



衛生防護中心  
Centre for Health Protection

# Non-Communicable Diseases Watch

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## Health Tips

Alcohol is linked to more than 60 types of diseases besides injuries. So drinkers are urged to take a look at their own drinking habits and see whether drinking has affected their life and that of others, recognise the harms associated with alcohol use, and appreciate the benefits of cutting down or even stopping drinking alcohol completely.

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This publication is produced by the Surveillance and Epidemiology Branch, Centre for Health Protection of the Department of Health

18/F Wu Chung House  
213 Queen's Road East  
Wan Chai, Hong Kong  
<http://www.chp.gov.hk>

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## Change for Health — Drink Less or Not at All

Drinking alcohol can cause problems in health, interpersonal relationships, work or school performances, and lead to risky behaviours. Globally, alcohol is the world's third largest risk factor for disease burden; it is the leading risk factor in the Western Pacific and the Americas and the second largest in Europe. Each year, an estimated 2.5 million deaths, about 4% of all deaths worldwide, are attributable to alcohol consumption. In males aged 15-59, alcohol use is the leading risk factor for death.<sup>1</sup>

### Global Perspective

According to the World Health Organization (WHO)'s estimates, worldwide consumption of alcohol in 2005 was equivalent to 6.3 litres of pure alcohol consumed per person aged 15 years or older. Notably, about 11.5% of adult drinkers worldwide have weekly heavy episodic drinking occasions (defined as drinking 60 grams (g) or more of pure alcohol on at least one occasion in the past 7 days), with men outnumbering women by four to one. Besides, hazardous drinking patterns, such as drinking to intoxication and binge drinking, seem to be on the rise among adolescents and young adults.<sup>1</sup>

There is no "safe" level of drinking. To date, the WHO has not issued any drinking guidelines. However, health authorities of some countries have developed specific drinking guidelines in accordance to their countries' context as to advise their people to limit their drinking below certain levels. For certain populations, they should not drink at all. They include the following:

- \* people who plan to drive a vehicle, operate machinery, handle chemicals or sharps and dangerous goods, or engage in other activities that require attention or skill;
- \* people who have medical conditions or are taking medications that may interact with alcohol;
- \* children and teenagers, because their developing brains are vulnerable to the effects of alcohol and early initiation of drinking can significantly increase the risk of alcohol dependency in later life;

- \* pregnant women, those trying to become pregnant and nursing mothers, since alcohol and its metabolites may cause birth defects, interfere with foetal growth, and impair the psychomotor development and behaviour of the breastfed baby; and
- \* people who have a family history of alcoholism.

## Local Situation

In Hong Kong, the per capita alcohol consumption among people aged 15 and above in 2010 was estimated to be about 2.6 litres, of which beer accounted for 1.2 litres, wine 0.6 litre and spirits 0.8 litre.<sup>2</sup> While the majority of people do not have a drinking habit<sup>3</sup>, the consumption patterns vary among the drinkers. Some drinkers consume so much alcohol that they are at risk of alcohol addiction and other health or social problems.

According to the WHO, 1 standard drink is defined as one that contains an equivalent of 10 g of pure alcohol, e.g. there is 1 standard drink in 3/4 can (~250 ml) of regular beer with 5% alcohol content, 1 small glass (~100 ml) of wine with 12% alcohol content, or 1 pub measure (~30 ml) of hard liquor with 40% alcohol content.

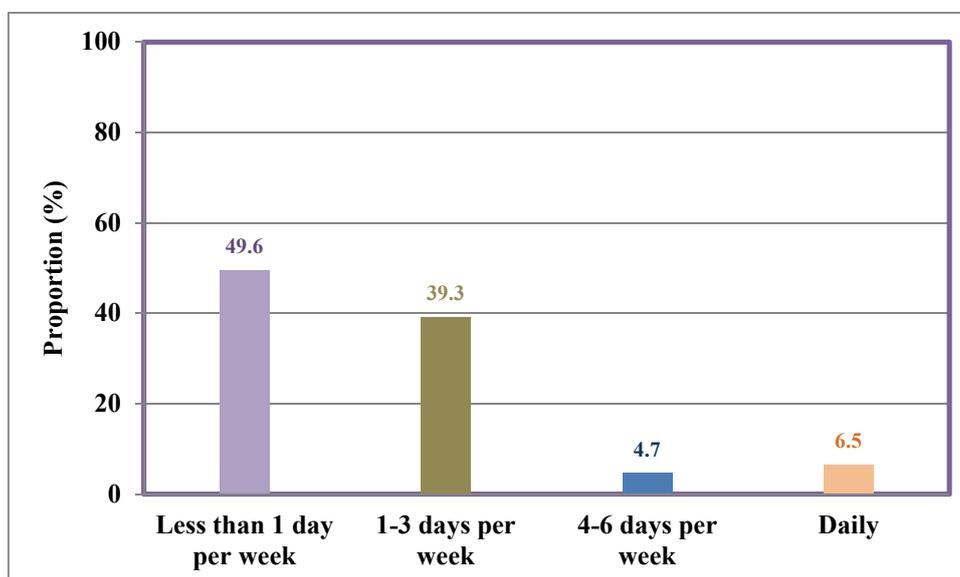
The Behavioural Risk Factor Survey, which telephone-interviewed over 2 100 community-dwelling adults aged 18-64 between April and May in 2011<sup>4</sup>, reported that 31.7% of respondents had drunk at least one alcoholic drink in the 30 days before enumeration (drinkers). Among these drinkers, 11.1% drank 4 or more days per week (Figure 1(i)) with a median of 1.5 standard drinks on each drinking day. Moreover, 23.4% of drinkers (27.8% of males; 14.7% of females) had binge

drinking with 5 or more alcoholic drinks in a row within a couple of hours. Overall, beer (57.2%) was the most frequently reported type of alcoholic drink consumed, followed by wine (33.6%). While most drinkers consumed alcoholic drink in their own home (43.0%), a substantial proportion of them did so in restaurants (34.4%). Regarding the people with whom one most frequently drank, friends (44.2%) and family members or relatives (30.0%) ranked top. Of note, 15.6% of drinkers preferred to drink alone by themselves (Figures 1 (ii)-(iv)).

Another telephone survey in Hong Kong, conducted in 2006 on 9 860 Chinese adults aged 18-70, assessed the prevalence of drink driving. It reported that 5.2% of male respondents and 0.8% of female respondents had driven a motor vehicle within 2 hours of drinking in the past year before enumeration.<sup>5</sup> A current habit of consuming alcohol is also found more common among those with chronic health problems. A territory-wide survey of some 10 000 households in 2009/2010 found that among persons aged 15 and above who had chronic health conditions (including hypertension, heart disease, stroke or diabetes) as told by practitioners of Western medicine, 35.3% still had a habit of consuming alcoholic drinks at the time of enumeration, as compared to the corresponding proportion (10.2%) among the overall population aged 15 and above.<sup>3</sup> As for drinking among children and adolescents, the Child Health Survey 2005/2006 revealed that 5.0% of children aged 11-14 had ever drunk alcohol. The prevalence of ever consuming alcohol increased from 2.2% in children aged 11 to 8.8% in children aged 14.<sup>6</sup> Another school-based survey of over 83 600 secondary school students in 2008/2009 reported that 24.2% of Form 1 to Form 7 students had consumed alcohol in the 30 days before enumeration.<sup>7</sup>

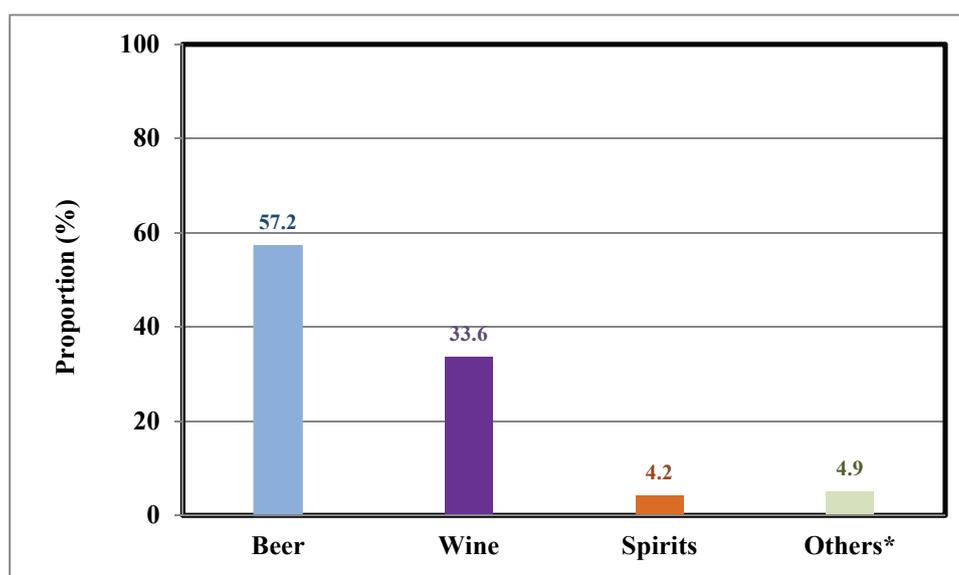
**Figure 1: Drinking patterns among community-dwelling people aged 18 - 64 who reported drinking at least one alcoholic drink in the 30 days before enumeration, 2011**

*(i) Number of drinking days per week*



Note: Excluding drinkers with unknown/missing/outlying data.

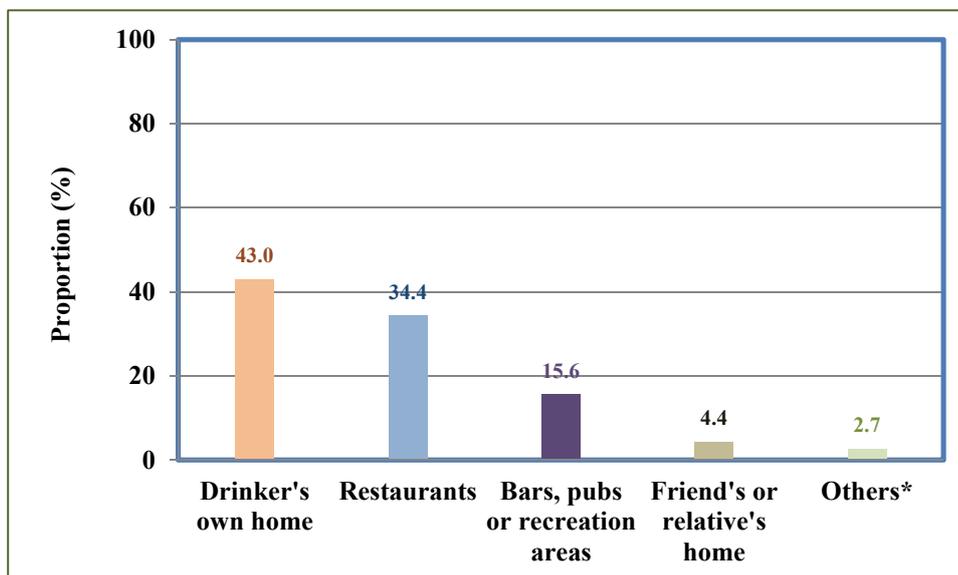
*(ii) Types of alcoholic drink most frequently consumed*



Notes: \* Others included Chinese rice wine, cocktail, fruit liqueur, herbal liqueur and Japanese sake, etc.

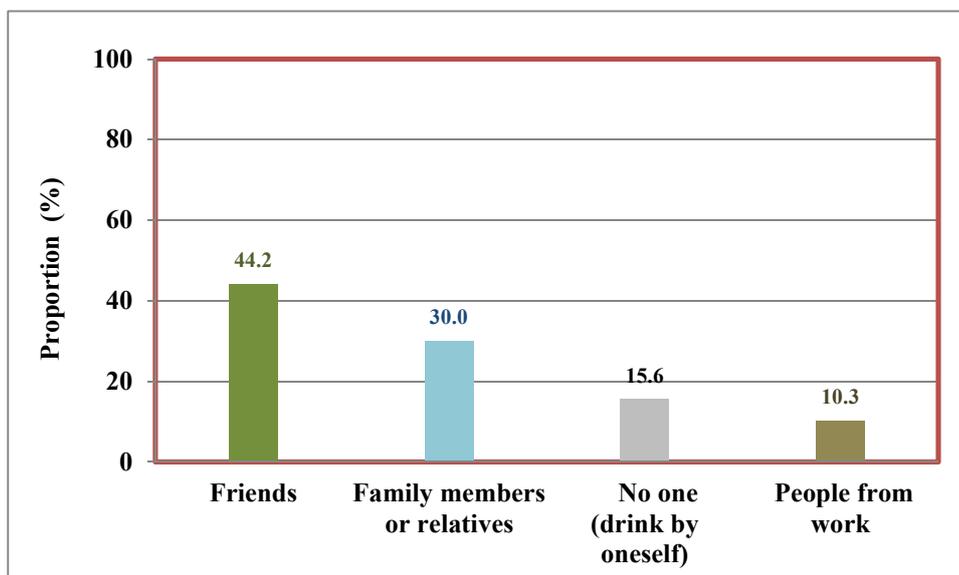
Excluding drinkers with unknown/missing data.

*(iii) Settings where most drinking took place*



Notes: \* Others included park, workplace, hotel, street, convenience store and beach, etc. Excluding drinkers with unknown/missing data.

*(iv) People whom most frequently drank with*



Source: Behavioural Risk Factor Survey, April 2011.

## Alcohol Consumption and Health Consequences

Although some studies from Western countries have suggested that low to moderate alcohol use may be associated with lower mortality from coronary heart disease in some people, other studies have shown that such possible protective effect may not extend to all populations<sup>8</sup> and would disappear when light to moderate drinking is mixed with heavy drinking occasions (such as consuming more than 60g of pure alcohol or having 5 or more drinks per occasion at least monthly).<sup>9</sup> In contrast, alcohol is linked to more than 60 types of diseases besides injuries, and is regarded as a component cause in 200 others.<sup>1</sup> Excessive alcohol consumption can have detrimental effects on blood pressure, fibrinolytic factors, and is associated with cardiac arrhythmia and haemorrhagic stroke. Heavy drinking episodes may also precipitate sudden cardiac death.<sup>10</sup> As liver is the main organ for alcohol metabolism, too much drinking can damage liver cells and cause inflammation in the liver. Over time, it can lead to scarring and liver cirrhosis or end-stage alcoholic liver disease. Additionally, according to the International Agency for Cancer on Research, the active ingredient in alcoholic drinks, ethanol, is a human carcinogen for a number of cancers, including cancers of the oral cavity, pharynx, larynx, oesophagus, liver, colorectum and female breast. The level of cancer risk increases with the level of alcohol consumption.<sup>11</sup> In men, epidemiological studies have also implicated a possible association between alcohol drinking and erectile dysfunction. A study, which analysed information collected from 816 Chinese men aged 31-60 years on their drinking and sexual activity, reported that alcohol drinkers who consumed 3 or more standard drinks a week would have a 127% increased risk of erectile dysfunction (as defined by having both

sexual dissatisfaction and erectile difficulty) compared with never drinkers after adjusting for age and cigarette smoking.<sup>12</sup> As a neurotoxin, ethanol depresses central nervous system and has significant psychoactive effects. Excessive alcohol consumption can increase drinkers' vulnerability to various mental disorders, promote aggressiveness that greatly increases their likelihood of getting hurt or hurting others (such as due to car crashes, violence and suicide), reduce inhibitions to sexual risk taking and put them at greater risk of contracting sexually transmitted diseases including HIV infection/AIDS. Alcohol can also impair respiratory and immune systems. Epidemiological studies showed a link between alcohol and pulmonary infections and tuberculosis. A systematic review and meta-analysis reported that individuals consuming 24g, 60g and 120g of alcohol per day would have a 12%, 33% and 76% increased risk for incident community-acquired pneumonia respectively, when compared to non-drinkers.<sup>13</sup> Another systematic review of alcohol use as a risk factor for tuberculosis found a three-fold risk of active tuberculosis with consumption of more than 40g alcohol per day, and/or having an alcohol misuse disorder.<sup>14</sup>

In Hong Kong, there were an annual average of 2 383 episodes of in-patient discharges and deaths in public and private hospitals of which the principal diagnosis was 'alcohol-related' (including alcoholic liver disease, mental and behavioural disorders due to use of alcohol, and accidental poisoning by and exposure to alcohol) between 2006 and 2010. Of 2 512 'alcohol-related' in-patient discharges and deaths in public and private hospitals in 2010, 83.1% were among males and 1.2 % were among people under age 18

(Table 1).<sup>15</sup> However, the burden of excessive alcohol use on hospital care was most likely an underestimation because the in-patient figures did not include those episodes of hospitalised traumatic injuries, heart diseases, stroke or cancer in which alcohol was only a contributory factor but not the main cause for in-patient care.

**Table 1: Number (Rate\*) of ‘alcohol-related’ in-patient discharges and deaths in public and private hospitals by sex and age group, 2010**

Age group	Male	Female	Total <sup>#</sup>
<b>Below 18</b>	18 (3.2)	13 (2.5)	31 (2.8)
<b>18-24</b>	68 (21.8)	46 (14.5)	114 (18.1)
<b>25-34</b>	174 (38.4)	89 (14.3)	263 (24.5)
<b>35-44</b>	389 (79.6)	101 (15.3)	490 (42.6)
<b>45-54</b>	567 (92.1)	92 (13.6)	659 (51.0)
<b>55-64</b>	515 (119.2)	44 (10.1)	559 (64.5)
<b>65 and above</b>	346 (80.9)	37 (7.5)	383 (41.7)
<b>Total<sup>#</sup></b>	2 088 (63.4)	424 (11.4)	2 512 (35.8)

Notes: \*Rate per 100 000 population of respective sex and age group.

<sup>#</sup>Total included 13 episodes (11 for males and 2 for females) of in-patient discharges and deaths with unknown age.

Sources: Department of Health, Hospital Authority and Census and Statistics Department.

## Cutting Down or Stopping Drinking

People drink alcohol for various reasons. Some go for a drink or two during festive celebrations or social gatherings, others may use alcohol when they feel distressed and hope that it can help them temporarily forget their troubles. Some drink chiefly because they are hooked on it. However, many drinkers are unaware of or choose to ignore the serious consequences that can result from drinking – either frequent or occasional heavy drinking over a short period of time or cumulative amount of alcohol consumed over a period of time. Drinkers are urged to take a look at their own drinking habits and see whether drinking has affected their life and that of others (Box 1), recognise the harms associated with alcohol use, and appreciate the benefits of cutting down or even stopping drinking alcohol completely.

### Box 1: Ask yourself the CAGE questions

1. Have you ever felt that you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?

Answering “Yes” to 2 or more questions strongly indicates an alcohol dependency. A “Yes” answer to any of the above questions indicates that you may have current alcohol-related problems. You should seriously consider quitting or cutting down on drinking.

Even though you answer “No” to all of the above questions, you should consider quitting or cutting down on alcohol if you are having alcohol-related problems with your health, job or interpersonal relationships.

For non-drinkers, they should not start drinking, assuming that alcohol consumption can improve their heart health. They should understand that the perceived cardio-vascular benefits of (low – moderate) drinking can easily be outweighed by the harmful consequences of alcohol consumption. To promote heart health, the key is to lead a healthier life that includes no smoking, healthy eating and regular exercise.

## Planning for Change

To cut down or stop drinking completely is a personal choice. However, quitting is strongly

advised if the drinker has failed to control himself/herself from drinking less; exhibits symptoms of alcohol dependence (such as spending a lot of time drinking, having withdrawal symptoms when the effects of alcohol wear off, or causing conflicts or troubles with family or friends); has a physical or mental condition that is caused or worsened by drinking; is taking a medication that interacts with alcohol; and is or may become pregnant. Whatever the decision – drinking less or not at all, there are tactics and tools that can help the drinker meet his/her goals (Box 2).

### Box 2: Tactics for cutting down or stopping drinking<sup>16</sup>

**Keep track of when, where, why and how much you drink** with a drinking diary, drinking tracker card or mobile phone notepad to identify the ‘triggers’. Plan beforehand to avoid situations where or when the urge to drink is strong.

**Set realistic goals.** Start up with a slow course and cut down your drinking day by day.

**Reduce or get all alcoholic drinks out of the house and place of work.**

**Use healthy activities** or develop enjoyable hobbies to distract you from drinking, such as taking a walk, exercising, showering or listening to music.

**Enlist support** from family, friends and colleagues. Let them know your ‘change plan’. Ask them not to offer you alcohol or use alcohol around you. **Join a peer-support group**, such as the Alcoholic Anonymous in Hong Kong (<http://www.aa-hk.org/index.htm>).

**Develop your own refusal skills**, such as practise saying ‘No, thank you. I am cutting down or not drinking now’.

**Use prompts** to remind yourself the reasons for cutting down or not drinking, such as putting up signs or posters at home, setting up automated mobile phone messages or email alerts that deliver reminders.

**Drink more water.** Stock up and use non-alcoholic drinks (such as fruit or vegetable juices, sparkling water or green tea) or nutritious ‘comfort foods’ (such as low-fat yogurt or cheese) as substitutes. But avoid smoking, spicy foods and caffeine-containing drinks (such as coffee, strong tea or coke) that tend to provoke craving.

**Take medications as prescribed** to control withdrawal symptoms. Practising deep breathing or other alternative stress-reducing techniques can also help.

**Plan some rewards** for efforts made to achieve small goals. With the money that would have been spent on drinking, think of a few small rewards (such as going to a movie, buying a sweatshirt or a pair of shoes) or plan for a major treat (e.g. a trip).

**Pace yourself when you drink.** Count your drinks. Avoid rounds and top-ups. Sip slowly and have some food. Alternate alcoholic drinks with non-alcoholic beverages.

The drinker can also talk with the family doctor for a customized ‘change plan’ or appropriate medications to relieve withdrawal symptoms that may include headache, sweating, restlessness or shakiness, mood swings, nervousness, irritability or insomnia. There are organisations which offer alcohol counseling or specialised treatment programmes, such as the ‘Stay Sober, Stay Free’ Alcohol Treatment Service Project of the Tung Wah Group of Hospitals (<http://atp.tungwahcsd.org/>, available in Chinese only) or the Tuen Mun Alcohol Problem Clinic (<http://www.ha.org.hk/cph/eng/service/alcohol-txt.html>).

Remember, a change in behavior takes time as well as commitment. To cut down on drinking or stop drinking alcohol altogether is no exception. During the change process, it is common to experience lapses. If you experience so, do not give up. Think positively and consider each lapse as a learning experience on the path to reduce or stop drinking for good. Keep trying, identify the triggers and apply appropriate tactics to overcome them. Seek professional help if indicated. In time, small changes can ultimately lead to big achievements, i.e. leading a healthier productive life. For more information about ‘Alcohol and Health’, please visit the Department of Health’s Change for Health website at <http://www.change4health.gov.hk>.

## References

1. Global Status Report on Alcohol and Health. Geneva: World Health Organization; 2011.
2. Action Plan to Reduce Alcohol-related Harm in Hong Kong. Hong Kong SAR: Department of Health; 2011.
3. Thematic Household Survey Report No. 45 - Health Status of Hong Kong Residents. Hong Kong SAR: Census and Statistics Department.
4. Behavioural Risk Factor Survey April 2011. Hong Kong SAR: Department of Health.
5. Kim JH, Lee S, Chan KW, et al. A population-based study on the prevalence and correlates of drinking and driving in Hong Kong. *Accid Anal Prev* 2010; 42(4): 994-1002.
6. Child Health Survey 2005/2006. Hong Kong SAR: Department of Health.
7. The 2008/2009 Survey of Drug Use among Students. Hong Kong SAR: Narcotics Division, Security Bureau.
8. Schooling CM, Wenjie S, Ho SY, et al. Moderate alcohol use and mortality from ischaemic heart disease: a prospective study in older Chinese people. *PLoS ONE* 2008; 3(6): e2370.
9. Roerecke M and Rehm J. Irregular heavy drinking occasions and risk of ischemic heart disease: a systematic review and meta-analysis. *Am J Epidemiol* 2010; 171(6): 633-44.
10. Rehm J, Baliunas D, Borges GLG, et al. The relation between different dimensions of alcohol consumption and burden of disease: an overview. *Addiction* 2010; 105: 817-43.
11. World Cancer Research Fund / American Institute for Cancer Research. Food Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective. Washington DC: AICR; 2007.
12. Lee AC, Ho LM, Yip AW, et al. The effect of alcohol drinking on erectile dysfunction in Chinese men. *Int J Impot Res* 2010; 22(4): 272-8.
13. Samokhvalov AV, Irving HM and Rehm J. Alcohol consumption as a risk factor for pneumonia: a systematic review and meta-analysis. *Epidemiol Infect* 2010; 138(12): 1789-95.
14. Lonnroth K, Williams BG, Stadlin S, et al. Alcohol use as a risk factor for tuberculosis – a systematic review. *BMC Public Health* 2008; 8: 289 doi:10.1186/147-2458-8-289.
15. In-patient Statistics, 2006-2010. Hong Kong SAR: Hospital Authority, Department of Health and Census and Statistics Department.
16. Rethinking Drinking. Alcohol and Your Health. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism; 2010.

## World Health Organization Western Pacific Regional Meeting on NCD Prevention and Control through Reduction of Alcohol-related Harm



Representatives from the World Health Organization (WHO) and countries and areas in the Western Pacific Region met in Hong Kong from April 10 to 13, 2012 to discuss the prevention and control of non-communicable diseases (NCD) through reduction of alcohol-related harm. Jointly organised by the Western Pacific Regional Office of the WHO and the Department of Health, the four-day meeting aimed to equip member states with knowledge and tools to take actions against alcohol-related harm. About 60 participants from 11 countries and areas attended the meeting.

With experience sharing and discussions among local and overseas experts from different sectors, the meeting provided participants with a forum :

- (1) to review the current country programmes on NCD control and reducing alcohol-related harm, and evidence of health, social and economic burden of alcohol;
- (2) to discuss evidence-based interventions for strengthening alcohol control in the context of NCD risk factors; and
- (3) to identify country specific steps to strengthen measures in reducing alcohol-related harm and strengthening linkages with NCD risk factor interventions.

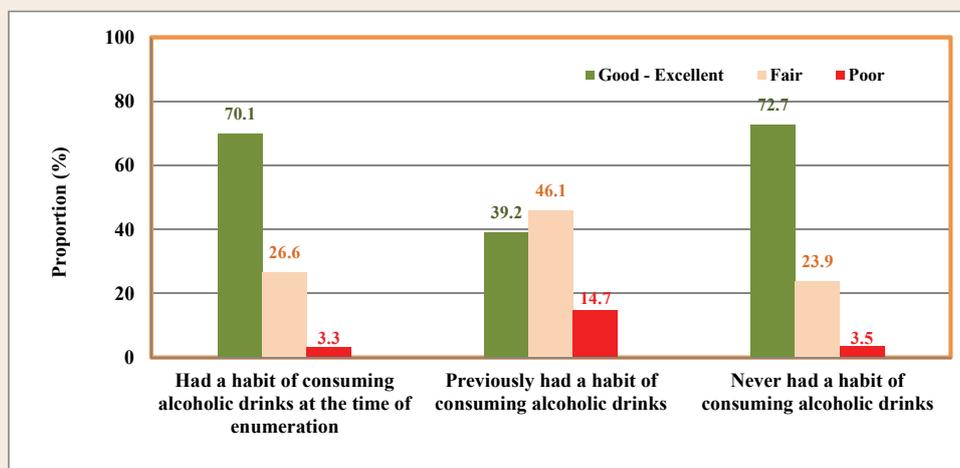
In his closing remarks, Dr PY Lam, Director of Health and Chair of the meeting, encouraged all the participants from member states to take home experience from the meeting and develop country-specific action plans to reduce alcohol-related harm.



## Data Brief

The Census and Statistics Department conducted a territory-wide survey from November 2009 to February 2010 to collect information on health-related topics of the Hong Kong population. In this survey, some 10 000 households within a randomly selected sample were successfully enumerated. Persons aged 15 and above (other than foreign domestic helpers) in each enumerated household were interviewed using a structured questionnaire about their health status and health-related lifestyle. When analysed by habit of consuming alcoholic drinks, results showed that the proportion of current drinkers (persons who had a habit of consuming alcoholic drinks at the time of enumeration, disregarding their frequency and amount of alcohol consumption) who perceived their general health condition as ‘good-excellent’ was comparable to that of life-time abstainers (those who never had a habit of drinking) (70.1% vs. 72.7%), while the corresponding proportion among ex-drinkers (those who previously had a habit of drinking, but had given up at the time of enumeration) was much lower (39.2%). These intriguing findings **do not** mean that drinking causes better health, and quitting drinking leads to poorer health. The findings in fact are explained by the “healthy drinker effect” i.e., those who choose to consume alcohol are intrinsically healthier than the others, and those who are too sick to continue drinking will eventually fall into the ex-drinker category. Moreover, studies have indicated that frequent drinkers, despite reporting good health, experienced greater mortality than occasional drinkers and non-drinkers. So for better health, non-drinkers are advised not to start drinking. If drinking at all, limit your drink to minimise alcohol-related harm.

### Self-perceived general health condition among persons aged 15 and above by whether had a habit of consuming alcoholic drinks



Source: Thematic Household Survey Report No. 45, Census and Statistics Department.

#### Editor-in-Chief

Dr TH Leung

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