Harmful Use of Alcohol
A Global Public Health Perspective

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Four types of NCDs are largely preventable by means of effective interventions that tackle shared modifiable risk factors.
Harmful use of alcohol: definitions

- Definition of "harmful use of alcohol" in ICD-10: "a pattern of alcohol use that is causing damage to health, and the damage may be physical (as in cases of liver cirrhosis) or mental (as in cases of depressive episodes secondary to heavy consumption of alcohol)" (ICD-10; WHO, 1992).

- Global strategy to reduce the harmful use of alcohol (WHO, 2010): "the concept of the harmful use of alcohol is broad and encompasses the drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as the patterns of drinking that are associated with increased risk of adverse health outcomes."
Impact on the drinker

Alcohol consumption can harm the drinker by its:

- toxic effects on organs and tissues;
- intoxication, leading to impairment of physical coordination, consciousness, cognition, perception, affect or behaviour;
- Dependence producing propensities, whereby the drinker’s self-control over his or her drinking behaviour is impaired.
Impact on people around the drinker

Alcohol consumption can harm other people than the drinker by:

- Intentional or unintentional injury to other individuals
- Neglect or abuse
- Default on social role as family member, as a friend and/or as a worker
- Property damage
- Toxic effects on other individuals
- Loss of amenity or peace of mind
Impact on society at large

Alcohol consumption may harm society at large by the aggregate effects of harmful use;

- The overall health burden
- Social and economic cost
- Economic development
WHO Global Status Report 2014

- Chapter 1: Alcohol and public health
- Chapter 2: Alcohol consumption
- Chapter 3: Health consequences
- Chapter 4: Alcohol policy and interventions

Appendices:
- Country profiles
- Additional indicators
- Data sources and methods
- References
Conceptual causal model of alcohol consumption and health outcomes

**Alcohol consumption**
- Volume
- Pattern

**Health outcomes**
- Chronic
- Acute

**Societal Vulnerability factors**
- Level of development
- Culture
- Drinking context
- Alcohol production, distribution, regulation

**Individual Vulnerability factors**
- Age
- Gender
- Family factors
- Socio-economic status

**Mortality by cause**
**Socio-economic consequences**
**Harm to others**
Total, unrecorded and recorded APC (WHO regions)
Distribution of last years (2010) drinkers and abstainers in the world (15+) by WHO regions in

**Drinkers (38.3%)**

- WPR: 35%
- EUR: 25%
- AMR: 22%
- SEAR: 9%
- AFR: 8%
- ÊMR: 1%

**Abstainers (61.7%)**

- WPR: 35%
- SEAR: 35%
- EUR: 8%
- AMR: 9%
- AFR: 11%
- ÊMR: 12%
Prevalence of heavy episodic drinking among current drinkers (%, 15+), 2010 (WHO, 2014)
Disease burden attributable to different risk factors in 2010 (Lim et al, Lancet, 2012; 380: 2224-60)
Global burden of disease for the age group 15 to 49 years old

<table>
<thead>
<tr>
<th>Alcohol use</th>
<th>Dietary risks</th>
<th>Occupational risks</th>
<th>Smoking</th>
<th>High blood pressure</th>
<th>High body-mass index</th>
<th>Drug use</th>
<th>High fasting plasma glucose</th>
<th>Household air pollution</th>
<th>Iron deficiency</th>
<th>Physical inactivity</th>
<th>Ambient PM pollution</th>
<th>Intimate partner violence</th>
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Source: IHME
Causality: alcohol-attributable disease and injury 2010
(green also protective)

- **Chronic and infectious disease:**
  - **Cancer:** nasopharyngeal cancer, esophageal cancer, laryngeal cancer, liver cancer, colon/rectal cancer, female breast cancer
  - **Neuropsychiatric diseases:** alcohol use disorders, primary epilepsy
  - **Diabetes**
  - **Cardiovascular diseases:** hypertensive diseases, ischemic heart disease, ischemic stroke, hemorrhagic stroke, atrial fibrillation and flutter
  - **Gastrointestinal diseases:** Liver cirrhosis, pancreatitis
  - **Infectious diseases:** TB, effect of alcohol on course of HIV/AIDS, lower respiratory infections (pneumonia)

- **Conditions arising during perinatal period:** FAS

- **Injury:**
  - **Unintentional injury:** transport injuries, falls, drowning, fire, poisonings, exposure to forces of nature, other unintentional injuries
  - **Intentional injury:** Self-inflicted injuries, interpersonal violence, other intentional injuries
Alcohol-attributable burden of disease, 2012
Pathways to alcohol related conditions

Age
- Gender
  - Socioeconomic status
    - Average volume
      - Pattern of drinking
        - Alcohol use disorders
          - Injuries
            - IHD
            - Stroke
            - Epilepsy
            - Cirrhosis of the liver
              - Liver cancer
              - Oesophagus cancer
              - Mouth and pharynx cancer
              - Breast cancer

Source OECD
### Alcohol-attributable fractions for selected causes of death, disease and injury, 2012 (WHO, 2014)

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<tr>
<th>Condition</th>
<th>Alcohol Use Disorders</th>
<th>Liver cirrhosis</th>
<th>Oral cavity and pharynx cancers</th>
<th>Pancreatitits</th>
<th>Laryngeal cancer</th>
<th>Oesophageal cancer</th>
<th>Interpersonal violence</th>
<th>Liver cancer</th>
<th>Haemorrhagic stroke</th>
<th>Colorectal cancer</th>
<th>Hypertensive heart disease</th>
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<th>Ischaemic heart disease</th>
<th>Diabetes</th>
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<td>All global deaths/DALYs</td>
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Communication of NCD-related risks

• It is impossible to predict the risks of initiation of drinking in persons who never used alcoholic beverages. No rationale whatsoever to recommend drinking alcohol as prevention intervention.

• Heavy episodic drinking (binge drinking) is detrimental to health irrespective of a disease or health condition under consideration.

• Any recommendation on the levels of alcohol consumption should be based on assessment of individual risks, taking into consideration age, gender, health status and drinking history.

• Reduction in levels of alcohol consumption and prevalence of heavy episodic drinking in populations will bring public health benefits.
Key questions

• Have WHO produced drinking guidelines targeting populations?
  – No

• Did WHO indicated risk levels associated with drinking of alcoholic beverages?
  – Yes, largely within the two contexts:
    • Research, surveillance and inter-country comparisons. Main target groups: researchers, surveillance officers, policy-makers.
    • Clinical practice and prevention medicine. Main target groups: health professionals, counsellors, social workers.

• Why WHO did not produce drinking guidelines?
Why not population-wide drinking guidelines?

• Questioned validity of generalization of average population-based risk levels to all individuals when differences in individual risk levels are well-known, which are modified by biological and psychosocial factors and are not constant during the life course.

• Inherent properties of ethanol and their conflict with overall public health objectives:
  – Psychoactive and intoxicating
  – Toxic with high mortality in overdoses, particularly in combination with other sedative substances
  – Carcinogenic
  – Dependence-producing.
Global strategy to reduce the harmful use of alcohol (GAS)

- Represents a unique consensus among all WHO Member States on ways to tackle harmful use of alcohol at all levels.
- Developed through a long and intense collaboration between the WHO Secretariat and Member States.
- Complements and supports public health policies in Member States.
What actions are needed to reduce the harmful use of alcohol?

Global, regional and national actions on:

– levels of alcohol consumption;
– patterns of alcohol consumption;
– contexts of alcohol consumption;
– wider social determinants of health.

➢ Special attention needs to be given to reducing harm to people other than the drinker and to populations that are at particular risk from harmful use of alcohol.
Recommended ten target areas for policy measures and interventions

1. Leadership, awareness and commitment.
2. Health services' response.
3. Community action.
4. Drink-driving policies and countermeasures.
5. Availability of alcohol.
7. Pricing policies.
8. Reducing the negative consequences of drinking and alcohol intoxication.
10. Monitoring and surveillance.
• ...underline the importance for MS to continue addressing common risk factors for non-communicable diseases through the implementation of ... the Global Strategy to Reduce the Harmful Use of Alcohol;
• Recognize also the critical importance of reducing the level of exposure of individuals and populations to the common modifiable risk factors for non-communicable diseases ... and their determinants...;
• Promote the implementation of the WHO Global Strategy to Reduce the Harmful Use of Alcohol...as well as raise awareness of the problems caused by the harmful use of alcohol, particularly among young people, and call upon WHO to intensify efforts to assist Member States in this regard...
### WHO Global NCD Action Plan 2013-2020

**Key risk factors**

- Tobacco use
- Harmful use of alcohol
- Unhealthy diet
- Physical inactivity

**Best buys**

**Harmful use of alcohol**
- Regulate commercial and public availability of alcohol
- Restrict or ban alcohol advertising and promotions
- Use pricing policies such as excise tax increases on alcoholic beverages
9 global NCD targets to be attained by 2025
WHO Global Monitoring Framework on NCDs:

- A **25%** relative reduction in risk of premature mortality from cardiovascular disease, cancer, diabetes or chronic respiratory diseases
- At least a **10%** relative reduction in the harmful use of alcohol
- A **10%** relative reduction in prevalence of insufficient physical activity
- A **25%** relative reduction in prevalence of raised blood pressure or contain the prevalence of raised blood pressure
- A **30%** relative reduction in prevalence of current tobacco use
- Halt the rise in diabetes and obesity
- A **30%** relative reduction in mean population intake of salt/sodium
- An **80%** availability of the affordable basic technologies and essential medicines, incl. generics, required to treat NCDs
- At least **50%** of eligible people receive drug therapy and counselling to prevent heart attacks and strokes

**HARMFUL USE OF ALCOHOL**
A GLOBAL HEALTH PERSPECTIVES
NCD global monitoring framework: alcohol-related targets and indicators

One target:

• At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.

Indicators:

• Total (recorded and unrecorded) alcohol per capita (15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context

• Age-standardized prevalence of heavy episodid drinking among adolescents and adults, as appropriate, within the national context

• Alcohol-related morbidity and mortality among adolescents and adults, as appropriate, within the national context.
Time for realizing the NCD commitments

• Action to prevent and control NCDs demand a public policy response

• Governments have committed to
  – set national targets in 2015 and to develop national plans to attain these targets
  – implement the best buys in 2016
  – establish structures and processes for multisectoral and intersectoral collaboration
  – increase and prioritize domestic budgetary allocations for addressing NCDs

• The third high-level meeting on NCDs is only three years away (2018)

• Now is the time to move from commitment to action.
Options for setting national targets for "reduction in harmful use of alcohol"

A. In countries with high stable levels of alcohol per capita consumption: no less than 10% reduction in total alcohol per capita (15+) consumption (APC)

B. In countries with increasing trends of alcohol consumption: arrest increasing trends and stabilize APC

C. In countries with stable APC and excellent monitoring systems: evidence of at least 10% reduction of prevalence of HED among adult population (15+).
Some challenges ahead
### Consumption and economic wealth

<table>
<thead>
<tr>
<th>Income group</th>
<th>Total APC</th>
<th>Unrecorded APC</th>
<th>Proportion of unrecorded APC of total APC (%)</th>
<th>Prevalence of current drinkers (%)</th>
<th>Prevalence of HED among drinkers (%)</th>
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Five-year change of total population by major area

Total population by region, Africa

Probabilistic Population Projections
Developments in other psychoactive substances

- **Cannabis**
  - Medical marihuana
  - Legalization

- **Nicotine**
  - E-cigarettes
  - Beneficial effects

- **Prescription opioids**
  - Lack of prescription for palliative care in some countries
  - Overuse of prescription opioids in other countries
“to convene, in early 2016, a special session on the world drug problem to **review the progress** in the implementation of the political declaration – and **assessment** of the achievements and challenges - within the framework of the three international drug control conventions and other relevant UN instruments”
Several facts about global burden of disease attributable to alcohol in 2012 (WHO, 2014)

- 3.3 million deaths (5.9% of deaths in all age groups globally) are attributable to alcohol consumption
  - 7.6% for men
  - 4.0% for women
- 139 million DALYs lost or 5.1% of the global burden of disease expressed in DALYs is attributable to alcohol.
- Leading risk factor for disability and death in younger age groups.
Key messages

• Alcohol is a toxic and psychoactive substance with dependence producing propensities
• Harmful use of alcohol is a global health issues ranking among the top five risk factors for the global burden of disease.
• Most people in the world do not drink alcohol and this paired with a continued population growth can constitute a considerable challenge for the health system in the future.
• Harmful use of alcohol has considerable detrimental effects on other people than the drinker
Key messages

• Global policy frameworks for alcohol control: Global strategy to reduce the harmful use of alcohol (WHO, 2010), WHO Global NCD Action Plan 2013-2020 and UN High Level Political Declaration on NCDs

• Effective and cost-effective strategies to reduce the harmful use of alcohol include:
  – Pricing policies
  – Restricting availability of alcohol
  – Comprehensive restrictions or bans on alcohol advertisements
  – Drink-driving policies
  – Brief-interventions for hazardous and harmful drinking

• The burden from harmful use of alcohol can and should be effectively reduced and governments have an obligation to intervene in the marketplace
Thank you for your attention

Further information at
http://www.who.int/substance_abuse/