

Analysis

The Role of Alcohol in Russia's Violent Mortality

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Abstract

The levels of homicide and suicide in Russia are among the highest in the world, even though the numbers have improved in recent years. There is a strong association between alcohol consumption and violent mortality. This connection is particularly strong because Russians often drink vodka or illegally produced spirits in large quantities and in private or semi-private settings where fights are more likely to become deadly than in public places. Despite the improving situation, one-third of all deaths in Russia are directly or indirectly related to alcohol, requiring intervention at a variety of levels.

Russia a Leader in Homicide and Suicide

Homicide and suicide pose a serious public health threat in Russia. Although rates of both have declined markedly in the last couple of years, levels of homicide and suicide mortality in the country are still among the highest in the world. The annual standardized death rate for homicide in 2006 was about 19 per 100,000 residents, or about 10–20 times higher than in most Western European nations and about three times higher than in the United States, which most observers usually consider the most violent industrialized country in the world. The annual standardized death rate for suicide is nearly 28 per 100,000 residents, which again ranks Russia among the highest in the world. Although several other Slavic and former Soviet nations have high rates of these forms of external mortality, Russia is usually ranked first or second among them.

There are many reasons for Russia's high rates of violence directed at the self and at others. The collapse of the Soviet Union played a major role, and will be discussed briefly later in this article, but relative to Western Europe and many other parts of the world, Russian homicide and suicide rates were already high before that time. One factor that is increasingly implicated in high violence rates in the country is heavy drinking. Annual alcohol consumption in Russia is estimated to be as much as 15 liters per person, which again places Russia among the highest in the world, and alcohol poisoning in and of itself is a serious health threat, with an elevated annual standardized death rate of about 22 per 100,000 residents in 2006.

Temporal Patterns

Figure 1 on p. 10 shows standardized death rates due to homicide, suicide, and alcohol-related causes from 1956 to 2006. The latter category includes alcoholic liver disease, alcohol poisonings, chronic alcoholism, alcoholic psychosis, encephalopathy, and dementia. The

trends follow each other closely, and there are a few time periods of note. The first is the sharp decrease in all three series in 1985. This drop corresponds with the implementation of Gorbachev's anti-alcohol campaign. The campaign ended in 1988 and the rates of these causes of death appear to move up towards its end. There were other social, political, and economic forces at work in the late 1980s, however, as well as the collapse of the Soviet Union in the early 1990s, and the trends in violent and alcohol-related mortality increased dramatically during this period. There are sharp declines in the three series following the 1994 peak, but the period around the 1998 financial collapse again brought another peak. Since that time, all three series have drifted down. While my data on alcohol-related deaths end in 2002, the data I have on deaths due to alcohol poisonings show a decline similar to that of homicide and suicide in recent years.

The repeated political and economic crises of the 1990s left Russians facing an uncertain future right when paradigmatic changes in social, cultural, economic and political norms were creating anomic conditions. Social and individual stress resulting from the reforms are widely recognized as the main causes of increased demand for alcohol during this period. This demand was met by several supply-side factors. First, the earlier anti-alcohol campaign created a sizeable black market for illegally produced alcohol. Second, when the state monopoly on legal alcohol was repealed in 1992, domestic and international companies quickly began to compete for the new lucrative market. The increased supply, together with poor tax collection, meant that alcohol prices rose at a fraction of food and other staples. The result: David Leon and Vladimir Shkolnikov provided evidence that alcohol played a central role in the 1990s mortality crisis, Francis Notzon and colleagues showed that 12% of the decline in life expectancy in the early 1990s was directly due to alcohol-

related mortality, and Peder Walberg and colleagues found an association between regional levels of alcohol consumption and decline in life expectancy. Beyond these direct effects of alcohol on mortality, the trends in Figure 1 suggest a strong indirect effect on mortality via associations with homicide and suicide.

The Association between Alcohol and Violence

The association between alcohol and violent mortality has been the focus of much of my work in Russia. Several studies employing different analytical techniques, using different levels of analysis, and examining data from widely divergent time periods all lead to the conclusion that there is a strong association between heavy drinking and violence in Russia.

One of our studies looked at the level of alcohol consumption in each region of Russia and compared it to regional homicide rates, controlling for several other structural covariates of homicide. We used the alcohol poisoning rate as a proxy for heavy drinking (a common approach in Russia given questionable estimates of consumption from sales, tax, and production data) and found that alcohol's association with homicide was the strongest of all variables in the model. In several other studies where I examined social structural factors associated with homicide (e.g., poverty, socioeconomic change, political change, etc.), the control for alcohol always exhibited the highest association with homicide rates.

Another study used data from one specific region (the Udmurt Republic) to compare the daily distribution of alcohol-related deaths with the daily distribution of homicide mortality. There was a close correspondence between the two. In an entirely different type of analysis, we used unique narrative data drawn from court and police records of homicide events in the Udmurt Republic to compare alcohol-related and non-alcohol-related incidents with respect to victim, offender, and event-level characteristics. These analyses revealed distinct characteristics about alcohol-related homicides in the country. While there were no significant differences between the drinking and non-drinking homicides in terms of the gender of the victim, the primary weapon used, or the location of the event, alcohol-related homicides were significantly more likely to occur between 6:00pm and 6:00am, to occur during the weekend, and to result from an acute argument, and were significantly less likely to occur between strangers, to be profit-motivated or premeditated, and to have been carried out to hide another crime.

The association between drinking and violence in Russia is not simply an artifact of post-Soviet conditions. For example, using time series data for Russia

as a whole between 1956 and 2002, we employed autoregressive integrated moving average (ARIMA) techniques and found a significant contemporaneous association between alcohol and homicide. In other words, those years in which heavy drinking increased/decreased were those years in which homicide mortality increased/decreased. In yet another analysis, we used historical information from Tsarist Russia. Looking at data from 50 European Russian provinces in 1910, and controlling for other structural covariates of homicide, we again not only found an association between alcohol and homicide, but that this association was the strongest of all variables in the model.

The basic alcohol-homicide associations discussed above hold for alcohol and suicide. For example, an analysis using a proxy for heavy drinking revealed a strong association between regional levels of heavy drinking and regional levels of suicide. Similarly, the time series analysis discussed above was repeated using suicide data and showed a significant contemporaneous association between heavy drinking and suicide in Russia between 1956 and 2002. In a careful analysis using different data for 1965–1999, Aleksandr Nemtsov not only found a similar result, but was able to show that blood alcohol content (BAC) positive suicides in Russia are associated with changes in alcohol consumption, but BAC negative suicides are not.

Finally, while not focusing on homicide and suicide, it is important to briefly mention the results of a very recent study we carried out that reveals the impact of drinking on mortality among a specific set of vulnerable Russian citizens who face economic deprivation and social isolation. In this study we focused on mortality among homeless Russian men aged 25–54. We found that alcohol played an important role in the deaths of these men. Indirectly, relative to men of the same age who died but who were not homeless, alcohol is associated with several forms of mortality at which this population is at higher risk, such as exposure to cold and violence. More directly, these men were at heightened risk of death due to alcoholic liver disease and alcoholic cardiomyopathy. This is no small issue, since the proportion of all men of these ages who die that appear to be homeless or in very similar circumstances is over 10 percent in large Russian cities. This is a frighteningly high number, and one that has been increasing in recent years despite a strengthening Russian economy.

Russian-Specific Issues Related to Alcohol

Alcohol poisoning. With an annual standardized rate in 2006 of about 22 deaths due to alcohol poisoning per 100,000 residents, the level of alcohol poisoning in Russia is extremely high relative to other countries, and reached frightening levels in the years following the

collapse of the Soviet Union. Although it is likely true that a portion of this is explained by recording practices – specifically, some deaths recorded in this category are due to chronic drinking and not to acute poisoning – the rate of deaths due to true poisoning is still exceedingly high.

A combination of several proximate factors likely contributes to such high levels of alcohol poisoning. The first is the volume of alcohol consumed, since the modal pattern of consumption in Russia is binge-drinking (see next section). The effect of this form of drinking is heightened in Russia because the preferred type of alcohol is distilled spirits (mainly vodka). Whether consumed straight or mixed with another beverage, it is generally easier to consume a greater amount of pure alcohol in a shorter time in the form of distilled spirits relative to beer or even wine. Second, there is a history of consumption of illegally produced alcohol (*samogon*) in the country. The demand for this type of cheap alcohol expanded greatly in the mid- to late 1980s during Gorbachev's anti-alcohol campaign and remained high following the campaign's demise due to other factors, such as rising prices in the early 1990s. There is no way of regulating the quality and content of these illegal alcohols, making them dangerous to consume, especially in greater volume. A final related cause is the consumption of inexpensive alcohol substitutes. These surrogate alcohols may include alcohol-containing medicines, aftershave, industrial alcohol, or any number of other liquids containing alcohol but not meant for consumption. These alcohol surrogates contain either toxic contaminants or extremely high concentrations of ethanol, their consumption is much more common than often realized, and the outcome can be dangerous and even fatal.

Culture and context. Although Russian rates of alcohol consumption and homicide mortality are both among the highest in the world, and while the evidence presented thus far suggests a strong association between the two, there are many places and countries where alcohol consumption is relatively high but where rates of homicide are not. I have argued elsewhere that the strength of the relationship between alcohol and violence in Russia may be due to cultural factors associated with drinking, namely (1) social tolerance for heavy drinking and (2) what, how, and where Russians drink. Due to the role that alcohol, especially vodka, plays in the culture and to the long history of heavy drinking in the country, there is likely more tolerance in Russian culture for those who drink to excess, and Russians are more accustomed to the personal and social ills that follow. This does not equate to cultural acceptance of these behaviors, but this tolerance too often results in no one stepping in when people drink dangerously.

What, how, and where Russians drink might also result in situational contexts that heighten the risk of violence. First, distilled spirits, mainly vodka, are the preferred form of alcohol. Second, the prevailing drinking pattern in the country is one of heavy consumption (relative, say, to drinking with meals or casual social drinking), and research has shown that binge drinking is common. The mixture of binge drinking and distilled spirits can result in quick and deep intoxication, likely increasing the possibility of a violent encounter. Finally, although currently changing somewhat, in the past Russia did not have a developed bar or pub culture as in many Western nations. Instead, Russians were more likely to drink frequently in unregulated private or semiprivate settings. Such settings do not provide as many external social controls (disinterested bystanders, bouncers, police) that could serve to stop a fight before an assault escalates to a homicide. In sum, heightened social tolerance for heavy drinking, together with what, how, and where Russians drink, may create cultural and situational contexts that increase the strength of the association between alcohol and violence in the country.

Conclusion

Violent mortality in Russia has decreased in recent years. The annual suicide mortality rate is back to where it was just before the collapse of the Soviet Union, though the homicide rate is still considerably higher than it was at that time. Alcohol-related deaths, especially poisonings, have also decreased sharply in recent years. Many argue that these decreases are the result of the implementation in Russia in 2005 of an alcohol policy meant to regulate production and sale of products containing ethyl alcohol. While the validity of such claims remains to be seen, there are likely multiple reasons for the drop, some methodological, some substantive, some due to the policy.

It is premature, however, to declare victory. Russian rates of mortality due to homicide, suicide, and alcohol are still among the highest in the world. David Leon and colleagues estimate that over 40 percent of all deaths of working-age males in the average Russian city are due to hazardous drinking, and Aleksander Nemtsov estimates that about one-third of all deaths in Russia are directly or indirectly related to alcohol. As outlined here, moreover, the research literature provides compelling evidence that the level of heavy drinking is among the strongest and most consistent predictors of homicide and suicide rates in the country even after controlling for a host of other social and economic factors. Thus, while the recent declines in alcohol-related and violent mortality are welcome, the mounting evidence of the damaging effects of hazardous drinking on the Russian social fabric reveals the need for meaningful and sustained intervention at multiple levels.

About the author

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References

- E.M. Andreev, W.A. Pridemore, V.M. Shkolnikov, and O.I. Antonova. (2008). An investigation of the growing number of deaths of unidentified people in Russia. Forthcoming in *European Journal of Public Health*.
- V.V. Chervyakov, V.M. Shkolnikov, W.A. Pridemore, and M. McKee. (2002). The changing nature of murder in Russia. *Social Science & Medicine*, 55, 1713–1724.
- D.A. Leon, L. Saburova, S. Tomkins, E. Andreev, N. Kiryanov, M. McKee, and V.M. Shkolnikov. (2007). Hazardous alcohol drinking and premature mortality in Russia: a population based case-control study. *The Lancet*, 369, 2001–2009.
- D.A. Leon and V. M. Shkolnikov. (1998). Social Stress and the Russian Mortality Crisis. *JAMA*, 279, 790–791.
- M. McKee. (1999). Alcohol in Russia. *Alcohol and Alcoholism*, 34, 824–829.
- M. McKee, S. Sűzcs, A. Sárváry, R. Ádany, N. Kiryanov, L. Saburova, S. Tomkins, E. Andreev, and D.A. Leon, D. (2005). The composition of surrogate alcohols consumed in Russia. *Alcoholism: Clinical and Experimental Research*, 29, 1884–1888.
- A.V. Nemtsov. (2003). Suicides and Alcohol Consumption in Russia, 1965–1999. *Drug and Alcohol Dependence*, 71, 161–68.
- A.V. Nemtsov. (2002). Alcohol-Related Human Losses in Russia in the 1980s and 1990s. *Addiction*, 97, 1413–1425.
- A.V. Nemtsov. (1998). Alcohol-Related Harm and Alcohol Consumption in Moscow Before, During, and After a Major Alcohol Campaign. *Addiction*, 93, 1501–1510.
- F.C. Notzon, Yu.M. Komarov, S.P. Ermakov, C.T. Sempos, J.S. Marks, and E. Sempos. (1998). Causes of Declining Life Expectancy in Russia. *JAMA*, 279, 793–800.
- W.A. Pridemore. (2006). Heavy drinking and suicide mortality in Russia. *Social Forces*, 85, 413–430.
- W.A. Pridemore. (2004). Weekend effects on binge drinking and homicide mortality: Preliminary evidence for the social connection between alcohol and violence in Russia. *Addiction*, 99, 1034–1041.
- W.A. Pridemore. (2002). Vodka and violence: Alcohol consumption and homicide rates in Russia. *American Journal of Public Health*, 92, 1921–1930.
- W.A. Pridemore and M.B. Chamlin. (2006). A time series analysis of the effects of heavy drinking on homicide and suicide rates in Russia, 1956–2002. *Addiction*, 101, 1719–1729.
- W.A. Pridemore and K.A. Eckhardt. (2008). A comparison of the characteristics of alcohol- and non-alcohol-related homicides. Forthcoming in *Journal of Research in Crime and Delinquency*.
- W.A. Pridemore and V.M. Shkolnikov. (2004). Education and marriage as protective factors against homicide mortality: Methodological and substantive findings from Moscow. *Journal of Quantitative Criminology*, 20, 173–187.
- A. Stickley, M. Leinsalu, E. Andreev, Yu. Razvodovsky, D. Vagero, and M. McKee. (2007). Alcohol Poisoning in Russia and the countries in European part of the Soviet Union, 1970–2002. *European Journal of Public Health*, 17, 444–449.
- A. Stickley and W.A. Pridemore. (2007). The social structural correlates of homicide in late Tsarist Russia. *British Journal of Criminology*, 47, 80–99.
- P. Walberg, M. McKee, V.M. Shkolnikov, L. Chenet, and D.A. Leon. (1998). Economic Change, Crime, and Mortality Crisis in Russia: Regional Analysis. *British Medical Journal*, 317, 312–318.
- S. White. (1996). *Russia Goes Dry: Alcohol, State, and Society*. Cambridge University Press.