

Non-Communicable Diseases Watch



Colorectal Cancer Screening and Prevention

Key Messages

Cancer screening aims to look for abnormal lesions or cancers at an early stage before symptoms appear. When they are found early, treatment can be started earlier, resulting in better health outcomes.

The Cancer Expert Working Group on Cancer Prevention and Screening, which comprises of local cancer experts, academics, doctors from the public and private sectors, as well as public health professionals, recommends individuals aged 50–75 years at average risk of developing colorectal cancer (such as those without hereditary bowel diseases) to undergo faecal occult blood test every 1 or 2 years, or sigmoidoscopy every 5 years, or colonoscopy every 10 years.

The Government of the Hong Kong Special Administrative Region has launched the Colorectal Cancer Screening Programme (Programme) to subsidise asymptomatic Hong Kong residents aged between 50 and 75 years to undergo colorectal cancer screening in private sector for prevention and early detection of colorectal cancer. Eligible persons are urged to join the Programme as soon as possible and have regular screenings for colorectal cancer.

Adherence to a healthy lifestyle can substantially reduce the risk of developing colorectal cancer. Members of the public are urged to increase intake of dietary fibre and decrease consumption of red and processed meat, be physically active, maintain a healthy weight and waist circumference, as well as refrain from smoking and alcohol drinking.

Introduction

Colorectal cancer is a major public health concern. Globally, it is the third most common cancer with more than 1.9 million new cases in 2022. Despite effective prevention strategies and screening measures for detecting pre-cursor lesions and early cancer, an estimated 900 000 people died of colorectal cancer in 2022¹.

In Hong Kong, colorectal cancer is a significant cause of morbidity and mortality as well. With 5 190 new cases of colorectal cancer in 2022, it ranked the third most common cancer locally ². Colorectal cancer also accounted for 15.2% of all cancer deaths in 2023 with 2 266 registered deaths ³.

To reduce the increasing disease burden of colorectal cancer among the local population, the Government of the Hong Kong Special Administrative Region (Government) has launched the Colorectal Cancer Screening Programme (Programme) to subsidise asymptomatic Hong Kong residents aged between 50 and 75 years to undergo colorectal cancer screening in private sector for prevention and early detection of colorectal cancer.

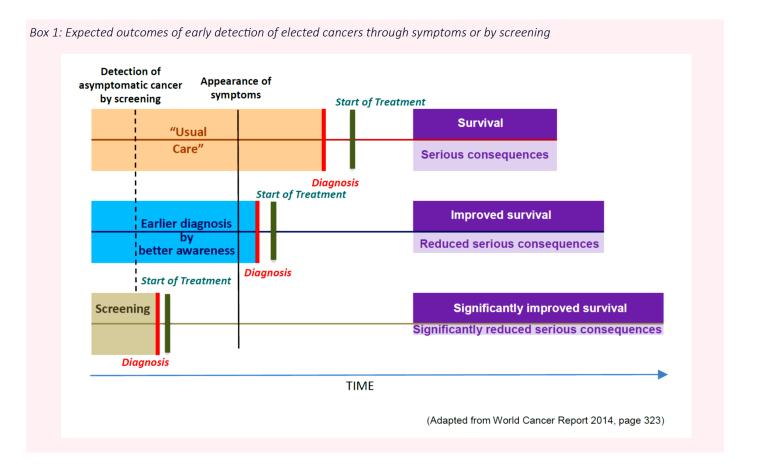


This article will first briefly discuss the rationale behind colorectal cancer screening and overseas colorectal cancer screening guidelines and practices. It then provides an update on the local initiatives and recommendations on colorectal cancer prevention.

Rationale behind Colorectal Cancer Screening

Cancer screening aims to look for abnormal lesions or cancers at an early stage before symptoms appear. When they are found early, treatment can be started earlier, resulting in better health outcomes⁴. For cancers with a long precancerous stage, there is a window of opportunity for early detection by screening, and in turn early diagnosis and treatment. Colorectal cancer is an example, which usually begins as a benign polyp that may take more than 10 years to progress into cancer.

As illustrated in Box 1, delayed diagnosis and the start of cancer treatment upon appearance of symptoms would lead to poorer outcomes. In contrast, earlier detection and diagnoses of asymptomatic cancers by screening along with earlier treatment can significantly reduce serious consequences of the disease and improve survival⁵.



Overseas Colorectal Cancer Screening Guidelines and Practices

Colorectal cancer screening guidelines and implementation differ worldwide based on population risk, available resources, participants' preferences, healthcare structure and infrastructure ^{6, 7}. Yet, most overseas guidelines recommend starting colorectal cancer screening for average-risk adults at age 50 (based on the steep increase of colorectal cancer risk beginning at age 50) and an upper age screening threshold of 74 or 75 (based on associated harms potentially exceeding benefits if screening continued after that point)^{6, 7}. As for screening modalities, faecal occult blood test (FOBT), flexible sigmoidoscopy and colonoscopy (Box 2) are the mainstays of colorectal cancer screening ^{6, 7}.

Box 2: Colorectal cancer screening methods



 FOBT, i.e. using a chemical or immunochemical test to look for hidden (occult) blood in a sample of stool



• Sigmoidoscopy, i.e. using an endoscope to examine lower part of the colon



• Colonoscopy, i.e. using an endoscope to examine the entire colon

Colorectal Cancer Screening in Hong Kong

Screening recommendations

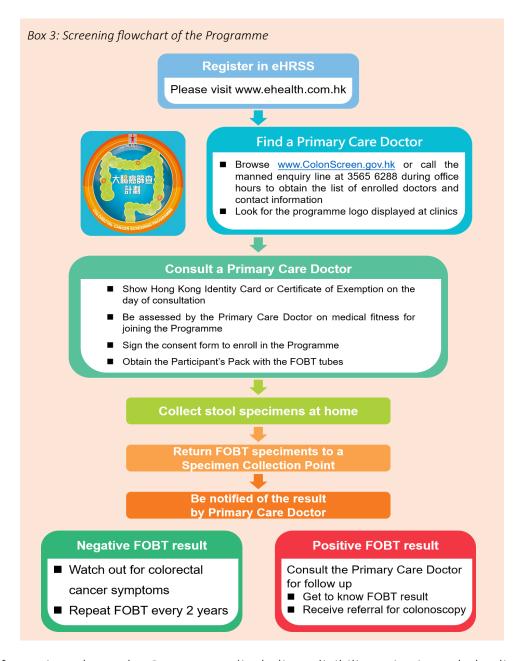


Based on the review of local and international evidence and practices, the Cancer Expert Working Group on Cancer Prevention and Screening (CEWG) makes recommendations on cancer prevention and screening applicable to local setting. For colorectal cancer screening, the CEWG recommends individuals aged 50–75 years at average risk of developing colorectal cancer (such as those without hereditary bowel diseases) to undergo faecal occult blood test every 1 or 2 years, or sigmoidoscopy every 5 years, or colonoscopy every 10 years⁸.

Colorectal Cancer Screening Programme

Using a public-private partnership model, the Programme was piloted in 2016 and fully implemented in 2020 to subsidise asymptomatic Hong Kong residents aged 50–75 years to undergo screening in private sector for prevention of colorectal cancer. As shown in Box 3, eligible persons are required to register with the Electronic Health Record Sharing System (eHRSS) and the screening pathway comprises two stages:

- I) Eligible persons should make an appointment with an enrolled primary care doctor for assessment and arrangement of Faecal Immunochemical Test (FIT);
- II) If the FIT result is positive, the participants will be referred to an enrolled colonoscopy specialist to receive Government-subsidised colonoscopy examination. If the FIT results is negative, the participants should attend rescreening after two years.



For more information about the Programme (including eligibility criteria and the list of primary care doctors), please visit the thematic website of the Department of Health (DH): www.colonscreen.gov.hk, or call 3565 6288 during the office hour.

Screening outcomes

As of the end-2024, over 510 000 eligible persons had participated in the Programme. Below are the screening outcomes:

- Among the participants who had submitted stool specimens with analysable results, around 77 000 persons (16%) had positive FIT results.
- Among FIT-positive participants who underwent a colonoscopy examination, around 3 400 had colorectal cancer and around 40 000 cases of colorectal adenoma (a type of polyp that can turn into cancer) have been diagnosed through the Programme.
- Around 56% of colorectal cancer cases diagnosed through the Programme belonged to earlier stages (Stage 2 or below), and therefore would have a more favourable prognosis.

Besides, the DH conducts regular territory-wide population health surveys to monitor health status and related practices among the local population, including screening for colorectal cancer. Survey results show that the proportion of persons aged 50–75 years ever had colorectal cancer screening (FOBT or colonoscopy) has steadily increased from about 33% in 2014/15 to over 40% in recent years (Figure 1) 10, 11. Nevertheless, the uptake of colorectal cancer screening among persons 50–75 years still needs to be improved.

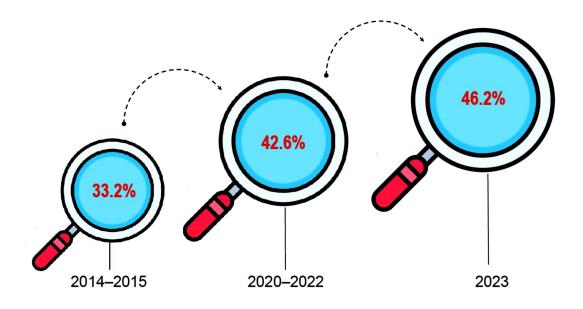


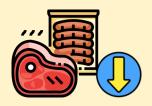
Figure 1: Proportion of persons aged 50—75 years ever had colorectal cancer screening

Prevention of Colorectal Cancer

In general, adherence to a healthy lifestyle can substantially reduce the risk of developing colorectal cancer ^{12, 13}. Studies showed that healthy living could reduce the risk of colorectal cancer by as much as 48% (46% of colon cancer; 49% of rectal cancer) ¹⁴. For preventing colorectal cancer, the CEWG recommends the following ⁸:



✓ Increase intake of dietary fibre, including at least five servings of fruit and vegetables per day



✓ Decrease consumption of red and processed meat



Increase physical activities by doing at least 150 minutes of moderate-intensity aerobic activities per week (e.g. brisk walking), or an equivalent amount and intensity of physical activity



Maintain healthy body weight and waist circumference. Adults should aim for a body mass index between 18.5 and 22.9, and a waist circumference of less than 90 centimeters (cm) for men and less than 80 cm for women



✓ Do not smoke



✓ Refrain from alcohol drinking

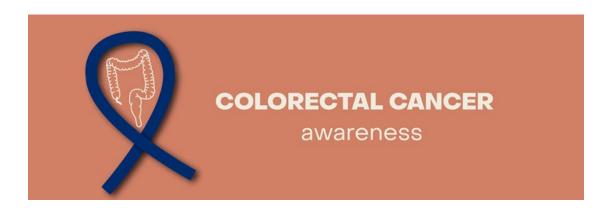
For more information about healthy living, please visit the Change for Health website of the DH at www.change4health.gov.hk.

While the DH will continue to promote colorectal cancer screening and implement publicity drives for enhancing participation, eligible persons are urged to join the Programme as soon as possible and have regular screenings for colorectal cancer. The DH will also continue to promote healthy living as well as work with community partners to foster a health-enhancing environment.



References

- 1. Bray F, Laversanne M, Sung H, et al. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: A Cancer Journal for Clinicians 2024;74(3):229-263.
- 2. Colorectal Cancer Incidence. Hong Kong SAR: Hong Kong Cancer Registry, Hospital Authority. Accessed 10 February 2020: https://www3.ha.org.hk/cancereg/.
- 3. Mortality Statistics 2023. Hong Kong SAR: Department of Health and Census and Statistics Department.
- 4. A Short Guide to Cancer Screening. Increase Effectiveness, Maximize Benefits and Minimize Harm. Copenhagen: WHO Regional Office for Europe; 2022.
- 5. Stewart EW, Wild CP. World Cancer Report 2014. Lyon: International Agency for Research on Cancer, 2014.
- 6. Bénard F, Barkun AN, Martel M, et al. Systematic review of colorectal cancer screening guidelines for average-risk adults: Summarizing the current global recommendations. World Journal of Gastroenterology 2018;24(1):124-138.
- 7. Shaukat A, Levin TR. Current and future colorectal cancer screening strategies. Nature Reviews Gastroenterology & Hepatology 2022;19(8):521-531.
- 8. Cancer Expert Working Group on Cancer Prevention and Screening. Recommendations on Prevention and Screening for Colorectal Cancer for Health Professionals. Hong Kong SAR: Department of Health, June 2024.
- 9. Population Health Survey 2014/15. Hong Kong SAR: Department of Health.
- 10. Population Health Survey 2020-22. Hong Kong SAR: Department of Health.
- 11. Health Behaviour Survey 2023. Hong Kong SAR: Department of Health.
- 12. Carr PR, Weigl K, Jansen L, et al. Healthy lifestyle factors associated with lower risk of colorectal cancer irrespective of genetic risk. Gastroenterology 2018;155(6):1805-1815.e1805.
- 13. Cho YA, Lee J, Oh JH, et al. Genetic risk score, combined lifestyle factors and risk of colorectal cancer. Cancer Research and Treatment 2019;51(3):1033-
- 14. Yu J, Feng Q, Kim JH, et al. Combined effect of healthy lifestyle factors and risks of colorectal adenoma, colorectal cancer, and colorectal cancer mortality: Systematic review and meta-analysis. Frontiers in Oncology 2022;12:827019.



Colorectal Cancer Awareness Month is observed in March to highlight the importance of screening for colorectal cancer, as well as to promote healthy lifestyle habits that can decrease a person's risk of developing cancer (website: www.iarc.who.int).

The Department of Health takes the opportunity of the Colorectal Cancer Awareness Month to strengthen the awareness of the public on colorectal cancer and its preventive measures. Apart from leading a healthy lifestyle, eligible persons aged between 50 and 75 years are highly encouraged to participate in the Government subsidised Colorectal Cancer Screening Programme.

For further details, please visit the thematic website at www.colonscreen.gov.hk.

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