Non-Communicable Diseases Watch

January 2014





Be Cancer Aware Key Facts

- Cancer is widely recognised as one of the most serious human afflictions, both globally and locally.
- **※** Worldwide in 2012, there were an estimated 14.1 million new cancer cases and over 8.2 million cancer -related deaths. The most commonly diagnosed cancers were cancers of the lung, breast and colorectum. The most common cause of cancer death was lung cancer, followed by liver cancer and stomach cancer.
- In Hong Kong, the numbers of new cases and deaths attributed to cancer have increased substantially in the past few decades. In 2011, the most common newly diagnosed cancer was colorectal cancer, followed by lung cancer and breast cancer. In 2012, the leading sites of cancer deaths were cancers of the lung, colorectum and liver.
- Various behavioural, environmental and biomedical factors influence the risk of cancer development. However, up to 40% of all cancer deaths could be prevented by adoption of a healthy lifestyle.

Alcohol is a cancer-causing substance as supported by scientific evidence. Besides, drinking results in a wide variety of problems that have devastating impacts on individuals and their families as well as the society. To know more, please refer to page 10.

Preventing Cancer. Yes, I Can!

- **※** Do not smoke and avoid secondhand smoke.
- **※** Be physically active.
- **※** Have a balanced diet with at least 5 servings of fruit and vegetables a day.
- **※** Do not drink alcohol.
- Maintain an optimal body weight and waist circumference. **※**
- Vaccinate against the infection of Hepatitis B virus (HBV) and Human papilloma virus (HPV) * in accordance with doctor's advice.
- **※** Optimise sunlight exposure; avoid the use of ultraviolet-emitting appliances for tanning or other non-medical purposes.
- **※** Observe occupational safety rules to reduce exposure to cancer-causing agents in workplaces.
- * Practise safer sex (such as condom use) to reduce the risk of getting cancers linked to sexually transmitted diseases.
- * Have childbirth at an earlier age and breastfeed each child for longer duration.
- Have regular cervical smear for women aged 25 to 64 years with sexual experience. *
- **※** Discuss with your family doctors concerning the need to take any screening tests for cancers. Understand the potential benefits and risks to make for an informed choice. Be familiar with the warning symptoms of cancer, to detect and report any unusual changes to a doctor.

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

Be Cancer Aware

Cancer is a diverse group of diseases in which the body cells multiply out of control. These abnormal cells invade and spread to other parts of the body to cause damage. There are more than 100 types of cancers¹ and each cancer has its own pattern of causation, behaviour and spread.

In fact, cancer is widely recognised as one of the most serious human afflictions. In 2012, there were an estimated 14.1 million new cancer cases around the world. The most common newly diagnosed

cancers were cancers of the lung, breast and colorectum (Figure 1). Cancer was also the leading cause of death worldwide, contributing to over 8.2 million deaths (around 13% of all deaths) in 2012. Lung cancer was the most common cause of cancer death, followed by liver cancer and stomach cancer (Figure 2). As a result of population growth and ageing, it is projected that the global number of new cancer cases will increase to 19.3 million by 2025.²

Figure 1: Estimated number of new cancer cases worldwide, both sexes and all ages in 2012 (Total = 14 090 149)

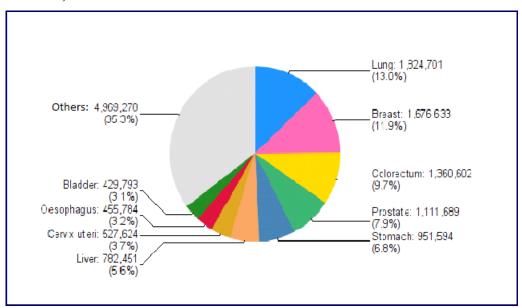
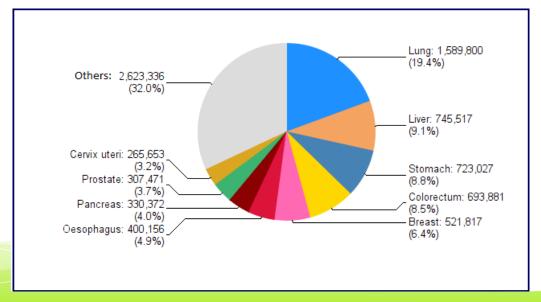


Figure 2: Estimated number of cancer deaths worldwide, both sexes and all ages in 2012 (Total = $8\ 201\ 030$)



Page 2

Risk Factors for Cancers

Epidemiological studies have implicated various risk factors that can increase the risk of cancer (Box 1), and the risk grows as the number of risk factors increases. For example, a systematic review and meta-analysis reported that more than one in every three of cancer deaths worldwide in 2001 was caused by nine potentially modifiable behavioural and environmental risk factors. They included smoking, alcohol use, low fruit and vegetable intake,

unsafe sex, overweight and obesity, physical inactivity, exposure to contaminated injections in health-care settings, urban air pollution and indoor smoke from household use of solid fuels.³

Box 1: Major risk factors for cancers

Modifiable risk factors

Tobacco use – It is the single largest preventable risk factor of cancer, causing an estimated 21% of cancer deaths in the world.³

Unhealthy diet – Up to 30% of cancers in developed countries and 20% in developing countries may be related to unhealthy eating habits.⁴ For example, low fruit and vegetable intake alone is estimated to have caused 5% of deaths from cancer worldwide.³ Red meat and processed meat are a convincing cause of colorectal cancer; every 100 g of red meat and 50 g of processed meat consumed per day was associated with 17% and 18% increased risk of colorectal cancer respectively.^{5,6} Eating too much salt is also a probable cause of stomach cancer.⁵ Compared with people who had 'low' salt intake, people who had 'high' and 'moderately high' salt intake would have 68% and 41% increased risk of stomach cancer respectively.⁷

Alcohol use – It is one of the most important known causes of human cancer, causing about 5% of deaths from cancer worldwide, including cancers of the mouth, oropharynx, oesophagus, liver and breasts.³ In fact, 'ethanol in alcoholic beverages' and 'acetaldehyde associated with alcohol consumption' have both been classified as Group 1 carcinogens, belonging to the highest risk category just as tobacco smoke, asbestos and ionizing radiation, by the International Agency for Research on Cancer. Besides, there is no safe level for alcohol consumption when it comes to cancer risk. The cancer risk is the same for beer, wine or spirits, and the risk rises with increasing alcohol use.⁸

Physical inactivity – Physical inactivity is estimated to have caused 15% of deaths from colorectal cancer and 10% from breast cancer globally. Overall, 2% of cancer deaths worldwide are attributed to physical inactivity.³

Overweight and obesity – Greater body fatness is a convincing cause of a number of cancers.⁵ For example, a 5 kg/m² increase in body mass index in men was associated with a respective 52%, 33%, 24% and 24% increased risk of cancers of the oesophagus, thyroid, colon and kidney. In women, a 5 kg/m² increase in body mass index was associated with a 59%, 59%, 51%, and 34% increased risk of cancers of endometrium, gallbladder, oesophagus and kidney respectively.⁹

Infectious agents – Around 2 million new cancer cases each year are caused by infectious agents globally, especially hepatitis B virus (HBV), hepatitis C virus (HCV), human papilloma virus (HPV) and Helicobacter pylori (*H pylori*). HBV and HCV infections cause about 52% and 20% of the world's liver cancer respectively, whereas HPV is estimated to cause almost all cases of cervical cancer, 90% of anal cancers and 40% of cancers of the external genital area. H pylori infection was also associated with 2-3 times the risk of stomach cancer.

Box 1: Major risk factors for cancers (continued)

Ultraviolent (UV) radiation – UV radiation, which comes from natural sunlight, sunlamps or tanning beds, can lead to melanoma (the most lethal type of skin cancer) and other forms of skin cancer. Studies showed that persons with a history of sunburn were about twice as likely as those without a sunburn history to get melanoma. Compared with people who never used indoor tanning, those who reported ever using indoor tanning would have a 67% and 29% increased risk for squamous cell carcinoma and basal cell carcinoma (two types of skin cancer) respectively. 14

Ionizing radiation – Ionizing radiation can be emitted from natural sources (such as radon gas) or from man-made sources (such as atomic bombs). It can cause almost any type of cancer, but particularly leukaemia, lung, thyroid and breast cancers. ¹¹ Radon is a radioactive gas that emanates from rocks and soils. In many countries, it is the second cause of lung cancer after smoking and estimated to be linked with 3% to 14% of all lung cancers. ¹⁵

Environmental pollution – Exposure to cancer-causing chemicals in the environment can occur through pollution of indoor and ambient air or drinking water. Worldwide, pollution of air, water and soil accounts for 1% to 4% of all cancers. For lung cancer, approximately 1.5% of annual deaths are attributable to exposure to carcinogens from indoor air pollution. ¹⁶

Food contaminants – Exposure to cancer-causing substances also occurs via the contamination of food, including those that occur naturally (such as aflatoxins which are a convincing cause of liver cancer⁵) and those that are manufactured (such as dioxins that are associated with various cancers¹⁷).

Occupational exposures – More than 40 agents, mixtures and exposure circumstances in the working environment can cause cancer. Worldwide, occupational exposure to cancer-causing substances is thought to account for about 10% of lung cancers and 2% of leukaemia cases.¹¹

Unsafe sexual behaviours – Certain sexual behaviours are consistently associated with an increased risk for certain cancers. For example, women who become sexually active at an early age, having high lifetime number of sexual partners, and sex with a male partner who had multiple sexual partners, have a significantly increased risk of cervical cancer. ¹⁸

Non-modifiable risk factors

Ageing – The risk of cancer increases with age, most likely due to a build-up of risks for specific cancers over time and the tendency for cellular repair mechanisms to be less effective as a person grows older. ¹⁹

Gender – Certain cancers are gender-related. While prostate and testicular cancers are specific to men; cervical, uterine corpus and ovarian cancers are unique to women. Some cancers (e.g. bladder and breast etc) occur in both sexes but at markedly different rates.⁴

Ethnicity or race – Cancer affects people of all racial and ethnic groups, but some groups are more vulnerable to certain cancers due to differences in genetics, lifestyle and susceptibility to cancercausing agents.⁴ For example in England, black people were nearly twice as likely as white people to get stomach cancer; black men were up to three times as likely as white men to get prostate cancer. Liver cancer was between 1.5 and 3 times more likely in Asians than in Whites.²⁰ However, melanoma is more common in Whites.

Hereditary – Some cancers run in families. For example, compared with women who had no affected relative, having one first-degree relative with breast cancer was associated with 80% increased risk of having the same disease, and the risk increases with the number of affected first-degree relatives.²¹ Having a father or brother with prostate cancer also more than doubled a man's risk of developing this disease.²² About 10-20% of all colorectal cancer cases are familial cancer.²³

Box 1: Major risk factors for cancers (continued)

Other risk factors

Exogenous hormones – Exposure to exogenous hormones as oral contraceptives or hormone replacement therapy can slightly increase (or reduce) the risk of certain cancers. Compared with the never-users, women who ever used oral contraceptive and hormone replacement therapy would have a respective 10% and 23% increased risk of breast cancer than those of never-users. Prolonged hormone replacement therapy use for 6-10 years and more than 10 years were also associated with 13% and 21% increased risk of ovarian cancer respectively. ²⁵

Reproductive factors – In women, menstrual history (age at menarche and at menopause), child-bearing (such as age at first, age at last birth and number of pregnancies), and female hormones have all been associated with the risks of breast, endometrial and ovarian cancers.^{4,18}

The Faces of Cancer in Hong Kong

Since 1960s, cancer has been the number one disease killer of both men and women in Hong Kong. With an ageing population and a more affluent lifestyle, the numbers of new cases and deaths attributed to cancer have risen substantially in the past few decades. In 1983, the Hong Kong Cancer Registry recorded 14 988 newly diagnosed cancer cases. The number increased by about 80%

to 26 998 in 2011. As shown in Table 1, lung cancer (20.4%) was the most common type of newly diagnosed cancer in males, followed by colorectal cancer (18.1%) and prostate cancer (11.7%). In females, breast cancer (26.4%) ranked top, followed by colorectal cancer (14.8%) and lung cancer (11.9%).²⁶

Table 1: Five leading sites of newly diagnosed cancers by sex. 2011

| Rank | Site | Number | Proportion | Crude incidence rate* |
|------|--------------|--------|------------|-----------------------|
| | | Ma | ıle | |
| 1 | Lung | 2 859 | 20.4% | 86.6 |
| 2 | Colorectum | 2 534 | 18.1% | 76.7 |
| 3 | Prostate | 1 644 | 11.7% | 49.8 |
| 4 | Liver | 1 399 | 10.0% | 42.4 |
| 5 | Stomach | 668 | 4.8% | 20.2 |
| | All sites | 14 024 | 100.0% | 424.6 |
| | | Fem | ale | • |
| 1 | Breast | 3 419 | 26.4% | 90.7 |
| 2 | Colorectum | 1 916 | 14.8% | 50.8 |
| 3 | Lung | 1 542 | 11.9% | 40.9 |
| 4 | Corpus uteri | 685 | 5.3% | 18.2 |
| 5 | Thyroid | 549 | 4.2% | 14.6 |
| | All sites | 12 974 | 100.0% | 344.3 |
| | | Both S | Sexes | |
| 1 | Colorectum | 4 450 | 16.5% | 62.9 |
| 2 | Lung | 4 401 | 16.3% | 62.2 |
| 3 | Breast | 3 440 | 12.7% | 48.6 |
| 4 | Liver | 1 858 | 6.9% | 26.3 |
| 5 | Prostate | 1 644 | 6.1% | 23.2 |
| | All sites | 26 998 | 100.0% | 381.8 |

Note: * Rate per 100 000 population of respective sex.

Sources: Hong Kong Cancer Registry of Hospital Authority and Census and Statistics Department.

Likewise, the number of registered cancer deaths increased to more than a double from 6 586 in 1981 to 13 336 in 2012. In both sexes, lung cancer was the most common cause of cancer deaths in 2012,

followed by colorectal cancer. In males, liver cancer was the third leading cause of cancer death. In females, breast cancer ranked third (Table 2).²⁷

Table 2: Five leading sites of cancer deaths by sex, 2012

| Rank | Site | Number | Proportion | Crude incidence rate* | | | |
|------------|------------|--------|------------|-----------------------|--|--|--|
| Male | | | | | | | |
| 1 | Lung | 2 597 | 32.7% | 78.1 | | | |
| 2 | Colorectum | 1 079 | 13.6% | 32.4 | | | |
| 3 | Liver | 1 045 | 13.2% | 31.4 | | | |
| 4 | Stomach | 379 | 4.8% | 11.4 | | | |
| 5 | Prostate | 362 | 4.6% | 10.9 | | | |
| | All sites | 7 933 | 100.0% | 238.4 | | | |
| | | Fem | ale | | | | |
| 1 | Lung | 1 296 | 24.0% | 33.9 | | | |
| 2 | Colorectum | 824 | 15.3% | 21.5 | | | |
| 3 | Breast | 601 | 11.1% | 15.7 | | | |
| 4 | Liver | 460 | 8.5% | 12.0 | | | |
| 5 | Stomach | 278 | 5.1% | 7.3 | | | |
| | All sites | 5 403 | 100.0% | 141.2 | | | |
| Both Sexes | | | | | | | |
| 1 | Lung | 3 893 | 29.2% | 54.4 | | | |
| 2 | Colorectum | 1 903 | 14.3% | 26.6 | | | |
| 3 | Liver | 1 505 | 11.3% | 21.0 | | | |
| 4 | Stomach | 657 | 4.9% | 9.2 | | | |
| 5 | Breast | 604 | 4.5% | 8.4 | | | |
| | All sites | 13 336 | 100.0% | 186.4 | | | |

Note: * Rate per 100 000 population of respective sex.

Sources: Department of Health and Census and Statistics Department.

Cancer Awareness

'Cancer awareness' involves knowing the causes and risk factors of the disease so that appropriate precautions can be taken to modify or avoid them, appropriate use of screening tests to detect premalignant cell changes before showing any symptoms, being familiar with the warning signs and symptoms of cancer for early detection, as well as reporting any unusual changes to doctor for early diagnosis and treatment.

Modifying and avoiding risk factors

Some cancers are preventable through adoption of a healthy lifestyle or vaccination against infections. As the World Health Organization (WHO) estimates, up to 40% of all cancer deaths could be prevented by modifying or avoiding key risk factors. The followings are some simple measures that can help

individuals prevent or reduce the risk of cancer (as well as other major non-communicable diseases):

- ✓ **Do not smoke and avoid secondhand smoke**. Current smokers can call the Integrated Smoking Cessation Hotline of the Department of Health (DH) at 1833 183 for free quit smoking advice and help.
- ✓ Be physically active. Adults should do at least 150 minutes of moderate-intensity physical activity (e.g. brisk walking, swimming slowly or cycling leisurely) or 75 minutes of vigorous-intensity physical activity (e.g. jogging, fast swimming or rope jumping), or equivalent amounts throughout the week. For children and young people, they should accumulate at least 60 minutes of moderate-to vigorous-intensity physical activity daily.

- ✓ Have a balanced diet with at least 5 servings of fruit and vegetables a day. Eat more wholegrains or unprocessed cereals. Limit consumption of red meat. Avoid processed meats, smoked or preserved foods. Limit salt intake to less than 5 g (or one level teaspoon) a day. Do not eat mouldy nuts, cereals or pulses.
- ✓ **Do not drink alcohol**. For current drinkers, it is never too late to stop drinking. For example, a meta-analysis reported that stop drinking was associated with an average of 2% yearly reduction in the risk of developing laryngeal and pharyngeal cancers. ²⁸
- ✓ Maintain an optimal body weight and waist circumference. For Asian adults, aim for a body mass index (BMI) between 18.5 and 22.9, and a waist circumference of less than 90 cm (~ 36 in) for men and less than 80 cm (~ 32 in) for women.
- ✓ Vaccinate against the infection of HBV. While HPV vaccination protects against infection of the specific HPV type targeted by the vaccine, the duration of protection is unknown at this stage. Individuals considering HPV vaccination should obtain full information about the vaccine and seek advice from their doctor.
- ✓ Optimise sunlight exposure, such as wearing long sleeved clothing and broad-brim hat, applying broad-spectrum (with protection against both UVA and UVB), water-resistant sunscreen products with sun protection factor (SPF) 15 or above on usually exposed skin when having outdoor work or recreation. Avoid the use of UV-emitting appliances for tanning or other non-medical purposes.
- ✓ **Observe occupational safety rules** and proper use of protective equipment or clothing to reduce exposure to occupational carcinogens.
- ✓ Practise safer sex (such as condom use) and avoid high risk sexual activity (such as having multiple sexual partners) to reduce the risk of getting cancers linked to sexually transmitted diseases.

✓ Have childbirth at an earlier age and breastfeed each child for longer duration. Studies showed that the relative risk of breast cancer would be reduced by 4.3% for every 12 months of breast-feeding. Ovarian cancer risk would also be decreased by 8% for every 5-month increased in the duration of breastfeeding. 30

Appropriate use of screening tests

Screening means examining people without symptoms in order to detect disease or find people at increased risk of disease. For cancer screening, its purpose is to find people who have cancer, before they have any symptom, in order to offer them earlier treatment. Based on the existing evidence, the Cancer Expert Working Group on Cancer Prevention and Screening (CEWG) recommends that:

- ✓ Screening for cervical cancer All women aged 25-64 who have ever had sexual experience are recommended to have cervical smears every 3 years after two annual consecutive annual smears, irrespective of whether they are single or married, have had sterilization or reached menopause, or how long ago they had their last sexual experience. Women aged 65 or above who have had sexual experience should seek doctor's advice on having a cervical smear if they have never had one before. For women below the age of 25 who have had sexual experience and risk factors for cervical cancer (such as smoking or multiple sexual partners), they should seek advice from doctors concerning the need for cervical screening.³¹
- ✓ Screening for breast cancer Women who are at higher risk of developing breast cancer (such as those with family history of breast cancer; being a carrier of certain gene mutations, e.g. BRCA1 or BRCA2) should seek advice from doctors about whether they should receive breast cancer screening, the starting age and frequency of screening. For women at average risk, the CEWG concludes that there is insufficient evidence to recommend for or against population-based mammography screening for general female in Hong Kong.³²

- ✓ Screening for colorectal cancer Men and women aged 50 to 75 should discuss with their doctor and consider screening for colorectal cancer by one of the following methods: faecal occult blood test (FOBT) every 1-2 years; or flexible sigmoido-scopy (FS) every 5 years; or colonoscopy every 10 years. For high risk individuals (e.g. those withhereditary bowel disease or those with one or more first-degree relatives having colorectal cancer diagnosed at or below 60 years of age), they should start colorectal cancer screening at an earlier age and have screening repeated at shorter time intervals as recommended by their doctor. ³³
- ✓ Screening for prostate cancer The CEWG concluded that there is so far insufficient scientific evidence to recommend whether population-based screening for prostate cancer in men without any symptoms should or should not be done. Men without any symptoms are thus encouraged to discuss with their own doctor about their individual circumstances and make informed decision on whether or not to go for prostate cancer screening.³⁴

It is noteworthy that every screening test, together with the subsequent confirmatory tests and treatments, has associated potential risks which sometimes may outweigh the benefits. Besides, all screening tests have their limitations and they are not 100% accurate. Thus, individuals considering a screening test should obtain full information from doctors on potential benefits and risks of having the test.

Recognise possible warning symptoms of cancer

Other than screening, early recognition of possible warning symptoms of cancer is a crucial part for early detection of the disease. Although some cancers (e.g. liver cancer or ovarian cancer) cause no or subtle symptoms in its early stage of development, in many cases it is possible to detect recognised symptoms or unusual lesions early, particularly for cancers of the skin, mouth, larynx, breast, cervix, colon and rectum. Along with the general signs and symptoms of cancer such as unexplained weight loss, fever, fatigue or even pain,

people should watch for the followings that could suggest cancer³⁵:

- ✓ Sores that do not heal
- ✓ Recent changes in a wart or mole or any new skin change
- ✓ Nagging cough or chronic hoarseness
- ✓ Persistent indigestion or difficulty in swallowing
- ✓ Thickening or lump in the breasts or other parts of the body
- **✓** Unusual bleeding or discharge
- **✓** Change in bowel habits or bladder function

Be aware that these symptoms may not necessarily mean the presence of cancer as they can be caused by benign tumors or other medical problems. Anyone with these symptoms or other changes in health should see a doctor for proper diagnosis and treatment as early as possible.

Seeking appropriate treatment and supportive services

The diagnosis of cancer is not a death sentence. In fact, some common cancers, such as nasopharyngeal cancer, breast cancer, cervical cancer, colorectal cancer, skin cancer, or leukaemia in children, have high cure rates if they are detected early and treated according to best practices. Largely dependent on the type of cancer and stage of the disease, treatment modalities may include one or a combination of the following: surgery, chemotherapy, radiation therapy, hormonal therapy and targeted therapy. Advances in treatment and other forms of supportive care for cancer patients have enhanced survival and improved quality of life. 19 Cancer patients can face the disease positively by understanding the illness and its treatment; working together with the health care professionals involved in the care; and taking part in support groups to enhance the ability for self-care and mutual support.

For more information about prevention and screening of cancers, please visit the website of the Centre for Health Protection http://www.chp.gov.hk/en/content/9/25/31932.html.

References

- 1. Ten Facts on Cancer. Geneva: World Health Organization.
- Globocan 2012. Lyon: International Agency for Research on Cancer.
- 3. Danaei G, Vander Hoorn S, Lopez AD, et al. Causes of cancer in the world: comparative risk assessment of nine behavioural and environmental risk factors. Lancet 2005;366:1784-93.
- 4. Mackay J, Jemal A, Lee N, et al. The Cancer Atlas. Atlanta: American Cancer Society; 2006.
- 5. World Cancer Research Fund, American Institute for Cancer Research. Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective. Washington, D.C.: ACIR; 2007.
- Chan DS, Lau R, Aune D, et al. Red and processed meat and colorectal cancer incidence: meta-analysis of prospective studies. PLoS One 2011;6:e20456.
- 7. D'Elia L, Rossi G, Ippolito R, et al. Habitual salt intake and risk of gastric cancer: a meta-analysis of prospective studies. Clin Nutr 2012;31:489-98.
- 8. Alcohol consumption and ethyl carbamate. IARC Monogr Eval Carcinog Risks Hum 2010;96:3-1383.
- 9. Renehan AG, Tyson M, Egger M, et al. Body-mass index and incidence of cancer: a systematic review and meta-analysis of prospective observational studies. Lancet 2008;371:569-78.
- 10. de Martel C, Ferlay J, Franceschi S, et al. Global burden of cancers attributable to infections in 2008: a review and synthetic analysis. Lancet Oncol 2008;13:607-15.
- 11. Prevention (Cancer Control: knowledge into action: WHO guide for effective programmes; module 2). Geneva: World Health Organization; 2007.
- 12. Humans IWGotEoCRt. Biological agents. Volume 100 B. A review of human carcinogens. IARC Monogr Eval Carcinog Risks Hum 2012;100:1-441.
- 13. Gandini S, Sera F, Cattaruzza MS, et al. Meta-analysis of risk factors for cutaneous melanoma: II. Sun exposure. Eur J Cancer 2005;41:45-60.
- 14. Wehner MR, Shive ML, Chren MM, et al. Indoor tanning and non-melanoma skin cancer: systematic review and meta-analysis. BMJ 2012;345:e5909.
- 15. Zeeb H, Shannon F, eds. WHO Handbook on Indoor Radon. A Public Health Perspective. Geneva: World Health Organization; 2009.
- 16. Indoor air pollution and health. Fact sheet No. 292. Geneva: World Health Organization; 2011.
- 17. Dioxins and their effects on human health. Fact sheet No. 225. Geneva: World Health Organization; 2010.
- 18. Boyle P, Levin B, eds. World Cancer Report 2008. Lyon: IARC; 2008.
- 19. Cancer. Fact sheet No. 297. Geneva: World Health Organization,; 2013.

- Cancer Incidence and Survival by Major Ethnic Group, England, 2002-2006. London: National Cancer Intelligence Network and Cancer Research UK 2009.
- 21. Collaborative Group on Hormonal Factors in Breast Cancer. Familial breast cancer: collaborative reanalysis of individual data from 52 epidemiological studies including 58,209 women with breast cancer and 101,986 women without the disease. Lancet 2001;358:1389-99.
- 22. Kicinski M, Vangronsveld J, Nawrot TS. An epidemiological reappraisal of the familial aggregation of prostate cancer: a meta-analysis. PLoS One 2011;6:e27130.
- Cancer Expert Working Group on Cancer Prevention and Screening. Recommendations on Colorectal Cancer Screening. Hong Kong SAR: Department of Health; 2012.
- 24. Anothaisintawee T, Wiratkapun C, Lerdsitthichai P, et al. Risk factors of breast cancer: a systematic review and meta-analysis. Asia Pac J Public Health 2013.
- 25. Zhou B, Sun Q, Cong R, et al. Hormone replacement therapy and ovarian cancer risk: a meta-analysis. Gynecol Oncol 2008;108:641-51.
- 26. Cancer Statistics, 1983-2011. Hong Kong SAR: Hong Kong Cancer Registry of Hospital Authority and Census and Statistics Department.
- 27. Mortality Statistics, 1981-2012. Hong Kong SAR: Department of Health and Census and Statistics Department.
- 28. Ahmad Kiadaliri A, Jarl J, Gavriilidis G, et al. Alcohol drinking cessation and the risk of laryngeal and pharyngeal cancers: a systematic review and meta-analysis. PLoS One 2013;8:e58158.
- 29. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. Lancet 2002;360:187-95.
- 30. Luan NN, Wu QJ, Gong TT, et al. Breastfeeding and ovarian cancer risk: a meta-analysis of epidemiologic studies. Am J Clin Nutr 2013; 98(4):1020-31.
- 31. Cervical Screening Programme. Hong Kong SAR: Department of Health; 2012.
- 32. Cancer Expert Working Group on Cancer Prevention and Screening. Prevention and Screening for Breast Cancer. Information for Women and their Families. Hong Kong SAR: Department of Health; 2013.
- 33. Cancer Expert Working Group on Cancer Prevention and Screening. Prevention and Screening for Colorectal Cancer. Hong Kong SAR: Department of Health; 2013.
- 34. Cancer Expert Working Group on Cancer Prevention and Screening. Screening for Prostate Cancer. Information for Men and their Families. Hong Kong SAR: Department of Health; 2012.
- 35. Signs and Symptoms of Cancer. Atlanta: American Cancer Society; 2012.

Do You Know the Hard Facts of Alcohol?

- 1. Alcoholic beverages are a Group 1 carcinogen, belonging to the same highest risk category as tobacco smoke, asbestos and ionizing radiation. Alcohol causes cancers of the oral cavity, throat, voice box, food passage, large bowel, liver and female breasts. The more you drink, the higher your cancer risk.
- 2. When it comes to cancer risk, there is NO safe level for alcohol consumption. Stopping drinking is the best way to protect you from getting cancer.
- 3. Volume by volume, beverages with higher alcoholic content (e.g. wines and spirits) do more harm to health than those with a lower alcoholic content (e.g. beer).
- 4. Drinking alcoholic beverages has both immediate and long-term effects on health. Every single drink in your lifetime adds up to damage your health in the long run.
- 5. Alcohol affects the digestive system, causing inflammation of the food passage and stomach. It damages the liver, resulting in hepatitis, cirrhosis and liver cancer.
- 6. Alcohol causes erectile dysfunction, raises blood pressure and causes your heart to fail.
- 7. Evidence on possible heart benefit of alcohol remains controversial. Consumption of a carcinogen should not be the way to protect your heart. There are better, safer and more effective means to keep your heart healthy.
- 8. Alcohol is bad for adolescents and youth because of its harmful effects on the still developing brain. Early initiation of drinking is shown to be a powerful predictor of alcohol dependence and alcohol abuse in later life.
- 9. Pregnant women who drink alcohol have higher chance of giving birth to babies with birth defects, growth and developmental problems.
- 10. Alcohol is a strong agent of dis-inhibition, putting people at risk of accidents, violence and abuse, absence from classes and work, and unsafe sex.

The World Health Organization calls on Member States to put in place effective policy and infrastructures to implement measures that protect people from alcohol-related harm. To know more, please visit: http://www.change4health.gov.hk/en/home/index.html.

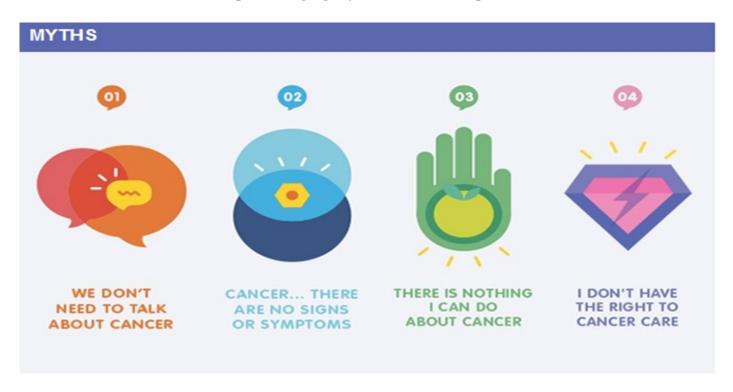
World Cancer Day 2014

ON FEBRUARY 4TH MYTHS



World Cancer Day takes place every year on 4 February. It aims to save millions of preventable deaths each year by raising awareness and education about the disease, pressing governments and individuals across the world to take action.

For **World Cancer Day 2014** (4 February 2014), the tagline is "**Debunk the myths**". It will build on the success of 2013's campaign, by again focusing on Target 5 of the World Cancer Declaration: Dispel damaging myths and misconceptions about cancer.



To learn the truth about cancer or for more information about **World Cancer Day 2014**, please visit http://www.worldcancerday.org/.

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.

| Editor-in-Chief | | | | | |
|-----------------|-------------------|--|--|--|--|
| Dr Regina CHING | | | | | |
| Members | | | | | |
| Dr Thomas CHUNG | Dr Eddy NG | | | | |
| Dr Anne FUNG | Dr Karen TSO | | | | |
| Dr Linda HUI | Ms Faith WAN | | | | |
| Dr Winnie LAU | Dr Lilian WAN | | | | |
| Dr Ruby LEE | Dr Monica WONG | | | | |
| Mr YH LEE | Dr Priscilla WONG | | | | |
| | | | | | |