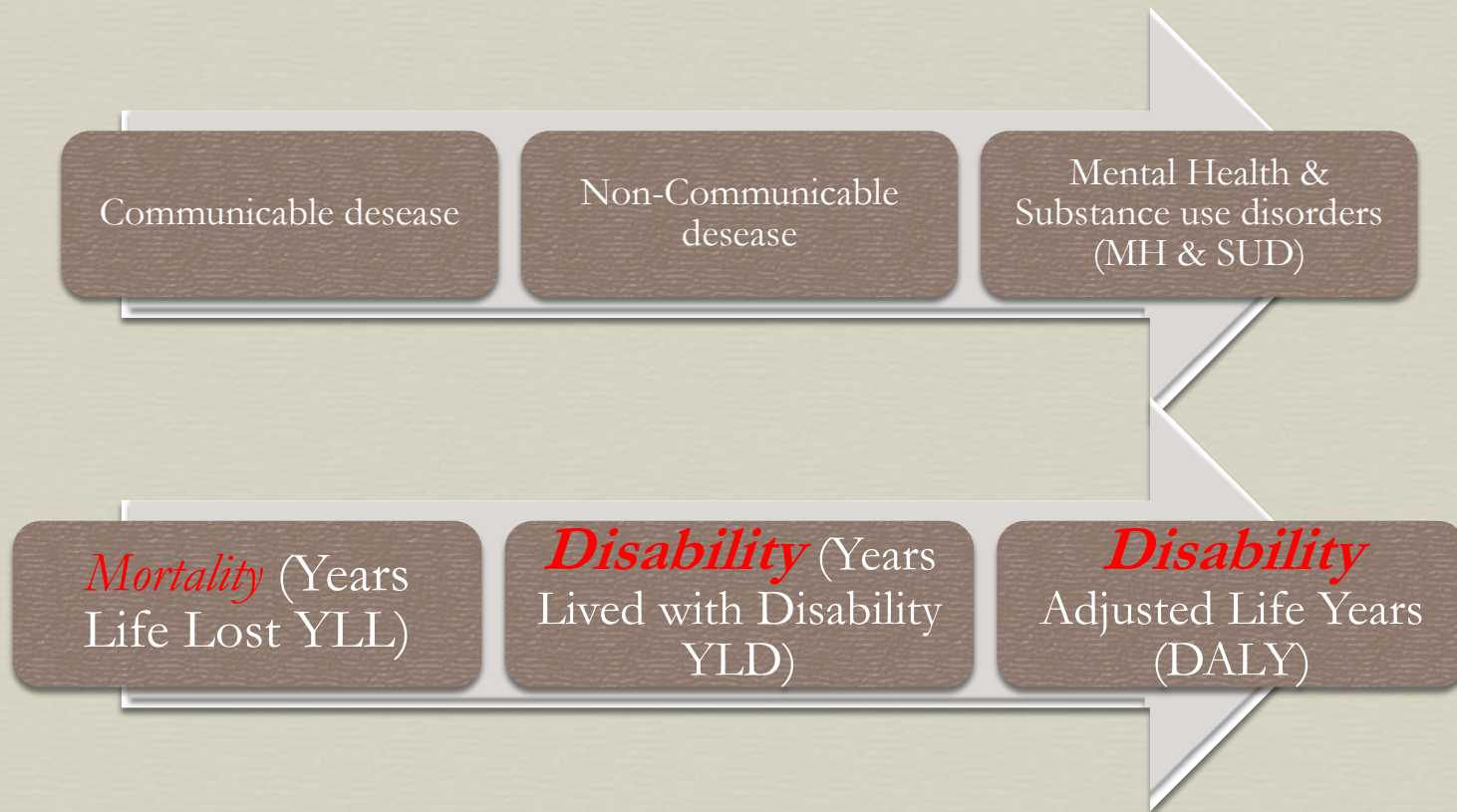


The link between alcohol and mental health

geert.d...

EUROPEAN PSYCHIATRIC ASSOCIATION

Evolution health-care



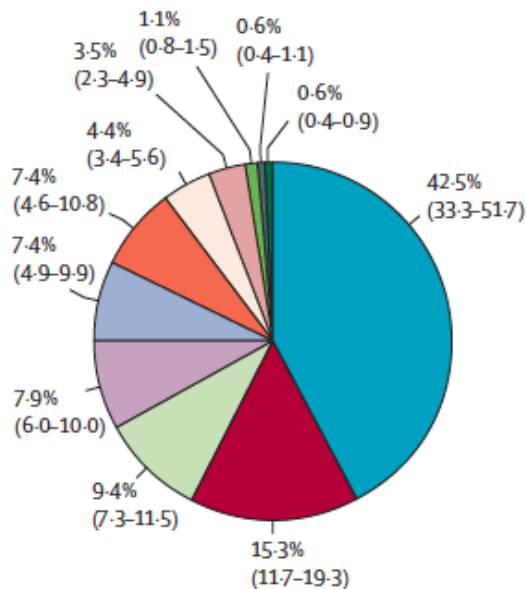
Whitefort et al. (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet* 2013; 382: 1575–86

	Proportion of total DALYs (95% UI)	Proportion of total YLDs (95% UI)	Proportion of total YLLs (95% UI)
Cardiovascular and circulatory diseases	11.9% (11.0–12.6)	2.8% (2.4–3.4)	15.9% (15.0–16.8)
Diarrhoea, lower respiratory infections, meningitis, and other common infectious diseases	11.4% (10.3–12.7)	2.6% (2.0–3.2)	15.4% (14.0–17.1)
Neonatal disorders	8.1% (7.3–9.0)	1.2% (1.0–1.5)	11.2% (10.2–12.4)
Cancer	7.6% (7.0–8.2)	0.6% (0.5–0.7)	10.7% (10.0–11.4)
Mental and substance use disorders	7.4% (6.2–8.6)	22.9% (18.6–27.2)	0.5% (0.4–0.7)
Musculoskeletal disorders	6.8% (5.4–8.2)	21.3% (17.7–24.9)	0.2% (0.2–0.3)
HIV/AIDS and tuberculosis	5.3% (4.8–5.7)	1.4% (1.0–1.9)	7.0% (6.4–7.5)
Other non-communicable diseases	5.1% (4.1–6.6)	11.1% (8.2–15.2)	2.4% (2.0–2.8)
Diabetes, urogenital, blood, and endocrine diseases	4.9% (4.4–5.5)	7.3% (6.1–8.7)	3.8% (3.4–4.3)
Unintentional injuries other than transport injuries	4.8% (4.4–5.3)	3.4% (2.5–4.4)	5.5% (4.9–5.9)

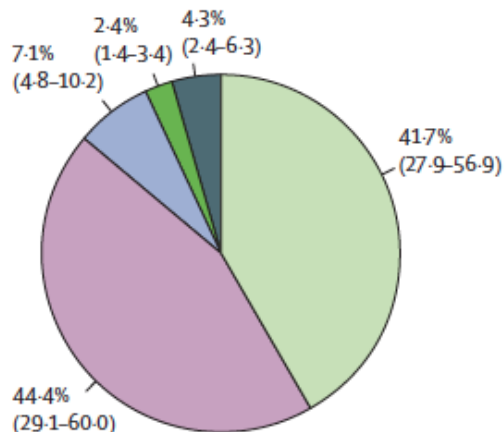
DALYs=disability-adjusted life-years. YLDs=years lived with disability. YLLs=years of life lost.

Table: Proportion of YLDs, YLLs, and DALYs explained by the ten leading causes of total burden in 2010

A YLDs



B YLLs



C DALYs

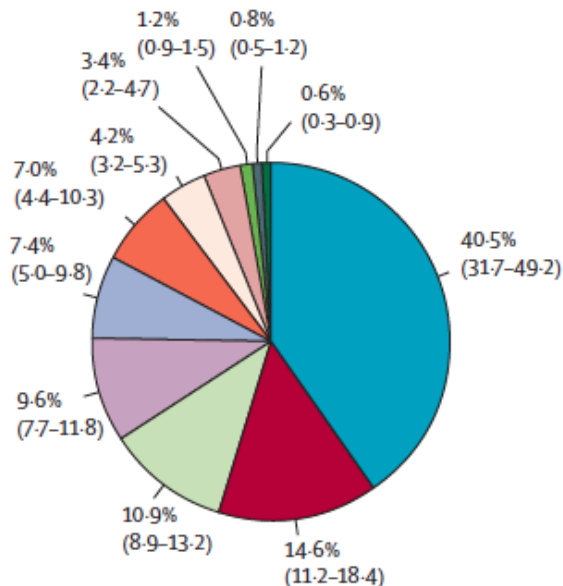


Figure 1: Proportion of YLDs (A), YLLs (B), and DALYs (C) explained by each mental and substance use disorder group in 2010

Data are % (95% UI). DALYs=disability-adjusted life years. YLDs=years lived with disability. YLLs=years of life lost.

GBD 2010 study wrapping-up

- ↻ MH & SUD fifth leading cause of DALY's lost.
- ↻ MH & SUD first cause of YLD (years lived with disability).
- ↻ MH & SUD : mortality (YLL) estimate for 2010 equivalent of 232.000 deaths
- ↻ **>> 81.1% of these due to SUD (Alcohol).**

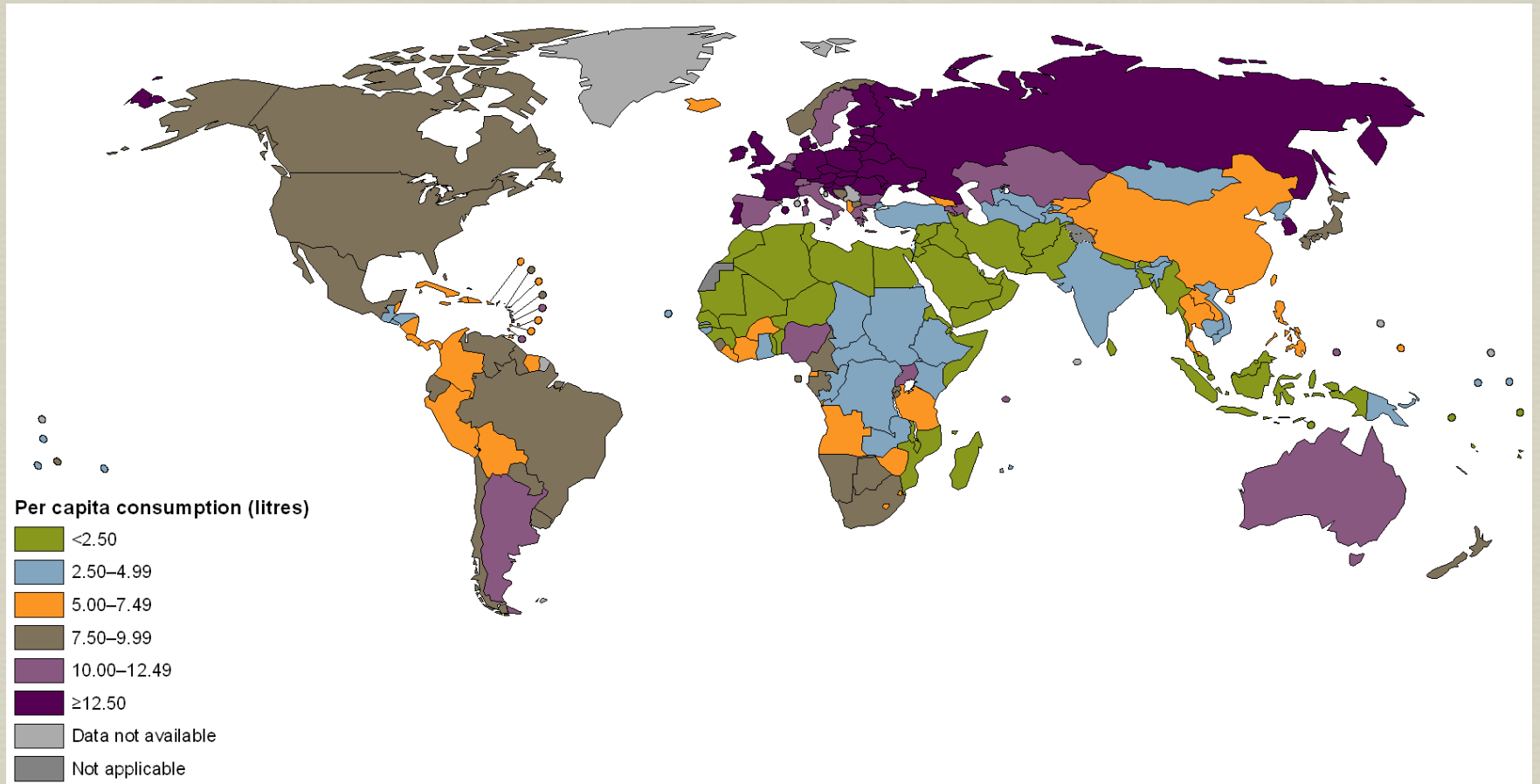
GBD 2010 versus 1990

- ☞ The total burden of MH & SUD increased by 37.6%; from 133.6 million to 183.9 million DALY's from 1990 to 2010.
- ☞ The total burden of MH & SUD as a proportion of all-cause DALYs increased from 5.4% in 1990 to 7.4% in 2010.
- ☞ Parallels population growth and changing age-structure. No major increases in mental disorder prevalence.
- ☞ ***!!Except: Alcohol, opioid, and cocaine dependence. Increased notably between 1990 and 2010.***

Alcohol: a European problem?



Total adult per capita alcohol consumption (recorded and unrecorded) in 2005*



Total refers to recorded + unrecorded;
2005 refers to average 2003–2005 for recorded and 2005 for unrecorded

Alcohol dependence in the EU

- ☞ 5.4% of men age 18–64 and 1.5% of women in this age category are estimated to be affected by alcohol dependence
- ☞ This corresponds to almost 11 million people
- ☞ Over all age categories, the prevalence is estimated to be 4.8% for men, 1.3% for women and about 12 million people in the EU

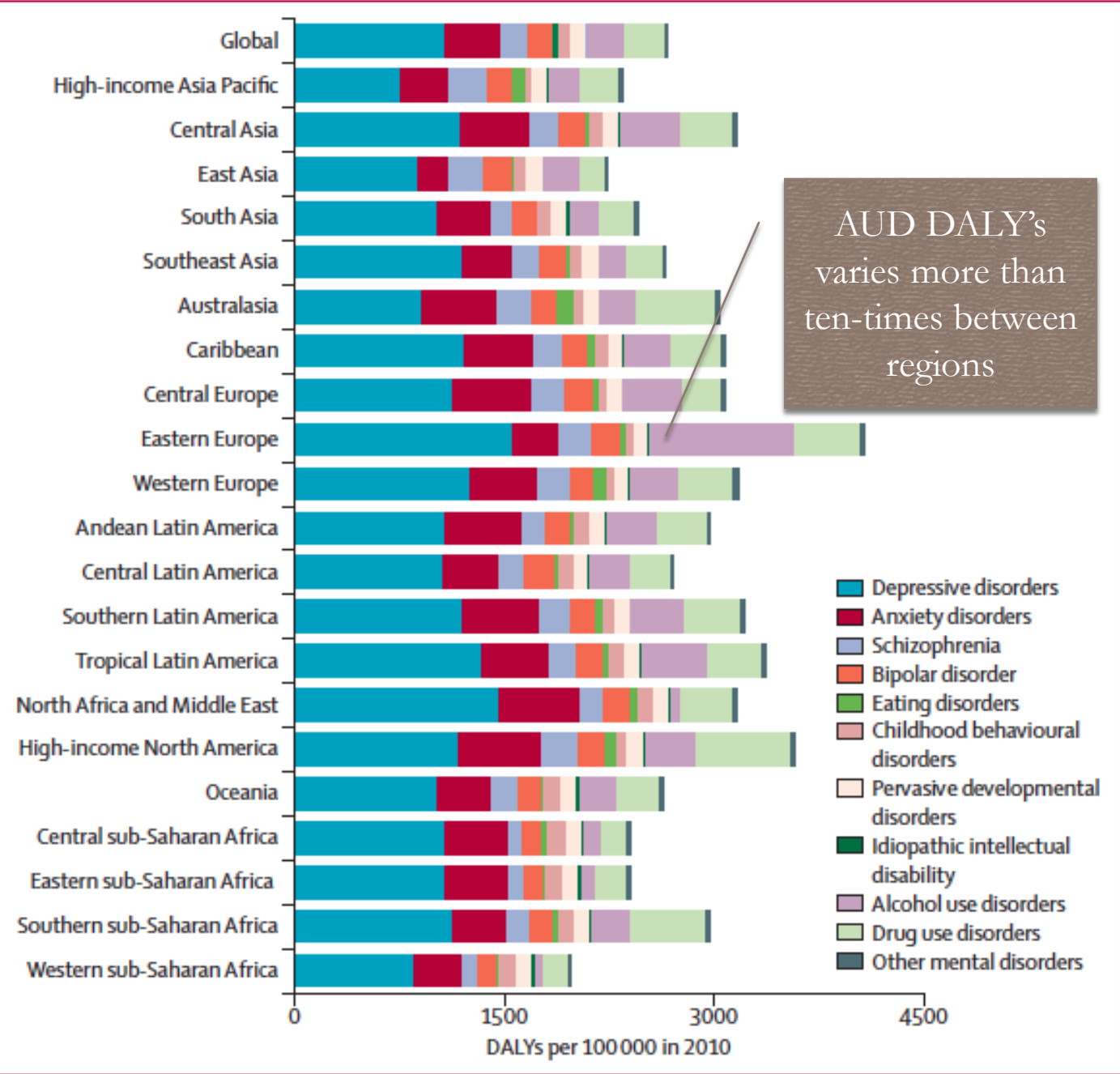
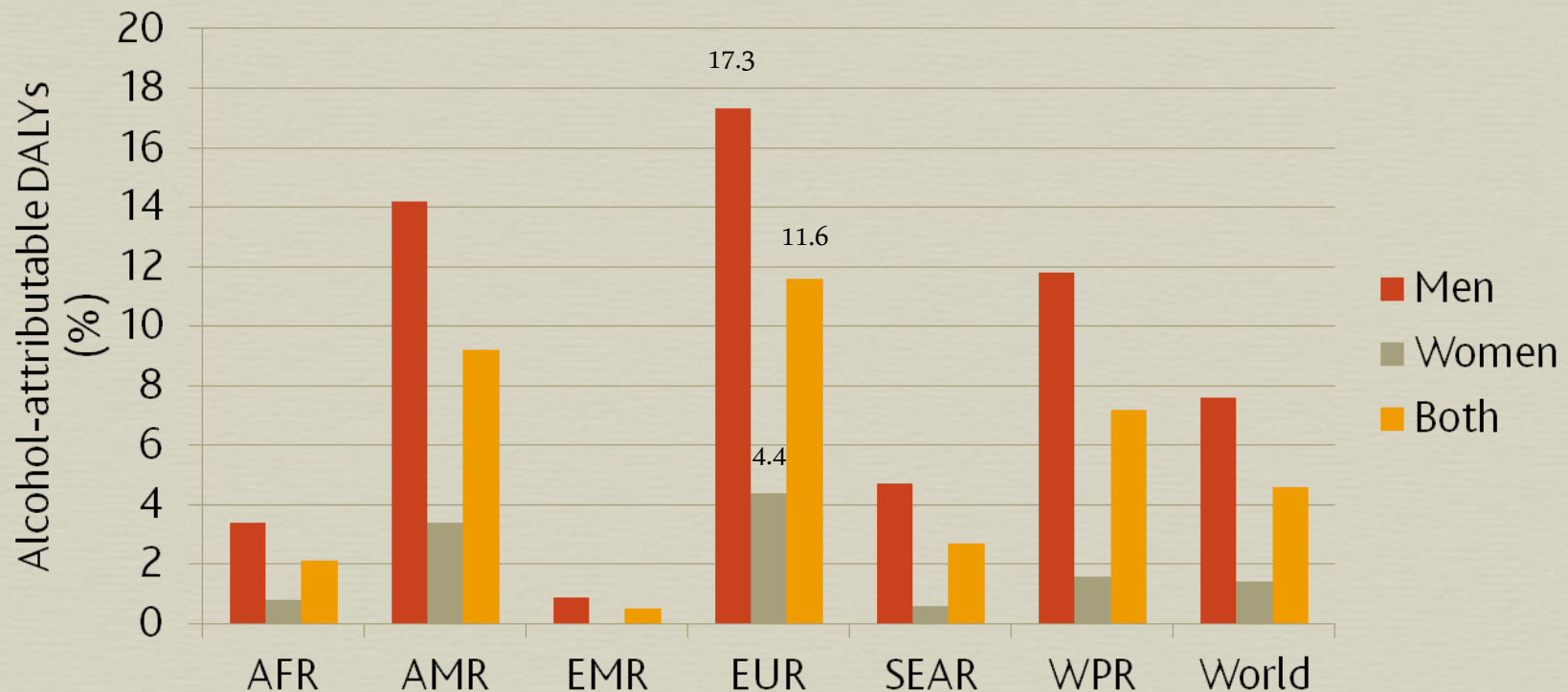


Figure 4: Rates of disability-adjusted life years (DALYs) per 100 000 individuals for mental and substance use disorders in 2010, by region

Europe takes the lead

Alcohol-attributable burden of disease in DALYs as a proportion of all DALYs, by sex and WHO region (2004)



AFR=African region; AMR=American region; EMR=eastern Mediterranean region; EUR=European region; SEAR=southeast Asian region; WPR=western Pacific region



The burden and cost of disorders of the brain in Europe with the inclusion of harmful alcohol use and nicotine addiction

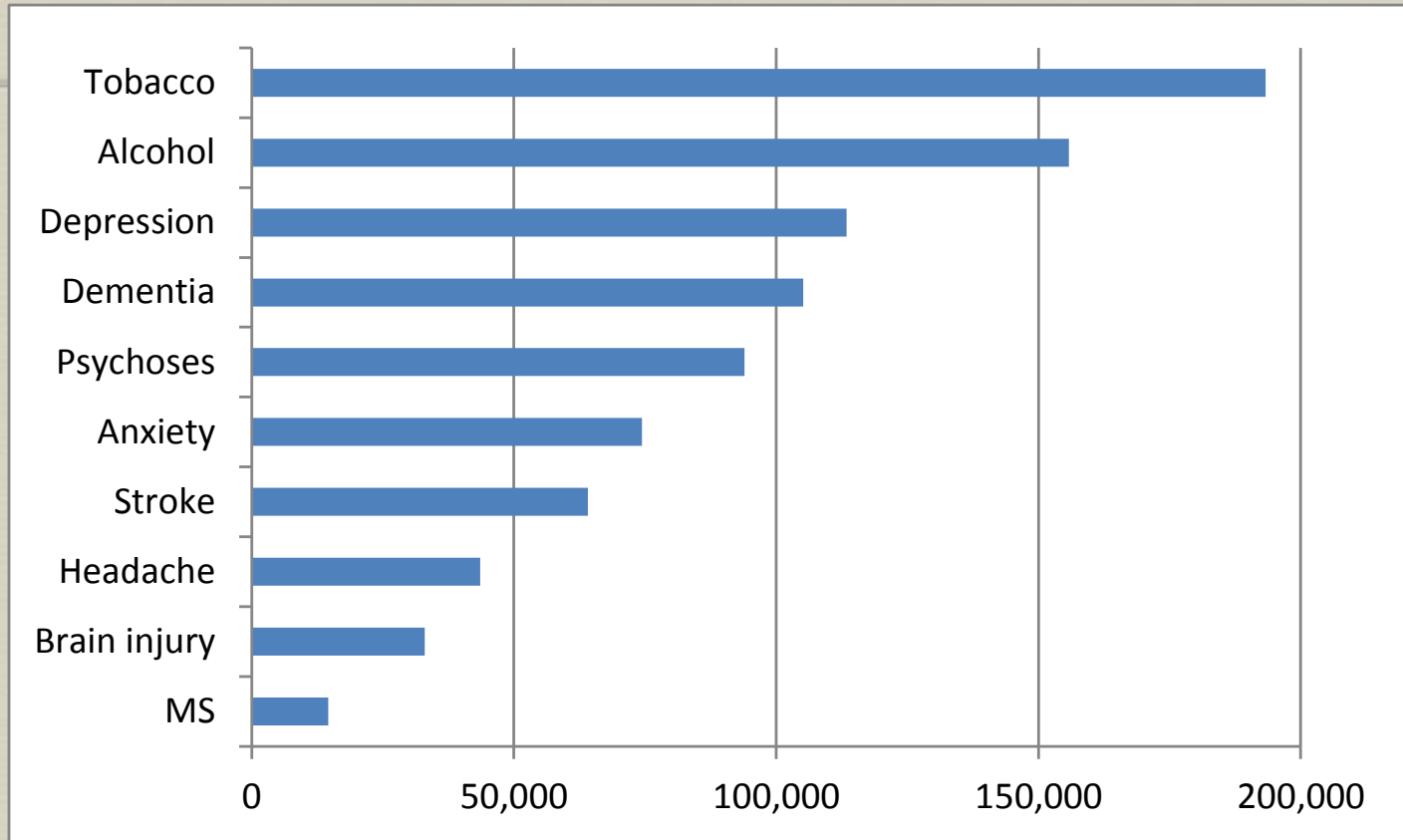
Tobias Effertz^{a,*}, Karl Mann^b

Table 1 DALY—ranking.

DALY—rank	Diagnosis	Total DALYS
1	Addiction + harmful use alcohol and tobacco	6,608,128
2	Mood disorders	5,048,241
3	Dementias	2,236,514
4	Stroke	1,576,838
5	Anxiety	722,696
6	Migraine	642,677
7	Schizophrenia	637,693
8	Insomnia	389,753
9	Parkinson's disease	329,684
10	Epilepsy	245,475
11	Multiple sclerosis	5,393
12	Mental retardation	2,657
	Total	18,445,749

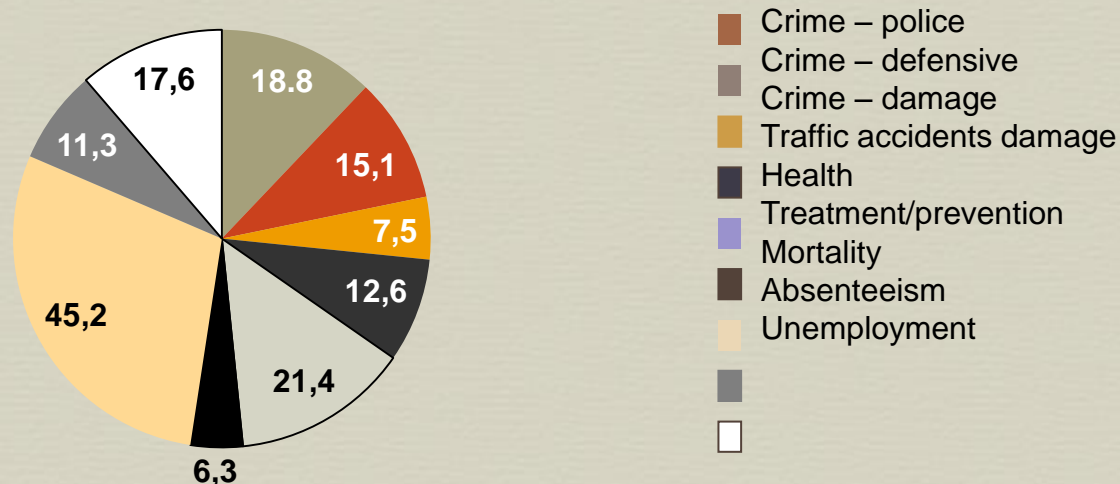
Ranking of mental diseases

In Million €



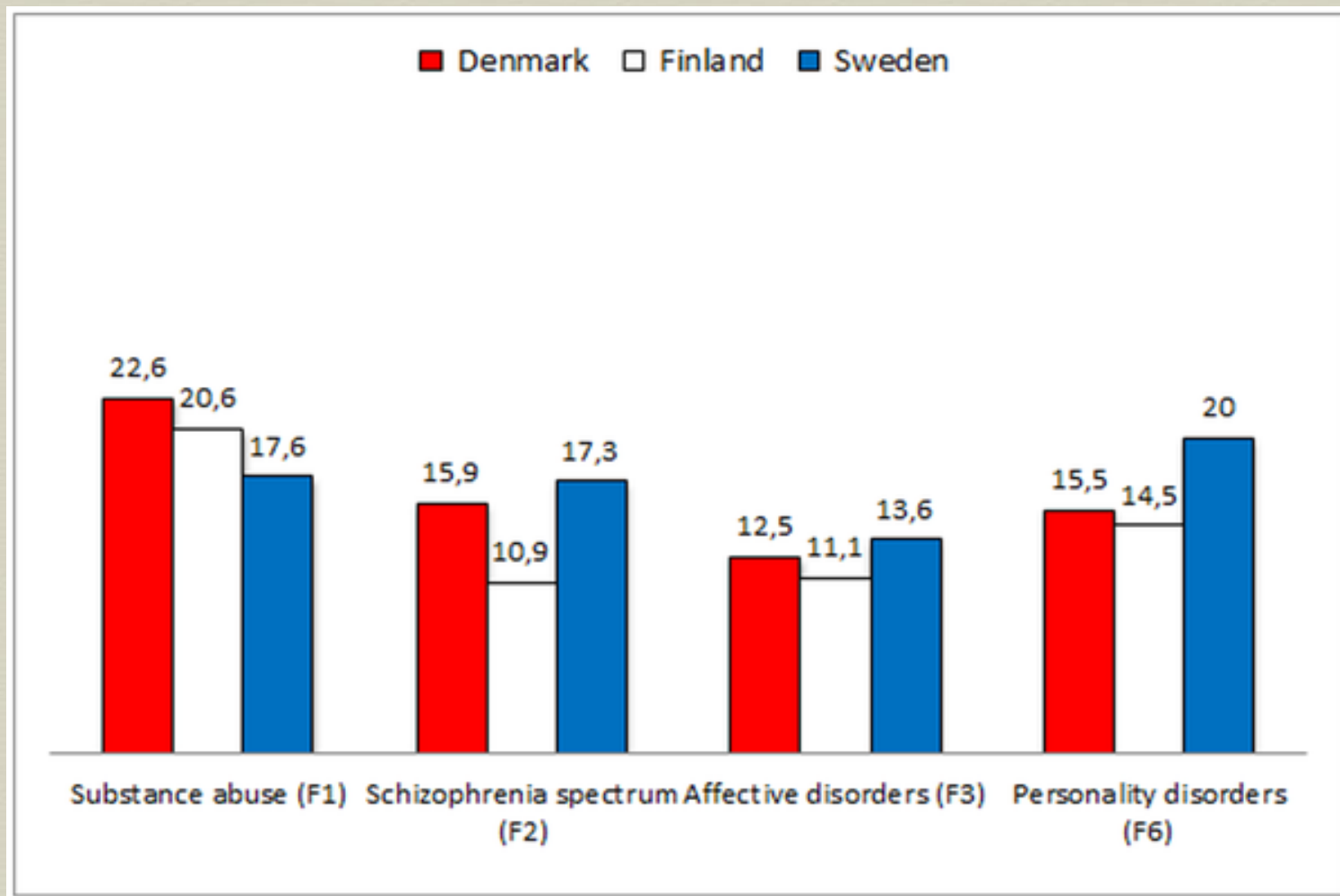
Effertz, T., Mann, K., European Neuropsychopharmacology (2012)

Social costs of alcohol in the EU, 2010 (billion €)



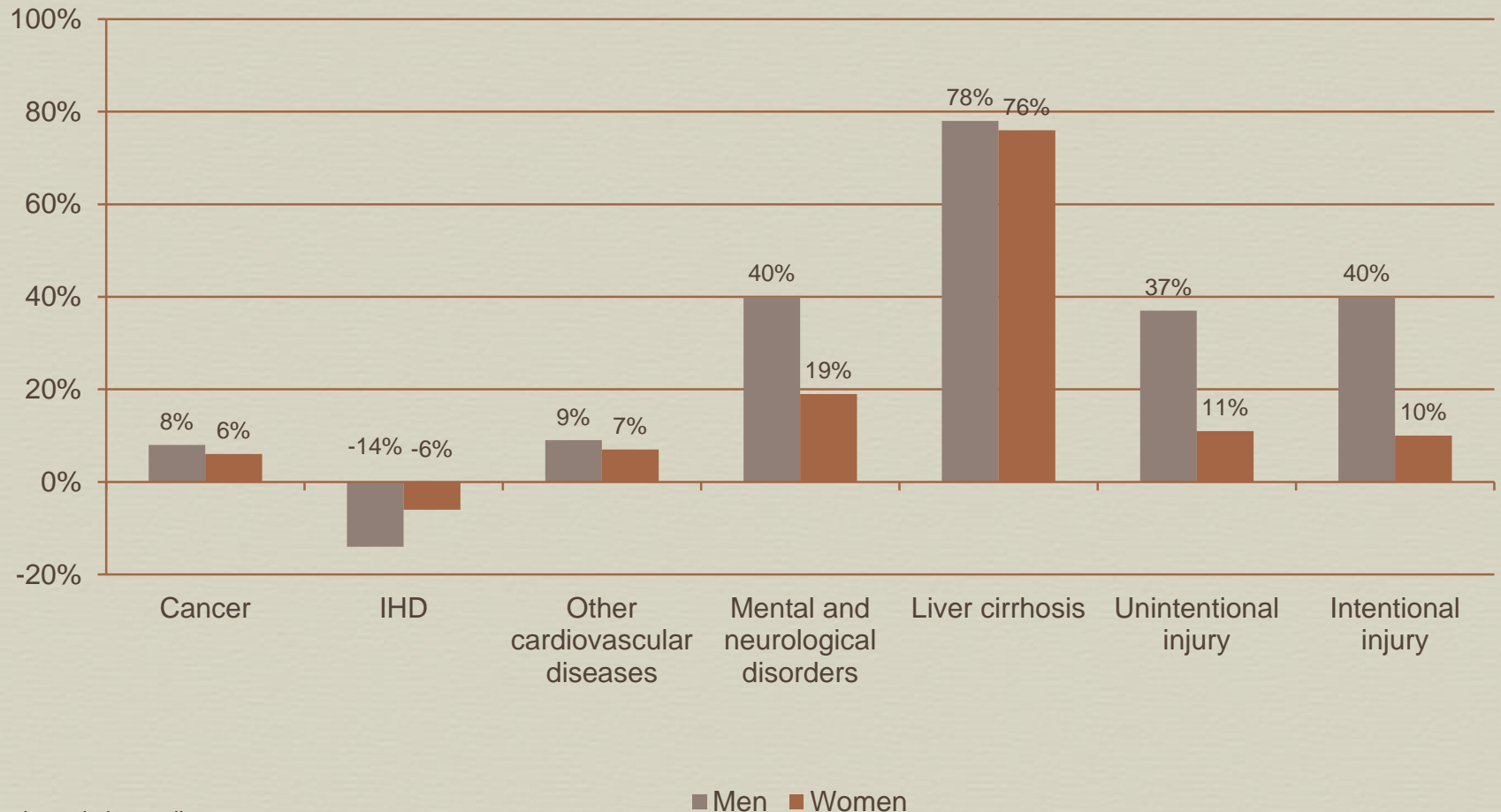
Alcohol Comparator Report based on Anderson & Baumberg, Alcohol in Europe, 2006: total tangible costs to the EU €155.8 billion (lower limit: €107.9 billion; upper limit: €287.7 billion) in 2010, equivalent to 1.3% of GDP (0.9–2.4%)

Figure 2. Difference in life expectancy among 124,971 women with recent onset mental illness in Denmark, Finland and Sweden compared to the general population.



Nordentoft M, Wahlbeck K, Hällgren J, Westman J, et al. (2013) Excess Mortality, Causes of Death and Life Expectancy in 270,770 Patients with Recent Onset of Mental Disorders in Denmark, Finland and Sweden. PLoS ONE 8(1): e55176. doi:10.1371/journal.pone.0055176
<http://www.plosone.org/article/info:doi/10.1371/journal.pone.0055176>

Proportion of deaths within major disease categories in the EU which was alcohol-attributable, for people 15–64 years of age, 2004



IHD=ischaemic heart disease

Alcohol and mental illness

- ∞ Extremely high levels of comorbidity (Psychiatric & somatic).
- ∞ Alcohol major contributory factor development and
- ∞ E.g. Mood & anxiety (stress) disorders and Suicide

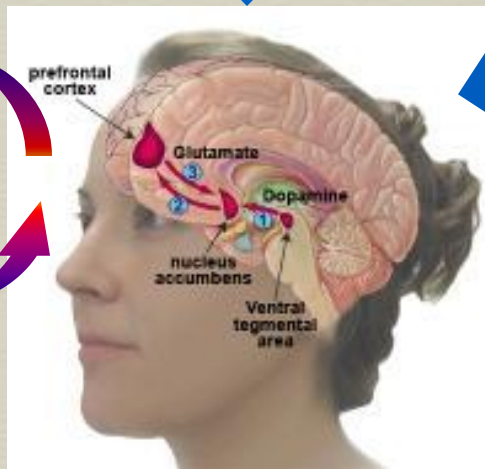
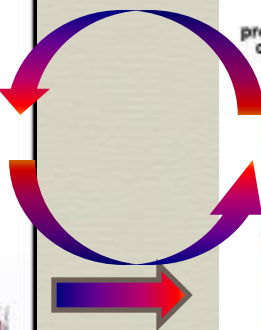


Age onset first intoxications



genes

Environment: Stress - ECA - availability)



Brain circuitries

Alcohol Use disorder

Psychiatric disorders



Prevalence, Severity, and Comorbidity of 12-Month DSM-IV Disorders in the National Comorbidity Survey Replication

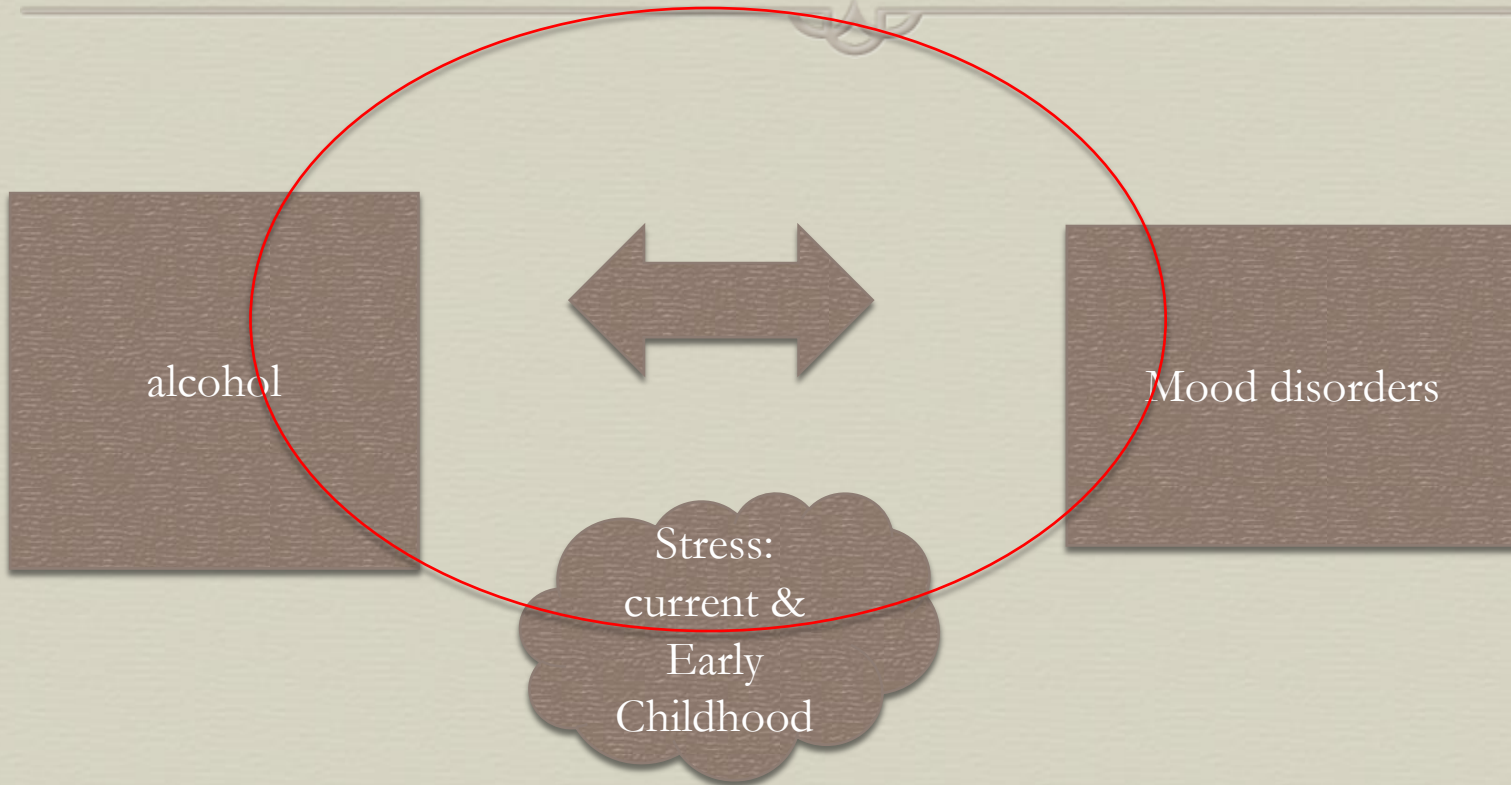
Ronald C. Kessler, PhD; Wai Tat Chiu, AM; Olga Demler, MA, MS; Ellen E. Walters, MS

Table 2. Tetrachoric Correlations Among Hierarchy-Free 12-Month DSM-IV and WMH-CIDI Disorders and Factor Loadings From a Principal Axis Factor Analysis of the Correlation Matrix (n = 3199)*

	Panic Disorder	Agoraphobia	Specific Phobia	Social Phobia	GAD	PTSD	OCD	SAD	MDE	Dysthymia
Anxiety disorders										
Panic disorder	1.0									
Agoraphobia	0.64†	1.0								
Specific phobia	0.49†	0.57†	1.0							
Social phobia	0.48†	0.68†	0.50†	1.0						
GAD	0.46†	0.45†	0.35†	0.47†	1.0					
PTSD	0.49†	0.47†	0.44†	0.43†	0.44†	1.0				
OCD‡	0.42	0.44	0.21	0.16	0.33	0.57†	1.0			
SAD	0.39†	0.31	0.32†	0.34†	0.36†	0.49†	-0.79	1.0		
Mood disorders										
MDE	0.48†	0.52†	0.43†	0.52†	0.62†	0.50†	0.42†	0.37†	1.0	
Dysthymia	0.54†	0.44†	0.44†	0.55†	0.55†	0.50†	0.36	0.41†	0.88†	1.0
MHE	0.51†	0.52†	0.39†	0.46†	0.49†	0.44†	0.40	0.40†	0.63†	0.56†
Impulse control disorders										
ODD	0.40†	0.48†	0.45†	0.47†	0.27†	0.53†	0.52	0.46†	0.48†	0.48†
Conduct disorder	0.26	0.24	0.17	0.28†	0.07	0.27	-0.81	-0.07	0.12	0.31
ADHD	0.38†	0.42†	0.34†	0.51†	0.46†	0.43†	0.26	0.37†	0.50†	0.51†
IED	0.32†	0.35†	0.27†	0.30†	0.31†	0.21†	0.25	0.29	0.39†	0.36†
Substance disorders										
Alcohol abuse	0.27†	0.22	0.10	0.22†	0.25†	0.27†	0.31†	0.09	0.24†	0.33†
Alcohol dependence	0.25	0.33	0.21†	0.31†	0.31†	0.34†	0.25	0.10	0.37†	0.38†
Drug abuse	0.16	0.08	0.07	0.22†	0.24†	0.14	0.32	0.06	0.25†	0.42†
Drug dependence	0.27	0.29	0.26	0.44†	0.35†	0.25	0.36	-0.81†	0.40†	0.56†
Prevalence	3.4	1.6	10.1	8.8	4.4	3.7	1.3	0.9	10.3	2.4
Percentage comorbid	80	91	62	74	85	75	65	71	76	99
Factor 1§	0.70	0.76	0.65	0.71	0.63	0.64	0.80	0.74
Factor 2§	0.12	0.09	0.03	0.18	0.17	0.16	0.19	0.33

Dijkhuizen & Dom EPA GME comorbidity

Comorbidity = negative outcome



Suicide




- ☞ Approximately 1,000,000 people die by suicide in the world every year.
- ☞ It is estimated that there are 10–40 attempted suicides for each completed suicide. This ratio is higher among adolescents and decreases with age.
- ☞ Up to 90% of individuals who complete suicide meet the criteria for a psychiatric disorders.
- ☞ Comorbidity with psychiatric disorders is high.

Table 1

Suicide rates (number of suicides per 100,000 inhabitants) in the European region, according to the latest WHO mortality data, and year for which latest data are available.

Country	Males	Females	Total	Year
Albania	6.31	3.45	4.84	2004
Andorra	–	–	–	–
Armenia	4.51	1.00	2.53	2006
Austria	26.1	8.20	12.69	2008
Azerbaijan	1.8	0.5	0.70	2007
Belarus	46.56	7.61	25.26	2007
Belgium	26.37	9.14	17.46	2004
Bosnia Herzegovina	20.3	3.3	12.91	2007
Bulgaria	17.70	4.29	10.48	2006
Croatia	25.57	6.18	14.99	2008
Cyprus	3.43	0.96	2.13	2007
Czech Republic	20.20	4.16	11.79	2008
Denmark	16.04	5.69	10.59	2006
Estonia	29.07	6.23	16.49	2008
Finland	28.96	8.27	18.45	2008
France	22.79	7.52	14.68	2007
Georgia	3.30	0.97	2.05	2001
Germany	15.46	4.68	9.80	2006
Greece	4.78	0.99	2.85	2008
Hungary	37.15	8.59	21.53	2008
Iceland	16.42	7.45	12.10	2008
Ireland	14.43	4.18	9.29	2008
Israel	7.88	1.68	4.65	2007
Italy	8.43	2.29	5.19	2007
Kazakhstan	44.92	9.25	25.69	2008
Kyrgyzstan	15.99	4.02	9.76	2006
Latvia	32.60	6.16	17.84	2007
Lithuania	55.93	9.10	30.72	2008
Luxembourg	19.71	7.37	13.07	2006
Macedonia	10.48	3.94	7.07	2003
Malta	5.35	1.03	3.13	2008
Netherlands	11.17	4.91	8.02	2008
Norway	14.00	6.09	10.02	2007
Poland	23.04	3.74	12.94	2007
Portugal	15.64	4.08	9.36	2003
Republic of Moldova	30.78	5.38	17.24	2008
Romania	18.37	3.55	10.63	2008
Russian Federation	50.55	8.13	27.40	2006
San Marino	7.28	0.00	3.62	2000
Serbia	22.17	7.97	14.62	2008
Slovakia	21.80	3.15	11.93	2005
Slovenia	28.75	6.64	17.19	2008
Spain	10.48	3.11	6.61	2005
Sweden	16.29	6.59	11.36	2007
Switzerland	21.85	9.11	15.12	2007
Tajikistan	–	–	–	–
Turkey	2.4	3.4	2.9	2005
Turkmenistan	–	–	–	–
Ukraine	36.51	5.66	19.54	2006
United Kingdom	9.71	2.66	6.12	2007
Uzbekistan	8.87	2.37	5.53	2005



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Review

The European Psychiatric Association (EPA) guidance on suicide treatment and prevention

D. Wasserman^{a,*}, Z. Rihmer^b, D. Rujescu^c, M. Sarchiapone^d, M. Sokolowski^a, D. Titelman^a,
G. Zalsman^{e,f}, Z. Zemishlany^e, V. Carli^a

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^f Division of Molecular Imaging and Neuropathology, Psychiatry Department, Columbia University, New York, USA

AUD = Chronic disorders

- ❧ Complex
- ❧ Multifactorial aetiology: Biol x Env. X Gen. x ..
- ❧ Treatment: symptomatic & behavioural
- ❧ Long termvarying expression during lifetime
- ❧ Alcohol Use disorders, diabetes, Hypertension,
- ❧ Treatment: ***Problems !***
 - ❧ small to medium effect-sizes
 - ❧ / compliance
 - ❧ quality

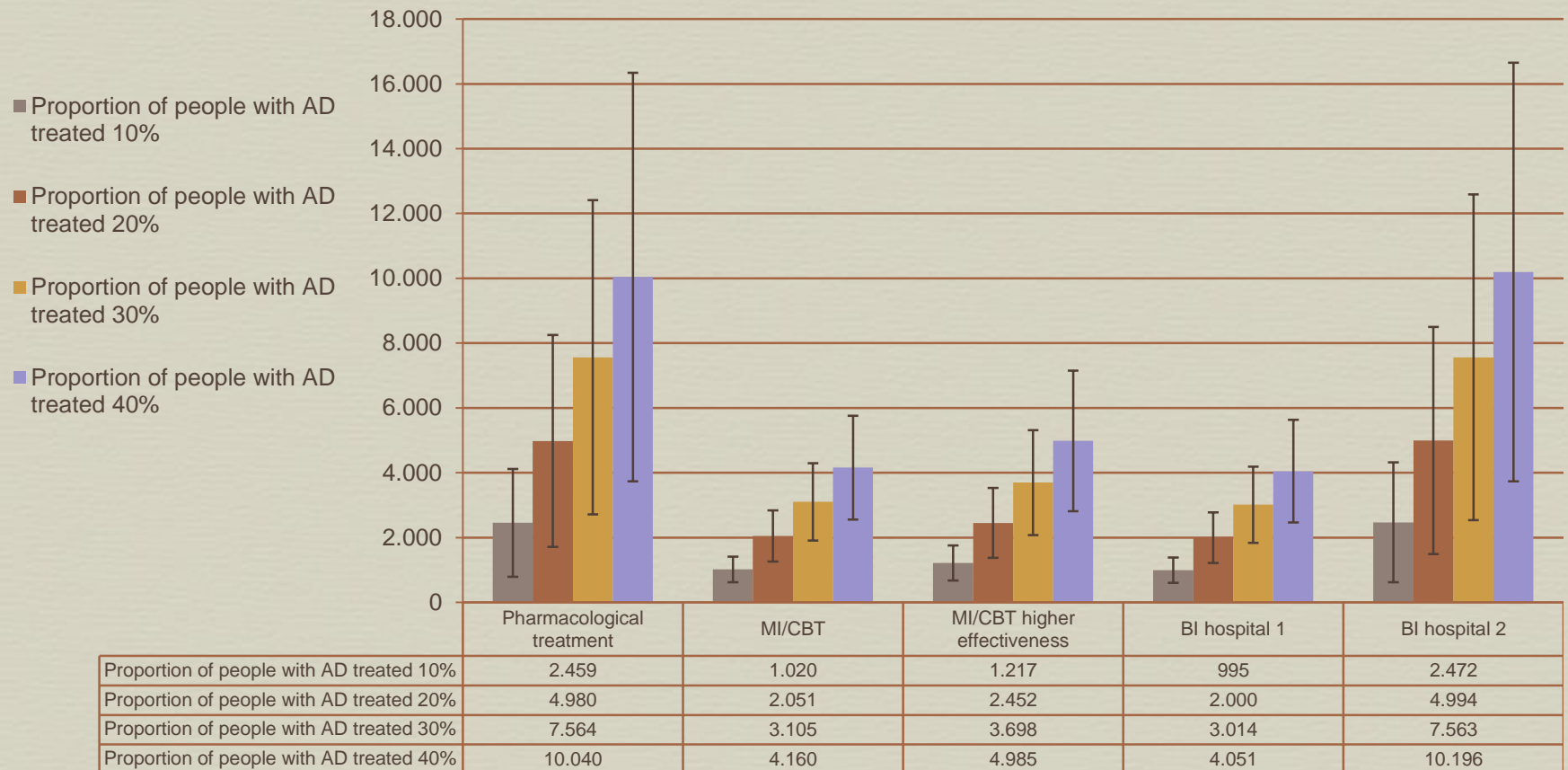
Use of mental health services in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project

Proportion of individuals consulting any type of formal health services in the previous 12 months, according to 12-month mental disorder status

Mental health state	Unweighted, n	Weighted, %	95% CI
Overall sample	21,425	6.4	5.9–6.8
No 12 month mental disorders	19,349	4.3	3.9–4.7
Any disorder	2,076	25.7	23.3–28.1
Any mood	972	36.5	32.5–40.5
Any anxiety	1,325	26.1	23.1–29.1
Any alcohol disorder	209	8.3	3.8–12.8
Only one 12 month mental disorder	1,435	19.6	17.1–22.2
More than one	641	40.0	35.0–45.0

In 2004 in Europe, 37% of persons with a mood disorder and 26% of persons with an anxiety disorder were consulting formal health services in the previous 12 months, whereas this was only **8%** for persons with an alcohol use disorder!!

Number of deaths avoided over one year in men by treatment for AD in the EU in 2004 by five different treatment modalities



AD=alcohol dependence; MI=motivational interviewing;
CBT=cognitive-behavioural therapy; BI=brief interventions

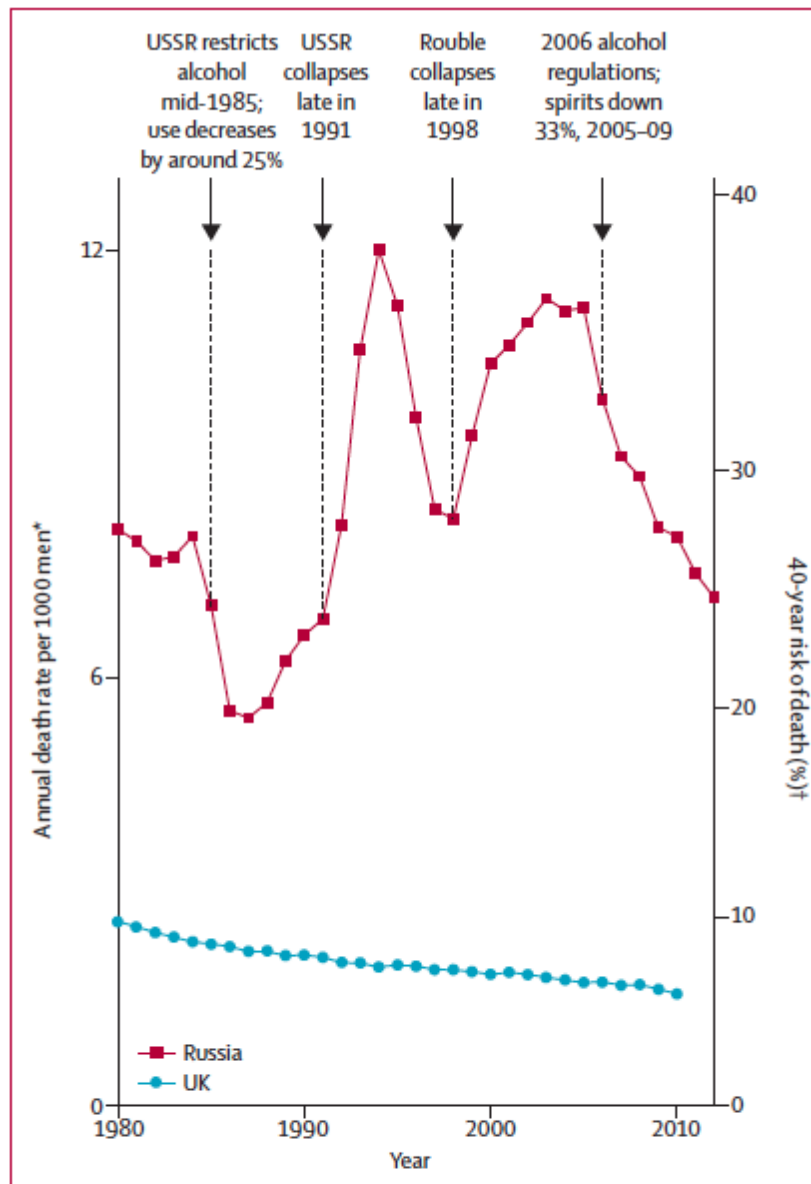
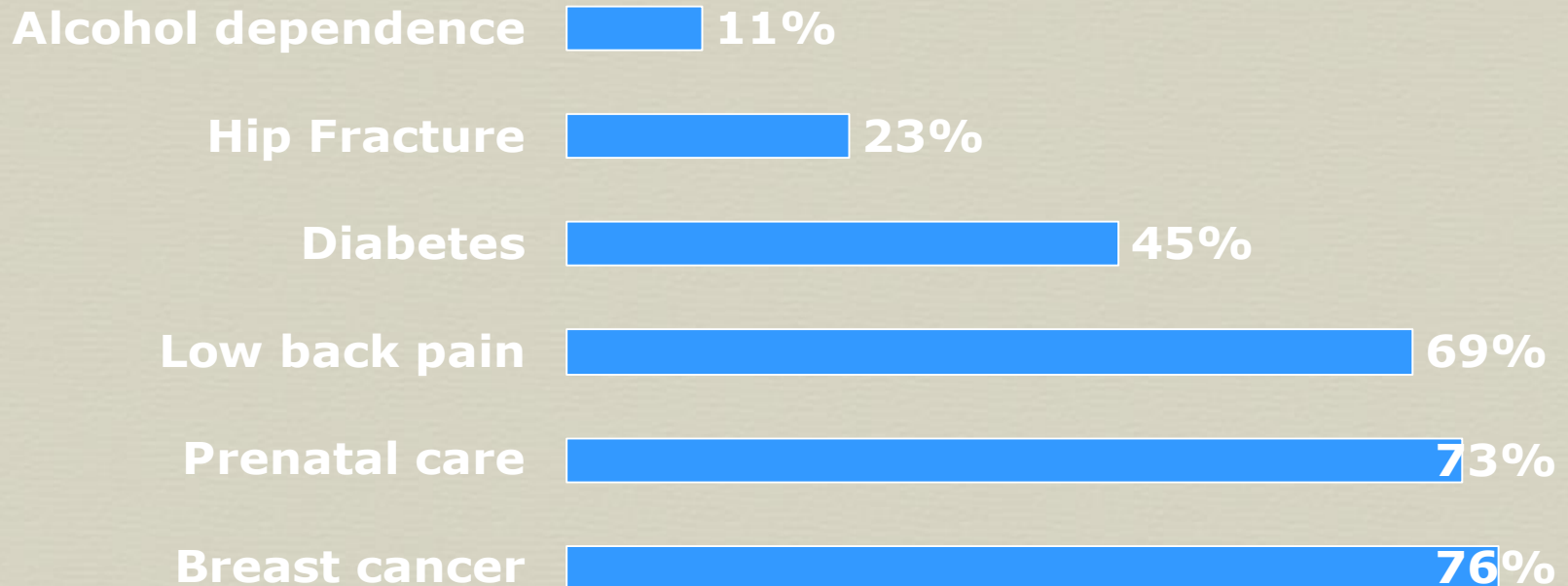


Figure 3: All-cause mortality, males aged 15–54 years, in Russia from 1980–2012 and in the UK from 1980–2010

*Mean of male age-specific death rates in the eight component 5-year age groups (15–19 to 50–54 years). †Probability that a 15-year-old male individual would die before age 55 years, if exposed over next 40 years to male age-specific death rates of one particular calendar year.

Quality Treatment for Health Conditions

Health care practitioners provide evidence-based care only about half the time
(E.McGlynn, et al., NEJM, 2003)



Specifically alcohol use disorders

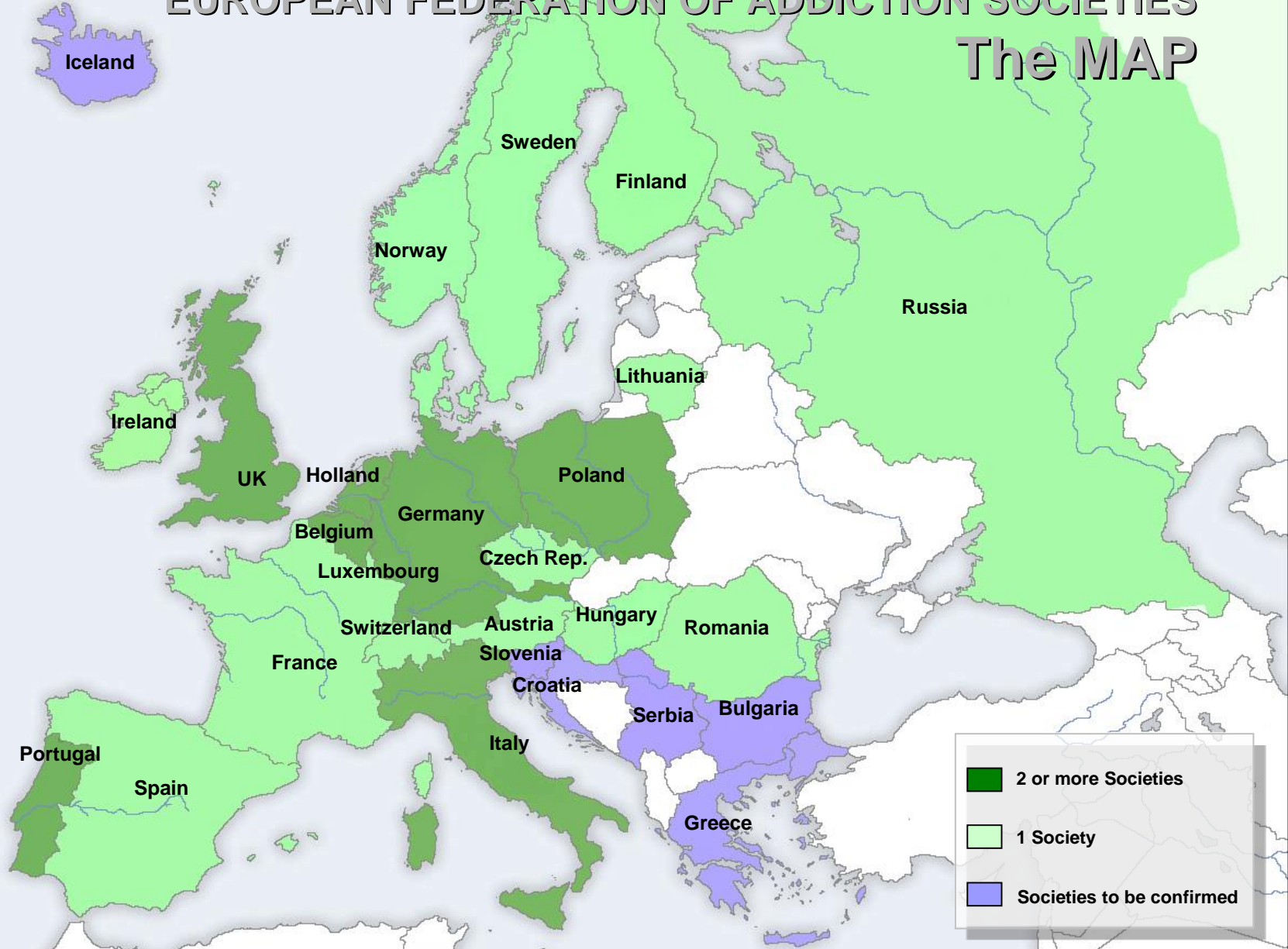
- ❧ Large treatment gap: to little, to late
- ❧ Poor implementation of quality (i.e. evidence based interventions, guidelines)
- ❧ Lack within the training health care professionals (i.e. MD, nurses, psychologists,..)

So we need..

- ∞ Coordinated action:
 - ∞ Research
 - ∞ Treatment guidelines.
 - ∞ Educational programs
 - ∞ Policies
 - ∞ >> large scale (European)

EUROPEAN FEDERATION OF ADDICTION SOCIETIES

The MAP



conclusion



- ☞ Alcohol use & alcohol use disorders are (chronic) brain disorders & extremely prevalent and extreme high personal & societal cost.
- ☞ **EUROPEAN PROBLEM**
- ☞ Alcohol major contributable factor within the development and course of psychiatric disorders.
- ☞ Alcohol = mental health



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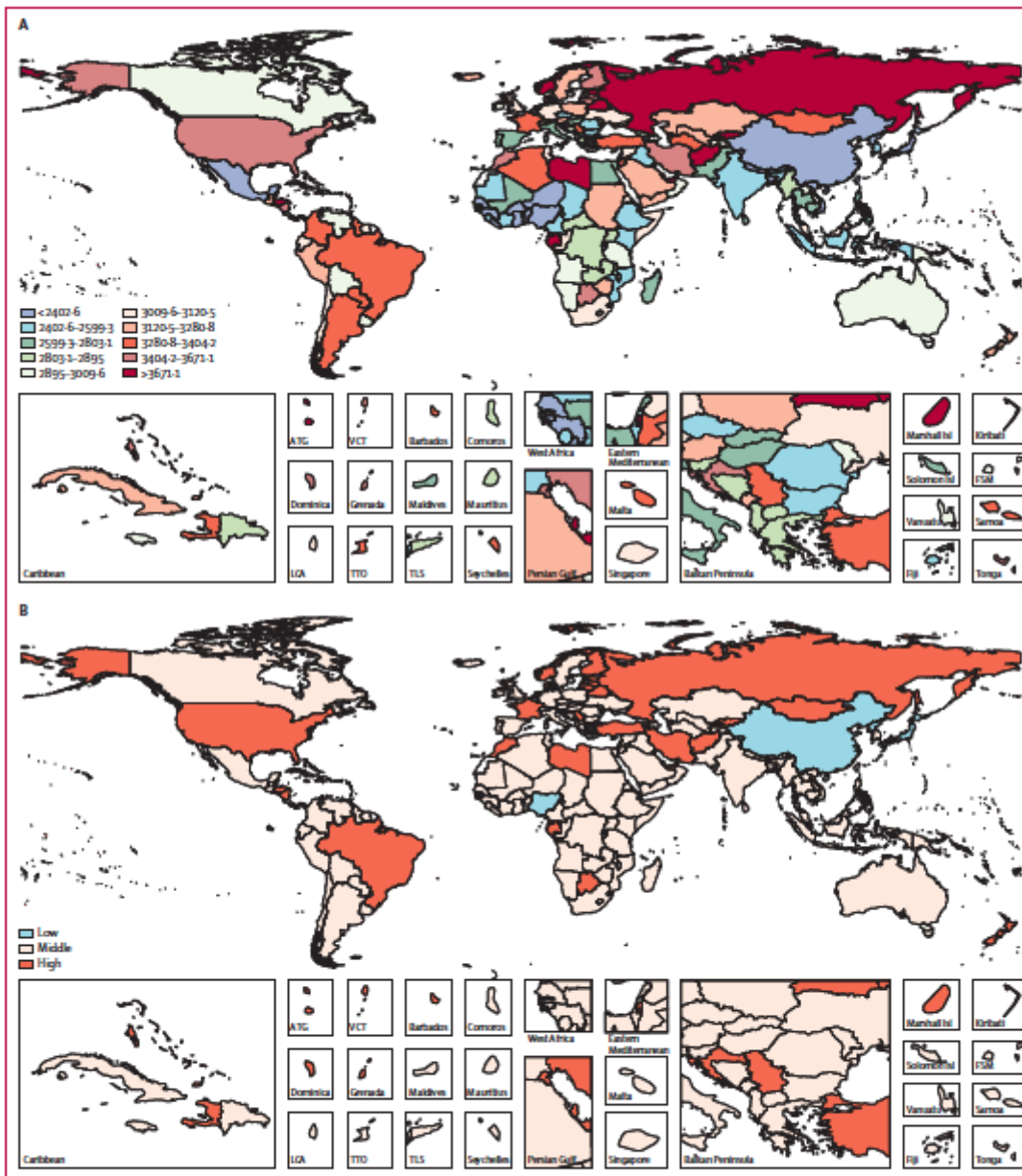


Figure 5: DALY rates per 100 000 individuals for mental and substance use disorders in 2010

(A) Age-standardised DALY rates per 100 000 individuals. (B) Age-standardised DALY rates compared with the global mean. DALYs=disability-adjusted life years. Low=significantly lower than the global mean. Middle=not significantly different from the global mean. High=higher than the global mean. ATG=Antigua and Barbuda. VCT=Saint Vincent and the Grenadines. IS=Islands. FSM=Federated States of Micronesia. LCA=Saint Lucia. TTO=Trinidad and Tobago. TLS=Timor-Leste.



European Monitoring Centre
for Drugs and Drug Addiction

ISSN 2315-1463

EMCDDA PAPERS

Co-morbid substance use and mental disorders in Europe: a review of the data

Contents: Introduction (p. 2) | Sources of information (p. 3) | Prevalence and nature of co-morbidity (p. 4) | Prisoners: an example of a vulnerable group (p. 5) | Limitations (p. 6) | Annex (p. 8) | References (p. 10)

Country	Prevalence of psychiatric co-morbidity (year of data collection)	Reference population	Type of disorder/notes
Austria	51 % (2010)	Drug users in treatment	n.a.
Belgium	54 % (2010)	Drug users in treatment	Type of disorder – n.a. 41 % moderate; 13 % severe
Bulgaria	2–10 % (2008)	Drug users in treatment from different types of facilities	n.a.
Croatia	21 % (2010)	Drug users in treatment	Mainly opioid users: 86 % of whom have a co-morbid disorder Personality disorders, 20 % Behavioural disorders, 23 % Schizophrenia, 16 %
Cyprus	5–43 % (2009)	Drug users in treatment	Depression Difficulties in concentration Stress
Czech Republic	7 % (2001–05)	Methamphetamine users admitted to hospitals	Psychotic disorder
Denmark	11–29 % (2002)	Psychiatric patients	Schizophrenia Affective disorders Stress-related disorders Personality disorders
Estonia	25 %	Prisoners	n.a.
Finland	>50 % (2010)	Drug users in treatment (especially misusers of buprenorphine)	Depression
France	55 % (2009)	Prisoners (incoming inmates)	Anxiety Depression
Germany	28–52 % (2010)	Psychiatric patients	Anxiety disorders, 23 % Affective disorders, 19 % Somatoform disorders, 9 % Attention deficit hyperactivity disorders, 9 %
Greece	17 % (2010)	Drug users in treatment	n.a.
Hungary	57 % (2007)	Drug users in treatment	Boredom Sadness or slight depression Anxiety or intensive worrying
Ireland	6 per 100 000 general population (2006)	Data recorded at psychiatric first admission in psychiatric hospitals	Type of disorder – n.a. Increasing trend from 3 per 100 000 in 1990 to 6 per 100 000 in 2006
Italy	22 % (2007)	Drug users in treatment	Mainly males Mean age: 36 years Opioids and polydrug users Affective psychoses, 18 % Neurotic somatic disturbances, 10 % Schizophrenic psychoses, 7 % Other disturbances, 7 % Paranoid state, 1 %
Latvia	18 % (2009)	Drug users in treatment	Organic mental disorders, 25 % Behavioural and emotional disorders, 21 % Neurotic/stress-related disorders, 17 %
Lithuania	9 % (2009)	Psychiatric patients	n.a.
Luxembourg	83 % had previous contacts with psychiatric services (2009)	Drug users in treatment	Anxiety Depression Neurosis/psychosis Borderline behaviour
Malta	n.a.	Patients of dual diagnosis clinic	Depression Paranoid personality disorder Borderline personality disorder Narcissistic personality disorder
Netherlands	84 % (2007)	Opioid users in methadone treatment (202)	Major depression and generalised anxiety disorders, 34 % Psychotic disorder, 39 % Current psychotic disorder, 9 %

Country	Prevalence of psychiatric co-morbidity (year of data collection)	Reference population	Type of disorder/notes
Norway	23 % (2010) 20–47 % (2010)	Psychiatric patients Psychiatric emergency patients	n.a.
Poland	8 % (2005)	Patients admitted to inpatient psychiatric hospitals	n.a.
Portugal	53 % (2005)	Long-term street addicts undergoing treatment	Depression
Romania	14 % (2009)	Drug users in treatment	Behavioural and emotional disorder
Slovakia	14 % (2004)	Patients of psychiatric hospitals	Schizophrenia (in the last years with positive correlation with cannabis treatment demand)
Slovenia	3 045 (2009)	Hospitalisations related to drug, alcohol and mental health disorders	n.a.
Spain	13 % (2007)	Drug users in treatment	Personality disorders Antisocial disorder and borderline disorder, 12 % Paranoid disorder, 3 % Narcissistic and schizoid disorders, 2 %
Sweden	47 % (2002–04)	Drug users in treatment	Borderline, 18 % Schizotypal, 12 %
United Kingdom (England)	60–90 % (2002)	Substance misusers in treatment	Anxiety (32 % female; 17 % male) Depression (30 % female; 15 % male) Paranoia (27 % female; 17 % male) Psychoticism (33 % female; 20 % male)
United Kingdom (Scotland)	21 % female; 32 % male 42 % female; 40 % male	Psychiatric patients Drug treatment patients	Alcohol and depression Alcohol and anxiety Diazepam and anxiety

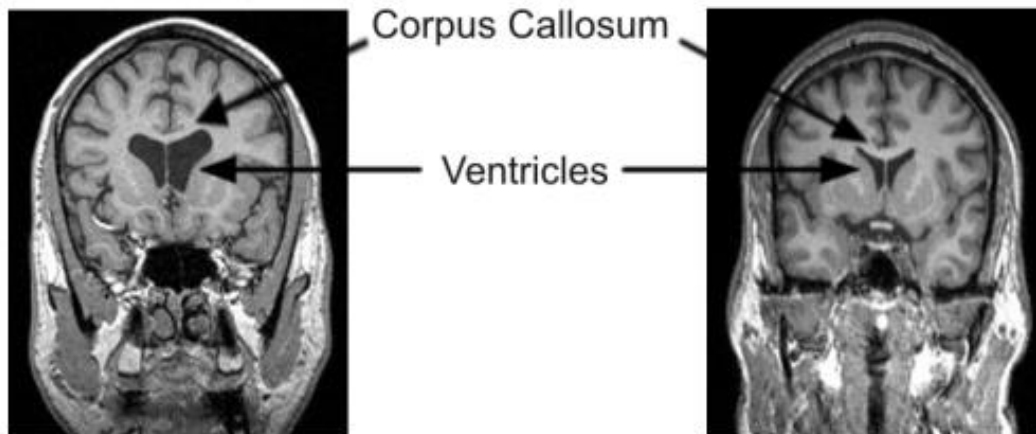
n.a., information not available.

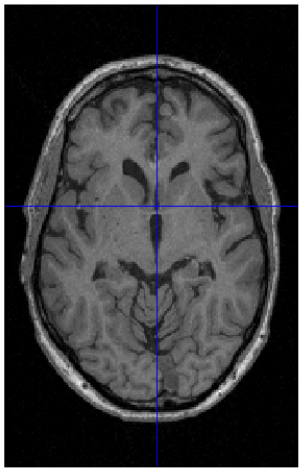
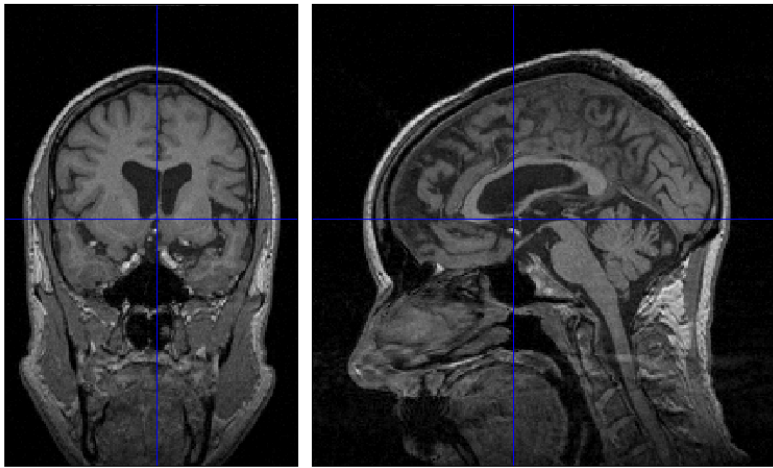
NB: Because of differences among the studies listed here, such as target populations, subjects, and time references, their results are not intercomparable.

Sources: Data from 2006, 2007, 2008, 2009, 2010, 2011 Reitox National reports and the literature.

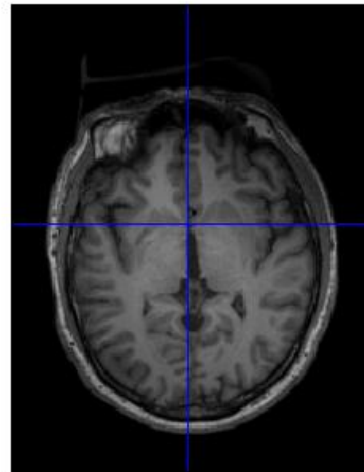
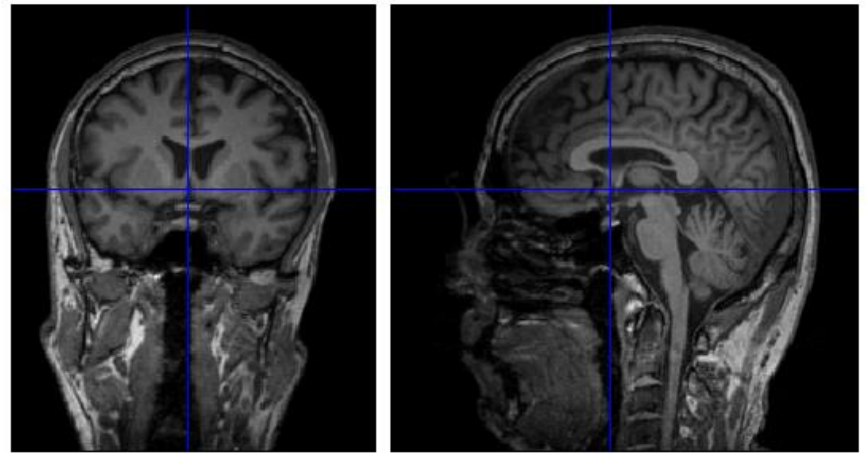
alcoholic man (33y)

control man (31y)



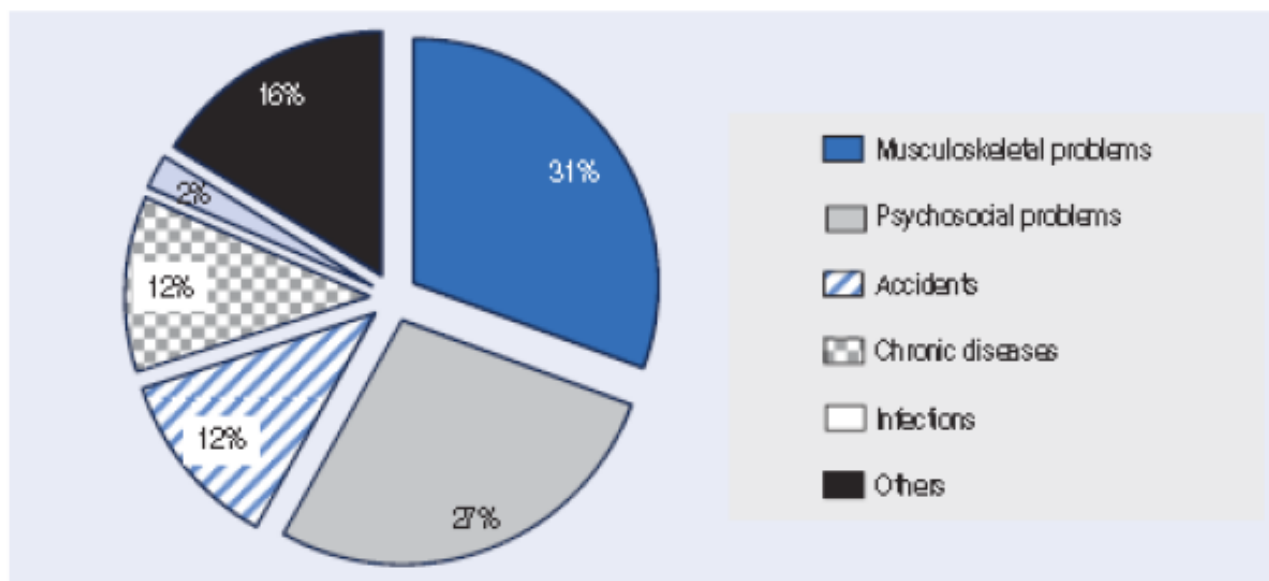


alcohol-dependent
male
42 years old



healthy
male
43 years old

Causes of sickness absences of 15 days or longer among employees in Belgium, 2004-06



Bron: OESO, 2013

Alcohol and mortality in Russia:
prospective observational
study of 151 000 adults.
Lancet 2014

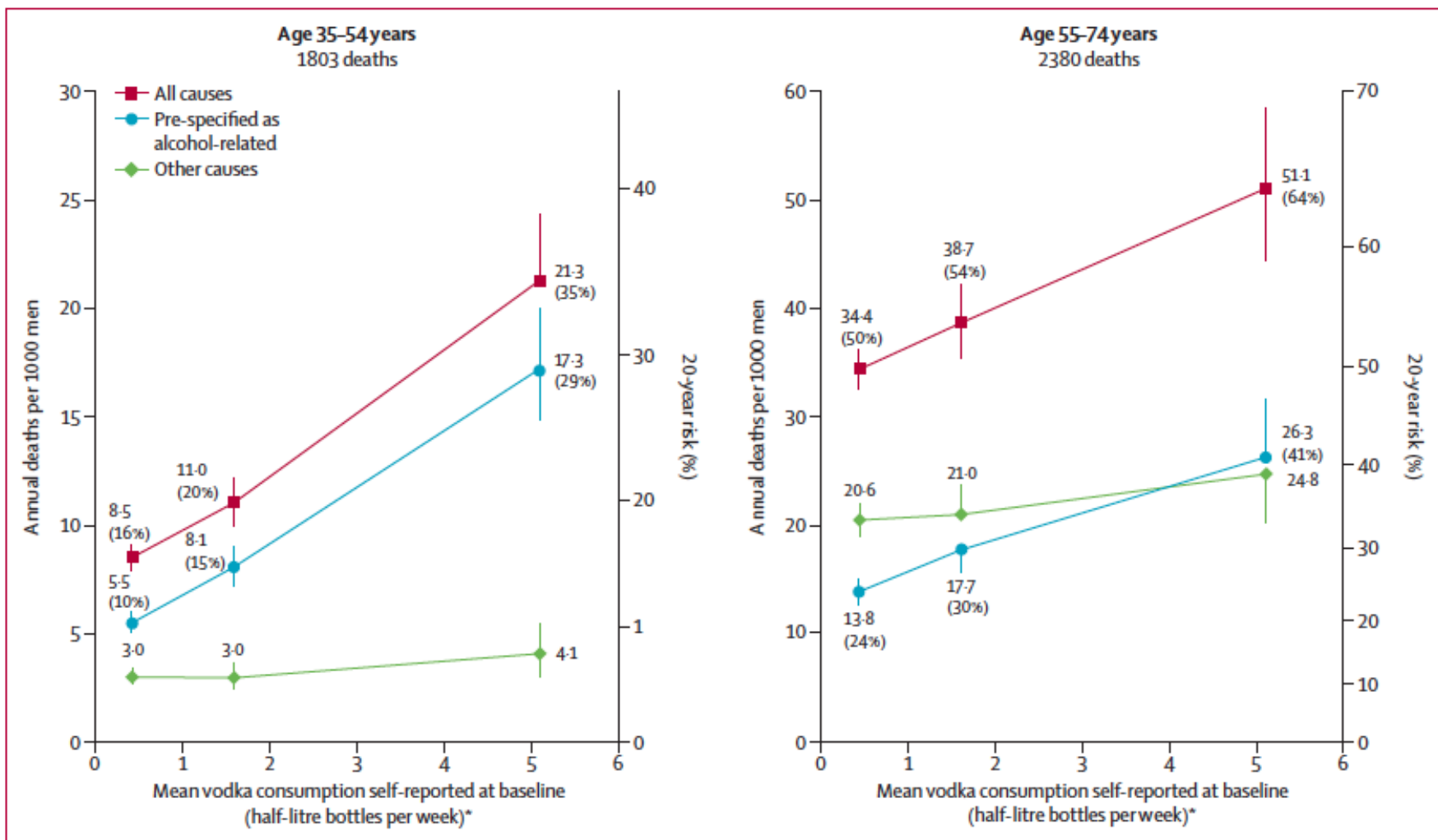


Figure 2: Mortality rates at ages 35-54 years and 55-74 years for causes prespecified as alcohol-related, other causes, and all causes, by vodka use self-reported at baseline in 57 361 male current smokers without previous disease

The mortality rate in each 20-year age range is the mean of the four rates in the four 5-year age groups within that range, and the 20-year risk of death is conditional on reaching the start of the age range. Excludes people with no follow-up at ages 35-74 years or with evidence at baseline of pre-existing disease (self-reported cancer, myocardial infarction, angina, heart failure, rheumatic heart disease, stroke, diabetes, tuberculosis, liver cirrhosis, or chronic hepatitis) or who had already quit drinking or smoking because of illness. Causes prespecified as alcohol-related: external (includes assault, suicide, accident, alcohol poisoning, etc), liver diseases (neoplastic or not), upper aerodigestive cancer, tuberculosis, pneumonia, non-myocardial infarction acute ischaemic heart disease (ICD-10 I24), non-neoplastic pancreatic disease, and ill-defined causes. *Current drinkers were subdivided into prespecified categories of vodka consumption (for men <1, 1 to <3, ≥3 bottles per week), but results are plotted against total consumption of alcohol, vodka or other, in units of 200 mL per week, as in table 1.