

Toronto Public Health Initiatives to Prevent Cancer

Date: October 8, 2024

To: Board of Health

From: Medical Officer of Health

Wards: All

SUMMARY

Cancer is a large group of diseases where some of the body's cells grow and divide uncontrollably, spreading into surrounding tissues. There are more than 200 types of cancer. Cancer is a leading cause of death in Ontario and Toronto. In Toronto, the most common types of new cancer cases diagnosed each year are breast cancer (among females) and prostate cancer (among males). The highest annual rate of mortality by type of cancer is lung cancer, followed by colorectal cancer. The causes of cancer vary. Some cancers can be prevented, and the risk of others can be lowered.

Every day, Toronto Public Health works to protect and promote population health in our city by implementing interventions and policies that advance healthier environments and behaviours. Toronto Public Health applies a population health approach to cancer prevention that focuses on improving community health through broad, systemic initiatives. Key interventions include vaccinating to prevent infectious diseases associated with cancer risk; promoting healthy eating and physical activity; reducing harms associated with substance use including tobacco and alcohol; and advancing healthy social, natural, and built environments that support healthy behaviours. Toronto Public Health also works with community partners to promote and disseminate evidence-informed resources and communications to strengthen collective action on cancer prevention and promotion of protective behaviours. This approach is designed to address and mitigate risk factors at a community level to reduce incidence of cancer.

In parallel, health care focuses on the individual through cancer screening and clinical care. Cancer screening aims to detect cancer early in individuals who may not yet have symptoms and clinical care provides personalized treatment for those diagnosed with cancer. Social determinants of health are linked to prevalence of cancer risk factors and delays in cancer diagnosis and treatment, which worsen prognosis. Together public health and health care work to reduce the incidence and impacts of cancer.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health request the Ministry of Health to:

- a. Improve access for local public health units, including Toronto Public Health, to sociodemographic data to monitor and address disparities in cancer risk factors, screening rates and treatment outcomes.
- b. Work across the health care system to expand hepatitis B vaccination coverage, sterile needle distribution to reduce transmission of hepatitis C, testing of hepatitis B and C for greater detection, and treatment to decrease the transmission of these infectious diseases linked to cancer.
- c. Strengthen and expand the Smoke Free Ontario Act and related regulations to ensure the regulations and enforcement mechanisms for tobacco use, retail and promotions are also applied to vapour products, newer and emerging nicotine products like nicotine pouches, and waterpipe and hookah smoking.
- d. Strengthen and expand the Smoke Free Ontario Act and related regulations to reduce tobacco and vapour product retail density and proximity to schools.
- e. Monitor the health impacts of recent alcohol policy amendments related to use, sales, and promotion including expanded retail availability, retail density, pricing, and marketing, and adjust policy accordingly to advance the overall health of the population.
- f. Develop and implement a comprehensive cancer prevention awareness and education campaign in Ontario to increase action to reduce modifiable cancer risks; for example, promote the Canadian Centre on Substance Use and Addiction Canada's Guidance on Alcohol and Health to reduce cancer risk factors associated with alcohol consumption.

FINANCIAL IMPACT

Funding for the Toronto Public Health initiatives outlined in this report are included in the 2024 base Operating Budget of Toronto Public Health.

The Chief Financial Officer and Treasurer has been advised of the financial impacts associated with the initiatives to be considered along with other priorities in future budget processes.

DECISION HISTORY

On April 29, 2024, the Board of Health considered Item HL12.6, Toronto Public Health's Role in Preventing and Addressing Cancer in Toronto, and requested the Medical Officer of Health to report back to the October 21, 2024, meeting of the Board of Health on Toronto Public Health's role and actions to prevent and address cancer in Toronto.

<https://secure.toronto.ca/council/agenda-item.do?item=2024.HL12.6>

COMMENTS

Cancer is a leading cause of death in Ontario and Toronto

Cancer is a large group of diseases where some of the body's cells grow and divide uncontrollably, spreading into surrounding tissues.¹ There are more than 200 types of cancer.² Cancer is a leading cause of death in Ontario and Toronto.^{3,4}

In Toronto, the highest rates of new cancer diagnoses are for breast (among females) and prostate (among males) (Appendix 1, Table 1). Other cancers with high rates of new diagnoses are lung, colorectal, uterine (among females), and urinary bladder (among males). The highest annual rate of mortality from cancer is lung cancer (Appendix 1, Table 2), followed by colorectal cancer, breast cancer (among females), and prostate cancer (among males). While not all cancers are preventable, focusing on modifiable risk factors and early detection can significantly lower cancer risks and improve outcomes.

Modifiable and non-modifiable risk factors for cancers

Risk factors for cancers are any substance, behaviour or condition that increases the risk of developing cancers.⁵ Some cancer risk factors can be modified to reduce the risk of cancer, while others, like age and genetics, are not modifiable. Between 30%-50% of all cancers can be prevented.⁶

Social determinants of health (e.g., income, education, race and racism, colonization, employment and workplace conditions, gender, housing, early child development, access to health services, food insecurity) fundamentally shape people's health, including prevalence of cancer risk factors and the development of cancer, and access to timely diagnosis and treatment once cancer has developed. Modifiable behavioural risk factors linked to cancer include tobacco use, physical inactivity, alcohol consumption, and diet (e.g., processed and red meat consumption, low vegetable and fruit consumption).⁷ Exposures to environmental factors (e.g., ultraviolet radiation [UV], pollution, chemical carcinogens like asbestos, second-hand smoke, radon) and certain types of infections (e.g., hepatitis C, and vaccine-preventable hepatitis B and human papillomavirus [HPV]) can also be modified to reduce the risk of cancer. In 2015, smoking tobacco and a lack of physical activity were the leading modifiable risk factors contributing to cancer cases in Ontario.⁷

Inequities in Cancer

Administrative health data in Canada, which are typically used in the surveillance of health outcomes, do not routinely include information on many socio-demographic characteristics, such as ethno-racial identity, Indigenous identity, gender identity, and sexual orientation. Toronto Public Health (TPH) uses Ontario Cancer Registry data to monitor and report on cancer incidence and mortality rates in Toronto. This data source only contains information on age and sex.⁸ This creates a challenge in quantifying other types of disparities in cancer outcomes such as incidence, mortality, and survival.⁹

Available research shows inequities in cancer outcomes among certain groups in Canada, including Indigenous, Black, racialized, 2SLGBTQI+ and newcomers, due to higher prevalence of cancer risk factors, and barriers in accessing early diagnosis, consistent treatment and supportive care.^{9,10,11} Factors such as socio-economic status; attitudinal, institutional, and systemic discrimination; and geographic location are important determinants of these inequities, contributing to delayed treatment and poorer health outcomes.^{12,13} Anti-Black racism, anti-Indigenous racism and colonialism in practices and systems also contribute to health inequities, including those related to cancer.^{10,12,14}

The province is responsible for cancer planning, prevention and care

[Ontario Health](#) is an agency created by the Government of Ontario to connect and coordinate the provincial health care system. It oversees health care planning and delivery across the province.¹⁵ [Cancer Care Ontario](#) (CCO) is Ontario Health's principal cancer advisor dedicated to improving Ontario's cancer system through various initiatives including cancer screening programs, such as implementing HPV testing for cervical cancer.¹⁶ In addition, Ontario Health is addressing systemic barriers and inequities in the cancer and health systems through initiatives like CCO's [Indigenous Cancer Care Unit](#) and the development of the [Black Health Plan for Ontario](#).

Health care focuses on the individual through cancer screening and clinical care. Cancer screening, such as stool testing to detect colorectal cancer, aims to detect cancer early in individuals who may not yet have symptoms. Clinical care provides personalized treatment for those diagnosed with cancer.

The province identifies the minimum expectations for public health programs and services to be delivered by Ontario's Boards of health/public health units in the Ontario Public Health Standards (OPHS).¹⁷ The current OPHS standards (revised in 2021) outline various standards and enforcement requirements related to cancer prevention (Attachment 2 – Summary of Cancer Related OPHS Standards). The OPHS is currently under review, with new standards expected to be introduced in 2025.

Population Health Approach to Cancer Prevention

Every day, TPH works to protect and promote population health in our city by implementing interventions and policies that advance healthier environments and behaviours. Public health applies a population health approach to cancer prevention that focuses on improving community health through broad, systemic initiatives. Toronto Public Health also promotes and disseminates evidence-informed resources and

communication to community partners to strengthen collective action on cancer prevention and promotion of protective behaviours.

Toronto Public Health interventions to reduce the risk of cancer

Toronto Public Health delivers public health programs and services related to cancer prevention in accordance with the OPHS, that meet local health needs, and protect and improve health at a population level while reducing health inequities. Toronto Public Health works to reduce the risk of cancer by monitoring relevant data, strengthening health protection and disease prevention activities, and promoting health and well-being across the lifespan.¹⁸

Assessment and reporting on health inequities and population health needs

Toronto Public Health monitors and assesses population health status indicators related to cancer and risk factors (for example, alcohol and tobacco use among adults and youth) to support its mission to protect and improve health at a population level while reducing health inequities. Data are routinely reported in summative reports like the [Population Health Profile](#) and in interactive [data dashboards](#). Insights from these data are used by TPH staff and health system partners to, inform planning and support key partners to provide interventions that reach those at risk for cancer. However, data reported from mainstream survey methods and administrative databases are of limited utility for Indigenous populations, as they do not currently produce accurate Indigenous-specific cancer and risk factor information.

Cancer prevention through the reduction of infectious diseases

Reducing the risk of transmission of some infectious diseases can also reduce the burden of cancer, as in the case of hepatitis B and C and HPV. Hepatitis B and C chronic viral infections can increase the risk of liver cancer.¹⁹ Certain high-risk HPV strains cause cervical, vaginal, vulvar, penile, anal, and oropharyngeal (back of the throat, including the base of the tongue and tonsils) cancers.²⁰ Toronto Public Health mitigates the spread of HPV and hepatitis B and C within Toronto communities through the promotion and administration of vaccines, which protect against hepatitis B and HPV. Toronto Public Health also reduces viral hepatitis transmission through public health case management and contact tracing of reported hepatitis B and C infections.

The BodySafe program conducted by TPH inspects personal service settings (PSS) where there is a risk of exposure to blood or body fluids. This includes premises offering hairdressing and barbering, tattooing, body piercing, nail services, electrolysis and other aesthetic services. The purpose of the BodySafe program is to ensure that PSS owners and operators use safe practices to prevent the spread of infections, such as hepatitis B and C.

The Control of Infectious Disease and Infection Control program follows up on reports of body fluid exposures in the community, investigates cases of hepatitis B and C, and implements contact management. Contact management includes providing guidance to healthcare professionals regarding counselling, linkage to care, and contact follow-up (for example testing and vaccination) to prevent further spread of infection.

The Sexual Health Clinic program funds three community clinics. The Sexual Health Clinic program also currently runs three TPH-operated clinics dedicated to screening, diagnosis, treatment, counselling, and education on sexually transmitted infections including hepatitis B and C and HPV. The program provides cervical cancer screening to those with significant barriers to obtaining Pap testing, and delivers testing and referral for hepatitis B and C.

Harm reduction services, such as needle exchange programs, supervised consumption services, harm reduction supply distribution (e.g., safer injection equipment, safer smoking equipment, safer sex products, etc.), screening and counselling, help prevent the spread of communicable diseases such as hepatitis B and C. At the time of the writing of this report, many of these services are provided by TPH or in partnership with a range of community organizations.

Cancer prevention through human papillomavirus and hepatitis B vaccination

Human papillomavirus vaccination protects against most types of HPV infection that can cause cancers.²⁰ Hepatitis B vaccines are 95% effective in preventing infection and the development of associated chronic disease and liver cancer.²¹ As part of the School Immunization Program, TPH administers three vaccines to students in middle school, including HPV and hepatitis B. These two vaccines are also administered in TPH's sexual health clinics. Hepatitis B vaccine is administered at The Works, a TPH harm reduction program for people who use drugs.

Reduction of harms associated with the use of alcohol, tobacco, and vapour products

Alcohol consumption increases the risk of mouth, larynx, pharynx, esophagus, liver, colon, and breast cancer.²² Tobacco use is the leading preventable cause of lung cancer and increases the risk of over 12 different types of cancers.²³

Toronto Public Health reduces alcohol-related harms, including cancer risk, by preventing or delaying the use of alcohol by youth and by providing information and resources on healthy living and safer alcohol use. Toronto Public Health also refers people seeking services for alcohol misuse, and supports laws and policies that reduce alcohol harms.

Toronto Public Health collaborates with partners to provide current scientific evidence on alcohol and health. Toronto Public Health supported the review of and promotes the recently released Canada's Guidance on Alcohol and Health. This guidance includes public health messaging about alcohol consumption. The guidance states that "no amount of alcohol is good for your health" and that "drinking alcohol, even a small amount, is damaging to everyone, regardless of age, sex, gender, ethnicity, tolerance or lifestyle. That's why, if you drink, you should drink less".²⁴

The Smoke-Free Ontario Act, 2017 (SFOA) regulates the sale, supply, display and promotion of tobacco and vapour products at retail locations.²⁵ The SFOA also prohibits the smoking of tobacco or cannabis or the vaping of any substance in enclosed workplaces and public places, as well as some designated outdoor places to protect the

public from second-hand smoke and vapour exposure. Toronto Public Health staff enforce the SFOA, which includes conducting inspections, responding to complaints, providing education to retailers, schools, workplaces and members of the public, and issuing penalties for non-compliance. The goal of the SFOA is to prevent tobacco and vapour product initiation and use, protect people from second hand smoke exposure, and de-normalize smoking and vaping, particularly among youth. Although overall tobacco smoking prevalence rates among Toronto adults and youth have declined significantly since the advent of the SFOA, TPH continues to monitor trends such as increased vapour product use among youth. Toronto Public Health launched a new [webpage](#) on youth vaping with information, resources, and programming. Toronto Public Health also works with community partners to address this issue through programs such as youth leadership and family engagement initiatives in schools focused on substance use prevention.

Toronto Public Health has advocated to provincial and federal governments for enhanced legislation on tobacco and vapour product to reduce waterpipe and hookah smoking as well as the availability of flavoured vapour products, tobacco and vapour products.

Toronto Public Health champions [Our Health, Our City: A Mental Health, Substance Use, Harm Reduction and Treatment Strategy for Toronto](#), a 5-year strategy, which aims to reduce the health and social impacts of substance use harms, including cancer risks. The strategy, guided by an implementation panel and a city-wide interdivisional table, includes various recommended actions. Progress updates will be shared annually with the Board of Health.

Reduction of the burden of chronic disease including cancer across the lifespan

Breastfeeding or chestfeeding, which is a gender inclusive term, can help protect children from certain childhood cancers.²⁶ Research shows that breastfeeding mothers are also protected from breast and ovarian cancer.²⁷ Toronto Public Health offers free breastfeeding/chestfeeding support and connection to community resources. These services are offered through telephone, video calls, online chat, in-person clinic appointments and home visits for those who meet specific criteria and are unable to travel to a clinic.

An overall healthy dietary pattern that emphasizes high intake of fruits and vegetables, whole grains, and plant sources of protein and fat, and low intake of red and processed meat reduces the risk of cancer.²⁸ Physical activity can help reduce the risk of several cancers including cancers of the colon, breast and endometrium.²⁹ Toronto Public Health offers support to school staff and administration with implementing health-related curricula in schools, including food and physical literacy and substance use prevention. In some schools, action plans are developed to address health needs; these generally involve implementing youth leadership and family engagement initiatives focused on cancer risk factors (e.g., alcohol, vaping, healthy eating, physical activity).

Toronto Public Health enforces the Skin Cancer Prevention (Tanning Beds) Act, which prohibits the sale of tanning services to youth under 18 years old to reduce their

exposure to UV radiation, a risk factor for skin cancer.³⁰ Toronto Public Health conducts inspections of businesses with tanning services on a complaint basis.

Toronto Public Health Dental and Oral Health Services staff provide dental screenings in schools, community settings and long-term care facilities aimed at promoting oral health and well-being. In 2023, more than 20,000 distinct patients received dental care in TPH dental clinics. In a targeted approach, dentists and dental hygienists provide education on oral cancer depending on a patient's risk factors (like tobacco consumption) and connect them with appropriate resources.

Toronto Public Health collaborates on research initiatives and the communication and dissemination of research findings and best practices to support healthy growth and development. Promoting healthy behaviours and mitigating adversities early in life helps to prevent chronic diseases and reduce modifiable cancer risks throughout life.

Advocacy for healthy social, natural, and built environments with collaborative partnerships

Toronto Public Health works to reduce exposure to modifiable environmental risk factors, such as environmental chemicals and UV radiation, through programs and partnerships. The ChemTRAC program aims to improve public health by raising awareness of the use and release of chemicals by certain local businesses and works to support these businesses in reducing or, where possible, eliminating the use or release of these chemicals. Toronto Public Health identified 25 chemicals (17 of these are known carcinogens) that are in Toronto's air environment at levels of concern for health. ChemTRAC requires businesses to report their use and release of these chemicals to TPH each year under the [Environmental Disclosure and Reporting bylaw](#). ChemTRAC also supports local businesses to reduce or eliminate these chemicals and adopt green business strategies. The program resumed this year (2024) after being suspended during the COVID-19 pandemic from 2020 to 2023. In 2025, facilities will be required to submit a report for 2024 data. ChemTRAC will release the tenth data report, for the 2024 reporting year, in December 2025.

Toronto Public Health is a technical advisor of the Thermal Comfort Study led by City Planning. The Thermal Comfort Study project will address thermal comfort in the public realm taking into consideration future climate projections and the surrounding built form impact to the thermal comfort level in exterior spaces. This will provide guidance for City staff to update the City's thermal comfort policies, as well as standards and guidelines. The design toolbox will include reference to shading structures and tree planting design, which impacts the public's exposure to UV radiation.

Toronto Public Health is strengthening partnerships and collective work to create healthy environments that reduce the risk of cancer and promote physical activity, healthy eating and sun safety. This includes collaborations with other City divisions and community partners on cancer prevention, healthy aging, built environments (e.g., enhancing walkable neighbourhoods), active transportation (e.g., bike lanes, promoting transit use), monitoring food affordability, local food security initiatives to increase access to nutritious food, and increasing awareness about sun safety and offering free sunscreen at select parks in Toronto.

Commitment to reconciliation

Toronto Public Health is committed to reconciliation and collaboration with Indigenous service providers, community members and partners on interventions that impact Indigenous health. Through building relationships with and listening to external Indigenous partners, TPH is working to expand and strengthen our programs and services with and for Indigenous communities. Indigenous-specific health promotion strategies have been demonstrated to be more effective for Indigenous populations compared to general population health promotion efforts. Examples of initiatives that TPH is engaged in include promoting equitable access to vaccination for vaccine preventable diseases, developing Indigenous-led responses to issues related to substance use and mental health, and working with Indigenous partners to better monitor and address health disparities experienced by Indigenous peoples.

Toronto Public Health Strategic Impact

The cancer prevention initiatives detailed in this report align with the following priorities and objectives of the [Toronto Public Health Strategic Plan 2024-2028](#):

Priority 1. Strengthen health protection, disease prevention and emergency preparedness, and the following objective:

c. Effectively communicate with the public about how they can protect their health.

Priority 2. Promote health and well-being across the lifespan, and the following objectives:

- a. Reduce the burden of chronic and infectious diseases across the lifespan.
- b. Prioritize effective interventions for children and youth to meet their changing needs.
- d. Advocate for healthy social, natural, and built environments and collaborate with partners on initiatives that advance these goals.

Priority 3. Promote the conditions to support positive mental health and reduce the harms of substance use, and the following objective:

b. Reduce harms associated with the use of alcohol, cannabis, tobacco and vapour products.

Priority 4. Advocate to advance health equity, and the following objectives:

- a. Assess and report on health inequities and population health needs.
- b. Collaborate with partners across multiple sectors to address local health needs.
- c. Share evidence, advocate and collaborate to influence actions that impact population health.

Conclusion

Cancer is a leading cause of death in Toronto. While not all cancers are preventable, there are risk factors that can be modified to significantly lower cancer risks. Risk

factors intersect and disproportionately affect certain groups of people and may impact health outcomes, resulting in health inequities.

Toronto Public Health will continue to monitor and assess population health status indicators related to cancer to support its mission to protect and improve health at a population level while reducing health inequities. Toronto Public Health will also continue to work with community partners to reduce the risk of cancer through strengthening health protection and disease prevention activities, promoting health and well-being across the lifespan, reducing the harms associated with substance use and advocating to advance health equity.

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ATTACHMENTS

Attachment 1 – Highest age-standardized cancer incidence and mortality rates by sex in Toronto, 2019

Attachment 2 – Summary of Cancer Related Ontario Public Health Standards (2021)