

Alcoholism without borders

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In some former Soviet bloc countries, men often die early due to alcohol abuse. Alcoholism-related mortality varies considerably from one region to another, according to a study in the European part of Russia, Belarus, Lithuania and Poland. The most problematic regions in these terms are north-western and western Russia, eastern and north-western Belarus, south-eastern Lithuania, and eastern and central Poland, say an

international team of demography researchers that included scholars from HSE University.

Tragic Practices

Heavy drinking often turns out to be fatal. It either leads to death directly, for instance due to acute alcohol poisoning, or provokes serious diseases of the liver (cirrhosis and fibrosis), heart and blood vessels (cardiomyopathy, ischemic heart disease), and brain (blood stroke), as well as some types of cancer. Deaths from external causes, such as car accidents, murder, falling, burns, drowning, and frostbite, are also often related to excessive drinking.

Official statistics show that the share of deaths directly related to alcohol is not high. For example, in Russia in 2015 it was 3.1% of total deaths, or over 58,000 people. But among the able-bodied population, this share was higher at 8.8%.

But even this share is lower than the real one, experts say. Some alcohol poisonings and diseases caused by drinking are registered as 'non-alcohol-related causes of death,' while in reality, [alcohol abuse](#) has led to the fatal outcome.

Dangerous levels of alcohol consumption largely explain early [mortality](#) of men in European Russia, Belarus, Lithuania and Poland, according to a study conducted by an international team of demographers, including HSE researchers Evgeny Andreev and Sergey Timonin.

These regions share a common past, as well as similar cultural practices and consumption patterns. The researchers believe that this largely determines mortality due to alcohol consumption, which is similar in the four countries.

That said, generalizing can be problematic. The situation with alcohol-related early mortality varies considerably not only by country, but by [region](#) inside a given country. There are relatively safe regions and problematic hot spots.

Mortality Hot Spots and Glimmers of Hope

From 2006 to 2014, demographers studied mortality among males ranging in age from 20 to 64 in four economic regions of European Russia: central, north-western, central Black Earth, and Kaliningrad (23 oblasts including Moscow and St. Petersburg), as well as regions in Belarus, Poland, and Lithuania. The total number of geographic areas studied was nearly 1,180.

The study revealed the following:

- There are more alcohol-related mortality hot spots in Russia and Belarus, and fewer in Lithuania and Poland.
- The most troubled territories are north-western Russia, eastern and north-western Belarus, south-eastern Lithuania, and eastern and central Poland.
- Within Russia, the lowest alcohol-related mortality rates are in Moscow, St. Petersburg and the Central Black Earth regions (Lipetsk, Kursk, and Voronezh oblasts), while the highest rates are in north-west and west (Leningrad, Novgorod, Smolensk, and Bryansk oblasts).
- Alcohol-related male mortality rates largely explain early mortality among men in general.

Other studies have already shown that peaks in mortality coincide with alcohol consumption peaks. This means that the contribution of drinking in mortality is high.

"Alcohol-related mortality, particularly mortality from acute alcohol poisoning, had defined the general trends of life expectancy in Russia for several decades," said Sergey Timonin. But today, the situation is changing, and there is a reason for certain optimism. According to the new study, "the forecasting power of alcohol-related mortality is weakening." This may mean that alcohol is finally playing a smaller role in early mortality in Russia, the scholar explained.

Hypnotized by the Past

Demographers calculated the standardized mortality ratio (SMR) for alcohol-related mortality in these countries (number of deaths per 100,000). This average indicator has been taken as a unit.

Relative SMRs by region within the countries were then calculated. Any indicator of the coefficient that is higher than one means that the mortality is higher than the average. On the contrary, SMRs less than one indicate lower alcohol-related mortality.

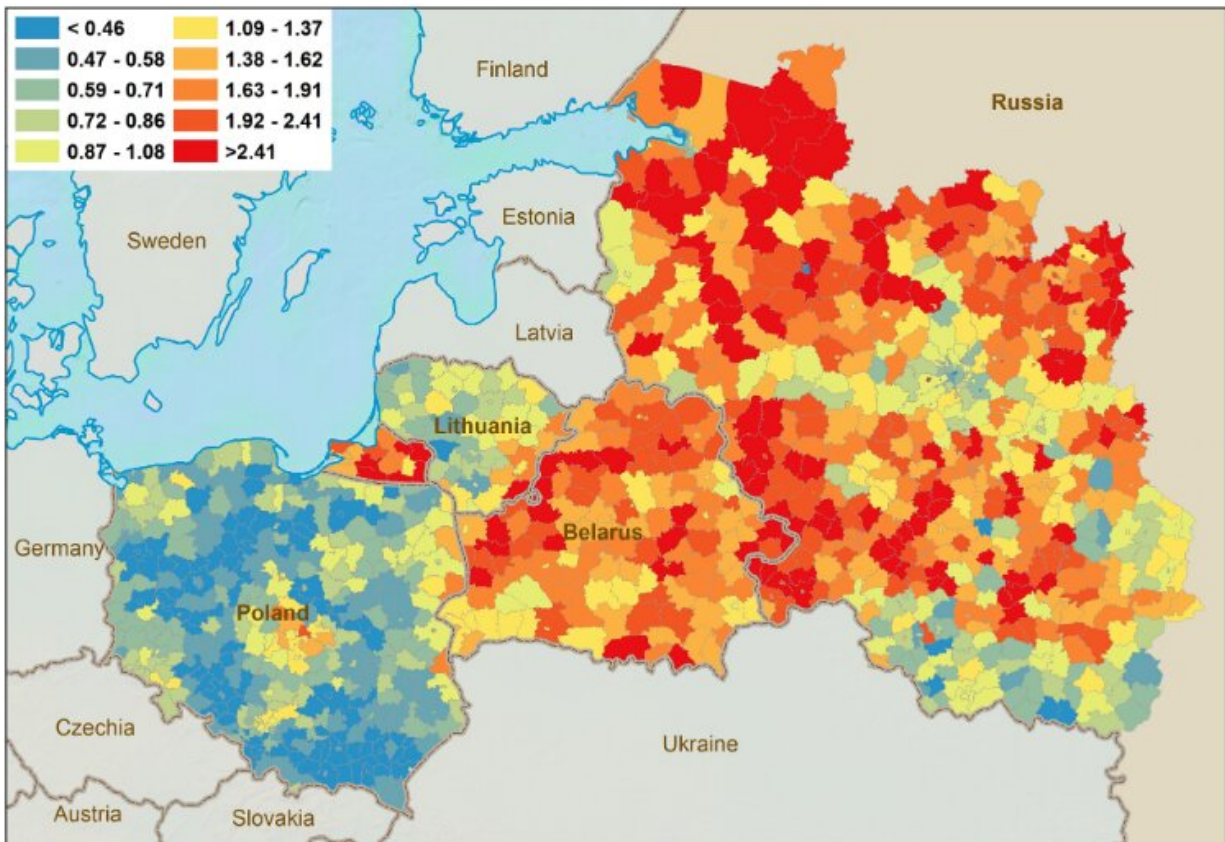
Standardized mortality ratios across the combined territory of Belarus, Lithuania, Poland and European Russia.

Demographers say that alcohol-related mortality across the four countries is homogeneous in some parts and mosaic in others.

All these countries face a problem of excessive alcohol consumption, which researchers explain by pointing to their common history. This includes both the socialist past (Poland was long influenced by the Soviet Union, while Belarus and Lithuania were Soviet republics) and history more than a century ago under the Russian Empire, which included a considerable part of Poland along with Belarus and Lithuania.

But risky alcohol consumption practices that formed over a century ago

have persisted up to the present.



Standardized mortality ratios across the combined territory of Belarus, Lithuania, Poland and European Russia Credit: by S. Timonin, E. Andreev et al.

For example, in central parts of Poland and in the east (in areas bordering Belarus), mortality data show that heavy drinking is more widespread than in the other parts of the country.

On the contrary, in regions that have not been impacted by a shared past, such as in southern Poland, which used to be part of Austria-Hungary, alcohol-related mortality is lower. The culture of drinking is obviously

less risky there.

'Barrier-free' Environment and Internal Contrasts

Russia demonstrates the highest heterogeneity of regions in terms of alcohol-related mortality.

In the north-west, SMR often exceeds 1.6, and sometimes goes off the scale, breaking the 2.4 barrier. On the other hand, in the southern part, in the Central Black Earth region, this indicator is often just a little higher than 0.5.

In Belarus, on the contrary, the landscape is more homogeneous, and almost hopeless. In most regions, the alcohol-related standardized mortality rate exceeds average levels (higher than one). Only regions bordering Poland in the southwest is the situation better.

The situation is better in Lithuania and Poland: in most regions, SMR is low. In Poland, hot spots are in the central part of the country, as well as in several eastern areas bordering Belarus.

The culture of drinking is obviously 'barrier-free' and crosses national borders. Patterns of alcohol abuse in border regions are almost identical. This is true, for example, for border regions of Russia and Belarus, or Belarus and Lithuania.

In Lithuania, almost all regions close to the border with Belarus have higher alcohol-related mortality.

The safest regions in Belarus are located in the southwestern part of the country closer to the Polish border.

The Kaliningrad oblast, on the contrary, is high in contrast to its

neighbours. The 'alcoholic' SMR there is considerably higher than in Poland and Lithuania.

Remote and Rural Regions Fall behind

In addition to shared history, other factors impact alcohol-related mortality. These include a region's socio-economic situation: real household earnings and unemployment levels.

Another important factor is migration from the country's remote regions to its centre: the healthiest and most active people usually migrate. Finally, the illegal alcohol trade is also a factor.

For example, the relative safety of Moscow and St. Petersburg may be explained by higher living standards and cultural habits of the population. Other 'sober' territories are university towns and some closed administrative territories, such as related to defence industry (Zhukovsky, Korolev, Obninsk, Dubna, Protvino, etc).

"The advantage of university towns and closed territories is in the more favourable educational background of the population," Timonin explained. "The share of the population with a university degree is considerably higher in these communities as compared to other areas."

Socio-economic factors largely determine the situation with alcohol-related lethality in the north-western economic region.

Its areas are located between the key centres that attract migrants: Moscow, St. Petersburg, and the Baltic countries.

North-western areas suffer from poor agricultural conditions and have depressed agriculture. This leads to an outflow of the most active populations.

The situation in Belarus is similar: the least developed eastern regions are prone to depopulation.

Finally, when alcohol-related mortality is analysed by the type of settlement, rural areas perform worse than urban ones. The researchers believe this is due to worse access to medical aid, weak leisure infrastructure, and uncertainty regarding the future. Rural areas lack attractive jobs. Younger, healthier and ambitious people leave for the cities.

More information: Pavel Grigoriev et al, Spatial patterns of male alcohol-related mortality in Belarus, Lithuania, Poland and Russia, *Drug and Alcohol Review* (2020). [DOI: 10.1111/dar.13037](https://doi.org/10.1111/dar.13037)

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