and the workers were confronted with unemployment in an inadequate social security system. The same fate befell the intelligentsia, as many scientific institutions were closed or their personnel reduced. At the same time, crime against people with alcohol use disorders in the form of theft, assault and undue pressure has become widespread. This does not predispose to leisure drinking. Many alcoholics have lost their residences and become homeless. The economic situation is improving but the Soviet-time drinking habits are not coming back en masse. Furthermore, indigenous working people have been gradually replaced by immigrants