

Preventing Cancer by Lifestyle Changes

Key Messages

Cancer is a major public health problem, posing huge and growing disease burden both globally and locally. However, the World Health Organization appraises that 30–50% of cancers can be prevented by adopting a healthy lifestyle and implementing existing evidence-based public health measures; many cancers can be cured if detected early and treated effectively.

In 2022, the Hong Kong Cancer Registry recorded 35 373 new cancer cases. For both genders combined, the top five most commonly diagnosed cancers were cancers of the lung, breast, colorectum, prostate and liver. Cancer is also the leading cause of death in Hong Kong. In 2023, there were 14 867 registered deaths attributed to cancer and cancers of the lung, colorectum, liver, pancreas and breast topped the list.

To guard against cancer, members of the public are urged to avoid tobacco smoking, refrain from alcohol drinking, be physically active, have a balanced diet and maintain a healthy body weight and waist circumference.

In addition to primary prevention by healthy living, screening as a tool for secondary prevention is effective against some cancers by timely detection and treatment of pre-cancerous lesion or early cancer before symptoms appear.

Following the recommendations by the Cancer Expert Working Group on Cancer Prevention and Screening, the Government of the Hong Kong Special Administrative Region has launched the Cervical Screening Programme, the Colorectal Cancer Screening Programme and the Breast Cancer Screening Pilot Programme. Members of the public can talk to their doctors about relevant screening programmes and undergo cancer screening as recommended.

Introduction

Cancer is a major public health problem, responsible for three in ten global premature deaths (occurring at the ages of 30–70 years) from non-communicable diseases¹. In 2022, there were an estimated 20 million new cases of cancer alongside 9.7 million deaths from cancer across the globe. For both sexes combined, cancers of the lung, female breast, colorectum, prostate and stomach were the five most common newly diagnosed cancer types. In terms of deaths, lung cancer was the leading cause of cancer death, followed by colorectal cancer, liver cancer, female breast cancer and stomach cancer². More importantly, the global number of new cancer cases is predicted to reach 35 million by 2050^{2, 3}. Similarly, 18.5 million cancer deaths are projected by 2050³.

Apart from population ageing and growth, obesity, smoking, alcohol use, unhealthy eating and insufficient physical activity are key lifestyle-related risk factors behind the increasing incidence of cancer^{2, 4}.

The World Health Organization (WHO) appraises that 30–50% of cancers can be prevented by adopting a healthy lifestyle and implementing existing evidence-based public health measures; many cancers can be cured if detected early and treated effectively⁵.

Lifestyle-based Cancer Prevention Recommendations

Greater adherence to the recommended healthy lifestyle practices (Figure 1)⁵⁻⁷ is associated with a lower risk of cancer⁸⁻¹⁰, even among persons with a higher genetic risk of cancer (including colorectal cancer^{11, 12}, female breast cancer^{11, 13} and stomach cancer¹⁴).

A systematic review and meta-analysis of 81 prospective studies reported that individuals adopting the healthiest lifestyle (with a focus on maintaining an optimal weight, eating a healthy diet, undertaking adequate physical activity, no smoking and refraining from alcohol drinking) would have a 29% reduced risk of incident cancer and a 52% reduced risk of cancer mortality compared with those having the least healthy lifestyle¹⁵.



Figure 1: Recommended healthy lifestyle practices for reducing cancer risk^{6, 7}

Local Situation

Cancer is also an important public health issue in Hong Kong, posing huge and growing burden in the local population and to the healthcare system.

Incidence

In the past 30 years, the number of newly diagnosed cancer cases reported to the Hong Kong Cancer Registry increased substantially from 17 250 in 1992 to 35 373 in 2022 (Figure 2)¹⁶.

For both genders combined, the top five most commonly diagnosed cancers in 2022 were cancers of the lung, breast, colorectum, prostate and liver (Figure 3). These five leading cancers comprised over half (58%) of all new cancers in that year¹⁶.

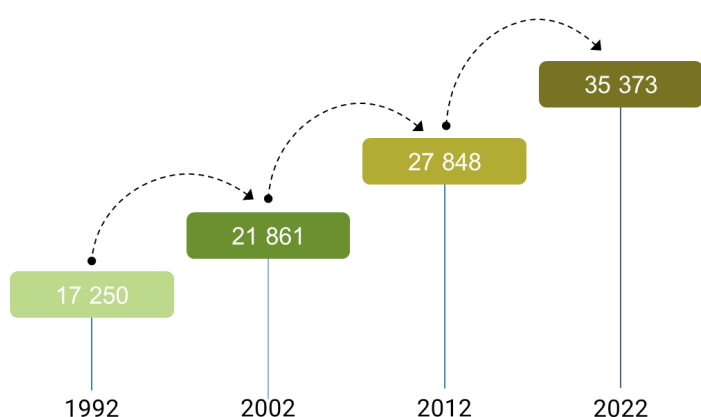


Figure 2: Newly diagnosed cancer cases

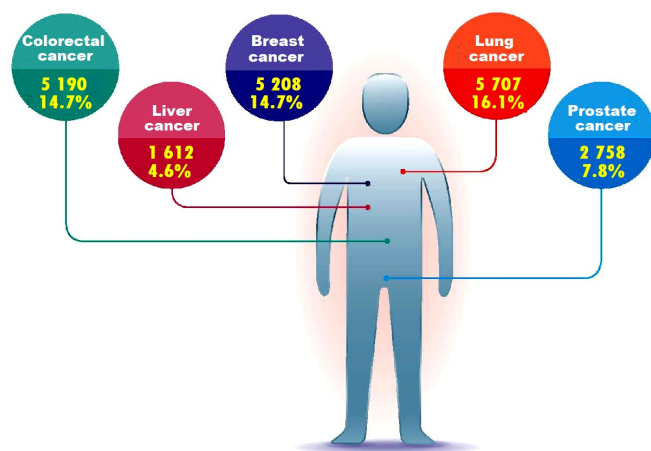


Figure 3: Top five leading cancers, 2022

Mortality

Cancer is the top killer in Hong Kong. The number of registered deaths due to cancer increased substantially from 9 311 in 1993 to 14 867 in 2023 (Figure 4)¹⁷.

In 2023, cancers of the lung, colo-rectum, liver, pancreas and breast topped the list (Figure 5) and made up 62.6% of all registered cancer deaths¹⁷.

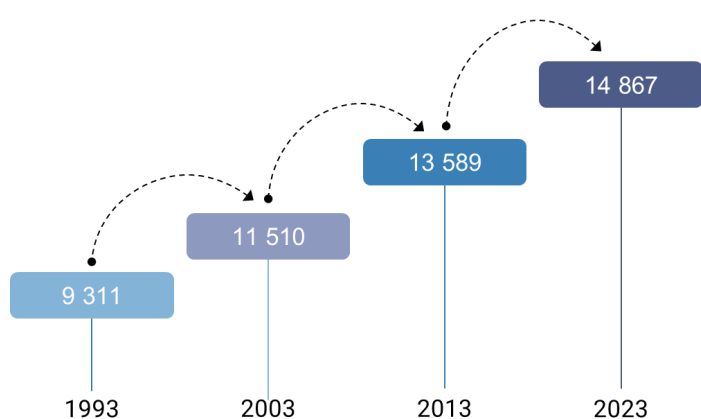


Figure 4: Registered deaths due to cancer

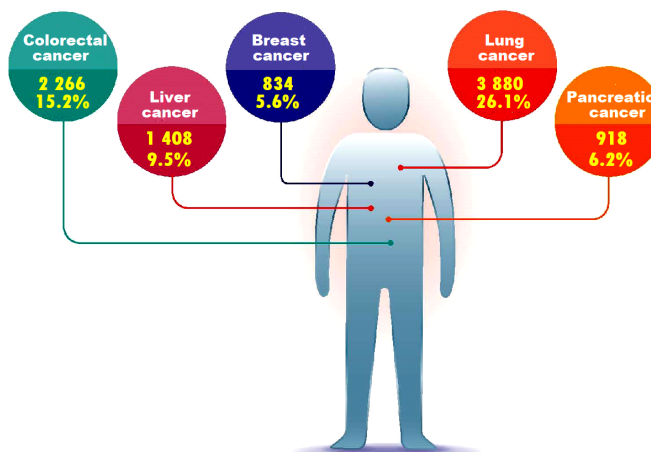


Figure 5: Five leading causes of registered cancer deaths, 2023

Unhealthy Lifestyle Factors

Of most concern, local surveys^{18, 19} reveal that key cancer-associated unhealthy lifestyle factors prevail among the general population (Figure 6).

While the annual number of new cancer cases in Hong Kong is expected to increase with the ageing and growing population¹⁶, worsening lifestyle behaviours would undoubtedly intensify the local burden of cancer.



Figure 6: Prevalence of key cancer-associated unhealthy lifestyle factors among the local population

Cancer Screening Recommendations and Practices

In Hong Kong, the Cancer Expert Working Group on Cancer Prevention and Screening (CEWG) regularly reviews international and local evidence and makes recommendations on cancer prevention and screening applicable to the local setting. Following the recommendations by the CEWG, the Government of the Hong Kong Special Administrative Region has launched three cancer screening programmes over the years (Box 1).

However, the Population Health Survey 2020-22 revealed that about half (52.1%) of women aged 25–64 reported that they ever had cervical screening; 42.6% of Hong Kong residents aged 50–75 ever had received faecal occult blood test or colonoscopy¹⁸.

Box 1: Cancer screening recommendations and relevant screening programmes in Hong Kong

Cervical Screening Programme (CSP)



- Women aged 25–64 who ever had sexual experience (including those vaccinated against human papillomavirus) are recommended to have regular cervical screening²⁰.
- Cervical screening is offered for eligible women at Maternal and Child Health Centres of the Department of Health (DH). To make appointment for DH's cervical screening service, please call 3166 6631.
- For more information about the CSP, please visit www.cervicalscreening.gov.hk.

Colorectal Cancer Screening Programme (CRCSP)



- Individuals aged 50–75 at average risk of developing colorectal cancer are recommended to have regular screening for colorectal cancer²¹.
- Government-subsidised colorectal cancer screening is offered for eligible persons in the private sector.
- For more information about the CRCSP, please visit www.colonscreen.gov.hk/en/index.html or call the dedicated hotline (3565 6288) during office hours.

Breast Cancer Screening Pilot Programme



- Women aged 44–69 with certain combinations of personalised risk factors (such as presence of history of breast cancer among first-degree relative, high body mass index and physical inactivity, etc.) putting them at increased risk of breast cancer are recommended to consider mammography screening every 2 years²².
- For estimating individual risks of developing breast cancer, women can use the Breast Cancer Risk Assessment Tool that is accessible at the Cancer Online Resource Hub: www.cancer.gov.hk/en/bctool/index.html.

Impact of Lifestyle Changes on Cancer Risk

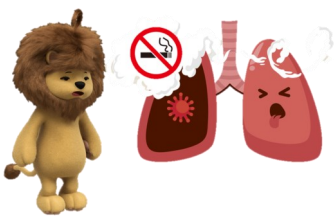
Globally, about 5–10% of all cancer cases are estimated to be due to non-modifiable genetic factors and that the remaining 90–95% are due to lifestyle and environmental factors²³. Changing from an unfavourable to a favourable lifestyle can thus confer significant impact on cancer risk, even in middle-aged or elderly people²⁴.

Weight Loss

A meta-analysis of 66 studies examining weight change and cancer risk among adults reported that overweight and obesity would increase the risk of most cancers, while weight loss of 5 kg or more was associated with a decreased overall risk of cancer²⁵.



Smoking cessation



Smoking cessation is the most established lifestyle modification known to prevent lung cancer and upper aerodigestive track cancers. People who quit smoking could cut their risk of lung cancer by 30% to 50% after 10 years compared to people who keep smoking, and they might cut their risk of cancer of the oral cavity or oesophagus in half within 5 years after quitting²⁶.

Reducing or quitting alcohol consumption

All types of alcoholic beverages (including beer, wine, rice wine and liquor) can increase the risk of cancer and there is no safe level of alcohol drinking – the risk of cancer starts to increase even with low levels of alcohol consumption²⁷. Furthermore, there is sufficient evidence that quitting alcohol - or even drinking less - reduces the risk of oral cavity and esophageal cancers²⁸. Thus, the sound advice is not to start drinking at all and current drinkers should stop drinking.



Healthy eating



Consuming a healthy diet helps to prevent malnutrition in all its forms, including overweight and obesity²⁹. Higher adherence to a plant-based dietary pattern with sufficient consumption of fruit, vegetables, whole grains and legumes could reduce the risk of death from cancer by 12%³⁰.

Active lifestyle

While regular physical activity (together with healthy eating) helps to maintain a healthy body weight, prompt adherence to the WHO recommendation on physical activity can result in 7% reduction in total cancer risk³¹.



To guard against cancer, members of the public are urged to adopt a healthy lifestyle (as shown in Figure 1). The DH will continue working closely with relevant stakeholders in the prevention and control of cancer as well as making healthy choices easier, earlier and everywhere for everyone.

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**World
Cancer Day**
4 February

**UNITED
BY
UNIQUE[®]**

World Cancer Day is an initiative of the Union for International Cancer Control which takes place every year on 4 February.

For World Cancer Day 2025-2027, the theme is “**United by Unique**”, recognising that cancer is more than just a medical diagnosis. Behind every diagnosis lies a **unique** human story — stories of grief, pain, healing, resilience, love and more. It will take all of us, **united**, to create a world where we look beyond the disease and see the person before the patient.



To know more about World Cancer Day, please visit the thematic website: www.worldcancerday.org/.

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