

The Toxic Truth About Alcohol

Key Messages

- ※ Alcohol is a toxic substance with direct and indirect effects on various body organs and systems. The harmful impacts of alcohol may extend beyond drinkers to others and society at large.
- ※ With globalisation of alcohol production and trade, the amounts of worldwide alcohol consumption have increased. In Hong Kong, the estimated total alcohol consumption per capita increased from 2.57 litres in 2004 to 2.87 litres in 2017. Among people aged 15 and above, surveys also found a marked increase in the prevalence of drinking from 33.3% in 2003/04 to 61.4% in 2014/15.
- ※ In May 2018, the Hong Kong Government launched “Towards 2025: Strategy and Action Plan to Prevent and Control Non-communicable Diseases in Hong Kong” (SAP) with 9 local NCD targets to be achieved by 2025, including Target 2: At least 10% relative reduction in the prevalence of binge drinking and harmful use of alcohol among adults and in the prevalence of drinking among youth.
- ※ To protect young people from alcohol-related harm, the new legislation to prohibit sale and supply of alcohol to minors in the course of business was commenced on 30 November 2018. The Government will step up efforts to combat underage drinking; organise health campaigns and carry out public education to strengthen public awareness about harmful effects of drinking; encourage primary care professionals to carry out alcohol screening and brief intervention to identify and manage at-risk drinkers; and strengthen treatment services for people with alcohol problems.
- ※ Alcohol drinking has both immediate and long-term negative effects on health. Under no circumstance should parents and adults let children and adolescents drink, give them alcohol or pressure them to drink. While non-drinkers should not start drinking, drinkers are urged to appreciate the benefits of cutting down or even stopping drinking alcohol completely, for the sake of better health.



Target 2:
**At least 10% relative reduction in the prevalence of
binge drinking and harmful use of alcohol among adults
and in the prevalence of drinking among youth**

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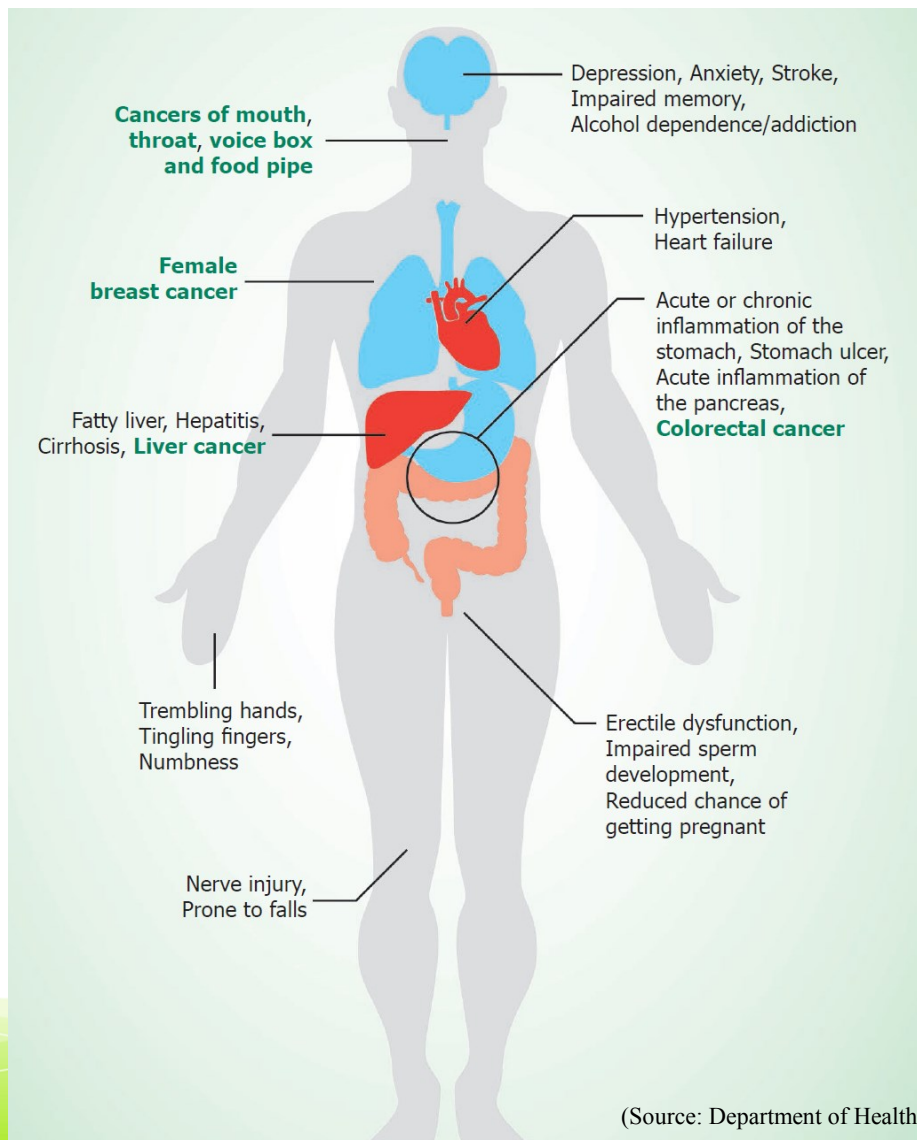
There are different kinds of alcohol, and ethyl alcohol (ethanol) is the only type of alcohol used in beverages. Ethanol is produced by the fermentation of cereal grains, fruits and other plant foods. A drink's alcohol content is largely determined by fermentation method and time. For example, various cereal grains (such as barley and rice) and brewing processes yield beers containing 3%–7% alcohol by volume (ABV). Grapes can generate white or red wines which usually contain 9%–15% ABV. For distilled alcoholic drinks (such as whisky and brandy), they contain around 35%–50% or higher ABV.¹ Although alcohol can provide energy (with 7 kilocalories per gram), it has no nutritional value and there is no physiological requirement

for alcohol. Conversely, alcohol upsets the brain's balance of neurotransmitters and is highly addictive.² From a public health perspective, alcoholic beverage is no ordinary commodity because of its toxicity, high potential for abuse including dependence, significant negative impacts on individuals and society, and pervasiveness throughout the society with high level of consumption.³

Health and Social Harms from Alcohol

Alcohol is a toxic, psychoactive and carcinogenic substance with direct and indirect effects on various body organs and systems.³ In fact, alcohol drinking is a component cause of more than 200 diseases and injury conditions (Box 1).^{4,5}

Box 1: Key effects of drinking on the human body



(Source: Department of Health)

As a neurotoxin with dependence-producing properties, alcohol can cause a range of neuropsychiatric disorders. Consuming too much alcohol too fast can lead to acute intoxication, resulting in seizure, coma or even death. As far as cancer risk is concerned, there is no safe level for alcohol drinking. Since 1988, the International Agency for Research on Cancer has classified alcohol as a Group 1 carcinogen to humans, belonging to the same group as tobacco smoke, asbestos and ionizing radiation. In addition to ethanol and its metabolite acetaldehyde, alcoholic beverages contain other known and potential carcinogenic contaminants or compounds derived from the inter-action between the ingredients and the production process.^{6, 7} There is sufficient scientific evidence that alcohol consumption causes cancers of the mouth, pharynx, larynx, oesophagus, liver, colorectum, and female breasts.⁸ Risk of cardiovascular events (including stroke, heart failure, fatal hypertensive disease and fatal aortic aneurysm) also increases as the amount of alcohol consumption increases.⁹ Globally, alcohol use disorders were the most prevalent of all substance use disorders, with 100.4 million estimated cases in 2016.¹⁰ Meanwhile, the harmful use of alcohol resulted in some 3 million deaths (5.3% of all deaths in 2016).¹¹ The harmful impacts of alcohol may extend beyond drinkers to others and society at large.⁴ In fact, harms caused by other's drinking are common events that include alcohol-related violence (e.g. domestic violence and sexual assault), unintentional injury of others (e.g. road traffic and workplace accidents), public nuisance or property damage, and toxic effects of alcohol transferring to others (e.g. foetal harms through maternal alcohol consumption). A survey of over 63 000 individuals aged 18-34 in 21 countries reported that about 6 in 10 (59.5%) respondents suffered at least one harm from other people's drinking in the past 12 months. In terms of alcohol-related aggressive harm, 39.4% of respondents reported being verbally insulted by someone drunk, 7.4% being physically assaulted and 7.7% being sexually harassed or assaulted in the

past 12 months.¹² Foetal alcohol syndrome (FAS) is a life-long, irreversible birth disorder associated with maternal drinking during pregnancy. Every year, a study estimated about 119 000 children born with FAS in the world.¹³ Accordingly, the costs attributed to alcohol consumption are not limited to loss of population health but also significant harms to society. In high- and middle-income countries, the economic cost attributed to alcohol use and alcohol-use disorders was estimated to amount to more than 1% of the gross national product.¹⁴

Pervasiveness throughout Society with High Level of Consumption

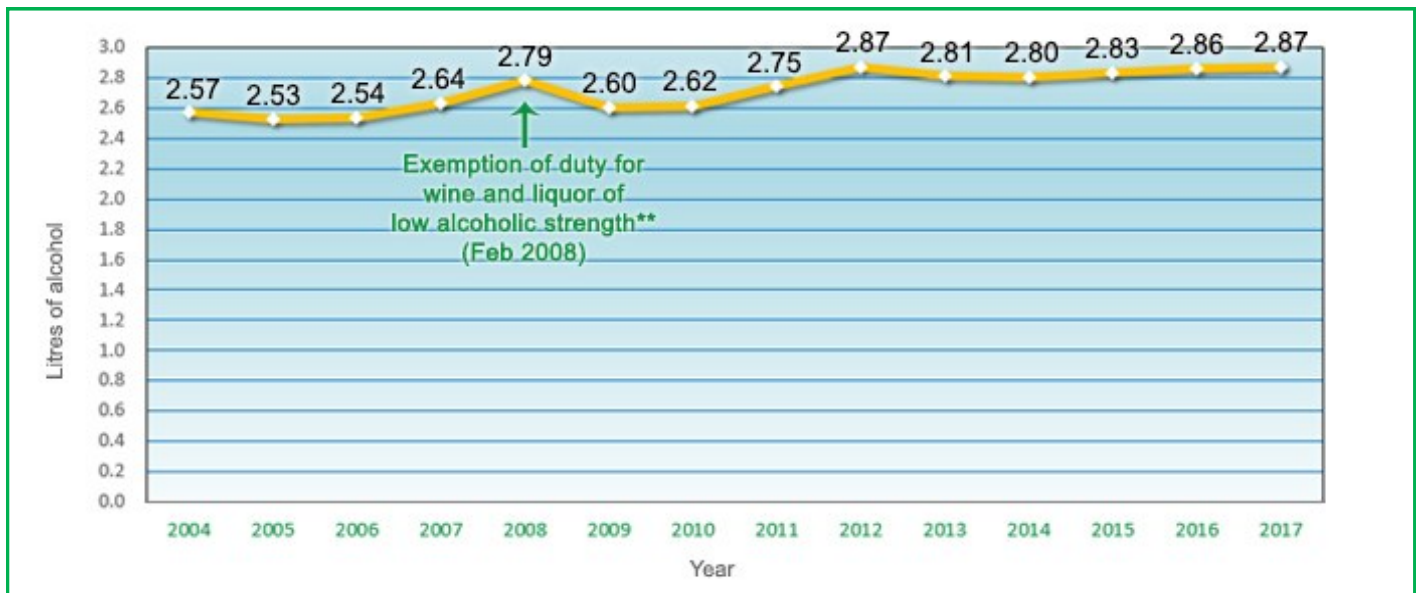
Alcoholic beverages can be seen everywhere. With globalisation of alcohol production and trade, proliferation of new products (such as alcopops and caffeinated alcohol 'energy drinks'), sophisticated promotion campaigns by the alcohol industry with new forms of marketing techniques (e.g. use of social media, sports sponsorships and putting 'health halo' on alcohol products),^{11, 15} the amounts of worldwide alcohol consumption have increased.¹⁴ The World Health Organization (WHO) reported that total alcohol per capita consumption in the world's population over 15 years of age rose from 5.5 litres of pure alcohol in 2005 to 6.4 litres in 2016, with marked increases being observed in the South-East Asian Region and in the Western Pacific Region (from 3.5 litres and 7.0 litres in 2010, to 4.5 litres and 7.3 litres in 2016 respectively). Without effective policy responses, total alcohol per capita consumption is expected to continue to increase worldwide.¹¹ In 2016, the Global Burden of Disease Study estimated that 32.5% (39% of males; 25% of females) of people were current drinkers (having one or more alcoholic drinks in the past year) which corresponded to about 2.4 billion (1.5 billion males; 0.9 billion females) current drinkers globally.¹⁰ Pregnant women should not drink at all. However, it was estimated that one in every 10 women (9.8%) consumed alcohol during pregnancy.¹³

Local Situation

In Hong Kong, the estimated total alcohol consumption per capita also increased, from 2.57 litres in 2004 to 2.87 litres in 2017 (Figure 1). The Population Health Surveys (PHS) conducted by the Department of Health (DH) found a marked increase in the prevalence of drinking from 33.3% in 2003/04 to 61.4% in 2014/15.^{16, 17} Alcohol drinking is prevalent among local adolescents too. The 2014/15 Survey of Drug Use among Student reported that 26.0% of primary 4–6 students had ever drunk alcohol, 13.4% reported alcohol use in the past year and 3.9% reported drinking alcohol in the past 30 days.

The proportion of lifetime, 1-year and 30-day alcohol-taking among secondary school students was 56.8%, 39.2% and 17.7% respectively.¹⁸ Using the Alcohol and Health Questionnaire (AUDIT[#]) to assess drinkers' alcohol consumption pattern and identify at-risk drinking, the PHS 2014/15 found that 3.5% (6.2% of males; 1.0% of females) of respondents aged 15 and above had an AUDIT total score at 8 or higher in the 12 months preceding the survey, indicating that their drinking pattern was at risk, at harmful levels, or probably having alcohol dependence.¹⁷

Figure 1: Alcohol consumption per capita* in Hong Kong, 2004-2017



Notes:

*Alcohol consumption per capita is used for monitoring the trend and for international comparison of alcohol consumption at the population level, but may not be able to fully reflect the actual drinking amount in local population. It is because the accuracy of the figure may be affected by many factors, such as stockpiling and tourist consumption, etc.

**The exemption of duty for wine and liquor with an alcoholic strength of not more than 30% has been implemented since February 2008.

Sources: Census and Statistics Department, Customs and Excise Department, and company reports of local beer manufacturers.

Reduce Harmful Use of Alcohol

Reducing harmful use of alcohol and related harm has been accorded primary importance in the prevention and control of non-communicable diseases (NCD). In May 2018, the Hong Kong Government launched “Towards 2025: Strategy and Action Plan to Prevent and Control Non-communicable Diseases in Hong Kong” (SAP) with a list of committed actions and 9 local NCD targets to be achieved by 2025, including Target 2: At least 10% relative reduction in the prevalence of binge drinking and harmful use of alcohol among adults and in the prevalence of drinking among youth (Box 2).¹⁹ To achieve the target, the Government will step up efforts to combat underage drinking through

regulating all forms of commercial sale and supply of alcohol to minors; organise health campaigns and carry out public education to strengthen public awareness about harmful effects of drinking and the importance of making alcohol-free choices part of healthy living; encourage primary care professionals to carry out alcohol screening and brief intervention to identify and manage at-risk drinkers; and strengthen treatment services for people with alcohol problems or supporting people who want to cut down or stop drinking.¹⁹

To protect young people from alcohol-related harm, the new legislation to prohibit sale and supply of alcohol to minors in the course of business was

commenced on 30 November 2018. Under the Law, intoxicating liquor must not be sold or supplied to minors under 18 years old in the course of business via face-to-face distribution and remote distribution, as well as the sale of alcoholic beverages in vending machines. Intoxicating liquor is defined as alcohol that has more than 1.2 per cent ethyl alcohol by volume and is fit for or intended as a beverage. The maximum fine for non-compliance is \$50,000 on summary conviction. To learn more about the provisions of the new legislation, detailed guidelines for businesses and other relevant materials, please visit the Tobacco and Alcohol Control Office website <https://www.taco.gov.hk/>.

Box 2: 9 local NCD targets by 2025



Target 1

A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancers, diabetes, or chronic respiratory diseases



Target 2

At least 10% relative reduction in the prevalence of binge drinking and harmful use of alcohol (harmful drinking/ alcohol dependence) among adults and in the prevalence of drinking among youth



Target 3

A 10% relative reduction in the prevalence of insufficient physical activity among adolescents and adults



Target 4

A 30% relative reduction in mean population daily intake of salt/sodium



Target 5

A 30% relative reduction in the prevalence of current tobacco use in persons aged 15+ years



Target 6

Contain the prevalence of raised blood pressure



Target 7

Halt the rise in diabetes and obesity



Target 8

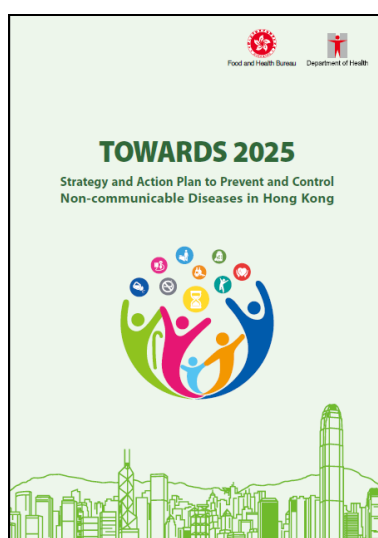
Prevent heart attacks and strokes through drug therapy and counselling



Target 9

Improve availability of affordable basic technologies and essential medicines to treat major NCD

Parents and adults have a critical role too. Under no circumstance should parents and adults let children and adolescents drink, give them alcohol or pressure them to drink. Alcohol drinking has both immediate and long-term negative effects on health. Thus, non-drinkers should not start drinking, falsely believing or assuming that alcohol consumption can lift their mood, relieve stress or induce sleep. For drinkers, they are urged to recognise the harms associated with alcohol consumption, and appreciate the benefits of cutting down or even stopping drinking alcohol completely. They can take a look at their own drinking habits and see whether drinking has affected their life and that of others by answering the AUDIT[#] which is available at https://www.chp.gov.hk/files/pdf/dh_audit_2017_audit_questionnaire_en.pdf. To get support, please consult your family doctor, or visit http://www.change4health.gov.hk/en/alcohol_aware/facts/affecting/help/index.html for more information. For details about the Government key initiatives and specific actions to reduce harmful use of alcohol in Hong Kong, please refer to the SAP which can be found at the Change for Health Website <https://www.change4health.gov.hk/en/saptowards2025/>.



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World Kidney Day

14 March 2019

Celebrated every year on the second Thursday of March, World Kidney Day (WKD) is the global campaign that aims at increasing awareness of the importance of our kidneys to general health. Globally, approximately 850 million people are estimated to have kidney diseases from various causes. Chronic kidney diseases cause at least 2.4 million deaths per year and are now the 6th fastest growing cause of death. To know more about WKD and relevant activities, please visit <https://www.worldkidneyday.org/>, or follow #WorldKidneyDay for live update.



The Hong Kong Kidney Foundation, Hong Kong Society of Nephrology, Department of Health, Hospital Authority, and Hong Kong Association of Renal Nurses will jointly host the event **WKD 2019@Hong Kong** on 10th March 2019 (Sunday), at 10:00 am, at Kowloon Bay International Trade & Exhibition Centre. The theme is “**Kidney Health for Everyone Everywhere**”. The Secretary for Food and Health, Professor Sophie Chan, the Director of Health, Dr Constance Chan, along with other guests, will officiate the opening of the event. “Lazy Lion” will also appear in the event and share the fun of exercise with the guests and participants. Please follow his Facebook (www.facebook.com/lazylionhk) and Instagram (www.instagram.com/lazylionhk) pages for his latest moves.

Non-Communicable Diseases (NCD) WATCH is dedicated to promote public's awareness of and disseminate health information about non-communicable diseases and related issues, and the importance of their prevention and control. It is also an indication of our commitments in responsive risk communication and to address the growing non-communicable disease threats to the health of our community. The Editorial Board welcomes your views and comments. Please send all comments and/or questions to so_dp3@dh.gov.hk.

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