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Gender disparities in life expectancy and mortality from preventable diseases in Latvia from 2000 to 2020

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Alcohol consumption in Central and Eastern EU countries

World Health Statistics for 2019 (latest available) for countries with highest APC

Rank	Country name	ISO 3 Code	Year	Adult per capita consumption (litres)		
				Point estimate	Lower 95% UI	Upper 95% UI
1	Czechia	CZE	2019	14.3	10.9	18.0
2	Latvia	LVA	2019	13.5	12.6	19.9
3	Slovenia	SVN	2019	12.9	9.6	16.3
4	Rep. of Moldova	MDA	2019	12.9	8.9	15.9
5	Spain	ESP	2019	12.8	10.3	16.8
6	Lithuania	LTU	2019	12.7	9.7	15.6
16	Poland	POL	2019	12.2	10.0	16.6
26	Estonia	EST	2019	11.0	11.1	17.2

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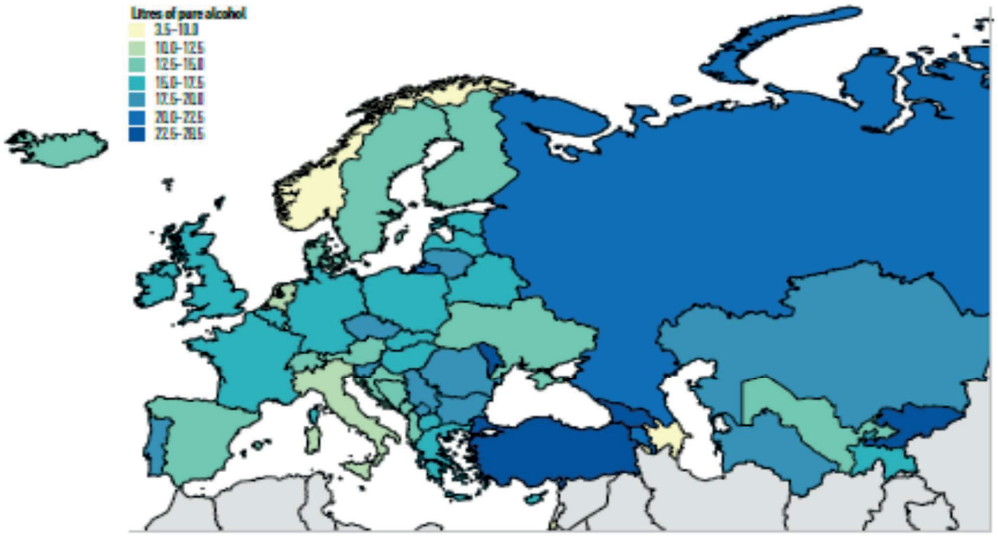
Consumption in Central and Eastern EU countries

- The WHO European Region is the WHO region with the highest adult alcohol *per capita* consumption (measured in litres pure alcohol per person 15 years and older), and the Central and Eastern EU countries are among the highest globally
- This is the result of several developments: Russia and surrounding countries reduced their drinking faster than this region; China did not increase as much as predicted due to the anti alcohol campaign; and the Western European countries also decreased
- Not clear what happened during COVID, as not all the data are in, but we expect problems: in a recent analyses Lithuania had one of the highest decreases in life expectancy for men (2.2 years)

The consumption in litres pure alcohol per drinker 2016 (WHO SAFER report)



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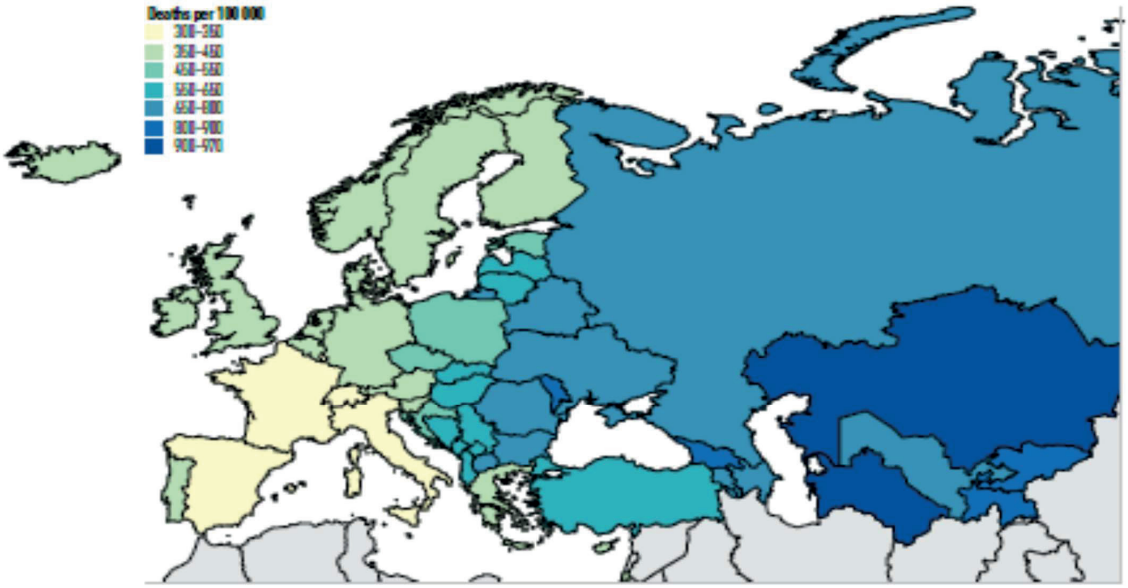
Alcohol-attributable harm

Alcohol attributable harm is relatively higher than in other countries

Alcohol-attributable mortality in WHO European Region in 2016 – a clear West to East gradient (WHO SAFER report)



Why is alcohol so important for mortality and burden of disease in more Eastern countries? The example of Russia

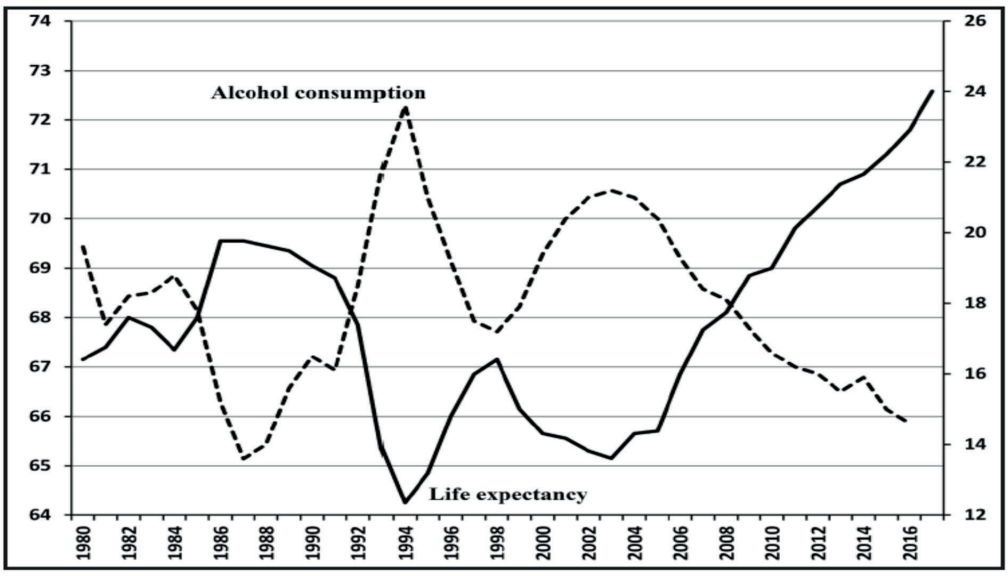


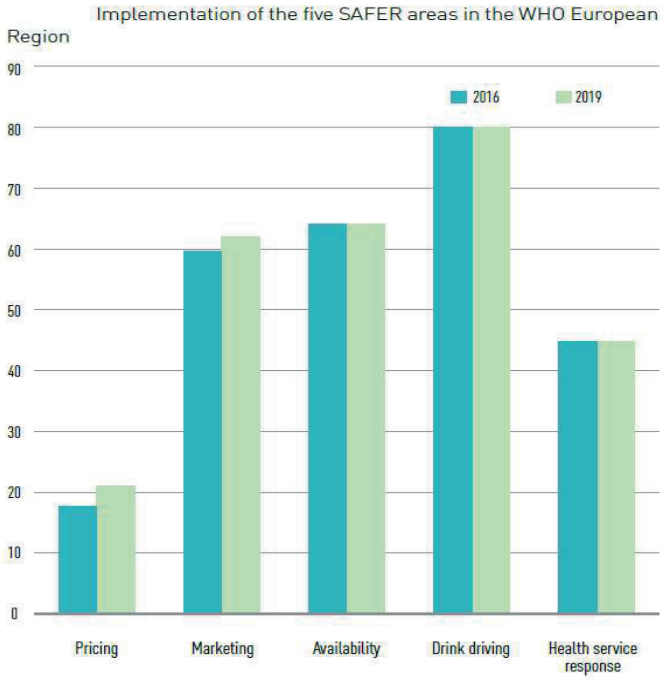
FIGURE 2. Relationship between per capita alcohol consumption and life expectancy. *Solid line* = life expectancy (both sexes). *Dashed line* = total alcohol consumption 15+. Source: Nemtsov (2015) and Nemtsov and Shelygin (2014).

Only in Russia? Take a recent example of Lithuania

- Our analyses showed similar results for Baltic countries
- And the analyses for Lithuania clearly showed, that alcohol use was associated with a higher Relative Risk for disease than in the Western European countries!
- This includes relative high RR for CVD due to binge drinking patterns

Alcohol control policy

Why taxation increases seem to be key



Alcohol control policies often neglect taxation!

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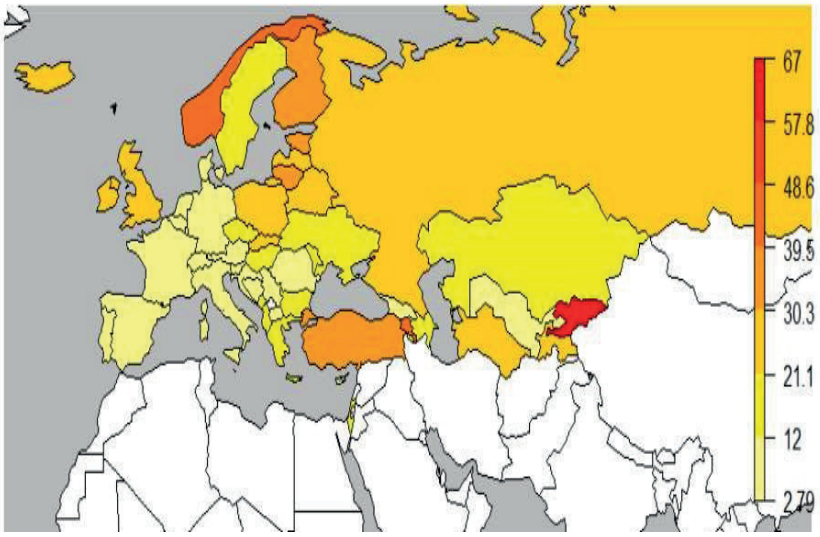
A paradigm shift for alcohol taxes is needed!



Proportion of tax in the final price for all alcoholic beverages [for tobacco, the regional average is about 75%].

Most countries do not adjust alcohol tax for inflation and 22 countries (15 of them EU countries) do not have a tax on wine!
Neufeld et al., 2021 Lancet Regional Health Europe

What if we increase taxes for all countries in WHO European Region?

	beer	wine	spirits	tobacco
mean	14.0%	5.7%	31.3%	69.4%
median	10.8%	0.8%	30.6%	74.6%

Current tax share in % (green means sufficient tax share according to tobacco guidelines or in line with proposal of model 1 for alcohol; red signifies very low tax share and yellow in between)

- Model: tax share should be at least 25% (i.e., for all alcoholic beverages sold outside off-premise, the tax share should be at least 25%);
- Plus all ethanol is equally sold -> 10 grams of pure alcohol costs the same, no matter if it is in the form of beer, wine or spirits

This is still way less tax share compared to tobacco!

	Infectious Diseases	Cancers	Cardio-vascular Diseases	Gastro-intestinal Diseases	Injuries	Other Diseases (including Alcohol Use Disorders)	Total Deaths Averted	Rates per 100,000 Population#
EU (429 Mio.)	1,283 (372-2,209)	5,626 (4,908-6,465)	11,691 (10,150-16,573)	3,830 (3,578-4,283)	712 (450-998)	5,143 (4,363-6,185)	28,285 (26,293-33,589)	6.59 (6.13- 7.83)
CIS (188 Mio.)	457 (217-647)	796 (651-954)	6,865 (3,608-11,326)	1,930 (1,656-2,269)	261 (161-379)	5,591 (3,257-8,282)	15,901 (11,886-21,804)	8.42 (6.29- 11.55)
EAEU (145 Mio.)	398 (198-554)	733 (594-896)	6,595 (3,338-10,980)	1,444 (1,194-1,759)	230 (136-341)	5,341 (3,013-7,997)	14,741 (10,685-20,652)	10.16 (7.36-14.23)
WHO European Region (753 Mio.)	1,987 (818-3,139)	7,088 (6,205-8,089)	22,539 (19,142-30,362)	6,870 (6,438-7,527)	1,151 (734-1,607)	13,033 (10,428-16,377)	52,668 (48,392-61,912)	6.99 (6.42- 8.22)

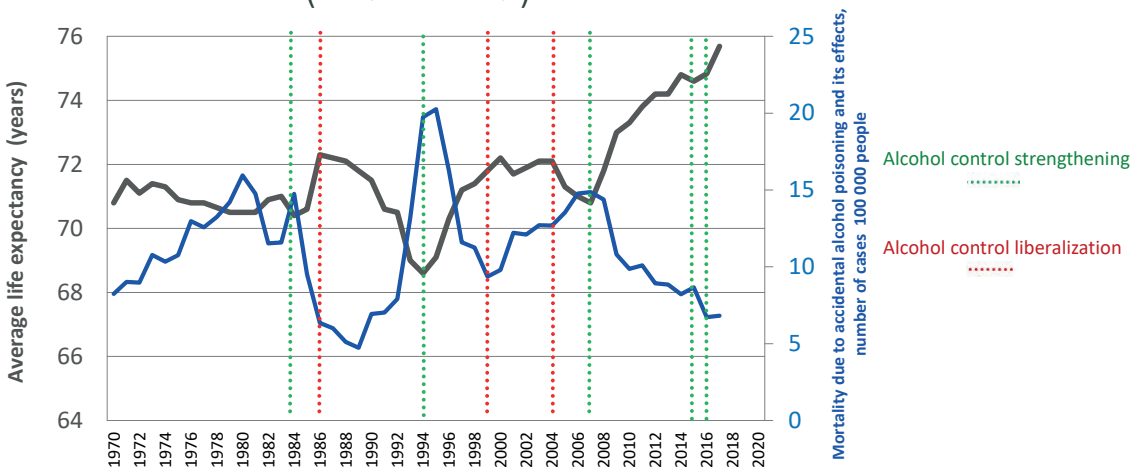
And for the countries in the region

	Infectious Diseases	Cancers	Cardio-vascular Diseases	Gastro-intestinal Diseases	Injuries	Other	Total Deaths Averted
CZE	33 (9-60)	132 (104-169)	141 (103-411)	92 (75-126)	18 (11-27)	105 (53-173)	522 (456-817)
EST	2 (1-3)	7 (6-9)	34 (15-66)	6 (5-9)	1 (1-2)	30 (2-60)	81 (46-129)
LTU	5 (3-8)	15 (11-19)	40 (9-110)	16 (13-22)	4 (2-6)	38 (0-83)	117 (72-200)
LVA	4 (2-6)	12 (9-16)	82 (23-174)	9 (8-13)	3 (2-5)	37 (0-83)	147 (75-246)
POL	53 (16-92)	230 (179-295)	431 (124-895)	155 (123-211)	30 (19-46)	449 (5-966)	1,348 (810-2,120)

But are these predicted effects real?

- I will present some results for Lithuania from the Health Research Institute and a NIAAA project

Impact of implemented alcohol control policies on mortality due to alcohol poisoning and life expectancy in Lithuania (1970-2017)



Source: Health Research Institute

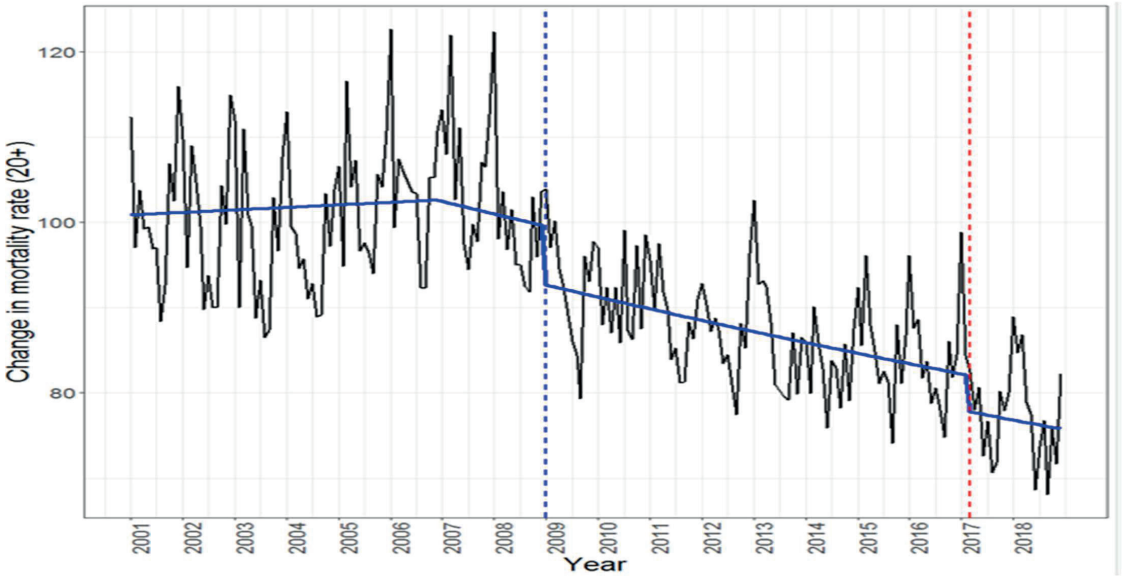
What happened 2017 with the biggest tax increase yet?

- Excise tax was increased by 112% for beer
- - by about the same percentage for wine
- - and by 23% for spirits

… the implementation of increased taxation in 2017 was associated with reduced mortality over and above the general trend for men and in total for all analyses, which amounted to 1452 deaths avoided (95% confidence interval = -166 to –2739) in the year following the implementation of the policy (Štelemėkas et al., 2021)

This result was stable in various sensitivity analyses! The real impact ws larger than the predicted impact

The effect: red dotted line is the 2017 intervention



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And contrary to some predictions it brought money to the government

- **243 million - 2016**
- **304 million - 2017**
- **323 million - 2018**
- **342 million - 2019**

Most overviews show, that taxation increases are associated with increases in revenue (WHO HQ guide, 2021)

And alcohol policy is also especially necessary because of COVID-19!

Did alcohol use contribute to the COVID-19 pandemic? (Morojele et al., 2021)

- Yes, by heavy drinking and alcohol use disorders weakening the immune system;
- Yes, by alcohol-attributable diseases contributing as risk factors for COVID;

Example of impact: analyses of 73 million US patients' records (Wang et al., 2021):

Exposure	Outcome	AOR (95% CI)	P-value
SUD	COVID-19	8.699 (8.411-8.997)	<1e-30
AUD	COVID-19	7.752 (7.04-8.536)	<1e-30

- Evidence on light drinking is mixed.

Conclusion

- Alcohol use is comparatively high in Central and Eastern EU countries
- And it causes high burden of disease
- We have alcohol control policies which could change this, in particular the best buys of
  - Availability restrictions
  - Ban of marketing, and
  - Taxation increases
- Taxation increases and other pricing policies are underutilized but promise not only health gains but also increases in revenues