

Alcohol-attributable injuries in the WHO European Region

Web annex – data sources and methods underlying the 2019 estimates





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Abstract

This web annex presents detailed country-specific estimates of alcohol-attributable injury mortality and disability in the WHO European Region, including age-standardized alcohol-attributable death rates, the proportion of injury deaths caused by alcohol and breakdowns by major injury categories. It also provides information on the data sources and methods used for the summary report Alcohol-attributable injuries in the WHO European Region: Overview of key findings based on 2019 data. By offering granular and comparable national data, this resource supports cross-country analysis and helps inform targeted planning, monitoring and evaluation of alcohol-attributable injury prevention policies.

Keywords: ALCOHOL DRINKING; INJURIES; PREVENTION AND CONTROL; PUBLIC HEALTH; VIOLENCE

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Methodology for modelling alcoholattributable burden of injuries



The annex describes the methodology underlying the short report Alcohol-attributable injuries in the WHO European Region: Overview of key findings based on 2019 data (1) and follows the standard WHO methodology used for regular updates of the WHO Global Health Observatory (2).

Estimating the number of deaths of drivers resulting from motor vehicle accidents

Estimates of motor vehicle deaths were stratified into those involving the driver and those involving others, using Formula S.1. This method estimates the number of deaths (D) among drivers (d) using the fraction (F) of injury events in a country that occurred among drivers by sex (indexed by i) and age (indexed by p, including people 15 years of age and older). These fractions were based on data obtained from the WHO road traffic deaths database (1). The method of estimating the number of road injuries involving drivers assumed that all motor vehicle accident injuries to drivers occurred among people aged 15 years or older (i.e. all road injuries sustained by people 0 to 14 years of age were determined to affect people other than the driver). For countries where data were not available, the fractions of injuries among drivers and among people other than the driver were imputed as the global burden of disease regional averages. To estimate the number of years of life lost (YLL), years lived with disability (YLD), and disability adjusted life years (DALYs) lost among drivers, the fraction of deaths among drivers compared to all road deaths (by age and sex) were used. All other road deaths, YLLs, YLDs and DALYs lost affected people other than the driver.

$$Dd_{p,i} = rac{F_i ullet F_p ullet \sum_{p=1}^{pn} \sum_{i=1}^{in} D_{p,i}}{D_{p,i}}$$
 Formula S.1

Estimating the population-attributable fractions for injuries

The fractions of injuries attributable to alcohol consumption were estimated according to formulas S.2a and S.2b. These formulae incorporate the PFD and PCD combined with the corresponding RRs. Formula S.2b accounts for the patterns of alcohol consumption (i.e. the prevalence of current drinkers who engage in heavy episodic drinking (HED) (PHED) and who do not engage in HED (PNHED)).

$$PAF = \frac{P_{FD} (RR_{FD} - 1) + P_{CD} (RR_{CD} - 1)}{P_{FD} (RR_{FD} - 1) + P_{CD} (RR_{CD} - 1) + 1}$$
 Formula S.2a

$$P_{FD} (RR_{FD} - 1)$$

$$= \int_{>0}^{60} P_{NHED}(x) RR_{NHED}(x) dx + \int_{>0}^{60} P_{HED}(x) RR_{HED}(x) dx$$

$$+ \int_{60}^{150} P_{HED}(x) RR_{HED}(x) dx - P_{CD}$$

Estimating the population-attributable fraction for road injuries sustained by people other than the driver

The PAFs for road injuries to people other than the driver (nd) were estimated in accordance with Formula S.3. Formula S.3 is based on the country-, sex- (indexed by p), and age- (indexed by i) specific deaths (D) and PAFs for road injuries affecting the driver. This method has multiple assumptions and limitations. Firstly, this method assumes that road injuries involving an intoxicated driver involve an equal number of passengers, as do accidents involving non-intoxicated drivers. Secondly, this method assumes that the distribution of the ages of passengers affected by road injuries involving intoxicated drivers is the same as the distribution of the ages of passengers affected by road injuries not involving intoxicated drivers. Lastly, this method does not account for non-intoxicated drivers killed or injured by intoxicated drivers.

Formula S.3

$$PAF_{nd} = \frac{\sum_{p=1}^{pn} \sum_{i=1}^{in} D_{p,i} \cdot PAF_{p,i}}{\sum_{p=1}^{pn} \sum_{i=1}^{in} D_{p,i}}$$

Modelling alcohol consumption for the estimation of alcohol-attributable mortality and morbidity

Alcohol consumption was modelled based on (i) the prevalence of different drinking statuses (current drinkers, former drinkers, lifetime abstainers), (ii) the average daily volume of alcohol consumption among current drinkers (measured in grams of ethanol per day), and (iii) the prevalence of HED (defined as drinking 60 grams or more of pure alcohol on one occasion in the past month among current drinkers). Data on alcohol consumption (drinking status and amount consumed by current drinkers) and binge drinking were obtained from the study by Manthey et al. (2). Data on drinking status and HED were available by year, age group (15–19, 20–24, 25–34, 35–49, 50–64, and 65 years of age and older), and sex.

The amount of alcohol consumed by current drinkers was modelled based on (i) per capita consumption of alcohol (obtained from the study by Manthey et al. (2)), (ii) age-specific prevalence of alcohol consumption, (iii) country- and year-specific estimates of relative average alcohol consumption by age and sex (obtained from the study by Manthey et al. (2)), and (iv) year-, sex- and age-specific population estimates.

When modelling the alcohol consumed by current drinkers, the per capita consumption of alcohol was adjusted using a correction factor of 0.8. This correction factor was used to account for (i) alcohol that was not consumed, and (ii) the underreporting of alcohol consumption in medical observation studies from which the RR estimates used in this study were obtained. (3) A study by Stockwell and colleagues found that cohort studies of the relationship between alcohol consumption and all-cause mortality had a coverage rate (when compared to per capita consumption) of 61.71% (4). The adjustment of survey data can be justified by the observation that the underreporting of alcohol consumption in medical epidemiology studies (5–7) is much less than in population surveys; population-level surveys underestimate alcohol consumption because, on average, such surveys ask many fewer questions that are used to measure alcohol consumption compared to the number of such questions asked in medical epidemiology studies (5–7). Furthermore, the undercoverage of population surveys is also affected by recruitment biases

(8). The method used to model alcohol consumption among current drinkers assumes that the undercoverage of alcohol consumption is constant by age and sex.

Average daily alcohol consumption among current drinkers was modelled using a Gamma distribution in accordance with the methodology outlined by Rehm et al. (9) and Kehoe et al. (10). This methodology was developed using data from over 60 individual surveys conducted in both developing and developed countries. Firstly, this method assumes that the average daily amount of alcohol consumed among current drinkers can be accurately modelled using a Gamma distribution, which was the case in the surveys examined by both Rehm and Kehoe and their respective colleagues. Secondly, this method assumes that the standard deviation of the Gamma distribution of alcohol consumption can be predicted on the basis of the mean consumption of alcohol. Both Rehm and Kehoe and their respective colleagues observed a strong correlation between the mean and the standard deviation of the Gamma distribution (an r of 0.971). Therefore, based on the mean alcohol consumed (μ) by age and sex, the standard deviation (σ) was estimated according to Formula S.4 (the coefficient of sex is 1 for women and 0 for men in Formula S.4)

Formula S.3

 $\hat{\sigma}_{shifted}$ = (1.171 + 0.087 * sex) * $\hat{\mu}_{shifted}$

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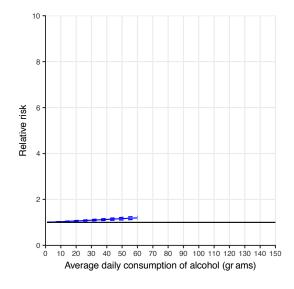
Sex:	Both (male and female)
Category:	Injuries / Unintentional injuries
ICD-10 codes:	V01–04, V06, V09–80, V87, V89, V99*
GHE 2015 cause category:	III.A.1
Causality:	World Health Organization, 2009 (11)

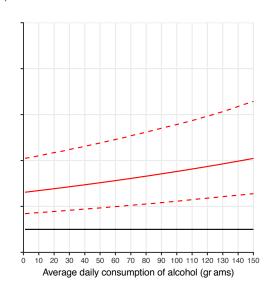
	Current drinkers (non-heavy episodic drinkers)	Current drinkers (heavy episodic drinkers)	Former drinkers
Relative risk function or estimate	$RR_{CD} = \exp(\beta_1 \cdot x)$ $\beta_1 = 0.00299550897979837$	RR _{CD} = exp $(\beta_1 \cdot x + \beta_2)$ $\beta_1 = 0.00299550897979837$ $\beta_2 = 0.959350221334602$	RR _{FD} = 1
Variance	Variance $(\beta_1) = 0.00050867822^2$	Variance co-variance matrix $(\beta_1, \beta_2) = $	$Variance(ln(RR_{FD})) = 0$
Comments		The covariances of the beta coefficients are unknown.	As the risk of injuries is dependent on acute alcohol consumption, former drinkers are assumed to have the same risk of injury as do lifetime abstainers.
Source	World Health Organization 2018 (12)	World Health Organization 2018 (12)	

x = grams of alcohol consumed per day among current drinkers

Heavy episodic drinking is defined as consuming 60 grams or more of alcohol on one drinking occasion in the past 30 days

Fig. S1. Relative risks and 95% confidence intervals for road injuries among male and female non-heavy episodic drinkers (blue) and heavy episodic drinkers (red)





Poisonings
Falls
Fire, heat and hot substances
Drowning
Exposure to mechanical forces
Other unintentional injuries

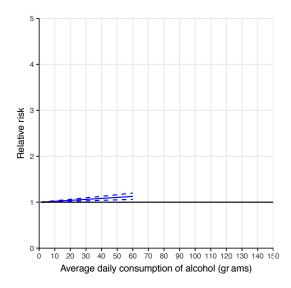
Sex:	Both (male and female)
Category:	Injuries / Unintentional injuries
ICD-10 codes:	See Table 1
GHE 2015 cause category:	III.A.2-6, III.A.8
Causality:	World Health Organization, 2009 (11)

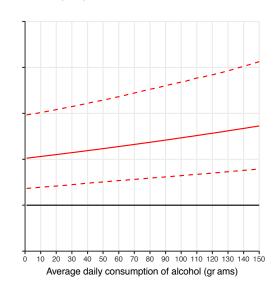
	Current drinkers (non-heavy episodic drinkers)	Current drinkers (heavy episodic drinkers)	Former drinkers
Relative risk function or estimate	$\beta_1 = 00199800266267306$	$\beta_1 = 00199800266267306$ $\beta_2 = 0.647103242058538$	RR _{FD} = 1
Variance	Variance $(\beta_1) = 0.000509186^2$	Variance co-variance matrix $(\beta_1, \beta_2) = $	$Variance(ln(RR_{FD})) = 0$
Comments	These RR functions are based on the risk of non-road injuries.	These RR functions are based on the risk of non-road injuries.	As the risk of injuries is dependent on acute alcohol consumption, former drinkers are assumed to have the same risk of injury as do lifetime abstainers.
Source	World Health Organization 2018 (12)	World Health Organization 2018 (12)	

x = grams of alcohol consumed per day among current drinkers

Heavy episodic drinking is defined as consuming 60 grams or more of alcohol on one drinking occasion in the past 30 days

Fig. S2. Relative risks and 95% confidence intervals for poisonings, falls, fire, heat and hot substances, drowning, exposure to mechanical forces, and other unintentional injuries among male and female non-heavy episodic drinkers (blue) and heavy episodic drinkers (red)





Self-harm Interpersonal violence

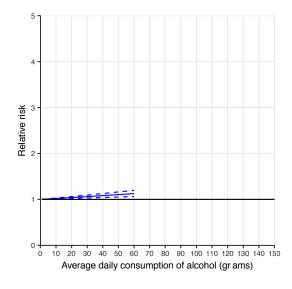
Sex:	Both (male and female)
Category:	Injuries / Intentional injuries
ICD-10 codes:	See Table 1
GHE 2015 cause category:	III.B.1-2
Causality:	World Health Organization, 2009 (11)

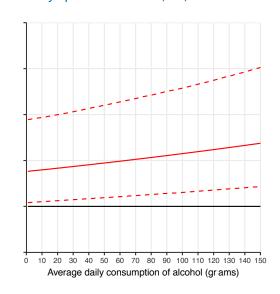
	Current drinkers (non-heavy episodic drinkers)	Current drinkers (heavy episodic drinkers)	Former drinkers
Relative risk function or estimate	$\beta_1 = 00199800266267306$	$\beta_1 = 00199800266267306$ $\beta_2 = 0.647103242058538$	RR _{FD} = 1
Variance	Variance $(\beta_1) = 0.000509186^2$	Variance co-variance matrix $(\beta_1, \beta_2) = $	$Variance(ln(RR_{FD})) = 0$
Comments	These RR functions are based on the risk of non-road injuries.	These RR functions are based on the risk of non-road injuries.	As the risk of injuries is dependent on acute alcohol consumption, former drinkers are assumed to have the same risk of injury as do lifetime abstainers.
Source	World Health Organization 2018 (12)	World Health Organization 2018 (12)	

x = grams of alcohol consumed per day among current drinkers

Heavy episodic drinking is defined as consuming 60 grams or more of alcohol on one drinking occasion in the past 30 days

Fig. S3. Relative risks and 95% confidence intervals for self-harm and interpersonal violence among male and female non-heavy episodic drinkers (blue) and heavy episodic drinkers (red)





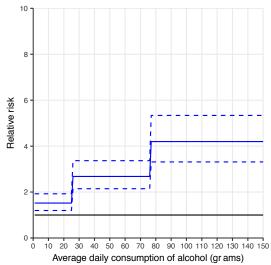
Road injury

Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Male
Category:	Injuries / Unintentional injuries
ICD-10 codes:	V01–04, V06, V09–80, V87, V89, V99
GHE 2015 cause category:	III.A.1
Causality:	World Health Organization, 2009 (11)

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(1.52) β_2 = ln(2.68) β_3 = ln(4.20)	RR _{FD} =1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (In(RR _{FD})) = 0
Comments	Covariances between β coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13,14</i>)	

Fig. S4. Relative risk with 95% confidence intervals for road injuries among male current drinkers (compared to lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



Road injury

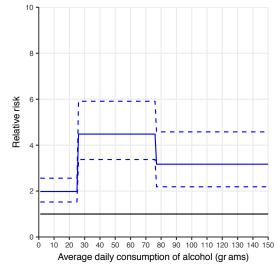
Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Female
Category:	Injuries / Unintentional injuries
ICD-10 codes:	V01-04, V06, V09-80, V87, V89, V99
GHE 2015 cause category:	III.A.1
Causality:	World Health Organization, 2009 (11)

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(1.98) β_2 = ln(4.48) β_3 = ln(3.17)	RR _{FD} =1
Variance	$ \begin{array}{ c c c c c } \text{Variance co-variance matrix } (\pmb{\beta}_1, \pmb{\beta}_2, \pmb{\beta}_3) \\ \hline & 0.132^2 & 0 & 0 \\ \hline & 0 & 0.144^2 & 0 \\ \hline & 0 & 0 & 0.189^2 \\ \hline \end{array} $	Variance (In(RR _{FD})) = 0
Comments	Covariances between β coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13,14</i>)	

x = grams of alcohol consumed per day among current drinkers

Fig. S5. Relative risk with 95% confidence intervals for road injuries among female current drinkers (compared to lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



Poisonings
Falls
Fire, heat and hot substances
Drowning
Exposure to mechanical forces
Other unintentional injuries

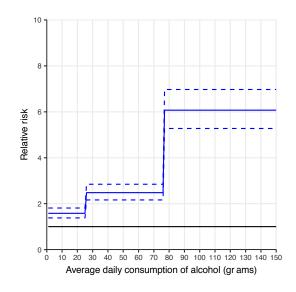
Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Male
Category:	Injuries / Unintentional injuries
ICD-10 codes:	See Table A.X
GHE 2015 cause category:	III.A.2-6, III.A.8
Causality:	World Health Organization, 2009 (11)

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(1.58) β_2 = ln(2.48) β_3 = ln(6.07)	RR _{FD} =1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (In(RR _{FD})) = 0
Comments	Covariances between β coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13, 14</i>)	

x = grams of alcohol consumed per day among current drinkers

Fig. S6. Relative risk with 95% confidence intervals for poisonings, falls, fire, heat and hot substances, drowning, exposure to mechanical forces, and other unintentional injuries among male current drinkers (compared to male lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



Poisonings
Falls
Fire, heat and hot substances
Drowning
Exposure to mechanical forces
Other unintentional injuries

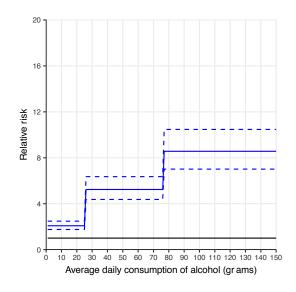
Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Female
Category:	Injuries / Unintentional injuries
ICD-10 codes:	See Table A.X
GHE 2015 cause category:	III.A.2-6, III.A.8
Causality:	World Health Organization, 2009 (11)

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(2.08) β_2 = ln(5.24) β_3 = ln(8.56)	RR _{FD} =1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (In(RR _{FD})) = 0
Comments	Covariances between β coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13, 14</i>)	

x = grams of alcohol consumed per day among current drinkers

Fig. S7. Relative risk with 95% confidence intervals for poisonings, falls, fire, heat and hot substances, drowning, exposure to mechanical forces, and other unintentional injuries among female current drinkers (compared to female lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



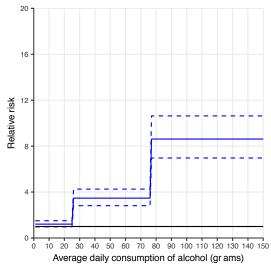
Self-harm

Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Male
Category:	Injuries / Unintentional injuries
ICD-10 codes:	X60-84, Y870
GHE 2015 cause category:	III.B.1
Causality:	World Health Organization,

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(1.21) β_2 = ln(3.47) β_3 = ln(8.62)	RR _{FD} =1
Variance	$ \begin{array}{ c c c c c } \mbox{Variance co-variance matrix } (\pmb{\beta}_1, \pmb{\beta}_2, \pmb{\beta}_3) \\ \hline & 0.113^2 & 0 & 0 \\ \hline & 0 & 0.106^2 & 0 \\ \hline & 0 & 0 & 0.107^2 \\ \hline \end{array} $	Variance (In(RR _{FD})) = 0
Comments	Covariances between $oldsymbol{eta}$ coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13</i> , <i>14</i>)	

Fig. S8. Relative risk with 95% confidence intervals for self-harm among male current drinkers (compared to male lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



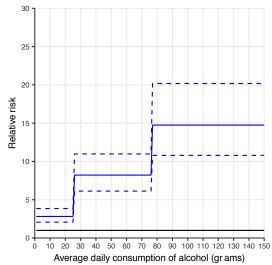
Self-harm

Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Female
Category:	Injuries / Unintentional injuries
ICD-10 codes:	X60-84, Y870
GHE 2015 cause category:	III.B.1
Causality:	World Health Organization,

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(2.82) β_2 = ln(8.22) β_3 = ln(14.75)	RR _{FD} = 1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (ln(RR _{FD})) = 0
Comments	Covariances between $oldsymbol{eta}$ coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (<i>13, 14</i>)	

Fig. S9. Relative risk with 95% confidence intervals for self-harm among female current drinkers (compared to female lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



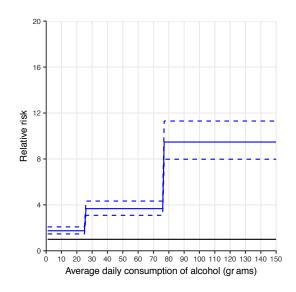
Interpersonal violence

Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Male
Category:	Injuries / Unintentional injuries
ICD-10 codes:	X85-Y09, Y871
GHE 2015 cause category:	II.B.2
Causality:	World Health Organization,

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) β_1 = ln(1.75) β_2 = ln(3.67) β_3 = ln(9.47)	RR _{FD} = 1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (In(RR _{FD})) = 0
Comments	Covariances between $oldsymbol{eta}$ coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze et al., 2009 (13, 14)	

Fig. S10. Relative risk with 95% confidence intervals for interpersonal violence among male current drinkers (compared to male lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



Interpersonal violence

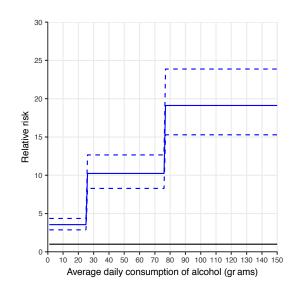
Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine

Sex:	Female
Category:	Injuries / Unintentional injuries
ICD-10 codes:	X85-Y09, Y871
GHE 2015 cause category:	II.B.2
Causality:	World Health Organization, 2009 (11)

	Current drinkers	Former drinkers
Relative risk function or estimate	If(x>25.36) RR _{CD} = exp(β_1) If(76.08>x≥25.36) RR _{CD} = exp(β_2) If(x≥76.08) RR _{CD} = exp(β_3) $\beta_1 = \ln(3.55) \beta_2 = \ln(10.23) \beta_3 = \ln(19.11)$	RR _{FD} = 1
Variance	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Variance (In(RR _{FD})) = 0
Comments	Covariances between $oldsymbol{eta}$ coefficients are unknown	The risk of injuries among former drinkers was assumed to be the same as for lifetime abstainers.
Source	Zaridze <i>et al.</i> , 2009 (13, 14)	

x = grams of alcohol consumed per day among current drinkers

Fig. S11. Relative risk with 95% confidence intervals for interpersonal violence among female current drinkers (compared to male lifetime abstainers) for Belarus, Estonia, Latvia, Lithuania, Republic of Moldova, the Russian Federation and Ukraine



Regional and country-specific estimates



Fig. S12. Alcohol-attributable injury DALYs in the WHO European Region in 2019, by country: (i) agestandardized rate of injury DALYs and (ii) proportion of all injury DALYs

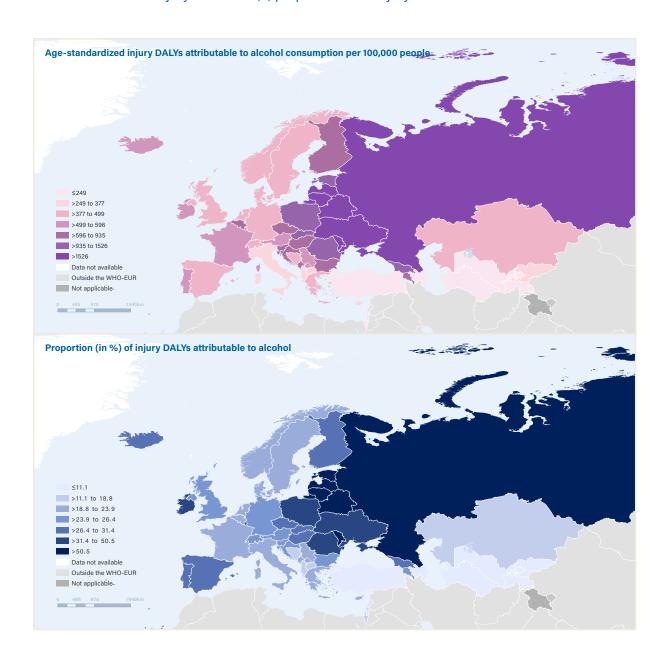


Fig. S13. Injury deaths caused by alcohol use in the WHO European Region in 2019, by age and sex.

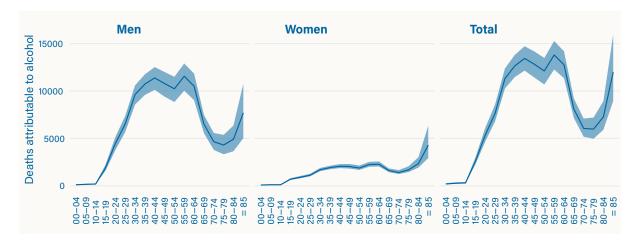


Fig. S14. Alcohol-attributable injury deaths in the WHO European Region, 2000-2019.

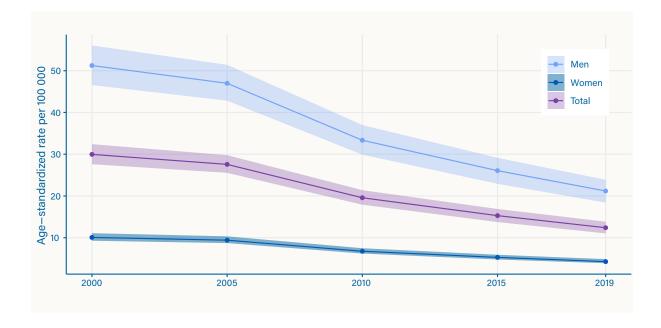


Table S1. Alcohol consumption, percentage of drinkers, and heavy episodic drinkers in the WHO Europe Region by country and sex, in 2019

Region / Country	C	ult per cap onsumptio pure alcoh	n	[Orinkers (%	o)		eavy episoo Irinkers (%	
	Men	Women	Total	Men	Women	Total	Men	Women	Total
WHO European Region	14.9	4.0	9.2	70.7%	54.9%	62.4%	34.0%	12.8%	23.0%
Albania	8.4	1.9	5.1	63.1%	37.4%	50.2%	13.8%	4.1%	8.9%
Andorra	16.9	5.0	11.1	87.6%	79.2%	83.5%	56.0%	29.0%	43.3%
Armenia	8.7	2.2	5.0	62.2%	41.8%	50.6%	39.7%	16.6%	27.2%
Austria	18.8	5.5	12.0	86.7%	73.8%	80.1%	44.3%	19.0%	31.4%
Azerbaijan	3.5	0.5	2.0	22.4%	9.4%	15.6%	8.3%	2.0%	4.9%
Belarus	18.2	4.9	10.9	78.3%	61.6%	69.1%	37.6%	13.6%	24.7%
Belgium	16.2	4.7	10.3	84.9%	70.7%	77.7%	40.8%	16.4%	28.4%
Bosnia and Herzegovina	10.7	2.2	6.4	55.8%	31.8%	43.5%	15.7%	4.4%	9.7%
Bulgaria	19.5	4.9	11.9	76.5%	56.7%	66.2%	30.1%	9.7%	19.4%
Croatia	13.8	3.7	8.5	78.3%	60.2%	68.9%	39.0%	14.4%	26.5%
Cyprus	12.7	3.4	8.1	78.2%	58.9%	68.5%	29.3%	9.9%	19.4%
Czechia	21.1	5.8	13.3	82.7%	68.0%	75.2%	50.0%	22.3%	36.0%
Denmark	14.6	4.3	9.4	85.0%	71.3%	78.1%	42.4%	17.7%	30.0%
Estonia	18.4	5.1	11.3	82.4%	67.9%	74.6%	38.6%	14.2%	25.7%
Finland	14.4	4.1	9.2	85.3%	71.0%	78.0%	48.5%	21.0%	34.8%
France	18.0	5.1	11.3	84.6%	70.2%	77.1%	40.1%	16.2%	27.6%
Georgia	24.3	5.9	14.3	67.3%	47.4%	56.5%	37.6%	13.9%	25.0%
Germany	19.2	5.5	12.2	86.1%	72.4%	79.1%	42.5%	17.5%	29.8%
Greece	11.3	3.1	7.1	80.7%	62.6%	71.4%	35.4%	12.6%	23.8%
Hungary	17.2	4.7	10.6	80.7%	64.0%	71.9%	47.3%	19.5%	33.0%
Iceland	12.3	3.7	8.1	85.9%	73.0%	79.6%	54.0%	25.8%	40.5%
Ireland	18.1	5.6	11.7	88.3%	78.8%	83.4%	55.8%	29.9%	42.6%
Israel	4.8	1.3	3.0	70.9%	50.1%	60.3%	21.3%	7.3%	14.2%
Italy	12.7	3.5	8.0	83.3%	66.9%	74.8%	39.3%	14.5%	26.6%

Table S1. continued

Region / Country	C	ult per cap onsumptio pure alcoh	n		Drinkers (%)			Heavy episodic drinkers (%)		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	
Kazakhstan	8.1	1.4	4.5	33.9%	16.3%	24.5%	13.0%	3.5%	7.8%	
Kyrgyzstan	8.7	1.5	5.0	25.4%	11.4%	18.2%	10.6%	2.9%	6.4%	
Latvia	21.7	6.0	13.1	83.0%	68.8%	75.2%	39.8%	14.9%	26.3%	
Lithuania	19.3	5.4	11.8	82.6%	68.4%	74.9%	39.0%	14.5%	26.0%	
Luxembourg	17.6	5.4	11.5	88.9%	80.1%	84.5%	58.5%	31.8%	45.5%	
Malta	13.0	3.8	8.5	86.0%	71.6%	79.0%	53.3%	24.1%	39.4%	
Montenegro	16.9	4.3	10.3	72.9%	52.8%	62.5%	26.9%	8.8%	17.5%	
Netherlands (Kingdom of the)	14.5	4.2	9.3	84.5%	70.5%	77.4%	40.4%	16.4%	28.3%	
North Macedonia	7.7	1.6	4.6	54.7%	31.3%	42.9%	14.7%	4.3%	9.2%	
Norway	10.5	3.1	6.8	84.0%	69.9%	76.9%	41.1%	16.3%	28.9%	
Poland	18.7	5.2	11.6	81.9%	66.1%	73.7%	49.0%	21.2%	34.7%	
Portugal	16.9	4.8	10.4	85.7%	71.4%	78.1%	53.2%	24.6%	38.2%	
Republic of Moldova	18.5	5.1	11.4	78.4%	62.0%	69.6%	38.0%	14.3%	25.7%	
Romania	27.3	7.5	17.0	83.6%	69.0%	76.0%	52.3%	24.4%	37.8%	
Russian Federation	17.9	4.2	10.4	71.4%	47.5%	58.4%	30.4%	7.4%	18.0%	
Serbia	12.9	3.4	7.9	75.6%	55.7%	65.2%	32.3%	10.9%	21.3%	
Slovakia	16.7	4.6	10.5	81.7%	65.7%	73.5%	48.8%	21.0%	34.7%	
Slovenia	17.3	4.7	11.0	80.7%	64.4%	72.5%	38.7%	14.5%	26.7%	
Spain	17.3	4.9	10.9	86.0%	71.9%	78.7%	45.8%	19.3%	32.3%	
Sweden	14.4	4.2	9.3	84.5%	70.1%	77.3%	40.5%	16.3%	28.5%	
Switzerland	16.2	4.8	10.4	86.6%	74.3%	80.4%	45.1%	19.5%	32.2%	
Tajikistan	1.5	0.2	0.9	16.8%	7.1%	11.9%	5.6%	1.5%	3.5%	
Turkmenistan	5.1	0.8	2.9	23.5%	10.3%	16.8%	9.0%	2.4%	5.5%	
Türkiye	3.2	0.4	1.8	14.9%	5.7%	10.3%	4.5%	0.9%	2.6%	
Ukraine	14.6	3.8	8.7	76.1%	57.6%	66.0%	30.1%	9.6%	19.2%	
United Kingdom	17.0	4.9	10.8	85.3%	71.5%	78.3%	42.3%	17.7%	29.8%	
Uzbekistan	4.5	0.7	2.6	20.9%	8.8%	14.8%	8.0%	2.0%	4.8%	

Table S2. Alcohol-attributable injury deaths, age-standardized injury death rate and proportion of all injury deaths attributable to alcohol in the WHO Europe Region by country and sex, in 2019

Region / Country	Attri	butable de	eaths	_	-standardi s rate per 10		% of all deaths			
	Men	Women	Total	Men	Women	Total	Men	Women	Total	
WHO European Region	116 171	28 439	144610	21.2	4.3	12.4	36.5%	19.4%	31.1%	
Albania	96	15	111	5.95	0.82	3.39	14.7%	5.1%	11.7%	
Armenia	270	68	338	18.17	3.27	10.06	31.4%	20.7%	28.4%	
Austria	850	188	1 039	13.47	2.37	7.69	29.5%	10.8%	22.4%	
Azerbaijan	221	20	241	4.22	0.38	2.25	9.4%	2.7%	7.8%	
Belarus	2 824	790	3 614	51.44	10.63	29.24	55.4%	51.1%	54.4%	
Belgium	1 088	284	1 372	13.87	2.88	8.22	27.9%	9.4%	19.8%	
Bosnia and Herzegovina	177	22	199	8.92	0.95	4.85	16.6%	6.3%	14.0%	
Bulgaria	525	82	606	12.58	1.94	7.19	27.3%	11.6%	23.1%	
Croatia	418	91	509	15.01	2.21	8.21	26.9%	8.5%	19.4%	
Cyprus	52	9	61	7.20	1.04	4.01	22.4%	6.7%	16.9%	
Czechia	1 224	257	1 481	17.72	3.07	10.12	33.9%	14.2%	27.3%	
Denmark	316	72	389	7.99	1.50	4.65	27.7%	9.6%	20.5%	
Estonia	243	99	342	29.75	8.30	18.43	54.7%	50.4%	53.4%	
Finland	629	127	756	16.21	2.76	9.25	30.6%	11.9%	24.2%	
France	6 028	1 470	7 498	12.96	2.25	7.28	27.4%	9.2%	19.7%	
Georgia	508	71	579	24.40	2.75	13.07	32.2%	14.2%	27.8%	
Germany	7 022	1 412	8 434	10.38	1.79	5.90	28.0%	10.0%	21.5%	
Greece	776	144	921	10.15	1.50	5.74	25.2%	7.9%	18.8%	
Hungary	1 070	247	1 317	17.23	3.17	9.63	31.9%	12.9%	25.0%	
Iceland	25	6	32	12.37	2.33	7.34	32.5%	12.1%	24.3%	
Ireland	308	66	374	11.30	2.16	6.64	36.3%	18.4%	31.0%	
Israel	196	30	226	4.56	0.58	2.52	15.5%	4.6%	11.8%	
Italy	3 697	869	4 567	7.64	1.28	4.30	25.9%	8.0%	18.2%	
Kazakhstan	1 092	168	1 260	12.41	1.76	6.81	13.8%	6.8%	12.1%	
Kyrgyzstan	225	35	260	7.90	1.15	4.40	12.6%	5.9%	10.9%	

Table S2. continued

Region / Country	Attri	butable de	aths	_	-standardi s rate per 10		% of all deaths			
	Men	Women	Total	Men	Women	Total	Men	Women	Total	
Latvia	606	227	833	54.26	12.06	31.78	57.8%	52.8%	56.4%	
Lithuania	910	340	1 250	54.44	11.64	31.60	56.3%	51.2%	54.8%	
Luxembourg	53	16	69	12.54	3.18	7.71	35.1%	15.5%	27.0%	
Malta	27	6	33	8.96	1.78	5.30	33.0%	14.1%	26.4%	
Montenegro	55	8	62	14.73	1.95	8.15	22.7%	8.8%	19.0%	
Netherlands (Kingdom of the)	1 125	366	1 491	8.75	2.07	5.25	25.6%	8.3%	16.9%	
North Macedonia	63	7	70	4.99	0.59	2.76	13.6%	4.0%	10.8%	
Norway	335	78	413	9.04	1.75	5.31	25.1%	8.1%	18.0%	
Poland	4 388	751	5 139	19.27	2.69	10.74	35.7%	16.0%	30.2%	
Portugal	1 154	277	1 430	15.04	2.39	8.23	34.6%	13.8%	26.8%	
Republic of Moldova	1 053	261	1 314	45.14	9.26	25.98	54.1%	48.8%	52.9%	
Romania	2 692	462	3 154	22.01	3.47	12.43	37.6%	20.6%	33.6%	
Russian Federation	49 875	13 646	63 521	63.03	13.76	36.59	54.3%	46.1%	52.3%	
Serbia	507	79	587	9.51	1.35	5.32	25.7%	10.3%	21.4%	
Slovakia	725	130	855	21.37	3.05	11.66	33.2%	13.2%	27.0%	
Slovenia	232	48	280	15.61	1.99	8.57	26.5%	7.6%	18.6%	
Spain	2 887	672	3 558	8.16	1.52	4.71	30.5%	11.2%	23.0%	
Sweden	753	164	918	10.91	2.07	6.41	26.5%	9.1%	19.8%	
Switzerland	621	160	781	9.37	1.83	5.44	27.5%	9.6%	19.9%	
Tajikistan	167	20	187	4.27	0.53	2.38	6.2%	2.1%	5.1%	
Turkmenistan	151	22	173	5.75	0.78	3.13	9.7%	3.9%	8.2%	
Türkiye	759	88	846	1.82	0.20	0.99	5.5%	1.4%	4.2%	
Ukraine	12 402	2 903	15 304	50.44	9.16	28.53	52.2%	48.2%	51.4%	
United Kingdom	3 954	955	4 909	8.82	1.80	5.21	28.9%	10.7%	21.7%	
Uzbekistan	796	111	907	5.01	0.69	2.80	9.6%	3.8%	8.1%	

Table S3. Alcohol-attributable injury DALYs, age-standardized injury DALYs rate and proportion of all injury DALYs attributable to alcohol in the WHO Europe Region by country and sex, in 2019

Region / Country	Attr	ibutable D <i>i</i>	ALYs	_	andardized e per 100 (% of all DALYs			
	Men	Women	Total	Men	Women	Total	Men	Women	Total	
WHO European Region	6 878 713	2 141 258	9 019 970	1 356.7	382.0	860.3	37.2%	23.1%	32.5%	
Albania	8 998	1 456	10 453	570.6	95.6	336.0	15.4%	5.7%	12.5%	
Armenia	16 230	4 157	20 387	1 128.1	236.8	651.5	30.0%	16.5%	25.7%	
Austria	47 436	12 468	59 904	904.3	228.3	564.4	33.1%	14.6%	26.2%	
Azerbaijan	16 162	1 954	18 116	303.2	36.5	167.7	9.3%	2.8%	7.4%	
Belarus	156 244	58 875	215 119	2 963.7	926.7	1 887.5	54.6%	50.5%	53.4%	
Belgium	61 741	17 697	79 438	941.4	251.6	596.7	31.2%	12.2%	23.2%	
Bosnia and Herzegovina	13 193	2 307	15 500	715.0	120.3	417.0	16.6%	6.3%	13.3%	
Bulgaria	44 485	9 874	54 359	1 141.2	256.8	700.5	29.4%	13.7%	24.3%	
Croatia	28 543	7 386	35 929	1 189.4	271.3	722.5	31.0%	12.8%	24.0%	
Cyprus	3 682	749	4 431	545.9	111.1	328.2	25.6%	9.0%	19.5%	
Czechia	89 957	26 428	116 384	1 455.3	415.9	934.3	37.4%	20.3%	31.4%	
Denmark	20 672	5 921	26 593	626.3	175.1	400.5	31.1%	13.1%	23.8%	
Estonia	14 656	7 148	21 804	1 948.0	824.9	1 369.3	53.6%	50.6%	52.6%	
Finland	36 121	9 887	46 008	1 131.5	304.7	718.0	33.4%	15.3%	26.7%	
France	317 518	90 427	407 945	868.9	221.6	536.6	30.8%	12.7%	23.4%	
Georgia	33 378	5 636	39 014	1 668.1	250.9	938.7	32.7%	15.8%	28.3%	
Germany	365 577	103 077	468 654	712.9	195.4	454.4	31.9%	13.3%	24.4%	
Greece	42 955	9 439	52 394	716.7	155.2	435.8	29.0%	11.4%	22.7%	
Hungary	70 881	22 059	92 940	1 264.9	366.3	799.2	35.0%	17.5%	28.3%	
Iceland	1 658	436	2 094	904.2	228.0	568.7	35.0%	17.3%	28.8%	
Ireland	22 316	6 859	29 174	870.3	256.5	560.4	37.8%	21.4%	32.0%	
Israel	15 015	3 055	18 070	372.8	72.0	221.5	17.1%	6.3%	13.3%	
Italy	219 159	49 491	268 650	604.4	126.3	362.8	30.4%	11.3%	23.2%	
Kazakhstan	68 856	12 978	81 834	773.5	137.6	444.8	14.0%	6.9%	12.0%	
Kyrgyzstan	15 031	2 760	17 791	505.4	89.0	292.2	12.2%	5.4%	10.2%	

Table S3. continued

Region / Country	Attr	ibutable D	ALYs	_	andardized e per 100 (% of all DALYs			
	Men	Women	Total	Men	Women	Total	Men	Women	Total	
Latvia	32 326	13 088	45 414	3 143.7	966.8	2 013.9	57.0%	53.1%	55.8%	
Lithuania	47 671	19 782	67 453	3 125.5	981.7	2 013.8	55.7%	51.9%	54.5%	
Luxembourg	3 261	1 099	4 360	877.8	294.3	589.0	38.8%	20.8%	31.8%	
Malta	1 984	577	2 561	767.4	225.8	501.0	35.8%	17.3%	28.9%	
Montenegro	3 840	777	4 616	1 109.6	224.5	663.5	25.5%	11.4%	21.1%	
Netherlands (Kingdom of the)	58 907	19 387	78 293	581.8	177.5	379.1	29.4%	11.6%	21.3%	
North Macedonia	5 755	1 022	6 777	477.5	88.2	283.9	15.7%	5.7%	12.4%	
Norway	20 797	5 770	26 567	659.5	184.3	425.3	29.0%	11.4%	21.7%	
Poland	332 132	82 705	414 837	1 542.8	365.0	947.1	37.5%	20.5%	32.2%	
Portugal	51 602	13 535	65 137	858.1	192.2	510.0	37.4%	17.6%	30.3%	
Republic of Moldova	58 560	20 746	79 307	2 567.4	813.6	1 651.3	52.7%	48.5%	51.5%	
Romania	180 559	45 986	226 545	1 610.4	408.2	1 002.2	38.8%	22.8%	34.0%	
Russian Federation	2 843 909	1 004 077	3 847 987	3 710.6	1 110.0	2 344.8	53.0%	45.5%	50.8%	
Serbia	43 617	10 473	54 089	882.9	207.0	541.5	27.6%	12.5%	22.4%	
Slovakia	50 210	11 265	61 474	1 564.6	339.8	939.5	36.0%	18.0%	30.4%	
Slovenia	16 356	3 736	20 092	1 292.1	280.2	792.1	31.1%	12.5%	24.4%	
Spain	176 994	56 680	233 674	625.7	196.4	409.4	34.1%	15.5%	26.4%	
Sweden	44 086	11 903	55 989	774.0	208.9	493.8	29.9%	12.3%	22.9%	
Switzerland	38 912	11 975	50 887	740.2	217.0	477.5	31.7%	13.6%	24.1%	
Tajikistan	11 162	1 508	12 670	267.6	35.2	150.6	5.6%	1.7%	4.4%	
Turkmenistan	10 367	1 762	12 129	367.5	59.3	208.4	9.3%	3.5%	7.5%	
Türkiye	50 978	6 971	57 949	121.2	16.3	68.0	5.6%	1.6%	4.3%	
Ukraine	758 881	238 905	997 787	3 191.9	841.2	1 966.8	51.2%	46.7%	50.0%	
United Kingdom	248 185	75 655	323 839	661.6	193.5	425.5	31.9%	14.0%	24.5%	
Uzbekistan	57 199	9 353	66 552	347.6	56.7	199.9	9.3%	3.4%	7.5%	

Table S4. Change between 2000 and 2019 in alcohol-attributable injury deaths and proportion of all injury deaths attributable to alcohol in the WHO Europe Region by cause of injury

Cause	Age-star	ndardized d per 100 00		% of all deaths				
Cause	2000	2019	Relative change (%)	2000	2019	Relative change (%)		
Injuries	30.0	12.4	-58.6%	40.4%	31.1%	-23.1%		
Unintentional injuries	17.1	7.3	-57.4%	37.4%	28.2%	-24.7%		
Road injury	6.0	2.4	-60.4%	42.0%	35.4%	-15.9%		
Poisonings	1.1	0.4	-67.5%	44.9%	39.1%	-13.0%		
Falls	2.1	1.2	-41.6%	27.8%	21.6%	-22.1%		
Fire, heat and hot substances	1.1	0.4	-64.0%	39.7%	34.3%	-13.5%		
Drowning	1.9	0.6	-68.8%	38.5%	33.1%	-14.0%		
Exposure to mechanical forces	0.6	0.3	-54.8%	38.7%	34.0%	-12.0%		
Other unintentional injuries	4.2	2.0	-51.8%	36.5%	25.7%	-29.5%		
Intentional injuries	12.8	5.1	-60.2%	45.5%	37.5%	-17.6%		
Self-harm	8.9	4.0	-55.1%	44.6%	36.8%	-17.5%		
Interpersonal violence	3.9	1.1	-72.1%	53.7%	41.8%	-22.2%		

Table S5. Change between 2000 and 2019 in alcohol-attributable injury DALYs and proportion of all injury DALYs attributable to alcohol in the WHO Europe Region by cause of injury

Cause	_	dardized D per 100 000		% of all DALYs			
Cause	2000	2019	Relative change (%)	2000	2019	Relative change (%)	
Injuries	1 852.9	860.3	-53.6%	39.8%	32.5%	-18.4%	
Unintentional injuries	1 197.0	600.4	-49.8%	37.3%	30.7%	-17.6%	
Road injury	419.9	190.9	-54.5%	42.5%	37.2%	-12.5%	
Poisonings	54.1	18.2	-66.3%	42.1%	36.0%	-14.3%	
Falls	233.8	161.8	-30.8%	32.8%	26.3%	-19.6%	
Fire, heat and hot substances	66.1	27.4	-58.6%	35.8%	30.8%	-14.1%	
Drowning	98.3	28.8	-70.7%	34.9%	30.4%	-13.0%	
Exposure to mechanical forces	92.4	60.2	-34.8%	35.8%	31.4%	-12.2%	
Other unintentional injuries	232.4	113.1	-51.3%	36.6%	29.9%	-18.4%	
Intentional injuries	655.8	259.9	-60.4%	45.5%	38.0%	-16.5%	
Self-harm	437.6	191.5	-56.2%	46.1%	38.8%	-15.8%	
Interpersonal violence	218.3	68.4	-68.6%	50.9%	38.8%	-23.8%	

Table S6. Change between 2000 and 2019 in alcohol-attributable injury deaths and proportion of all injury deaths attributable to alcohol in the WHO Europe Region by country

	Age-		zed deaths rate 00 000		% of all deaths			
Region / Country	2000	2019	Relative change (%)	2000	2019	Relative change (%)		
WHO European Region	30.0	12.4	-58.6%	40.4%	31.1%	-23.1%		
Albania	6.5	3.4	-48.1%	12.7%	11.7%	-7.3%		
Armenia	10.7	10.1	-5.8%	23.6%	28.4%	20.6%		
Austria	13.6	7.7	-43.4%	28.8%	22.4%	-22.0%		
Azerbaijan	2.4	2.2	-8.0%	5.8%	7.8%	35.2%		
Belarus	72.0	29.2	-59.4%	58.0%	54.4%	-6.2%		
Belgium	15.3	8.2	-46.4%	26.2%	19.8%	-24.5%		
Bosnia and Herzegovina	6.0	4.9	-19.8%	13.9%	14.0%	0.4%		
Bulgaria	11.5	7.2	-37.6%	23.2%	23.1%	-0.6%		
Croatia	15.7	8.2	-47.8%	26.9%	19.4%	-28.0%		
Cyprus	8.5	4.0	-52.9%	22.8%	16.9%	-26.2%		
Czechia	18.3	10.1	-44.7%	31.5%	27.3%	-13.2%		
Denmark	10.8	4.6	-56.8%	23.0%	20.5%	-11.0%		
Estonia	56.3	18.4	-67.3%	52.1%	53.4%	2.5%		
Finland	17.2	9.2	-46.3%	29.7%	24.2%	-18.5%		
France	14.7	7.3	-50.6%	25.4%	19.7%	-22.4%		
Georgia	12.3	13.1	6.1%	25.2%	27.8%	10.2%		
Germany	9.8	5.9	-39.7%	27.4%	21.5%	-21.4%		
Greece	10.5	5.7	-45.3%	32.1%	18.8%	-41.6%		
Hungary	20.9	9.6	-54.0%	27.1%	25.0%	-7.9%		
celand	12.1	7.3	-39.4%	31.5%	24.3%	-22.9%		
reland	14.1	6.6	-52.7%	35.1%	31.0%	-11.7%		
srael	4.9	2.5	-48.8%	13.8%	11.8%	-14.5%		
Italy	9.6	4.3	-55.2%	25.8%	18.2%	-29.6%		
Kazakhstan	18.6	6.8	-63.5%	14.9%	12.1%	-18.9%		
Kyrgyzstan	8.6	4.4	-48.7%	10.2%	10.9%	7.3%		

Table S6. continued

Decien / Count	Age-		zed deaths rate 00 000		% of all deaths			
Region / Country	2000	2019	Relative change (%)	2000	2019	Relative change (%)		
Latvia	65.1	31.8	-51.2%	51.2%	56.4%	10.1%		
Lithuania	67.1	31.6	-52.9%	55.5%	54.8%	-1.2%		
Luxembourg	16.7	7.7	-53.9%	31.9%	27.0%	-15.3%		
Malta	6.8	5.3	-21.8%	25.2%	26.4%	4.8%		
Montenegro	12.6	8.2	-35.1%	21.4%	19.0%	-10.9%		
Netherlands (Kingdom of the)	7.0	5.3	-24.5%	25.1%	16.9%	-32.5%		
North Macedonia	5.1	2.8	-45.9%	12.9%	10.8%	-16.1%		
Norway	9.9	5.3	-46.4%	21.5%	18.0%	-16.0%		
Poland	18.6	10.7	-42.2%	32.0%	30.2%	-5.4%		
Portugal	14.4	8.2	-42.9%	37.0%	26.8%	-27.6%		
Republic of Moldova	43.0	26.0	-39.5%	49.0%	52.9%	7.9%		
Romania	19.8	12.4	-37.3%	34.6%	33.6%	-3.2%		
Russian Federation	96.5	36.6	-62.1%	55.1%	52.3%	-5.1%		
Serbia	11.0	5.3	-51.7%	21.7%	21.4%	-1.5%		
Slovakia	17.3	11.7	-32.5%	34.1%	27.0%	-20.9%		
Slovenia	17.6	8.6	-51.3%	26.7%	18.6%	-30.3%		
Spain	11.7	4.7	-59.6%	34.1%	23.0%	-32.5%		
Sweden	8.3	6.4	-22.4%	22.6%	19.8%	-12.7%		
Switzerland	10.9	5.4	-50.0%	25.3%	19.9%	-21.5%		
Tajikistan	3.7	2.4	-35.8%	4.8%	5.1%	6.2%		
Turkmenistan	5.9	3.1	-47.2%	8.5%	8.2%	-4.3%		
Türkiye	1.5	1.0	-36.3%	4.7%	4.2%	-11.5%		
Ukraine	61.4	28.5	-53.5%	54.1%	51.4%	-5.1%		
United Kingdom	7.6	5.2	-31.2%	26.9%	21.7%	-19.5%		
Uzbekistan	5.0	2.8	-44.2%	8.0%	8.1%	1.3%		

Table S7. Change between 2000 and 2019 in alcohol-attributable injury DALYs and proportion of all injury DALYs attributable to alcohol in the WHO Europe Region by country

Region / Country	Age-standardized DALYs rate per 100 000			% of all DALYs		
	2000	2019	Relative change (%)	2000	2019	Relative change (%)
WHO European Region	1 852.9	860.3	-53.6%	39.8%	32.5%	-18.4%
Albania	533.6	336.0	-37.0%	12.0%	12.5%	4.3%
Armenia	721.5	651.5	-9.7%	20.7%	25.7%	24.4%
Austria	948.2	564.4	-40.5%	31.2%	26.2%	-15.9%
Azerbaijan	173.9	167.7	-3.6%	5.3%	7.4%	40.1%
Belarus	4 173.2	1 887.5	-54.8%	56.7%	53.4%	-5.8%
Belgium	1 054.9	596.7	-43.4%	28.9%	23.2%	-20.0%
Bosnia and Herzegovina	455.1	417.0	-8.4%	12.4%	13.3%	7.3%
Bulgaria	937.9	700.5	-25.3%	24.4%	24.3%	-0.2%
Croatia	1 193.4	722.5	-39.5%	29.7%	24.0%	-19.4%
Cyprus	605.1	328.2	-45.8%	24.4%	19.5%	-19.9%
Czechia	1 403.4	934.3	-33.4%	35.0%	31.4%	-10.2%
Denmark	709.8	400.5	-43.6%	27.5%	23.8%	-13.5%
Estonia	3 330.6	1 369.3	-58.9%	50.6%	52.6%	4.0%
Finland	1 210.2	718.0	-40.7%	31.5%	26.7%	-15.2%
France	963.3	536.6	-44.3%	29.5%	23.4%	-20.8%
Georgia	858.0	938.7	9.4%	24.8%	28.3%	14.0%
Germany	713.0	454.4	-36.3%	30.2%	24.4%	-19.3%
Greece	762.8	435.8	-42.9%	31.4%	22.7%	-27.8%
Hungary	1 365.1	799.2	-41.5%	31.0%	28.3%	-8.6%
Iceland	832.8	568.7	-31.7%	31.7%	28.8%	-9.1%
Ireland	1 004.2	560.4	-44.2%	36.8%	32.0%	-12.9%
Israel	355.7	221.5	-37.7%	15.0%	13.3%	-11.7%
Italy	695.3	362.8	-47.8%	29.9%	23.2%	-22.6%
Kazakhstan	1 110.0	444.8	-59.9%	14.7%	12.0%	-18.3%
Kyrgyzstan	518.7	292.2	-43.7%	9.5%	10.2%	7.0%

Table S7. continued

Desire (Country)	Age-standardized DALYs rate per 100 000				% of all DA	LYs
Region / Country	2000	2019	Relative change (%)	2000	2019	Relative change (%)
Latvia	3 797.8	2 013.9	-47.0%	50.2%	55.8%	11.2%
Lithuania	3 954.8	2 013.8	-49.1%	54.0%	54.5%	1.0%
Luxembourg	1 094.2	589.0	-46.2%	34.6%	31.8%	-8.0%
Malta	553.0	501.0	-9.4%	27.7%	28.9%	4.3%
Montenegro	924.8	663.5	-28.3%	22.5%	21.1%	-6.2%
Netherlands (Kingdom of the)	506.2	379.1	-25.1%	28.5%	21.3%	-25.3%
North Macedonia	426.8	283.9	-33.5%	13.8%	12.4%	-10.0%
Norway	712.1	425.3	-40.3%	24.9%	21.7%	-13.1%
Poland	1 356.7	947.1	-30.2%	33.5%	32.2%	-3.9%
Portugal	968.7	510.0	-47.4%	38.3%	30.3%	-20.8%
Republic of Moldova	2 557.1	1 651.3	-35.4%	46.4%	51.5%	11.0%
Romania	1 489.6	1 002.2	-32.7%	34.6%	34.0%	-1.7%
Russian Federation	5 659.3	2 344.8	-58.6%	53.7%	50.8%	-5.3%
Serbia	869.4	541.5	-37.7%	23.5%	22.4%	-4.8%
Slovakia	1 314.1	939.5	-28.5%	34.4%	30.4%	-11.6%
Slovenia	1 348.1	792.1	-41.2%	30.2%	24.4%	-19.1%
Spain	860.7	409.4	-52.4%	35.3%	26.4%	-25.1%
Sweden	593.0	493.8	-16.7%	25.5%	22.9%	-10.3%
Switzerland	874.8	477.5	-45.4%	28.6%	24.1%	-15.5%
Tajikistan	231.3	150.6	-34.9%	4.0%	4.4%	8.4%
Turkmenistan	381.1	208.4	-45.3%	7.8%	7.5%	-4.4%
Türkiye	103.4	68.0	-34.2%	4.4%	4.3%	-2.5%
Ukraine	3 609.4	1 966.8	-45.5%	52.8%	50.0%	-5.2%
United Kingdom	589.2	425.5	-27.8%	28.9%	24.5%	-15.0%
Uzbekistan	326.7	199.9	-38.8%	7.3%	7.5%	1.8%

Table S8. Alcohol-attributable injury deaths and DALYs, and proportion of all injury deaths and DALYs attributable to alcohol in the WHO Europe Region by country and cause, in 2019.

	Deat	hs	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
WHO European Region				
Injuries	144 610	31.1%	9 019 970	32.5%
Unintentional injuries	89 874	28.2%	6 488 293	30.7%
Road injury	24 347	35.4%	1 898 743	37.2%
Poisonings	4 142	39.1%	187 288	36.0%
Falls	19 619	21.6%	1 925 510	26.3%
Fire heat and hot substances	5 148	34.3%	300 461	30.8%
Drowning	6 433	33.1%	278 772	30.4%
Exposure to mechanical forces	2 928	34.0%	655 271	31.4%
Other unintentional injuries	27 257	25.7%	1 242 247	29.9%
Intentional injuries	54 735	37.5%	2 531 677	38.0%
Self-harm	43 658	36.8%	1 873 884	38.8%
Interpersonal violence	11 078	41.8%	657 794	38.8%
Albania				
Injuries	111	11.7%	10 453	12.5%
Unintentional injuries	89	12.4%	9 230	12.9%
Road injury	62	18.3%	4 337	19.0%
Poisonings	1	9.3%	98	9.3%
Falls	8	6.4%	1 509	9.2%
Fire heat and hot substances	1	5.7%	215	9.9%
Drowning	3	10.1%	127	9.5%
Exposure to mechanical forces	5	12.0%	2 016	12.7%
Other unintentional injuries	9	9.0%	929	10.3%
Intentional injuries	22	9.8%	1 223	9.8%
Self-harm	12	9.4%	557	10.3%
Interpersonal violence	10	10.2%	666	10.6%

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Armenia					
Injuries	338	28.4%	20 387	25.7%	
Unintentional injuries	293	30.0%	18 158	26.3%	
Road injury	214	36.3%	10 597	37.1%	
Poisonings	4	19.9%	249	22.3%	
Falls	7	19.0%	1 954	20.4%	
Fire heat and hot substances	2	18.0%	555	19.0%	
Drowning	4	17.7%	186	15.2%	
Exposure to mechanical forces	8	23.6%	1 516	24.7%	
Other unintentional injuries	54	20.7%	3 101	21.3%	
Intentional injuries	45	21.2%	2 229	22.0%	
Self-harm	19	19.9%	775	22.0%	
Interpersonal violence	25	22.4%	1 454	22.6%	
Austria					
Injuries	1 039	22.4%	59 904	26.2%	
Unintentional injuries	712	21.8%	46 213	26.2%	
Road injury	175	40.2%	11 004	41.3%	
Poisonings	5	32.5%	475	28.5%	
Falls	183	18.6%	18 563	22.2%	
Fire heat and hot substances	9	24.7%	1 234	26.0%	
Drowning	9	21.0%	308	20.5%	
Exposure to mechanical forces	17	33.4%	4 553	29.5%	
Other unintentional injuries	315	18.5%	10 078	24.1%	
Intentional injuries	326	24.1%	13 691	26.1%	
Self-harm	317	24.2%	12 478	26.7%	
Interpersonal violence	9	19.8%	1 212	21.5%	

Table S8. continued

	Deat	ths	DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Azerbaijan					
Injuries	241	7.8%	18 116	7.4%	
Unintentional injuries	198	8.1%	15 628	7.7%	
Road injury	87	12.9%	5 884	13.0%	
Poisonings	7	7.0%	385	6.7%	
Falls	19	6.3%	2 511	6.2%	
Fire heat and hot substances	24	5.1%	1 772	5.0%	
Drowning	23	6.8%	1 196	6.1%	
Exposure to mechanical forces	6	7.6%	1 457	7.4%	
Other unintentional injuries	32	6.9%	2 422	6.4%	
Intentional injuries	44	6.6%	2 488	6.1%	
Self-harm	27	6.6%	1 393	7.0%	
Interpersonal violence	16	6.5%	1 095	6.3%	
Belarus					
Injuries	3 614	54.4%	215 119	53.4%	
Unintentional injuries	2 229	50.9%	155 564	50.6%	
Road injury	353	48.8%	30 530	48.8%	
Poisonings	164	52.7%	6 856	52.8%	
Falls	483	50.8%	51 321	51.3%	
Fire heat and hot substances	312	50.3%	13 711	51.3%	
Drowning	277	50.9%	11 768	49.7%	
Exposure to mechanical forces	70	52.2%	12 951	50.7%	
Other unintentional injuries	570	51.9%	28 427	50.9%	
Intentional injuries	1 386	61.2%	59 555	62.5%	
Self-harm	1 213	60.5%	48 396	61.6%	
Interpersonal violence	172	67.5%	11 159	67.2%	

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Belgium					
Injuries	1 372	19.8%	79 438	23.2%	
Unintentional injuries	881	18.9%	57 966	23.0%	
Road injury	255	38.3%	15 933	39.6%	
Poisonings	8	20.6%	572	22.2%	
Falls	272	15.5%	24 754	18.5%	
Fire heat and hot substances	15	19.6%	1 579	22.2%	
Drowning	19	23.9%	710	23.8%	
Exposure to mechanical forces	12	25.8%	5 026	27.1%	
Other unintentional injuries	300	14.9%	9 391	20.1%	
Intentional injuries	491	21.7%	21 472	23.7%	
Self-harm	461	21.8%	19 017	24.2%	
Interpersonal violence	30	20.2%	2 455	21.0%	
Bosnia and Herzegovina					
Injuries	199	14.0%	15 500	13.3%	
Unintentional injuries	153	15.1%	13 301	15.0%	
Road injury	94	21.0%	6 132	21.5%	
Poisonings	1	10.9%	138	11.1%	
Falls	25	9.4%	2 791	10.7%	
Fire heat and hot substances	6	10.2%	495	12.1%	
Drowning	6	12.5%	259	12.9%	
Exposure to mechanical forces	4	13.2%	2 046	13.8%	
Other unintentional injuries	18	11.5%	1 441	12.1%	
Intentional injuries	46	11.2%	2 199	8.0%	
Self-harm	40	11.2%	1 712	12.5%	
Interpersonal violence	5	11.1%	487	11.8%	

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Bulgaria				
Injuries	606	23.1%	54 359	24.3%
Unintentional injuries	468	25.1%	48 232	25.0%
Road injury	233	36.0%	19 559	35.7%
Poisonings	7	17.9%	488	18.5%
Falls	63	16.6%	10 646	19.2%
Fire heat and hot substances	21	17.1%	1 548	19.8%
Drowning	27	20.9%	1 136	21.4%
Exposure to mechanical forces	24	22.8%	8 724	23.1%
Other unintentional injuries	93	21.2%	6 131	21.0%
Intentional injuries	139	18.1%	6 127	20.2%
Self-harm	123	18.0%	4 671	20.5%
Interpersonal violence	16	19.0%	1 456	19.6%
Croatia				
Injuries	509	19.4%	35 929	24.0%
Unintentional injuries	362	19.0%	29 954	24.5%
Road injury	123	37.6%	11 868	37.4%
Poisonings	3	20.7%	268	21.7%
Falls	127	13.0%	9 205	17.2%
Fire heat and hot substances	7	19.7%	669	22.9%
Drowning	20	22.9%	756	25.2%
Exposure to mechanical forces	10	27.1%	3 855	26.4%
Other unintentional injuries	72	16.9%	3 333	21.7%
Intentional injuries	147	20.3%	5 975	21.7%
Self-harm	138	20.5%	5 216	23.0%
Interpersonal violence	8	18.6%	759	19.9%

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Cyprus					
Injuries	61	16.9%	4 431	19.5%	
Unintentional injuries	50	16.5%	3 804	19.6%	
Road injury	20	29.7%	1 240	31.3%	
Poisonings	1	15.4%	41	16.3%	
Falls	7	13.4%	1 242	15.6%	
Fire heat and hot substances	1	13.9%	95	17.5%	
Drowning	6	16.6%	202	19.7%	
Exposure to mechanical forces	1	24.6%	399	21.4%	
Other unintentional injuries	15	10.8%	585	15.5%	
Intentional injuries	11	18.7%	627	19.2%	
Self-harm	9	20.0%	429	20.8%	
Interpersonal violence	2	15.2%	198	16.7%	
Czechia					
Injuries	1 481	27.3%	116 384	31.4%	
Unintentional injuries	1 102	27.2%	98 626	31.8%	
Road injury	293	46.0%	32 499	45.3%	
Poisonings	12	30.5%	1 095	28.3%	
Falls	186	25.4%	25 953	25.8%	
Fire heat and hot substances	16	28.8%	2 804	28.7%	
Drowning	43	28.3%	1 619	27.4%	
Exposure to mechanical forces	25	36.2%	15 662	32.1%	
Other unintentional injuries	528	22.3%	18 994	27.4%	
Intentional injuries	379	27.6%	17 758	29.1%	
Self-harm	362	27.8%	15 181	29.8%	
Interpersonal violence	16	24.8%	2 577	25.7%	

Table S8. continued

	Dea	Deaths		DALYs	
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Denmark					
Injuries	389	20.5%	26 593	23.8%	
Unintentional injuries	243	20.0%	20 370	23.9%	
Road injury	76	35.4%	4 925	36.8%	
Poisonings	1	27.0%	186	23.9%	
Falls	84	15.5%	8 635	19.8%	
Fire heat and hot substances	11	21.6%	922	24.1%	
Drowning	10	25.8%	339	25.9%	
Exposure to mechanical forces	5	28.0%	2 370	27.4%	
Other unintentional injuries	56	16.0%	2 993	21.9%	
Intentional injuries	146	21.4%	6 223	23.5%	
Self-harm	133	21.6%	5 182	24.4%	
Interpersonal violence	13	20.0%	1 040	20.0%	
Estonia					
Injuries	342	53.4%	21 804	52.6%	
Unintentional injuries	206	49.5%	15 924	50.0%	
Road injury	29	49.1%	3 066	49.0%	
Poisonings	4	53.0%	277	51.4%	
Falls	58	48.9%	5 737	50.8%	
Fire heat and hot substances	20	47.9%	1 073	47.2%	
Drowning	15	51.6%	576	50.4%	
Exposure to mechanical forces	9	51.5%	1 875	50.6%	
Other unintentional injuries	70	49.8%	3 321	49.9%	
Intentional injuries	137	60.4%	5 880	61.3%	
Self-harm	117	59.4%	4 567	60.0%	
Interpersonal violence	19	67.6%	1 313	66.9%	

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Finland				
Injuries	756	24.2%	46 008	26.7%
Unintentional injuries	514	23.3%	34 272	26.2%
Road injury	86	40.0%	5 777	41.1%
Poisonings	7	26.9%	318	27.7%
Falls	256	19.3%	17 600	22.8%
Fire heat and hot substances	16	26.0%	1 246	26.6%
Drowning	29	27.0%	927	28.6%
Exposure to mechanical forces	11	28.7%	2 993	29.8%
Other unintentional injuries	110	25.1%	5 410	26.9%
Intentional injuries	242	26.5%	11 735	28.0%
Self-harm	226	26.7%	10 403	28.5%
Interpersonal violence	16	24.5%	1 332	25.1%
France				
Injuries	7 498	19.7%	407 945	23.4%
Unintentional injuries	5 438	19.1%	323 631	23.2%
Road injury	1 296	38.8%	82 164	39.2%
Poisonings	53	23.1%	3 316	24.0%
Falls	1 282	15.5%	123 982	18.7%
Fire heat and hot substances	86	21.4%	9 036	23.0%
Drowning	191	22.0%	6 528	22.5%
Exposure to mechanical forces	64	25.9%	27 939	26.3%
Other unintentional injuries	2 466	16.3%	70 666	21.3%
Intentional injuries	2 060	21.7%	84 314	24.2%
Self-harm	1 950	21.8%	74 333	24.8%
Interpersonal violence	110	20.4%	9 981	20.8%

Table S8. continued

	Deat	hs	DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Georgia					
Injuries	579	27.8%	39 014	28.3%	
Unintentional injuries	473	29.1%	33 999	29.3%	
Road injury	201	40.5%	12 337	40.9%	
Poisonings	5	22.5%	389	22.2%	
Falls	91	21.7%	8 385	23.8%	
Fire heat and hot substances	31	21.9%	2 081	23.2%	
Drowning	25	25.8%	1 214	25.1%	
Exposure to mechanical forces	30	28.7%	3 968	28.6%	
Other unintentional injuries	90	26.1%	5 625	26.3%	
Intentional injuries	107	23.3%	5 015	23.3%	
Self-harm	86	23.4%	3 724	25.6%	
Interpersonal violence	21	23.0%	1 291	23.6%	
Germany					
Injuries	8 434	21.5%	468 654	24.4%	
Unintentional injuries	5 915	21.0%	365 949	24.2%	
Road injury	1 222	38.7%	78 562	39.6%	
Poisonings	62	28.6%	4 430	27.5%	
Falls	2 714	17.7%	164 897	20.1%	
Fire heat and hot substances	82	22.9%	10 840	24.6%	
Drowning	113	24.5%	4 398	25.1%	
Exposure to mechanical forces	123	30.0%	37 859	28.5%	
Other unintentional injuries	1 600	19.4%	64 963	23.2%	
Intentional injuries	2 519	22.8%	102 705	24.9%	
Self-harm	2 368	23.0%	89 315	25.7%	
Interpersonal violence	151	19.7%	13 390	21.1%	

Table S8. continued

	Deat	hs	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Greece				
Injuries	921	18.8%	52 394	22.7%
Unintentional injuries	790	18.5%	46 380	22.9%
Road injury	301	34.6%	17 067	35.9%
Poisonings	4	20.3%	345	20.9%
Falls	150	12.0%	12 743	17.5%
Fire heat and hot substances	21	14.2%	1 308	19.3%
Drowning	77	17.7%	2 113	20.3%
Exposure to mechanical forces	25	24.7%	4 663	24.1%
Other unintentional injuries	213	14.7%	8 140	18.3%
Intentional injuries	130	20.4%	6 014	21.6%
Self-harm	110	20.7%	4 361	22.5%
Interpersonal violence	20	19.2%	1 653	19.9%
Hungary				
Injuries	1 317	25.0%	92 940	28.3%
Unintentional injuries	893	25.4%	75 149	28.8%
Road injury	313	41.8%	24 814	41.5%
Poisonings	13	26.7%	1 053	25.8%
Falls	322	18.4%	23 803	22.4%
Fire heat and hot substances	26	24.9%	2 456	26.7%
Drowning	30	31.3%	1 229	31.2%
Exposure to mechanical forces	21	28.3%	11 757	29.6%
Other unintentional injuries	169	24.1%	10 037	26.5%
Intentional injuries	424	24.2%	17 790	26.3%
Self-harm	395	24.5%	15 367	27.0%
Interpersonal violence	29	21.5%	2 423	22.8%

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Iceland					
Injuries	32	24.3%	2 094	28.8%	
Unintentional injuries	19	21.6%	1 424	28.2%	
Road injury	3	44.2%	245	44.3%	
Poisonings	1	29.9%	35	29.4%	
Falls	4	18.2%	569	24.9%	
Fire heat and hot substances	0	25.6%	37	27.5%	
Drowning	0	18.0%	13	17.3%	
Exposure to mechanical forces	0	38.6%	152	31.8%	
Other unintentional injuries	10	19.4%	374	26.7%	
Intentional injuries	13	29.5%	670	30.3%	
Self-harm	12	29.9%	587	31.0%	
Interpersonal violence	1	25.5%	83	26.6%	
Ireland					
Injuries	374	31.0%	29 174	32.0%	
Unintentional injuries	214	30.6%	21 077	32.0%	
Road injury	70	46.0%	4 851	46.7%	
Poisonings	5	34.5%	343	32.1%	
Falls	58	23.7%	8 641	27.6%	
Fire heat and hot substances	7	24.1%	756	28.8%	
Drowning	20	34.9%	899	35.4%	
Exposure to mechanical forces	9	35.7%	2 521	33.8%	
Other unintentional injuries	44	25.6%	3 065	29.1%	
Intentional injuries	160	31.5%	8 097	32.1%	
Self-harm	149	31.7%	7 067	32.7%	
Interpersonal violence	11	29.6%	1 030	29.0%	

Table S8. continued

	Deat	hs	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Israel				
Injuries	226	11.8%	18 070	13.3%
Unintentional injuries	157	11.6%	14 283	13.9%
Road injury	78	23.4%	5 510	23.6%
Poisonings	0	8.5%	88	9.8%
Falls	9	7.7%	3 858	10.6%
Fire heat and hot substances	2	10.2%	416	11.6%
Drowning	5	12.3%	237	11.8%
Exposure to mechanical forces	1	15.3%	1 429	14.3%
Other unintentional injuries	61	7.4%	2 745	10.3%
Intentional injuries	70	12.3%	3 787	11.4%
Self-harm	57	12.5%	2 638	13.9%
Interpersonal violence	13	12.6%	1 149	12.4%
Italy				
Injuries	4 567	18.2%	268 650	23.2%
Unintentional injuries	3 663	17.7%	230 136	23.2%
Road injury	1 143	35.5%	73 239	36.9%
Poisonings	38	24.4%	2 388	25.3%
Falls	646	15.3%	85 632	18.9%
Fire heat and hot substances	48	17.5%	4 325	22.2%
Drowning	81	23.5%	3 279	24.3%
Exposure to mechanical forces	94	27.3%	20 923	27.0%
Other unintentional injuries	1 614	13.3%	40 350	18.4%
Intentional injuries	904	20.3%	38 514	22.8%
Self-harm	817	20.2%	30 629	23.0%
Interpersonal violence	87	21.3%	7 885	22.2%

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Kazakhstan				
Injuries	1 260	12.1%	81 834	12.0%
Unintentional injuries	825	13.3%	59 316	12.7%
Road injury	432	18.4%	28 290	18.4%
Poisonings	38	10.7%	1 891	10.5%
Falls	70	9.9%	9 313	10.1%
Fire heat and hot substances	33	9.3%	2 433	9.2%
Drowning	69	10.1%	3 504	8.9%
Exposure to mechanical forces	35	12.4%	5 193	11.6%
Other unintentional injuries	149	10.1%	8 692	9.4%
Intentional injuries	435	10.3%	22 518	10.6%
Self-harm	334	10.2%	16 734	10.7%
Interpersonal violence	101	10.6%	5 784	10.6%
Kyrgyzstan				
Injuries	260	10.9%	17 791	10.2%
Unintentional injuries	194	12.0%	14 192	10.8%
Road injury	133	16.3%	8 469	16.3%
Poisonings	5	8.9%	301	8.3%
Falls	11	8.3%	1 661	8.0%
Fire heat and hot substances	5	6.9%	512	6.7%
Drowning	15	6.5%	757	5.3%
Exposure to mechanical forces	3	10.0%	866	9.3%
Other unintentional injuries	22	7.9%	1 626	7.0%
Intentional injuries	66	8.6%	3 599	8.4%
Self-harm	39	8.3%	2 057	8.1%
Interpersonal violence	27	9.1%	1 542	8.9%

Table S8. continued

	Death	าร	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Latvia				
Injuries	833	56.4%	45 414	55.8%
Unintentional injuries	524	52.4%	32 275	52.7%
Road injury	79	51.2%	6 614	51.2%
Poisonings	13	55.7%	658	55.2%
Falls	102	50.7%	8 991	53.3%
Fire heat and hot substances	54	52.0%	2 384	52.0%
Drowning	68	53.5%	2 717	52.1%
Exposure to mechanical forces	17	55.7%	3 148	53.5%
Other unintentional injuries	192	53.1%	7 763	53.2%
Intentional injuries	309	64.6%	13 140	65.4%
Self-harm	244	63.6%	9 730	64.5%
Interpersonal violence	65	68.8%	3 410	68.4%
Lithuania				
Injuries	1 250	54.8%	67 453	54.5%
Unintentional injuries	720	50.4%	45 367	51.1%
Road injury	112	49.9%	10 047	49.9%
Poisonings	24	52.3%	1 013	51.9%
Falls	253	48.9%	16 287	51.5%
Fire heat and hot substances	26	50.0%	1 644	51.7%
Drowning	77	51.2%	3 047	49.4%
Exposure to mechanical forces	12	54.0%	3 903	51.9%
Other unintentional injuries	216	52.0%	9 427	51.9%
Intentional injuries	530	62.1%	22 086	63.1%
Self-harm	442	61.2%	17 215	62.2%
Interpersonal violence				

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Luxembourg				
Injuries	69	27.0%	4 360	31.8%
Unintentional injuries	49	26.6%	3 454	32.3%
Road injury	12	46.8%	840	48.1%
Poisonings	1	40.8%	47	36.7%
Falls	13	21.8%	1 406	27.9%
Fire heat and hot substances	1	26.4%	97	31.0%
Drowning	1	30.2%	26	29.7%
Exposure to mechanical forces	2	37.6%	368	36.1%
Other unintentional injuries	21	23.3%	670	28.5%
Intentional injuries	20	28.2%	906	30.1%
Self-harm	20	28.5%	804	30.6%
Interpersonal violence	1	23.6%	103	27.2%
Malta				
Injuries	33	26.4%	2 561	28.9%
Unintentional injuries	23	25.7%	2 081	28.9%
Road injury	7	40.8%	477	42.9%
Poisonings	0	33.0%	18	29.6%
Falls	10	19.5%	967	24.6%
Fire heat and hot substances	0	18.7%	62	27.1%
Drowning	1	29.7%	22	26.9%
Exposure to mechanical forces	1	34.5%	238	31.8%
Other unintentional injuries	4	26.5%	296	28.6%
Intentional injuries	9	28.4%	480	28.7%
Self-harm	8	29.8%	366	30.7%
Interpersonal violence	1	26.9%	114	27.1%

Table S8. continued

	Deatl	hs	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Montenegro				
Injuries	62	19.0%	4 616	21.1%
Unintentional injuries	37	20.9%	3 504	22.0%
Road injury	15	30.9%	1 291	31.0%
Poisonings	1	17.6%	48	17.7%
Falls	11	15.8%	979	17.7%
Fire heat and hot substances	2	15.3%	147	18.2%
Drowning	2	19.6%	95	19.8%
Exposure to mechanical forces	1	21.7%	526	20.9%
Other unintentional injuries	6	19.5%	418	19.3%
Intentional injuries	25	16.8%	1 112	18.7%
Self-harm	22	16.7%	900	18.7%
Interpersonal violence	3	18.0%	212	19.0%
Netherlands (Kingdom of the)				
Injuries	1 491	16.9%	78 293	21.3%
Unintentional injuries	1 035	15.5%	57 440	20.7%
Road injury	232	34.1%	13 623	35.5%
Poisonings	4	24.1%	489	22.4%
Falls	536	13.0%	25 363	16.4%
Fire heat and hot substances	9	19.3%	1 893	22.2%
Drowning	23	23.3%	947	23.0%
Exposure to mechanical forces	17	25.1%	6 577	25.8%
Other unintentional injuries	214	13.0%	8 548	19.2%
Intentional injuries	457	21.4%	20 853	23.2%
Self-harm	434	21.5%	18 553	23.5%
Interpersonal violence	23	21.0%	2 301	21.5%

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
North Macedonia				
Injuries	70	10.8%	6 777	12.4%
Unintentional injuries	49	11.6%	5 768	12.9%
Road injury	20	18.8%	2 041	19.0%
Poisonings	1	10.8%	89	10.8%
Falls	5	6.0%	1 104	9.1%
Fire heat and hot substances	1	10.0%	184	11.0%
Drowning	2	10.2%	82	10.5%
Exposure to mechanical forces	2	14.6%	1 120	12.8%
Other unintentional injuries	18	9.9%	1 148	11.6%
Intentional injuries	21	9.3%	1 009	10.4%
Self-harm	18	9.2%	750	10.6%
Interpersonal violence	3	10.0%	258	10.5%
Norway				
Injuries	413	18.0%	26 567	21.7%
Unintentional injuries	269	16.5%	19 672	21.2%
Road injury	41	35.6%	3 218	35.9%
Poisonings	3	18.0%	551	20.1%
Falls	108	13.8%	8 699	17.5%
Fire heat and hot substances	9	19.6%	973	22.3%
Drowning	17	25.8%	643	27.7%
Exposure to mechanical forces	7	25.2%	2 312	25.7%
Other unintentional injuries	86	14.7%	3 276	20.9%
Intentional injuries	144	21.6%	6 895	23.2%
Self-harm	138	21.7%	6 208	23.7%
Interpersonal violence	6	19.7%	687	20.3%

Table S8. continued

	Deat	hs	DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Poland				
Injuries	5 139	30.2%	414 837	32.2%
Unintentional injuries	3 817	30.7%	350 600	32.7%
Road injury	1 563	44.0%	132 140	43.7%
Poisonings	64	31.4%	4 785	29.1%
Falls	1 013	21.5%	99 533	26.6%
Fire heat and hot substances	138	29.1%	12 002	29.0%
Drowning	206	32.3%	8 742	33.0%
Exposure to mechanical forces	105	33.8%	48 074	30.6%
Other unintentional injuries	728	28.8%	45 324	29.0%
Intentional injuries	1 322	28.9%	64 237	29.8%
Self-harm	1 246	29.1%	55 950	30.6%
Interpersonal violence	76	25.7%	8 288	25.7%
Portugal				
Injuries	1 430	26.8%	65 137	30.3%
Unintentional injuries	1 095	26.9%	52 175	31.0%
Road injury	362	43.2%	16 610	45.0%
Poisonings	8	26.5%	515	28.3%
Falls	234	22.6%	15 665	25.8%
Fire heat and hot substances	27	25.4%	1 778	28.0%
Drowning	25	31.8%	995	32.6%
Exposure to mechanical forces	16	35.3%	4 428	32.4%
Other unintentional injuries	422	21.8%	12 185	26.7%
Intentional injuries	336	26.4%	12 962	27.8%
Self-harm	309	26.3%	10 849	29.0%
Interpersonal violence	27	27.9%	2 112	27.9%

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Republic of Moldova					
Injuries	1 314	52.9%	79 307	51.5%	
Unintentional injuries	847	49.2%	57 506	48.7%	
Road injury	144	49.0%	13 022	49.0%	
Poisonings	105	47.5%	3 871	45.3%	
Falls	75	50.2%	11 987	50.5%	
Fire heat and hot substances	32	45.9%	2 258	47.7%	
Drowning	83	46.1%	3 653	41.7%	
Exposure to mechanical forces	19	50.2%	4 855	50.0%	
Other unintentional injuries	391	50.6%	17 860	49.6%	
Intentional injuries	466	61.3%	21 801	60.7%	
Self-harm	357	60.2%	15 550	60.0%	
Interpersonal violence	109	65.6%	6 251	65.0%	
Romania					
Injuries	3 154	33.6%	226 545	34.0%	
Unintentional injuries	2 523	34.8%	198 052	34.6%	
Road injury	899	45.1%	61 127	45.4%	
Poisonings	105	28.6%	4 695	29.2%	
Falls	455	30.3%	52 108	30.1%	
Fire heat and hot substances	111	26.4%	7 371	29.6%	
Drowning	188	31.5%	7 501	30.8%	
Exposure to mechanical forces	83	35.2%	30 681	33.8%	
Other unintentional injuries	682	31.9%	34 568	31.8%	
Intentional injuries	631	29.4%	28 493	30.3%	
Self-harm	560	29.7%	22 577	31.3%	
Interpersonal violence	71	27.8%	5 915	27.8%	

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Russian Federation					
Injuries	63 521	52.3%	3 847 987	50.8%	
Unintentional injuries	34 695	47.3%	2 486 031	46.9%	
Road injury	8 154	46.6%	728 694	46.2%	
Poisonings	2 666	47.9%	110 629	47.1%	
Falls	5 428	46.4%	601 080	47.6%	
Fire heat and hot substances	2 971	46.5%	142 865	47.1%	
Drowning	3 136	47.3%	139 862	44.8%	
Exposure to mechanical forces	1 488	49.2%	218 906	47.7%	
Other unintentional injuries	10 852	48.2%	543 994	47.1%	
Intentional injuries	28 826	59.8%	1 361 956	60.0%	
Self-harm	21 441	58.5%	949 688	59.3%	
Interpersonal violence	7 384	64.5%	412 268	64.3%	
Serbia					
Injuries	587	21.4%	54 089	22.4%	
Unintentional injuries	398	24.3%	45 715	23.7%	
Road injury	224	34.2%	18 710	34.2%	
Poisonings	3	12.7%	423	17.0%	
Falls	54	14.9%	10 340	17.4%	
Fire heat and hot substances	11	16.5%	1 442	19.7%	
Drowning	14	19.4%	618	18.8%	
Exposure to mechanical forces	12	22.7%	8 269	22.6%	
Other unintentional injuries	80	19.7%	5 914	20.4%	
Intentional injuries	189	17.1%	8 374	17.2%	
Self-harm	169	17.0%	6 539	19.6%	
Interpersonal violence	19	18.1%	1 836	19.1%	

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Slovakia				
Injuries	855	27.0%	61 474	30.4%
Unintentional injuries	656	26.7%	52 326	30.7%
Road injury	137	41.3%	13 308	41.7%
Poisonings	9	29.2%	645	28.1%
Falls	272	21.3%	18 445	26.1%
Fire heat and hot substances	11	27.3%	1 342	27.9%
Drowning	43	29.8%	1 802	31.2%
Exposure to mechanical forces	26	32.8%	8 421	31.5%
Other unintentional injuries	159	28.7%	8 363	29.6%
Intentional injuries	200	27.7%	9 148	29.0%
Self-harm	184	27.9%	7 665	29.7%
Interpersonal violence	15	25.9%	1 483	26.0%
Slovenia				
Injuries	280	18.6%	20 092	24.4%
Unintentional injuries	186	17.3%	16 159	24.5%
Road injury	42	40.1%	4 913	38.6%
Poisonings	1	25.5%	131	22.4%
Falls	89	12.5%	5 292	18.0%
Fire heat and hot substances	2	21.0%	390	23.7%
Drowning	4	24.3%	147	24.6%
Exposure to mechanical forces	9	29.9%	3 191	27.0%
Other unintentional injuries	39	19.3%	2 094	22.8%
Intentional injuries	94	21.9%	3 933	24.0%
Self-harm	90	22.0%	3 528	24.5%
Interpersonal violence	4	19.4%	405	21.1%

Table S8. continued

	Deaths		DALYs		
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs	
Spain					
Injuries	3 558	23.0%	233 674	26.4%	
Unintentional injuries	2 633	22.7%	194 473	26.6%	
Road injury	762	41.6%	49 679	42.0%	
Poisonings	47	27.8%	2 875	28.2%	
Falls	599	18.4%	75 282	22.0%	
Fire heat and hot substances	40	21.9%	5 293	25.3%	
Drowning	122	27.3%	4 470	28.8%	
Exposure to mechanical forces	52	30.9%	21 255	29.3%	
Other unintentional injuries	1 011	18.3%	35 618	23.6%	
Intentional injuries	925	23.9%	39 201	25.6%	
Self-harm	865	24.0%	33 169	26.3%	
Interpersonal violence	60	23.1%	6 032	23.4%	
Sweden					
Injuries	918	19.8%	55 989	22.9%	
Unintentional injuries	562	18.4%	38 673	22.3%	
Road injury	118	37.5%	7 990	38.3%	
Poisonings	4	21.4%	401	22.1%	
Falls	172	15.5%	16 453	18.5%	
Fire heat and hot substances	13	19.9%	1 835	22.2%	
Drowning	28	24.1%	1 037	25.3%	
Exposure to mechanical forces	17	29.0%	4 672	26.0%	
Other unintentional injuries	211	15.4%	6 284	19.9%	
Intentional injuries	356	22.3%	17 316	24.4%	
Self-harm	328	22.2%	14 693	24.6%	
Interpersonal violence	28	24.8%	2 623	23.9%	

Table S8. continued

	Deaths		DA	LYs
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Switzerland				
Injuries	781	19.9%	50 887	24.1%
Unintentional injuries	496	18.7%	39 271	24.0%
Road injury	72	37.2%	6 118	37.9%
Poisonings	4	27.9%	341	26.7%
Falls	304	15.8%	20 855	20.6%
Fire heat and hot substances	5	23.0%	1 093	25.7%
Drowning	13	26.2%	533	26.4%
Exposure to mechanical forces	11	32.0%	4 930	29.1%
Other unintentional injuries	87	21.3%	5 402	25.0%
Intentional injuries	286	22.1%	11 616	24.7%
Self-harm	277	22.2%	10 482	25.0%
Interpersonal violence	9	20.8%	1 134	22.3%
Tajikistan				
Injuries	187	5.1%	12 670	4.4%
Unintentional injuries	165	5.3%	11 418	4.7%
Road injury	117	8.0%	6 837	8.1%
Poisonings	2	4.3%	119	3.7%
Falls	11	3.0%	1 337	3.2%
Fire heat and hot substances	6	2.0%	606	2.1%
Drowning	17	2.9%	902	2.3%
Exposure to mechanical forces	2	4.9%	604	4.5%
Other unintentional injuries	11	3.8%	1 014	3.4%
Intentional injuries	22	3.8%	1 252	2.7%
Self-harm	15	3.7%	794	3.7%
Interpersonal violence	7	4.1%	458	3.9%

Table S8. continued

	Deaths		DALYs	
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Turkmenistan				
Injuries	173	8.2%	12 129	7.5%
Unintentional injuries	139	8.6%	10 159	7.7%
Road injury	97	12.2%	5 569	12.4%
Poisonings	2	5.7%	148	5.0%
Falls	6	5.6%	1 145	6.1%
Fire heat and hot substances	5	4.5%	599	4.7%
Drowning	6	4.0%	324	2.9%
Exposure to mechanical forces	4	6.4%	956	7.4%
Other unintentional injuries	19	5.5%	1 418	4.9%
Intentional injuries	34	6.7%	1 970	6.5%
Self-harm	24	7.1%	1 306	7.0%
Interpersonal violence	10	6.1%	663	6.1%
Türkiye				
Injuries	846	4.2%	57 949	4.3%
Unintentional injuries	603	4.4%	43 904	4.6%
Road injury	393	7.0%	23 858	7.3%
Poisonings	11	3.0%	556	3.2%
Falls	74	1.7%	8 052	3.0%
Fire heat and hot substances	8	2.3%	652	2.6%
Drowning	16	3.0%	855	2.6%
Exposure to mechanical forces	44	4.7%	4 600	4.3%
Other unintentional injuries	57	3.4%	5 330	3.3%
Intentional injuries	243	3.8%	14 045	3.5%
Self-harm	72	3.6%	3 688	3.7%
Interpersonal violence	171	4.3%	10 358	4.0%

Table S8. continued

	Deaths		DALYs	
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Ukraine				
Injuries	15 304	51.4%	997 787	50.0%
Unintentional injuries	8 179	47.5%	665 341	47.1%
Road injury	2 083	46.4%	182 543	46.2%
Poisonings	545	48.7%	23 462	48.6%
Falls	1 365	47.5%	189 692	48.0%
Fire heat and hot substances	770	46.6%	40 199	47.4%
Drowning	1 101	47.6%	49 152	46.1%
Exposure to mechanical forces	268	48.8%	58 880	47.3%
Other unintentional injuries	2 046	48.3%	121 413	47.0%
Intentional injuries	7 126	56.8%	332 445	57.1%
Self-harm	5 379	56.5%	236 173	57.4%
Interpersonal violence	1 747	63.2%	96 272	63.1%
United Kingdom				
Injuries	4 909	21.7%	323 839	24.5%
Unintentional injuries	3 371	20.5%	247 981	24.2%
Road injury	870	40.1%	58 088	40.9%
Poisonings	54	24.7%	3 697	24.3%
Falls	1 250	16.4%	101 603	19.9%
Fire heat and hot substances	71	21.4%	8 745	23.5%
Drowning	79	26.3%	3 642	26.6%
Exposure to mechanical forces	97	28.4%	28 206	27.1%
Other unintentional injuries	948	17.4%	44 000	21.9%
Intentional injuries	1 538	24.8%	75 858	25.6%
Self-harm	1 351	25.4%	61 694	26.8%
Interpersonal violence	187	21.6%	14 165	22.0%

Table S8. continued

	Deaths		DALYs	
Cause	Alcohol- attributable deaths	% of all deaths	Alcohol- attributable DALYs	% of all DALYs
Uzbekistan				
Injuries	907	8.1%	66 552	7.5%
Unintentional injuries	726	9.0%	56 170	8.0%
Road injury	501	13.0%	32 484	13.1%
Poisonings	17	6.2%	1 057	5.5%
Falls	45	5.9%	6 942	5.9%
Fire heat and hot substances	25	4.6%	2 490	4.7%
Drowning	51	4.4%	2 680	3.5%
Exposure to mechanical forces	9	7.7%	3 437	7.1%
Other unintentional injuries	79	5.5%	7 080	5.2%
Intentional injuries	181	5.8%	10 383	5.5%
Self-harm	150	5.7%	8 223	5.4%
Interpersonal violence	31	6.4%	2 160	6.0%

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^{*}All references were accessed 5 December 2025.

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Regional Office for Europe UN City, Marmorvej 51, DK-2100, Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01

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