WHO-CHOICE summary: HEAVY ALCOHOL USE

Aim / purpose

To estimate the prevalence/incidence, case fatality, duration/remission and disability associated with heavy alcohol use under the situation of no health care interventions (null set), and then assess the impact of a range of primary and secondary preventive intervention strategies in reducing incidence / case-fatality / duration or disability weight.

Definition

Heavy or hazardous alcohol use is defined as an average rate of consumption of more than 20g pure alcohol daily for women and more than 40g daily for men.

Disease model

State transition model (PopMod) in which the population is divided into 3 'boxes' (susceptible, dead or heavy drinker). Key transition rates include the incidence of hazardous alcohol use, case-fatality and remission. In addition, a health state valuation (HSV) is specified for time spent at risk or as a heavy drinker.

Interventions  (labels in upper case)

- **BRIEF ADVICE**: Brief interventions by primary care professionals involve 2-3 sessions of advice, and are modeled to increase remission.
- **Excise TAX on alcoholic beverages** (current rate, plus increases of 25% & 50%), which affects incidence of drinking via reduced consumption; effects measured in terms of price elasticities (-0.3 to -1.5).
- **Random breath-testing (RBT)**: Drink-driving laws and reinforcement via RBT influence fatal and non-fatal traffic injuries, both among hazardous alcohol users and other sub-groups of the population (passengers, pedestrians).

- **REDUCED ACCESS**: reducing hours of sale among retail outlets (no sales for a 24-hour period at the week-end), shown in Scandinavia to reduce consumption & alcohol-related harm.
- **ADvertising BANS**: Comprehensive bans on alcohol advertising (television, radio and bill-boards) have a modest effect on the incidence of hazardous alcohol use.

Results

The more costly interventions to implement tend to be BRIEF ADVICE in primary care and road-side breath-testing of drivers (RBT). In populations with a high prevalence of heavy drinkers (more than about 5%), the most effective and cost-effective intervention tends to be TAX. In lower prevalence populations, TAX is often less cost-effective overall than other, more targeted strategies such as BRIEF ADVICE, RBT or AD BANS.

Conclusion

The most efficient public health response to the burden of alcohol use depends on the prevalence of hazardous alcohol use, which is related to overall per capita consumption. Population-wide measures such as taxation are expected to represent the most cost-effective response in populations with moderate or high levels of drinking (e.g. adult males in industrialized countries), whereas more targeted strategies are indicated in populations with lower rates of hazardous alcohol use.

Reference