Turning Point
Alcohol & Drug Centre

Global alcohol impacts and interventions

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The basic argument

1. Alcohol imposes a big burden of social and health harm, to others as well as to the drinker. Alcohol is thus no ordinary commodity.
2. Strategies to hold down or reduce rates of alcohol problems differ in their effectiveness. Among the most effective: controls on the availability of alcohol.
3. National and local alcohol controls are increasingly negated or undercut by international trade agreements and free trade areas, treating alcohol as an ordinary commodity.
4. A public health-oriented international agreement on alcohol control is needed to enable effective policies.

1. Measuring alcohol's part in the global burden of disease: WHO's study of GBD 2000

- Covers only disease and disability
  - Health consequences, including injuries, but not social consequences
  - For alcohol, in terms of population rates, and of expenditures on human services, social consequences can be greater than health consequences
- Quantifies in terms of
  - Deaths
  - DALYs – Disability-Adjusted Life-Years
    - Years of life lost (YLL) from premature death
    - Fractional years of life from disability (YLD)

WHO's Comparative Risk Assessment Collaborating Group

- Overall report writing:
  - M Ezzati, A D Lopez, A Rodgers, C J L Murray, S Vander Hoorn

  (M Ezzati, AD Lopez, A Rodgers & CJL Murray, eds., *Comparative Quantification of Health Risks: Global & Regional Burden of Disease Attributable to Selected Major Risk Factors*. Geneva: WHO, 2004)
- 27 groups:
  - Core, methodology, etc. Group
  - 26 risk factor groups
- Alcohol group:
  - J Rehm, R Room, M Monteiro, G Gmel, K Graham, N Rehn, C T Sempos, U Frick, D Jernigan
  - The need to measure or estimate amount and pattern of drinking
  - Applying consumption and findings of meta-analyses of prospective epidemiological studies to estimate Alcohol-Attributable Fractions
  - Drinking pattern used for Injuries and (in part) for Heart disease

Economic development status & alcohol consumption parameters

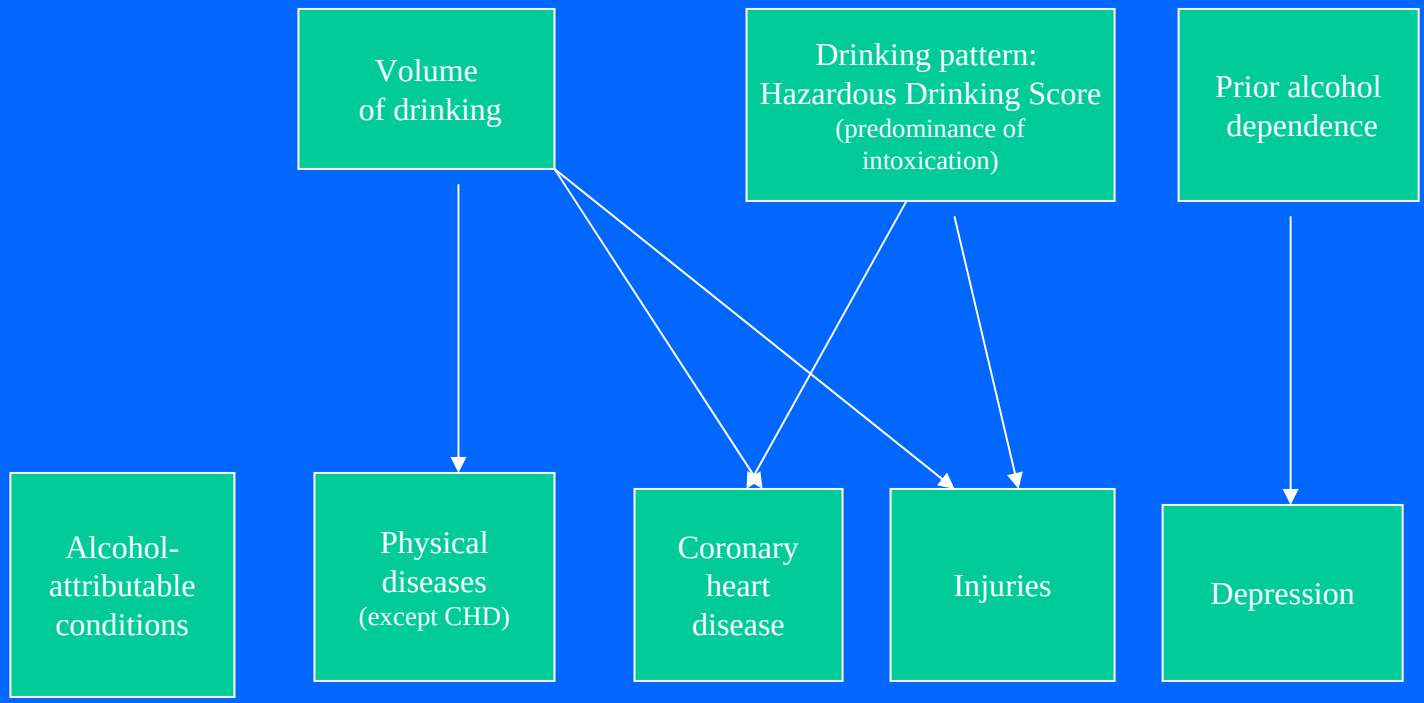
(Room, Babor & Rehm, *The Lancet* 365:519-530, 2005)

	Level of mortality	WHO Regions	Recorded consumption	Unrecorded consumption	Total consumption	% drinker	consumption per drinker[1]	Pattern (4=bad, 1= good)
Developing countries	Very high or high mortality; lowest consumption	EMR-D, SEAR-D (Islamic middle East and Indian subcontinent)	0.41	1.47	1.88	15.0	12.27	2.9
	Very high or high mortality; low consumption	AFR-D, AFR-E, AMR-D (poorest countries in Africa and America)	3.11	2.82	5.93	42.8	14.21	2.8
	Low mortality emerging economies	AMR-B, EMR-B, SEAR-B, WPR-B (better-off developing countries in America, Asia, Pacific)	3.79	1.44	5.23	51.0	10.53	2.4
Developed countries	Very low mortality	AMR A, EUR A, WPR A (North America, Western Europe, Japan, Australasia)	9.62	1.28	10.90	77.8	14.00	1.5
	Former Socialist: low mortality	EUR B, EUR C (Eastern Europe and Central Asia)	6.97	4.44	11.42	74.5	15.09	3.3
World			4.22	1.81	6.03	48.6	12.26	2.5

Economic development status & aspects of alcohol consumption: some observations

- **Recorded** consumption highest in developed "western" countries
- Adding in unrecorded consumption: **total consumption** is high in both "western" developed and eastern Europe
- Many adult abstainers in developing countries
- So consumption per drinker doesn't vary much between developing and developed world
- Patterns of drinking (on a scale 1-4) generally more hazardous (→ more trouble per litre) in eastern Europe and developing countries

Aspects of alcohol used in estimating Alcohol Attributable Fraction (AAF) for different conditions



Main alcohol-related disorders

- **Organic disease:**
  - **Conditions arising during perinatal period*:** low birth weight
  - **Cancer*:** lip & oropharyngeal cancer, esophageal cancer, liver cancer, laryngeal cancer, female breast cancer
  - **Neuropsychiatric diseases:** alcohol use disorders, unipolar major depression, epilepsy
  - **Diabetes***
  - **Cardiovascular diseases:** hypertension*, coronary heart disease, stroke*
  - **Gastrointestinal diseases*:** liver cirrhosis
- **Injury:**
  - **Unintentional injury:** motor vehicle accidents, drownings, falls, poisonings, other unintentional injuries
  - **Intentional injury**: self-inflicted injuries, homicide, other intentional injuries

* Alcohol Attributable Fraction based on volume of drinking only

Burden of disease (DALYs) in 2000 attributable to alcohol: more important with greater development, higher for males

	High mortality developing region (AFR-D, AFR-E, AMR-D, EMR-D, SEAR-D)			Low mortality developing regions (AMR-B, EMR-B, SEAR-B, WPR-B)			Developed regions (AMR-A, EUR-A, EUR-B, EUR-C, WPR-A)			World		
	M	**F**	**Both**	**M**	**F**	**Both**	**M**	**F**	**Both**	**M**	**F**	**Both**
Total DALYs (000s)	420'711	412'052	832'763	223'181	185'316	408'497	117'670	96'543	214'213	761'562	693'911	1'455'373
Alcohol	2.6%	0.5%	1.6%	9.8%	2.0%	6.2%	14.0%	3.3%	9.2%	6.5%	1.3%	4.0%

Alcohol in the Comparative Risk Analysis for 2000 in emerging and established economies (% total DALYS)

Developing countries				Developed countries	
High mortality		Low mortality			
Underweight	14.9%	Alcohol	6.2 %	Tobacco	12.2 %
Unsafe sex	10.2 %	Blood pressure	5.0 %	Blood pressure	10.9 %
Unsafe water & sanitation	5.5 %	Tobacco	4.0 %	Alcohol	9.2 %
Indoor smoke (solid fuels)	3.6 %	Underweight	3.1 %	Cholesterol	7.6 %
Zinc deficiency	3.2 %	Body mass index	2.7 %	Body mass index	7.4 %
Iron deficiency	3.1 %	Cholesterol	2.1 %	Low fruit & vegetable intake	3.9 %
Vitamin A deficiency	3.0 %	Low fruit & vegetable intake	1.9 %	Physical inactivity	3.3 %
Blood pressure	2.5 %	Indoor smoke from solid fuels	1.9 %	Illicit drugs	1.8 %
Tobacco	2.0 %	Iron deficiency	1.8 %	Unsafe sex	0.8 %
Cholesterol	1.9 %	Unsafe water & sanitation	1.8 %	Iron deficiency	0.7 %

Whst are the biggest health burdens from alcohol? % of total alcohol-attributed DALYs, by development status

	developing countries			developed countries		world
	EMR-D, SEAR-D	AFR-D&E, AMR-D	AMR-B, EMR.B, SEAR-B, WPR-B	AMR-A, EUR-A, WPR-A	EUR-B&C	
Perinatal conditions	0.5	0.7	0.1	0.1	0.1	0.2
Cancers	2.6	7.0	9.1	10.5	3.4	7.2
Mental disorders	29.8	23.5	39.7	72.1	22.1	37.6
Cardiovascular dis.	15.1	6.1	8.9	-19.6	16.4	6.8
Other non-communic-able diseases	5.1	8.3	7.3	10.0	8.6	7.8
Unintentional injuries	38.4	38.1	23.4	19.9	33.5	28.3
Intentional injuries	8.5	16.4	11.5	7.1	16.0	12.1
Total alc.-rel. DALYs	*5966*	*7199*	*25,519*	*7897*	*11,742*	*58,323*
Total DALYS	*458,601*	*364,117*	*409,688*	*115,863*	*96,911*	*1,445,169*
% of GBD alc.-related	1.3%	2.0%	6.2%	6.8%	12.1%	4.0%

Alcohol in the Global Burden of Disease – some observations

- Alcohol is an important factor in the Global Burden of Disease
  - Greatest fraction in developed world
    - particularly eastern Europe
  - Ranks highest in middle-income countries
  - Men's drinking much more important (>4 x) than women's in burden everywhere
- Important components of alcohol burden:
  - For deaths: **injuries** (intentional and unintentional), **cancers**
  - For DALYs: **injuries** (intentional and unintentional), **mental disorders** (alcohol disorders)
  - Injuries even more important in developing than developed world

The burden is on others as well as the drinker; the harm is social as well as to health

- **Australia (Cooper-Stanbury & Summerill, 2005): in the last 12 months**
  - 21.9% verbally abused by a person affected by alcohol
  - 11.8% put in fear
  - 3.7% physically abused

- **Canada (Eliany et al, 1992): in the last 12 months**
  - 7.2% pushed, hit or assaulted by someone who had been drinking
  - 7.7% family problems or marriage difficulties due to someone else's drinking
  - 6.2% friendships broke up because of someone else's drinking

- **Scotland (Catalyst, 2001): distribution of alcohol-related public service expenditures**
  - 21% in health services
  - 19% in welfare services
  - 60% in police and fire services

Conceptual issues and research priorities in improving the alcohol estimates

- Estimates for social harms from alcohol!
- Improving the epidemiology on alcohol's role in disabilities
- Beyond the DALY in conceptualizing the burden of disabilities
- Role of drinking **patterns** in chronic disorders?
  - stroke, other cardiovascular, cirrhosis, breast cancer ...
- Hazardous drinking – different scores for different consequences? Different scores for subpopulations?
- Estimating the effects of change at the population level (individual-level results may not map onto it)
- How to measure and when to count benefits

2. Strategies to reduce rates of alcohol problems differ in their effectiveness

- *Alcohol – No Ordinary Commodity: Research and Public Policy* (Oxford UP, 2003)
- A study under WHO auspices by a group of scholars from 9 countries:
  - T. Babor, R. Caetano, S. Casswell, G. Edwards, N. Giesbrecht, K. Graham, J. Grube, P. Gruenewald, L. Hill, H. Holder, R. Homel, E. Österberg, J. Rehm, R. Room, I. Rossow
- Considering
  - Evidence of effectiveness
  - Breadth of support in the literature
  - Extent of cross-cultuiral testing
  - Costs to implement and sustain

Controls of alcohol sales among the most effective strategies: **a list of 10 "best practices", based on the international evaluation literature**

Alcohol control policies

- Minimum legal purchase age
- Government monopoly of retail sales
- Restriction on hours or days of sale
- Outlet density restrictions
- Alcohol taxes

Drink-driving countermeasures

- Sobriety check points
- Lowered BAC limits
- Administrative license suspension
- Graduated licensing for novice drivers

Brief interventions for hazardous drinkers

3. Alcohol controls are increasingly negated or undercut by trade agreements and disputes

- GATT disputes between EU, US, Canada, 1980s-90s: Canadian beer controls compromised
- GATT disputes between US and Japan, South Korea; EU and Switzerland, 1990s: taxes reduced
  - Tendency for disputes to be settled by increasing availability (least common denominator between commercial interests)
- WTO's General Agreement on Trade in Services -- ongoing negotiations
  - Potential impact on several areas of public health, including alcohol control
  - EU proposal to Canada and U.S.: eliminate provincial/state alcohol monopolies

Recognizing that alcohol is “no ordinary commodity” at the international level

- National and local regulations as insufficient in a globalized market
- The need to constrain the effects of trade agreements
- The current situation:
  - **Plant-based drugs** (heroin, opium, codeines, cocaine, cannabis): “Single Convention”, 1961
  - **Psychopharmaceuticals** (amphetamines, benzodiazepines, barbiturates, LSD, etc.): Vienna Convention, 1971
  - **Tobacco**: Framework Convention on Tobacco Control, 2003
  - **Sports doping**: World Anti-Doping Agency, 1999; UNESCO Convention 2005
  - **Alcohol**: nothing

Limited effort at the international level

- World Health Organization
  - Geneva and regional offices
  - Consistent concern, but limited action
    - "While tobacco remains the most vilified of the legal vices, makers of fattening foods are now also being besieged by hostile lobby groups, lawyers, politicians and the media.... In contrast ... makers of alcoholic drinks have escaped the same level of scrutiny."
    - "WHO under Brundtland 'hasn't really engaged substantially in the alcohol area' for fear of compromising WHO's work in cutting tobacco use". -- Adam Jones, *Financial Times* 8 July 2003
  - Not oriented to crime and social problems aspects
- International Labour Organization
  - A few publications
- Virtually nothing else intergovernmental

Signs of change at WHO

- The high ranking of alcohol in the Comparative Risk Analysis was a surprise to many
- WHO's CHOICE project has modeled and shown the cost-effectiveness of different policies to reduce alcohol problems (Chisholm et al. *Journal of Studies on Alcohol* 65:782-793, 2004)
- The results of these studies have helped change the climate at the World Health Organization concerning tackling alcohol problems
  - May 2005: first World Health Assembly resolution on alcohol since 1983, commissioning a plan of action to consider in 2007
    - Strong intervention by Thai delegate at Executive Board
  - first WHO Expert Committee on Alcohol since 1979 met in October
  - first Regional Strategy to Reduce Alcohol-related Harm adopted by WHO Western Pacific Region in September
  - the 2007 and 2008 World Health Assemblies will be crucial

4. Needed:
A Framework Convention on Alcohol Control

Precedent: Framework Convention on Tobacco Control

- the first WHO-sponsored legally binding treaty
- WHA resolution for feasibility study 1995
- negotiations Oct. 2000 – Feb. 2003
- adopted by WHA May 2003, opened for signature
  - 168 countries have signed
- comes into force with ratification by 40 countries
  - presently ratified by 33

"framework convention" or "convention/protocol" model:

- establishing general principles, with protocols to be added with specific implementing measures
- creating "an institutionalized forum for cooperation and negotiation"

An alternative solution

- Inclusion in 1971 Convention on Psychotropic Substances
  - Clearly qualifies: "If the WHO finds that the substance has the capacity to produce a state of dependence and CNS stimulation or depression ... [and that it is] abused so as to constitute a public health and social problem ..."
- Difficulties
  - The 1971 Conference "did not intend to apply the ... Convention to alcohol"
  - Use and possession of a substance included in the 1971 Convention is to be limited to "medical and scientific purposes"
  - With some exceptions, a prescription regime is required

Characteristics of conventions

- At least as much about internal markets as about control across borders
  - the international agreements as a lever for internal policy change
- Creating an expectation of comity
  - nations respecting each other's laws on legality
- International structure as a sheep-dog
  - INCB's self-image: "Guardian of the Conventions"

Relation to/conflict with trade treaties

- Apparently not an issue with drug conventions: taboo?
  - though pharmaceutical companies deeply involved in convention processes
- Unsolved issue with FCTC:
  - Provision on relation with WTO discussed in final negotiating sessions, but no agreement:
    - "several drafts circulated during the negotiation,... but the negotiators found it simpler not to decide. 'No deal is better than a bad deal'", said one public health advocate.
- More on options for international alcohol control:
  - R. Room in *Drug & Alcohol Review* 25:581-595, 2006.

Looking globally

- Alcohol important in the burden of disease and social problems in developed countries
- Particularly important in the better-off developing countries
- Developing world drinking patterns:
  - Many abstainers
  - Often much unregistered consumption
  - Often hazardous drinking patterns (intoxication if drinking at all)
- Alcohol consumption increases with affluence
- Multinationals with their marketing pushing sales
- In a globalizing world, local and even national controls no longer suffice
- An international agreement is needed