

SINGAPORE

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Lifestyle-related risk factors may increase the prevalence of cancer cases here, despite Singapore's strong cancer prevention policies, said oncologists.

Achieving a substantial drop in cancer cases will require a multifaceted approach that includes the implementation of effective screening programmes, they add.

The World Health Organization unveiled research in February, suggesting that almost four in 10 cancer cases worldwide were linked to preventable causes such as smoking, drinking and air pollution.

Published in the journal *Nature Medicine*, the study called for "context-specific prevention strategies" such as strong tobacco control measures as well as vaccination against HPV and other cancer-causing infections like hepatitis B. While these findings are applicable to Singapore, the Republic's more urbanised lifestyle means statistics here may differ slightly from global averages, said Dr Gloria Chan, a consultant with the haematology-oncology department at the National University Cancer Institute, Singapore (NCIS).

"Singapore is a high-income, ageing society, so lifestyle-related risks play a larger role compared with other countries where infection-related cancers are more dominant," she said.

Assistant Professor Dawn Chong, a senior consultant with the medical oncology division at the National Cancer Centre Singapore, said: "We are likely to observe a long-term decline in the incidence of preventable cancers as-

Lifestyle-driven cancer risk persists despite prevention efforts here: Oncologists

Multifaceted approach, including effective screening, needed for a substantial drop in cases

sociated with modifiable risk factors."

"However, achieving a substantial reduction in overall cancer incidence requires a multipronged approach. This includes modifying risk factors and implementing effective cancer screening programmes," she said.

In Singapore, 32.8 per cent of the years of healthy life lost to cancer – a measure referred to as disability-adjusted life years – in Singapore can be averted if all risk factors were eliminated, according to the 2023 Global Burden of Disease study published in 2025. Tobacco use and unhealthy diet were among the top risk factors noted.

Singapore's policies have helped stem certain cancers, noted Dr Chan.

"Since the introduction of universal hepatitis B vaccination in the 1980s, we have effectively eliminated acute hepatitis B in the younger generation, which has led to a direct and sustained drop in vi-

ral-related liver cancer that we see only now as the vaccinated cohort reaches middle age," she said.

Human papillomavirus, or HPV, vaccination coverage has also improved significantly with the introduction of free vaccines for female Secondary 1 students in 2019, she said, adding this will effectively reduce cervical cancers over the next few decades.

However, such policies have their limits, Dr Chan said.

She noted that the Republic's tobacco control measures – including one of the world's highest tobacco taxes, which was recently hiked by 20 per cent – have resulted in smoking rates that are among the lowest in the region, which have in turn helped reduce tobacco-related lung cancer rates.

However, the emergence of lung cancers in non-smokers is an area of concern, said Dr Chan.

She noted that some 48 per cent of local lung cancer patients are people who have never smoked,

compared with between 10 and 20 per cent of cases in Western nations.

"This is particularly prevalent among Asian women, driven by specific genetic alterations, most commonly the epidermal growth factor receptor gene," she said. Mutations in the EGFR gene have been linked to lung cancer, and are prevalent in Asian populations.

Singapore's guidelines recommend lung cancer screening for those aged between 50 and 80 with at least a 20-pack year smoking history who still smoke or have quit in the past 15 years, but this misses non-smokers, who make up almost half the lung cancer patients here, Dr Chan noted.

"This represents a national challenge for early detection of cancer for this group of patients," she said.

A pack-year is equal to smoking about 20 cigarettes per day for a year. For example, a person could have a 20 pack-year history by smoking a pack a day for 20 years,

or by smoking two packs a day for 10 years.

Screening rates for common cancers here are also relatively low, said Dr Chan.

According to the latest National Population Health Survey, only 35.2 per cent of Singapore women aged 50 to 69 go for mammograms to get screened for breast cancer.

In comparison, this number stands at between 70 and 90 per cent in other high-income countries such as Britain, New Zealand and Sweden, she noted.

Meanwhile, screening rates for cervical and colorectal cancers here stood at 44.9 per cent each.

"This is below the 70 per cent target commonly cited for effective population-level cancer screening," Dr Chan.

This, in turn, could allow for more cancers to be detected at stage 1, when survival rates are higher, she added.

Still, certain cancer cases remain unpreventable, Prof Chong said,

noting that these are driven by non-modifiable risk factors such as genetics, or are primarily associated with ageing.

"Even with strong prevention efforts, the total number of cancer cases may still rise because Singapore's population is ageing rapidly," she said.

The key measure of success is whether the age-adjusted incidence rate declines, she added.

Dr Chan described obesity and metabolic health as growing areas of concern in tackling cancer, noting the 2024 National Population Health Survey reported that obesity here had risen to 12.7 per cent.

However, the rising tide of obesity and metabolic syndrome – a group of conditions such as high blood pressure and high blood sugar – is the current challenge that needs to be tackled to keep liver cancer figures down.

"Excess weight is linked to colorectal, breast, endometrial, gastric and pancreatic cancers. Sustained public health effort is needed in this area," she said.

To prevent cancer, Prof Chong encourage engaging in regular physical activity, adopting a balanced diet rich in fruits, vegetables and fibre, while reducing intake of processed and red meat.

People should also follow national screening recommendations for colorectal, cervical and breast cancers, she added, noting that these checks are free for eligible individuals under the Healthier SG initiative.

"Cancer prevention is more than medical care – it requires strong public health programmes, safer environments, and communities working together to create a healthier society," she said.

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