



City of Hamilton
PUBLIC HEALTH SUB-COMMITTEE
AGENDA

Meeting #: PHSC 25-002
Date: February 24, 2025
Time: 9:30 a.m.
Location: Council Chambers
Hamilton City Hall
71 Main Street West

Matt Gauthier, Legislative Coordinator (905) 546-2424 ext. 6437

1. CALL TO ORDER

2. CEREMONIAL ACTIVITIES

3. APPROVAL OF AGENDA

(Added Items, if applicable, will be noted with *)

4. DECLARATIONS OF INTEREST

5. APPROVAL OF MINUTES OF PREVIOUS MEETING

5.1 PHSC 25-001

Public Health Sub-Committee Minutes of the meeting held on January 13, 2025.

6. DELEGATIONS

7. ITEMS FOR INFORMATION

7.1 BOH25005

Recommended Reference: Hamilton Community Health Status Report 2024 (City Wide)

7.2 BOH25003

Public Health Services Opioid Update – February 2025 (City Wide)

7.3 BOH25004

Overview of Mental Health Institutions, Policy, and Implications for Hamilton's Homelessness, Mental Health, and Substance Use Crises (Outstanding Business List Item) (City Wide)

This item will be preceded by a staff presentation.

8. ITEMS FOR CONSIDERATION

8.1 BOH25002

2025 Annual Service Plan & Budget and Public Health Priorities (City Wide)

This item will be preceded by a staff presentation.

8.2 Amendments to the Outstanding Business List

a. Items Considered Complete and Needing to be Removed:

a. Historical Overview of Relevant Mental Health Policy and its Implications for the City of Hamilton

Added: September 30, 2024 (PHC Report 24-008, Item 2)

Completed: Item 7.3 on today's agenda

9. MOTIONS

10. NOTICE OF MOTIONS

11. PRIVATE AND CONFIDENTIAL

11.1 BOH25001 (To Be Distributed)

Confidential Opioid Funding Opportunity (City Wide)

Pursuant to Section 9.3, Sub-section (h) of the City's Procedural By-law 21-021, as amended, and Section 239(2), Sub-section (h) of the *Ontario Municipal Act, 2001*, as amended, as the subject matter pertains to Information explicitly supplied in confidence to the City or a local board by Canada, a province or territory or a Crown agency of any of them.

12. ADJOURNMENT

Members of the public can contact the Clerk's Office to acquire the documents considered at this meeting, in an alternate format.



PUBLIC HEALTH SUB-COMMITTEE MINUTES PHSC 25-001

9:30 a.m.

Monday, January 13, 2025

Council Chambers (Hybrid)

71 Main Street West, Hamilton, Ontario

Present: Councillor C. Kroetsch (Chair)
K. Johnson (Vice-Chair)
Councillors C. Cassar, T. Hwang, M. Tadeson and A. Wilson
A. Adjekum (Virtual), A. Cheung, D. Danko, A. Joseph, C. Kirkby
and R. Lennox

**Absent with
Regrets:** Councillor N. Nann - Personal

1. CALL TO ORDER

Committee Chair C. Kroetsch called the meeting to order at 9:30 a.m.

2. CEREMONIAL ACTIVITIES

There were no Ceremonial Activities.

3. APPROVAL OF THE AGENDA

(Danko/Cassar)

That the agenda for the January 13, 2025, Public Health Sub-Committee be approved, as presented.

CARRIED

4. DECLARATIONS OF INTEREST

There were no Declarations of Interest.

5. APPROVAL OF MINUTES OF PREVIOUS MEETING

5.1 December 2, 2024

(Kirkby/Lennox)

That the Minutes of the December 4, 2024, meeting of the Public Health Committee be approved, as presented.

CARRIED

6. DELEGATIONS

6.1 Delegation from Monica Nikopooulos respecting Water Fluoridation Effects on the Immune Compromised, Unborn, Very Young and Elderly

Monica Nikopooulos addressed Committee respecting Water Fluoridation Effects on the Immune Compromised, Unborn, Very Young and Elderly through a pre-recorded video.

(Hwang/Cassar)

That the Delegation from Monica Nikopooulos respecting Water Fluoridation Effects on the Immune Compromised, Unborn, Very Young and Elderly, be received.

CARRIED

7. ITEMS FOR INFORMATION

7.1 Correspondence from the Office of the Chief Medical Officer of Health, Ministry of Health respecting the City of Hamilton's request for Governance Change (referred from Council on December 11, 2024)

(Hwang/Danko)

That the Correspondence from the Office of the Chief Medical Officer of Health, Ministry of Health respecting the City of Hamilton's request for Governance Change, be received.

CARRIED

**7.2 BOH24025(a)
Public Health Sub-Committee Orientation: Session 2 (City Wide)**

Dr. Elizabeth Richardson, Medical Officer of Health, Jordan Walker, Director, Communicable Disease Control, Julie Prieto, Director, Epidemiology and Wellness, Kevin McDonald, Healthy Environments, Bonnie King, Director, Healthy Families, Loretta Ryan, Chief Executive Officer, Association of Local Public Health Agencies, and Monika Turner, Principal, Roving Capacity, addressed Committee respecting Report BOH24025(a), Public Health Sub-Committee Orientation: Session 2, with the aid of a PowerPoint presentation.

(Lennox/Danko)

- (a) That the presentation from Dr. Elizabeth Richardson, Medical Officer of Health, Jordan Walker, Director, Communicable Disease Control, Julie Prieto, Director, Epidemiology and Wellness, Kevin McDonald, Healthy Environments, Bonnie King, Director, Healthy Families, Loretta Ryan, Chief Executive Officer, Association of Local Public Health Agencies, and Monika Turner, Principal, Roving Capacity, respecting Report BOH24025(a), Public Health Sub-Committee Orientation: Session 2, be received;
- (b) That Report BOH24025(a) respecting Public Health Sub-Committee Orientation: Session 2, be received; and
- (c) That the Correspondence from the Association of Local Public Health Agencies (alPHa) respecting Registration for the 2025 alPHa Winter Symposium, be received.

CARRIED

(Hwang/Tadeson)

- (d) That A. Joseph and Councillor C. Kroetsch be selected to be the Public Health Sub-Committee's representatives at the 2025 alPHa Winter Symposium and the costs associated be reimbursed from OMOH Councillor Conference Budget (677000-56305).

CARRIED

8. ITEMS FOR CONSIDERATION

There were no Items for Consideration.

9. MOTIONS

9.1 Amendment to the Public Health Sub-Committee's Terms of Reference

(Joseph/Kroetsch)

WHEREAS, the Public Health Sub-Committee was established by Council on January 24, 2024;

WHEREAS, the Public Health Sub-Committee Terms of Reference was amended by Council on November 13, 2024, to provide details for the Chair and Vice-Chair of the Public Health Sub-Committee; and

WHEREAS, the Public Health Sub-Committee was established to implement a structural change to governance that recognized health and health equity expertise and to include members from health professions with practice knowledge within public health governance.

THEREFORE, BE IT RESOLVED:

That the Public Health Sub-Committee's Terms of Reference be **amended** to read as follows:

The Chair of the Public Health Sub-Committee shall be a member of City Council, **a community representative or the education representative.**

CARRIED

9.2 Feasibility of Implementing Wastewater Surveillance

(Lennox/Kroetsch)

WHEREAS, disease surveillance is a core tenant of a strong public health system, making it possible to identify and forecast threats to public health, respond quickly by deploying resources effectively, and informing policy and program development;

WHEREAS, wastewater surveillance is an accurate, effective and cost-efficient tool for monitoring community transmission of respiratory viruses and other potential public health threats, such as mpox and H5N1 (and can quickly shift to include other pathogens as needed);

WHEREAS, wastewater surveillance for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) became a mainstay of surveillance and was used to inform policy decisions on public health measures and public health risk communication pertaining to active transmission levels;

WHEREAS, when wastewater surveillance was available, Hamilton Public Health used the data to inform local health providers of mismatches occurring between signals of infectious disease transmission in wastewater data and clinically-reported cases, indicating potentially undiagnosed cases occurring in the community (e.g. mpox, 2023);

WHEREAS, the province discontinued its wastewater surveillance program on July 31, 2024;

WHEREAS, federal wastewater surveillance through the Public Health Agency of Canada is limited in scope to only four cities across Ontario;

WHEREAS, other public health units in Ontario (Peterborough and Ottawa) have opted to continue their wastewater surveillance programs in partnership with local academic institutions (Trent University); and

WHEREAS, wastewater surveillance can provide an early warning of viruses (e.g. H5N1) in a community or high-risk setting and support an early public health response.

THEREFORE, BE IT RESOLVED:

That staff be directed to report back to the Public Health Sub-Committee by Q3 2025 with a report outlining the feasibility of implementing a local wastewater surveillance program, including respiratory viruses (influenza, SARS-CoV-2, RSV), mpox and H5N1.

CARRIED

10. NOTICE OF MOTIONS

There were no Notice of Motions.

11. PRIVATE & CONFIDENTIAL

There were no Private & Confidential Items.

12. ADJOURNMENT

There being no further business, the Public Health Sub-Committee csadjourned at 11:37 a.m.

Respectfully submitted,

Councillor Cameron Kroetsch
Chair
Public Health Sub-Committee

Matt Gauthier
Legislative Coordinator
Office of the City Clerk



City of Hamilton Memorandum

To: Chair and Members of
Public Health Sub-Committee

Date: February 24, 2025

Report No: BOH25005

Subject/Title: Recommend Reference: Hamilton Community Health
Status Report 2024

Ward(s) Affected: (City Wide)

Information

Public Health Services presented the Hamilton Community Health Status Report 2024 at the November 4, 2024, Public Health Committee Meeting (see Appendix “A” to Public Health Committee Report BOH24024 and presentation). Hamilton’s Community Health Status Report is available on the City of Hamilton’s webpage at: <https://www.hamilton.ca/people-programs/public-health/community-health-data>. Public Health Services is circulating this information to the Public Health Sub-Committee for awareness and since the report was used as one source of evidence for priority setting and program planning in the 2025 Annual Service Plan & Budget.

The goal of Hamilton’s Community Health Status Report is to provide meaningful health status information, including social determinants of health and health inequities, to guide public health planning and service delivery. This information may also be used by community partners and the public to increase awareness of local health issues, inform community planning, decisions, and development of local public policy, and foster a common understanding of the breadth of issues that impact our community’s wellbeing.

Understanding the health of our local population is critical to Public Health Services’ work and is mandated through the Population Health Assessment Foundational Standard of the Ontario Public Health Standards. Population health assessment is used alongside other evidence to set priorities and plan our programs and services in an integrated health system. Data collected by Public Health Services is specific to the people its programs serve, which are often tailored to those with the highest needs. To measure and monitor the health status of the whole population, including social determinants of health and health inequities, Public Health Services mostly uses data

collected by other organizations often for alternate purposes. These data sources and their limitations are identified throughout Hamilton’s Community Health Status Report.

There are many approaches to assess the health status of our community and Hamilton’s Community Health Status Report is one tool to achieve this. The City of Hamilton and community partners have a role in amplifying findings of Hamilton’s Community Health Status to support the health and well-being of our community and reduce socioeconomic disparities and the resulting health inequities.

Previous Reports Submitted

- [BOH24024](#) – Hamilton Community Health Status Report 2024
Initial submission of the Hamilton Community Health Status Report 2024 to the Public Health Sub-Committee in November 2024.

Consultation

Not Applicable.

Appendices and Schedules Attached

Appendix A: Hamilton Community Health Status Report 2024

Prepared by: Catherine Holtz, Manager, Epidemiology & Evaluation
Public Health Services, Epidemiology & Wellness Division

Submitted and recommended by: Julie Prieto, Director,
Public Health Services, Epidemiology & Wellness Division



HAMILTON'S COMMUNITY HEALTH STATUS REPORT | 2024



[Hamilton](https://www.hamilton.ca)

[hamilton.ca](https://www.hamilton.ca)





Hamilton

LAND ACKNOWLEDGMENT FOR THE CITY OF HAMILTON

The City of Hamilton is situated upon the traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee and Mississaugas. This land is covered by the Dish With One Spoon Wampum Belt Covenant, which was an agreement between the Haudenosaunee and Anishinaabek to share and care for the resources around the Great Lakes. We further acknowledge that this land is covered by the Between the Lakes Purchase, 1792, between the Crown and the Mississaugas of the Credit First Nation.

Today, the City of Hamilton is home to many Indigenous people from across Turtle Island (North America) and we recognize that we must do more to learn about the rich history of this land so that we can better understand our roles as residents, neighbours, partners and caretakers.



MESSAGE FROM THE CITY OF HAMILTON'S MEDICAL OFFICER OF HEALTH

How healthy is our community? Where do we need to improve? Who is most impacted by poor health outcomes?

These are critical questions which we aim to answer in *Hamilton's Community Health Status Report*.

On behalf of Hamilton Public Health Services, I am proud to present this report, which raises awareness of current and evolving community health issues. The information in this report will help guide our work and inform broader discussions and decision-making across the community. It can help our community to prioritize resources, develop the most effective policies, advocate for funding, and measure our collective impact.

This report also serves as a call to action, urging us to collectively tackle the pressing health concerns it highlights.

Many of the health challenges our community faces are complex. They require innovation, collaboration, and action on multiple levels to address the factors that affect Hamiltonians' health. We need approaches that balance data and best practices with unique perspectives and expertise from across our community. That's an all-of-society approach. I am hopeful that this report will support that work.

This report was strengthened by consulting with local organizations that serve communities experiencing marginalization and disproportionate health outcomes. We listened to their voices to better understand the health information and how to share it in a meaningful way. I'm grateful to those who participated, for their valuable insights, their willingness to engage in difficult conversations, and their guidance on our journey toward using data to advance health equity.

You may notice that data about First Nations, Métis, and Inuit people in Hamilton are not included in this report. I want to acknowledge that this is because our organization did not engage with these communities early enough in our process to develop the report. We are working with Indigenous community partners to review the health status information available, and to ensure that any information used in Hamilton Public Health Services' work reflects their unique knowledge, experiences, and histories.

This engagement is essential when reporting on data about Indigenous communities and honours the principles of respect and self-determination. It is only after this engagement that Hamilton Public Health Services can proceed with any reporting as directed by and co-developed with Indigenous partners. I encourage you to review Hamilton Public Health Services' Indigenous Health Strategy¹, which recommends how we and other community organizations can better meet the needs of Indigenous people in Hamilton. The Strategy was developed based on results from a survey for community members and interviews with leaders of Indigenous organizations. We are grateful to those who contributed to the Strategy's development and review which will continue to guide Hamilton Public Health Services' work.

I extend my thanks to the staff involved in this process, from planning, through extensive analysis, to community engagement and beyond. Your contributions are deeply appreciated.

I hope that this report will help us better understand the health of our community and inspire us to work together to improve the health of Hamilton residents and promote health equity for all.

Sincerely,

Dr. Elizabeth Richardson

Medical Officer of Health, City of Hamilton Public Health Services



ACKNOWLEDGEMENTS

The report was prepared by:

Epidemiology and Evaluation Program
Epidemiology and Wellness Division
Healthy and Safe Communities Department
City of Hamilton
epiandeval@hamilton.ca

Suggested Citation: Hamilton Public Health Services. Hamilton's Community Health Status Report. Hamilton: City of Hamilton; 2024.

We would like to acknowledge the Epidemiology and Evaluation program staff from Hamilton Public Health Services who contributed to developing this report:

- Rumaisa Aljied
- Elisa Berg
- Wenjie Cai
- Rebecca Fung
- Rachel Harris
- Catherine Holtz
- Jessica Liu
- Jennifer Macri
- Adam Munro
- Grace Patterson
- Erin Rodenburg
- Ruth Sanderson
- Mackenzie Slifierz
- Anastasiya Slyepchenko
- Chris Watorowski

We are very grateful to the community organizations that participated in our engagement sessions:

- Afro Canadian Caribbean Association
- Centre de santé communautaire - site Hamilton
- City of Hamilton Community Strategies
- Compass Community Health Centre
- Greater Hamilton Health Network
- Hamilton Anti-Racism Resource Centre
- Hamilton Centre for Civic Inclusion
- Hamilton Community Foundation
- Hamilton Family Health Team
- Hamilton Health Sciences Corporation
- Hamilton Trans Health Coalition
- Immigrant Working Centre
- McMaster Family Practice
- Neighbour to Neighbour Centre
- Shelter Health Network
- Social Planning & Research Council of Hamilton
- St. Joseph's Healthcare Hamilton

We also greatly appreciate the community members who reviewed the report:

- Simon Lebrun
- Sara Mayo
- Evelyn Myrie
- Amaris Rimay

We thank the many staff and leaders from across Hamilton Public Health Services programs who contributed to reviewing and developing this report.



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SUMMARY

Hamilton Public Health Services works to improve and protect the health and well-being of the whole population, in all their diversity. We focus on efforts to promote health, prevent disease and reduce the health differences between groups.

This report is part of our commitment to provide information so that as a community we can better understand the health of Hamiltonians. That includes the underlying social circumstances that influence health, such as education, housing, income, racism and social exclusion. By being better informed, and working together, we can improve health for all.

The following 10 themes highlight key findings from the report, including population health improvements, health inequities, changes in underlying population structure and continuing issues of public health concern for Hamilton residents.

1. OVER THE PAST DECADE, SPECIFIC POPULATION HEALTH IMPROVEMENTS HAVE OCCURRED FOR HAMILTONIANS.

Tobacco smoking continued to decrease in Hamiltonians. The percentage of current adult smokers decreased, more youth abstained from smoking and there was a substantial decline in smoking during pregnancy.

The Air Quality Health Index improved from 2015 to 2021. Fine particulate matter, which poses considerable health risks, declined from 2012 to 2021. However, fine particulate matter in Hamilton still exceeded levels where residents would be considered protected against chronic effects, and further improvements in air quality are needed to lower impacts on community health.

Chronic respiratory diseases showed positive improvements. New cases of chronic obstructive pulmonary disease declined substantially between 2011 to 2020. Further, new cases of lung cancer declined from 2010 to 2018, and premature deaths due to lung cancer declined from 2012 to 2021.

Hypertension improved in Hamilton due to a decline in new cases between 2011 to 2020. Historically, Hamilton has had higher rates of hypertension than Ontario as a whole, but this gap has now closed.

Teen pregnancy is linked to greater health and socioeconomic risks. Between 2009 to 2022, pregnancies among youth living in Hamilton declined by over 80% from 34.9 to 5.8 pregnancies per 1,000 female teens.

2. INEQUITIES PERSIST IN OUR COMMUNITY AS A MAJOR CONTRIBUTOR TO POOR HEALTH.

Some people in our community carry a heavier health burden than others. That is not due to choices or being unlucky, but due to unfair and unjust systems and social structures. Inequalities persist across many areas of health. They can be linked back to inequities in social circumstances involving education, gender, housing status, income, race, sexual orientation, and social supports.

Health inequities were observed for almost all topics. Some of the greatest inequities were found for substance use, self-harm, assault, and diabetes-related indicators. Income and housing needs were strongly associated with the inequities observed for these health outcomes. As an example, Hamiltonians living in areas with the lowest household incomes were nearly three times more likely to die from diabetes, nearly five times more likely to self-harm and nearly six times more likely to be assaulted.

3. HAMILTON'S POPULATION IS GROWING, BECOMING MORE DIVERSE AND AGING.

Hamilton has the fifth-largest population of all municipalities in Ontario. Our population of 605,842 in 2023 is projected to grow to an estimated 809,661 residents by 2046. One in four (25.1%) Hamilton residents identified as belonging to a racialized group in 2021, not including First Nations, Métis and Inuit. The proportion of racialized Hamiltonians has increased substantially since 2011 (15.7%). Seniors (age 65 and older) made up a larger proportion of the population in 2021 (18.3%) than children and youth under 15 years-old (16.0%); the senior population is the fastest growing age group in Hamilton.

4. MORE HAMILTONIANS ARE DYING PREMATURELY AND MANY OF THESE DEATHS ARE PREVENTABLE.

More than 1,900 Hamilton residents died prematurely (before age 75) in 2021, and nearly half of these deaths are considered preventable. Premature deaths lowered life expectancy at birth for Hamiltonians (81.3 years) compared to Ontarians overall (82.6 years) for those born between 2015-2017.

The top five causes of premature deaths for Hamiltonians in 2021 were ischemic heart disease, lung cancer, unintentional poisoning, colorectal cancer and chronic lower respiratory diseases. More Hamilton residents are dying prematurely compared to a decade ago, driven largely by the opioid drug crisis.

5. SUBSTANCE USE IS A MAJOR DRIVER OF PREVENTABLE DEATHS AMONG HAMILTONIANS.

Over 1,000 deaths are caused each year by tobacco (783 deaths), alcohol (208 deaths), and opioids (168 deaths) among Hamilton residents.

Although tobacco use is declining, it is still common throughout Hamilton with 1 in 6 adults being current tobacco smokers (over 75,000 adults). With the emergence and substantial rise in youth vaping rates, there is concern that the progress made to reduce tobacco smoking rates may stall or reverse.

Emergency department visits related to alcohol use among Hamiltonians (717.3 visits per 100,000 in 2018) increased prior to the COVID-19 pandemic and remains consistently greater than the Ontario average (604.6 visits per 100,000 in 2018).

Opioids have emerged as a major population health burden and leading cause of preventable deaths, particularly for younger adults. Opioid-related deaths increased by over 400% in Hamilton from 2005 to 2022 (5.0 to 27.3 deaths per 100,000) and are consistently greater than the provincial rate (16.7 deaths per 100,000 in 2022).

6. NOT ALL CHILDREN IN HAMILTON ARE GETTING THE BEST START IN LIFE.

Low birth weight is linked to poorer health outcomes in early life. The rate of babies born with low birth weights has increased in Hamilton and is much greater for babies from lower socioeconomic areas.

For babies, breastfeeding provides additional protection from infection and illness. Recent local data indicates that rates of exclusive breastfeeding have decreased, while formula feeding initiation rates in hospital settings have increased.

As they reach kindergarten, nearly one in three Hamilton students are vulnerable in at least one domain of early development. Specifically, there is rising vulnerability in the developmental areas of emotional maturity and physical health and well-being.

Uptake of childhood immunizations is another area of concern. Over one in three students born in 2015 do not have an up-to-date vaccination record with Hamilton Public Health Services for routine immunizations.

7. PHYSICAL HARM IS A GROWING CONCERN AND AN AREA OF SUBSTANTIAL INEQUITY.

There are concerning trends in Hamilton, including rates of self-harm and suicide, and harm to others through assault and homicide.

Rates of emergency department visits for self-harm injuries have increased by 55% over the past decade in Hamilton, disproportionately impacting female youth and those from low socioeconomic areas.

Suicide and homicide are both a leading cause of death for young adults in Hamilton. Homicide rates have increased in Hamilton with a record high in 2021.

Compared to the Ontario average (192.8 visits per 100,000 in 2021), Hamilton had a greater rate of emergency department visits for assault injuries (250.6 visits per 100,000 in 2021). These injuries show considerable inequities by socioeconomic conditions.

Since 2020, Hamilton has also experienced a 175% rise in police-reported hate and bias occurrences, primarily targeting the Black community, as well as the Jewish, Muslim, and LGBTIQ+ communities (lesbian, gay, bisexual, transgender, intersex, queer or questioning).

8. CLIMATE IMPACTS ARE AN AREA OF PUBLIC HEALTH SIGNIFICANCE IN OUR COMMUNITY.

Changes in average weather patterns resulting from the release of greenhouse gases already impact the health of the community, and extreme weather is projected to increase profoundly into the future.

The annual number of heat warning days for Hamilton increased overall from 2011 to 2023 and is projected to continue to rise. The five-year average was close to nine days from 2011 to 2015 and increased to 14 days from 2019-2023. In the decade from 2012 to 2021, residents of Hamilton visited the emergency department over 1,200 times with concerns specifically related to heat.

Climate change can affect ecosystems and support the spread of infectious diseases, such as insect-borne diseases, into new geographic regions. For example, most of the City of Hamilton and surrounding region has become a provincially designated risk area for Lyme disease. From 2021 to 2023, the rate of Lyme disease increased over 60%. The 81 confirmed cases in 2023 were the highest seen to date among Hamiltonians.

9. CHRONIC DISEASES REPRESENT A CONSIDERABLE PREVENTABLE HEALTH BURDEN ON HAMILTON RESIDENTS.

Chronic diseases and conditions are among the leading causes of death and disability in Hamiltonians.

For example, over the past decade both the rate of new cases and prevalence overall for diabetes has increased for Hamiltonians even after the changes in age structure are taken into consideration. Approximately 13% of Hamilton residents aged 20 and older were living with diabetes in 2020.

Newly diagnosed cases of chronic respiratory diseases among Hamiltonians including asthma, chronic obstructive pulmonary disease and lung cancer also continue to be higher than for Ontario overall.

10. NEW AND KNOWN INFECTIOUS DISEASES CONTINUE TO IMPACT OUR COMMUNITY'S HEALTH.

Coronavirus disease 2019 (COVID-19) emerged as the newest burden to our population's health in 2020 and continues to impact our community's health alongside the on-going burden of influenza and other respiratory diseases during the fall and winter seasons. Hamilton had 321 respiratory outbreaks in 2023 with the majority (75.7%) being COVID-19.

Over the past decade, syphilis rates have increased by more than 300% and gonorrhea rates have increased by more than 100% in Hamilton.

Invasive Group A Streptococcal infections, which can be fatal in 10-15% of cases, have increased by more than 250% in the past decade and Hamilton's rate (13.4 cases per 100,000 in 2022) has remained above the Ontario average (6.1 cases per 100,000 in 2022) over the past five years.



As a community we all have a role in amplifying the findings in this report. The City of Hamilton and all our community partners can use this information to support planning, delivery and monitoring of health services.

These findings represent a snapshot in time. Our community and its health status are constantly evolving, along with our understanding of the available information. We encourage you to consider the report as one tool to support our collective journey - to improve and protect the health and well-being of our community and reduce socioeconomic disparities and the resulting health inequities.

ABOUT THIS REPORT



PURPOSE OF THIS REPORT

Hamilton Public Health Services relies on meaningful data and information. With it, we can better guide public health planning and service delivery.

That's the primary goal of *Hamilton's Community Health Status Report*. This document provides insights into the health status of Hamilton residents, social determinants of health and health inequities.

In releasing the report, we hope it will also be of interest to community partners and the public to:

- increase awareness of local health issues
- inform community planning, decisions and development of healthy local public policy
- foster a common understanding of the breadth of issues that impact our community's well-being

Hamilton Public Health Services is mandated by the Ministry of Health, through the Ontario Public Health Standards, to assess the health status of our community. There are many approaches to do so.

Historically, we have produced tailored data and information products, such as the *Child and Youth Health Atlas* and the *Community Alcohol Report*, in addition to ongoing surveillance of public health issues that require more timely action like infectious diseases and opioid use. We paused most health status reporting during the response to the COVID-19 pandemic. Now, *Hamilton's Community Health Status Report* represents the beginning of a journey to enhance our approach to population health assessment.

We are pleased to share this information with the public, community partners and other healthcare providers. All play roles in improving health outcomes in Hamilton.



SCOPE

Hamilton's Community Health Status Report provides an overview of 13 topics:

1. Geography and Population
2. Social Circumstances Influencing Health
3. General Health
4. Healthy Pregnancy and Births
5. Child and Youth Health
6. Immunization
7. Infectious Disease
8. Environments and Health
9. Mental Health
10. Substance Use
11. Injury and Violence
12. Healthy Living
13. Chronic Disease

Health is broad, and this report does not include all its aspects. For planning and decision-making, we may need deeper analyses of these topics to better understand their issues and complexities. This report lays out community health status information from available data sources. It should be combined with other sources of evidence to gain insights into Hamilton's community health needs and determine recommendations and strategies. This information may be used to generate discussion amongst the many organizations, partners, and the public that have roles to play in improving health outcomes in Hamilton.



PROCESS

Emerging from the COVID-19 pandemic, Hamilton Public Health Services began plans to resume assessing the local health status in Hamilton. The process primarily relied on using existing mandates and frameworks to construct the content areas of this report. That included the Ontario Public Health Standards, the core indicators from the Association of Public Health Epidemiologists in Ontario and work completed by peer public health units.

To complete this report, Hamilton Public Health Services leveraged available data, mostly from secondary sources, meaning data was collected and made available to Hamilton Public Health Services by other organizations. These secondary data sources include Canada's population census, hospital-based databases, and national or provincial health surveys (e.g., Canadian Community Health Survey, Ontario Student Drug Use and Health Survey). There are some exceptions where we played a primary role in data collection, such as our *Infant Feeding Survey*.

When using data from multiple sources to describe Hamilton's health status, we might miss important community context and meaning.

We consulted with community organizations to ensure the data was grounded in local context, including local organizations that serve: Black communities, other racialized communities, LGBTIQ+ (lesbian, gay, bisexual, transgender, intersex, queer or questioning and other sexually or gender diverse people), and people with other lived experience of marginalization such as homelessness. We also consulted with Hamilton healthcare organizations.

We conducted community engagement for this report at the "consult" level according to the International Association of Public Participation's engagement spectrum. That means the project team received feedback on the report and was committed to listening to and addressing it.

Specific analysis related to First Nations, Métis, and Inuit people in Hamilton is not included in this report, as we did not involve Indigenous community partners early enough in the process to meaningfully engage on content. Building off one of the recommendations in Hamilton Public Health Services' Indigenous Health Strategy¹, "Explore how Public Health Services resources could help support Indigenous organizations (e.g., data or epidemiology support)", we are committed to continuing to engage with Indigenous community partners about how we can work together to support community health status reporting. Any reporting of available data about

First Nations, Métis, and Inuit people in Hamilton will only be published upon completion of fulsome engagement with Indigenous community partners.

When developing the content for this report, we kept in mind several considerations:

- transparency in providing available information
- quality of information
- protecting privacy of individuals within the data
- mitigating risks in releasing information that may cause unintentional harm or stigma to marginalized communities

In addition, we considered the statistical significance of differences when comparing local data over time, between groups of people, or with the province. This means we reported differences that were unlikely due to chance. Throughout the report, we used language such as 'similar to' or 'no difference' to describe data where no statistical differences were found. This approach relies on several factors to be able to identify statistically significant differences, including the quality and amount of data we available to work with.

Hamilton Public Health Services will continue to engage with community partners, including on data and information products. We are committed to applying what we have learned through the experience with the *Community Health Status Report* to our future work.



LIMITATIONS

The data available to inform this report is far from perfect. There may be limited or no data on certain topics. With secondary data sources, we have limited control on the questions asked, the frequency of data collection, how soon we have access to data, or the level of detail for analysis.

In some cases, agreements between Hamilton Public Health Services and the organization collecting these data affect whether and how we can release the information.

We understand that the numbers on the page may not tell the complete story, accurately represent everyone or reflect the lived experience of our communities. These limitations highlight the importance of community engagement.

Some of the limitations are discussed below and further throughout the report.



Data Gaps

There is limited or no data on certain topics, and data quality can vary across sources and over time.

Throughout the report, we use proxy measures – such as data on emergency department visits and hospitalizations – to estimate the level of illness and disease in the population when better metrics are unavailable. These proxy measures may not tell the whole story.

For example, we know that health care data underestimates illness and disease in the population. We also know that certain populations may be underrepresented in the health care data. This may be due to social determinants of health, including racism and colonialism, which affect whether someone has access to care, will seek care, and the quality of care they receive.

In addition, throughout the COVID-19 pandemic people may not have accessed health care as they typically would. That affects the quality of these measures during this period. The pandemic had other impacts on data quality, including pauses in data collection and lower responsiveness to surveys.

Health inequities may exist when people experiencing different sociodemographic levels do not have the same health outcomes. Data sources used to measure health outcomes in this report may not consistently include sociodemographic information or may not have enough data to conduct robust analysis. Either can limit the scope of equity analysis throughout the report. Where feasible, we used an alternate approach to assess health inequities at the geographic level, considering differences in defined areas rather than in individuals.



Data Categorization

This report references language and categories developed and determined by the data sources used in this report. In some cases, these may be considered outdated and harmful. Where feasible, we have used language that mitigates harm and stigma.

We know that language can be used to affirm or dismiss people's identities and lived experiences. Categorization of people has historically been used to exclude, discriminate, and oppress equity-deserving groups.

Through our community engagement, we have worked to reduce harms related to categorizing people, and explicitly note limitations related to grouping people. We recognize that these groupings and presentations may not reflect people's perspectives or lived experiences. Hamilton Public Health Services is committed to finding opportunities to improve these approaches in future work.

One example of data categorization used in this report is race.

Race is a social construct created to categorize people into different groups. Through community engagement, we heard about how racism in all forms – such as interpersonal, systemic and Anti-Black – impacts the health of Hamiltonians who are Black and racialized.

Community engagement validated the limitations of grouping people into one “racialized” category, which may mask differences between racialized people within the category. To address this limitation, where possible, we disaggregated racialized groups and identified areas where grouping may cause unintentional harm.

Another example of data categorization used in this report is gender and sex.

While some data sources have begun collecting gender identity information, terminology and categorization is not consistent. There are still limitations in how data is collected or can be reported on the local level to protect privacy. For many data systems included in this report, only sex categorizations are available. These usually are limited to male and female and often collected as the sex assigned at birth.

We heard through community engagement about how gender identity is not routinely collected in data systems, and that existing data systems underrepresent gender-diverse populations. We acknowledge the limitations of gender identity and sex categorization available in these data systems, and that this report may have missed important health differences experienced by gender-diverse populations.



Data Timeliness

For the best decision-making, having the most up-to-date information is critical. The data sources used in this report vary in timeliness. While data in this report may be from several months or years ago, it demonstrates important trends and comparisons that inform our work.

Some data in administrative databases are collected on an ongoing basis, but with delays before it is made available. For example, death data has historically lagged by several years but are now available within a couple of years. Other administrative data sources, such as hospitalization and emergency department visits, are typically accessible within a year.

Still other data sources, such as the Census of Population and health surveys, are only conducted at certain points and represent a snapshot in time. We recognize that the sociodemographic context of the population at the time of the last Census (2021) may not reflect the current context among Hamilton residents. However, the Census continues to be a unique and broad source of information about Hamilton's population.



WE WANT YOUR FEEDBACK

Hamilton Public Health Services is committed to enhancing our approach to produce meaningful community health status information.

We welcome comments and feedback at epiandeval@hamilton.ca



CHAPTER 1

GEOGRAPHY AND POPULATION

HIGHLIGHTS

- City of Hamilton Public Health Services covers an area of 1118.3 km² that wraps around the western part of Lake Ontario on the traditional territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee and Mississaugas.
- The City of Hamilton is the fifth-largest population of all municipalities in Ontario, with 605,842 residents in 2023.
- Hamilton's population is projected to continue to grow and reach 809,661 residents overall by 2046.
- As the overall population grows, we'll see a demographic shift. Those of working age (15-64) will decrease and those age 65 and older will increase. So, the ratio of people who are generally not in the labour force to those in the workforce will rise.

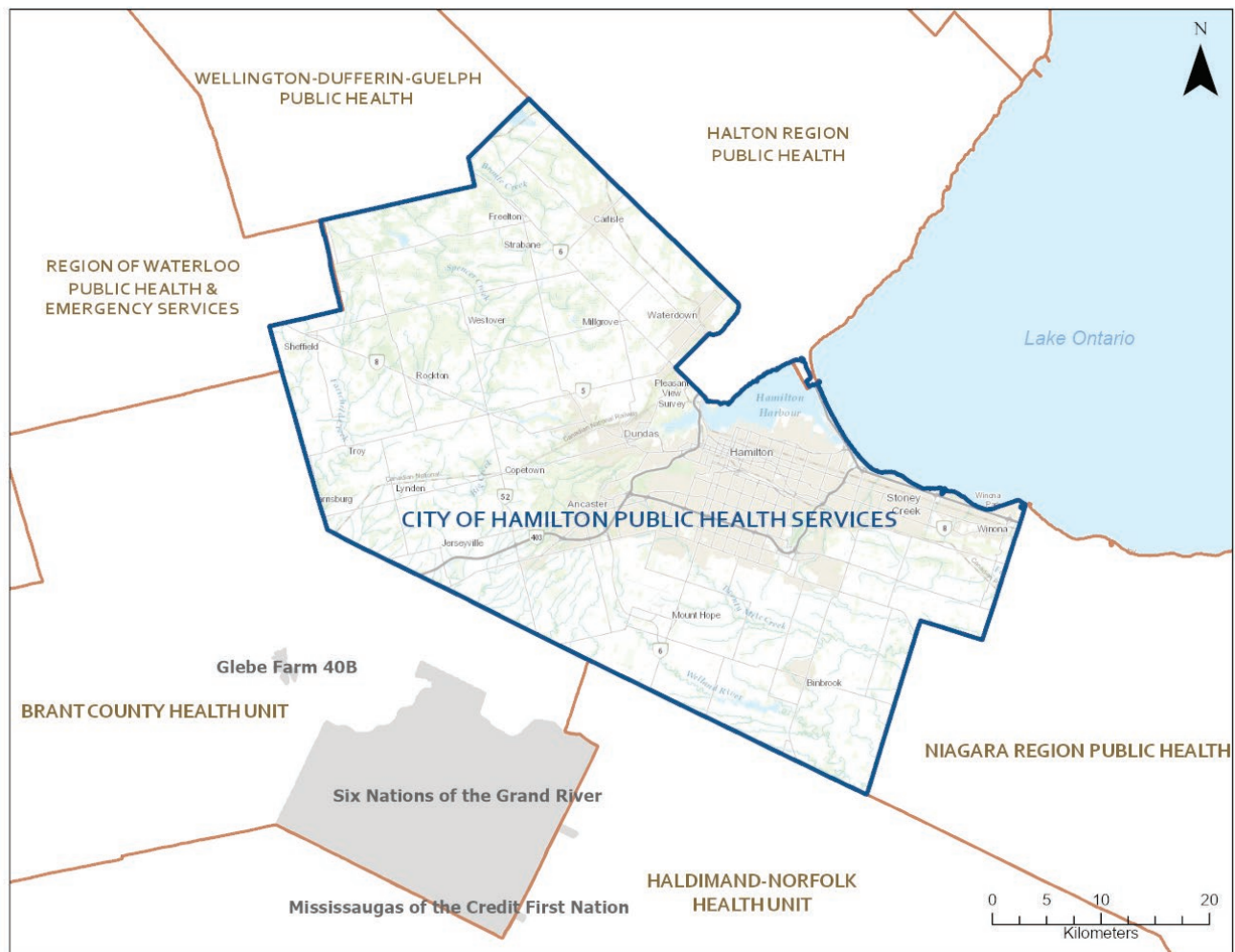
GEOGRAPHY AND POPULATION

GEOGRAPHIC AREA

The geographic boundaries of the City of Hamilton and of Hamilton Public Health Services are the same. This area covers 1118.3 km² in Southern Ontario on the western end of the Niagara Peninsula and wraps around the western part of Lake Ontario (Figure 1.1). Hamilton sits on the traditional First Nations territories of the Erie, Neutral, Huron-Wendat, Haudenosaunee and Mississaugas.

Hamilton Public Health Services is responsible for delivering local public health programs and services to residents that live within this area. It is in the Ontario Health West region, which is responsible for planning, funding and monitoring the health care system (not including public health units) from Waterloo to Windsor, and from Tobermory to Niagara Falls.

Figure 1.1: Map of City of Hamilton Public Health Services and Surrounding Area, 2023.



Sources: Public Health Units – Government of Ontario – [Open Data](#) – Geohub - Land Information Ontario, 2020-05-15T13:00:05-05:00 [1 October 2022]; First Nations Reserves – Government of Ontario – [Open Data](#) – Geohub - Land Information Ontario, 2020-01-02 [1 October 2022].

POPULATION SIZE AND DENSITY

In 2023, about 605,842 people lived in the City of Hamilton.²

The City of Hamilton was the fifth-most populous municipality in Ontario according to the 2021 Census.³

The population increased by 32,436 Hamiltonians from 536,917 in 2016 to 569,353 in 2021. This 6% population growth was similar to the Ontario average of 5.8% during this same period.

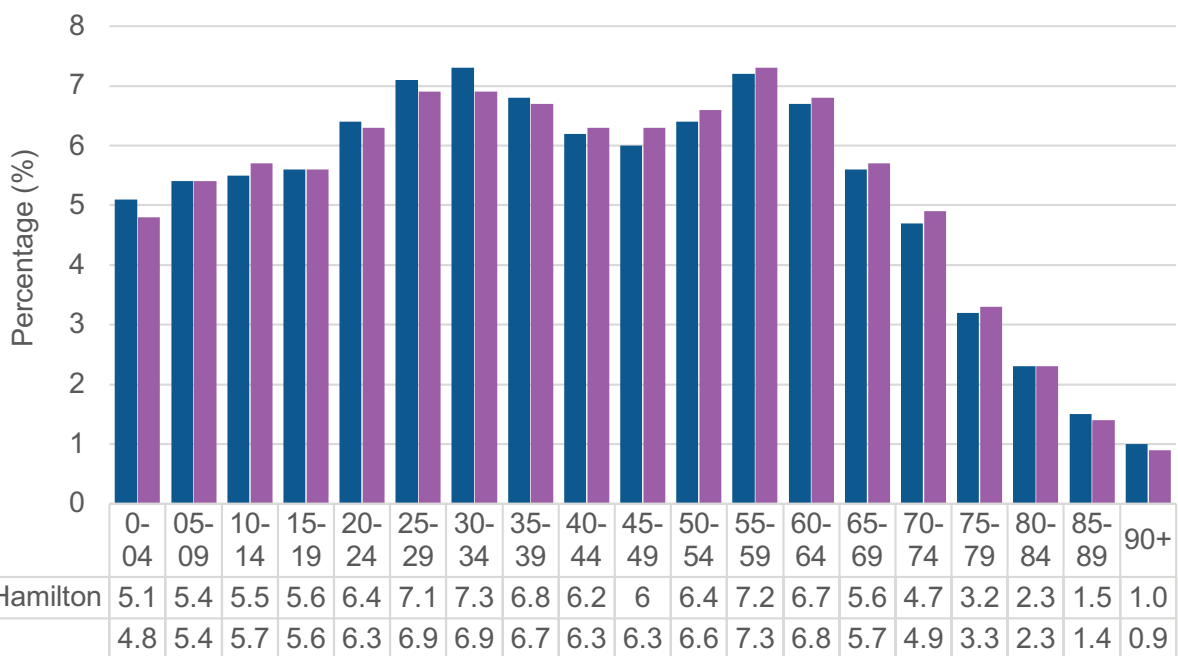
Hamilton’s population density was 509.1 residents per square kilometre in 2021, compared to the Ontario average of 15.9 residents.⁴

AGE AND POPULATION DEPENDENCY RATIO

According to the 2021 Census, the most sizeable age group among Hamilton residents was those aged 30-34 (7.3%), followed by residents aged 55-59 (7.2%). This was similar to the overall Ontario figures, where 6.9% of the population is aged 30-34 and 7.3% was aged 55-59 (Figure 1.2; Appendix A Table 1.1).

For every 100 working-aged people in Hamilton (aged 15-64), there were just over 52 “dependents” (aged 0-14 or aged 65 and older). Many older adults of course continue to work past age 65.

Figure 1.2: Population distribution by age group, percent, Hamilton and Ontario residents, 2021



Source: Statistics Canada. 2023. Census Profile. 2021 Census. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released February 8, 2023.

The [dependency ratio](#) is an important measure, as it indicates the proportion of adults of working age who support and provide for healthcare systems. Generally, a lower dependency ratio is more desirable.

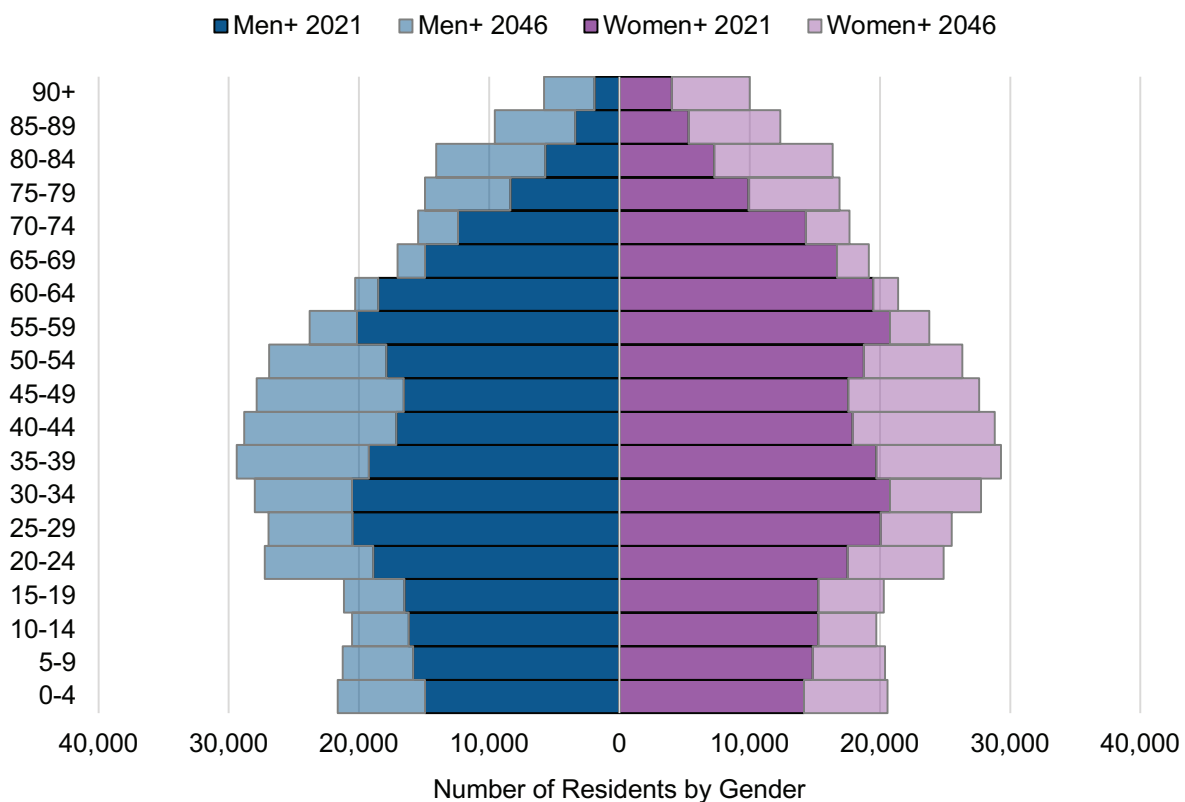
Hamilton’s dependency ratio of 52.3 was the same as for Ontario overall (52.4) and has increased over the past five years. Those aged 65 years and older comprised 18.4% of the population in 2022 (up from 17.3% in 2018), while the percentage of those under age 15 decreased slightly (from 15.8% in 2018 to 15.4% in 2022).⁵

PROJECTED POPULATION

The City of Hamilton’s total population is projected to grow to 809,661 by 2046 according to Ontario’s projections. The population aged 80 and older will more than double by then. Residents aged 30-34 will form the largest age group (Figure 1.3; Appendix A Table 1.2).

Based on population projections, the dependency ratio is estimated to increase to 56.9 by 2046 from 52.2 in 2021 (Appendix A Table 1.3).

Figure 1.3: Population distribution by age group for men+ and women+, counts, Hamilton residents, Census (2021) and Population Projections (2046)



Sources: Statistics Canada. 2023. Census Profile. 2021 Census. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released February 8, 2023; Population Projections. Hamilton. Ontario Ministry of Health, IntelliHEALTH ONTARIO. Extracted January 18, 2023.

Notes: Gender categories are those provided within the data source and the limitations of these binary categories are acknowledged. The category of [women+](#) includes women and girls, as well as some persons who are [non-binary](#) persons, and [men+](#) as men and boys, as well as some persons who are non-binary.



CHAPTER 2

SOCIAL CIRCUMSTANCES INFLUENCING HEALTH HIGHLIGHTS

- One-quarter of Hamilton residents self-identified as belonging to a racialized group in 2021, up from 16% in 2011. South Asian, Black, and Arab were the largest self-reported racialized groups.
- From 2016-2021, the top three places of birth of newcomers in Hamilton were India, Syria and the Philippines. That shows a shifting pattern, as the United Kingdom, India and Italy remain as the top three places of birth for all immigrants currently living in Hamilton.
- Approximately 8% of Hamilton residents were living in poverty in 2020. The rate was higher for young adults aged 18-24 years old (14%). Almost one in five households in Hamilton reported having some level of food insecurity in 2020-2021.
- Over one in five households in Hamilton lived in unaffordable housing in 2021. Homelessness increased in Hamilton between 2020 and 2023, with over 1,400 individuals identified as homeless in each month in 2023.
- Post-secondary graduates comprised 65% of Hamilton residents in 2021, which was lower than the Ontario average 67.8%. Racialized residents had a higher level of education than non-racialized (white) Hamiltonians, yet also had higher levels of poverty.
- Seven out of ten Hamilton residents aged 12 and older described their sense of belonging to their local community from 2015 to 2020 as strong. Community belonging is higher for youth aged 12-19 and those aged 65-74.

SOCIAL CIRCUMSTANCES INFLUENCING HEALTH

SOCIAL CIRCUMSTANCES

Social circumstances broadly include the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life. That includes various forms of oppression resulting from a range of discrimination, such as (but not limited to) ableism, ageism, classism, colonialism, genderism, sexism and racism.

These social circumstances both oppress and privilege, intersect and mutually reinforce one another (the “intersectionality” of circumstances) in complex ways. That also uniquely affects a person’s health.

A constraint of this report is the limited ability to explore the impact of intersectionality on the health of Hamilton residents.

GENDER

Gender influences health. For example, gender norms, or the ideas about how women and men should be and act, can affect health behaviours. Moreover, gender discrimination deters access to health services.⁶

Statistics Canada defines [gender](#) as an individual’s personal and social identity as a man, woman or [non-binary](#) person (a person who is not exclusively a man or a woman).⁷ The World Health Organization describes gender as a characteristic that is socially constructed.⁶

Peoples’ gender identities are diverse and do not always correspond with binary notions of male and female. Gender identity is based on one’s innermost concept of self as male, female, a blend of both or neither.

In 2021, the Canadian Census of Population included the concept of gender for the first time and made the distinction between gender and sex assigned at birth.

Sex is typically assigned at birth based on a person’s reproductive system and other physical characteristics. For many people, their gender corresponds to their sex at birth (cisgender men and cisgender women). For some, these do not align (transgender men and transgender women), or their gender does not fall into one of the two “binary” categories of male and female (e.g., non-binary and gender fluid people). In 2021 all individuals were able to report their gender on the Census.

At the smaller geographic levels (such as the City of Hamilton), the Census provides limited gender detail. Statistics Canada collapsed categories into two genders to ensure privacy and provide stable estimates:

- “[women+](#)”, defined as women and girls, as well as some persons who are non-binary
- “[men+](#)”, defined as men and boys, as well as some persons who are non-binary⁸

For 2023, approximately half of Hamilton residents were grouped into the women+ category (305,477; 50.4%) and half into the men+ category (300,365; 49.6%).²

However, this approach maintains the historical gender binary categories. Reducing gender to two categories may mask the unique experience of different gender groups. For example, local research conducted in 2018⁹ identified that some members of the LGBTIQ+ community in Hamilton, despite

greater acceptance, continued to face discrimination in the health care sector. Many reported not being respected and affirmed by knowledgeable and LGBTIQ+ competent health care providers.

It is possible to separate the 2021 Census data into more detailed groupings¹⁰ including residents that are transgender or non-binary for the broader combined urban area of Hamilton, Burlington, and Grimsby. For this broader metropolitan area:

- approximately 0.23% of people aged 15 and older identified as transgender
- 0.15% identified as non-binary¹¹

If this proportion was applied to the City of Hamilton population in 2021, it means approximately 1,081 persons aged 15 and older might have identified as transgender, and 738 might have identified as non-binary.

Within the urban area of Hamilton, Burlington and Grimsby (as within Canada generally¹²), the proportion of people identifying as transgender or non-binary was higher for younger age groups. For those aged 15-34, 0.41% identified as transgender and 0.40% identified as non-binary. For those 35 years and older, 0.15% identified as transgender and 0.05% identified as non-binary.

Other local research similarly found that self-identification as transgender or non-binary among Hamilton residents varied by age group.⁹ There are likely several reasons, such as younger generations feeling more supported to explore and assert their gender identity than older generations.

LANGUAGE

Language affects individuals' and families' access to health services and health information. Limited English skills is a barrier to navigating the health system in Hamilton.¹³ Furthermore, language barriers can lead to misdiagnoses and/or inaccurate treatment due to miscommunications with healthcare providers.¹⁴

Most residents of Hamilton (98.1%) reported that they could conduct a conversation in English on the 2021 Census (92.3% in English only and an additional 5.8% in English and French). Less than one percent (0.1%) spoke French only. And 1.9% spoke neither English nor French; that's approximately 10,435 residents (Appendix A Table 2.1).

The proportion able to conduct a conversation in English or English and French has not changed in the past decade (98.1% in 2021 and 98.2% in 2011) and is similar to Ontario overall in 2021 (97.3%) (Appendix A Table 2.1).

For the 2021 Census, almost one quarter (23.9%) of Hamilton residents have a [mother tongue](#) (first language learned and still understood) other than English or French. This is similar to the rate of 23.1% in the 2011 Census.¹⁵

Just over 14% of Hamilton residents (81,140) indicated one of these 10 languages as their single mother tongue on the 2021 Census: Arabic; Italian; Serbo-Croatian; Spanish; Portuguese; Polish; Punjabi (Panjabi); Mandarin; Urdu; and Tagalog (Pilipino, Filipino).

RACIALIZED POPULATIONS

One quarter (25.1%) of Hamiltonians, or about 140,950 people, self-identified with one or more racialized groups in 2021. That's lower than the 34.3% rate for Ontario overall. The percentage of Hamiltonians that self-identified with one or more racialized groups was similar for men+ (25.4%) and women+ (24.8%).

The terms "[racialized population](#)" or "racialized groups" are used in this report as defined by the Census 2021 concept of "visible minority" from the Employment Equity Act. This definition does not include First Nations, Métis and Inuit peoples as a "visible minority".

There are limitations to using this terminology and categorization. People who self-identify in multiple racial identities are aggregated into one category. Furthermore, the concept of race is a social construct. That means race was created based on the perception of physical attributes and culture differences and is not backed by scientific reason.

Within Hamilton, South Asians were the largest racialized group (the same as for Ontario). The 10 most populous racialized groups are the same for Hamilton as for Ontario residents. However, Hamilton residents are a slightly different mix of racialized groups than Ontario overall (Figure 2.1). One percent of Hamiltonians self-identified with more than one racialized group.

The three largest racialized groups among Hamilton residents were South Asian (6.2%), Black (5.1%) and Arab (2.8%). For Ontario, it was South Asian (10.8%), Chinese (5.8%) and Black (5.5%)¹⁶

The proportion of Hamilton residents self-identifying with one or more racialized groups increased from 15.7% (79,970 out of 509,635)

in 2011¹⁷ to 19.0% (100,055 out of 527,930) in 2016¹⁸ and 25.1% in 2021 (Appendix A Table 2.2) and differs by age group. While just over a quarter of Hamiltonians self-identified with one or more racialized groups on the 2021 Census (25.1%), the proportion was much higher among younger age groups aged 0-14 (33.3%) and highest among those aged 15-24 (36.2%) (Figure 2.2).

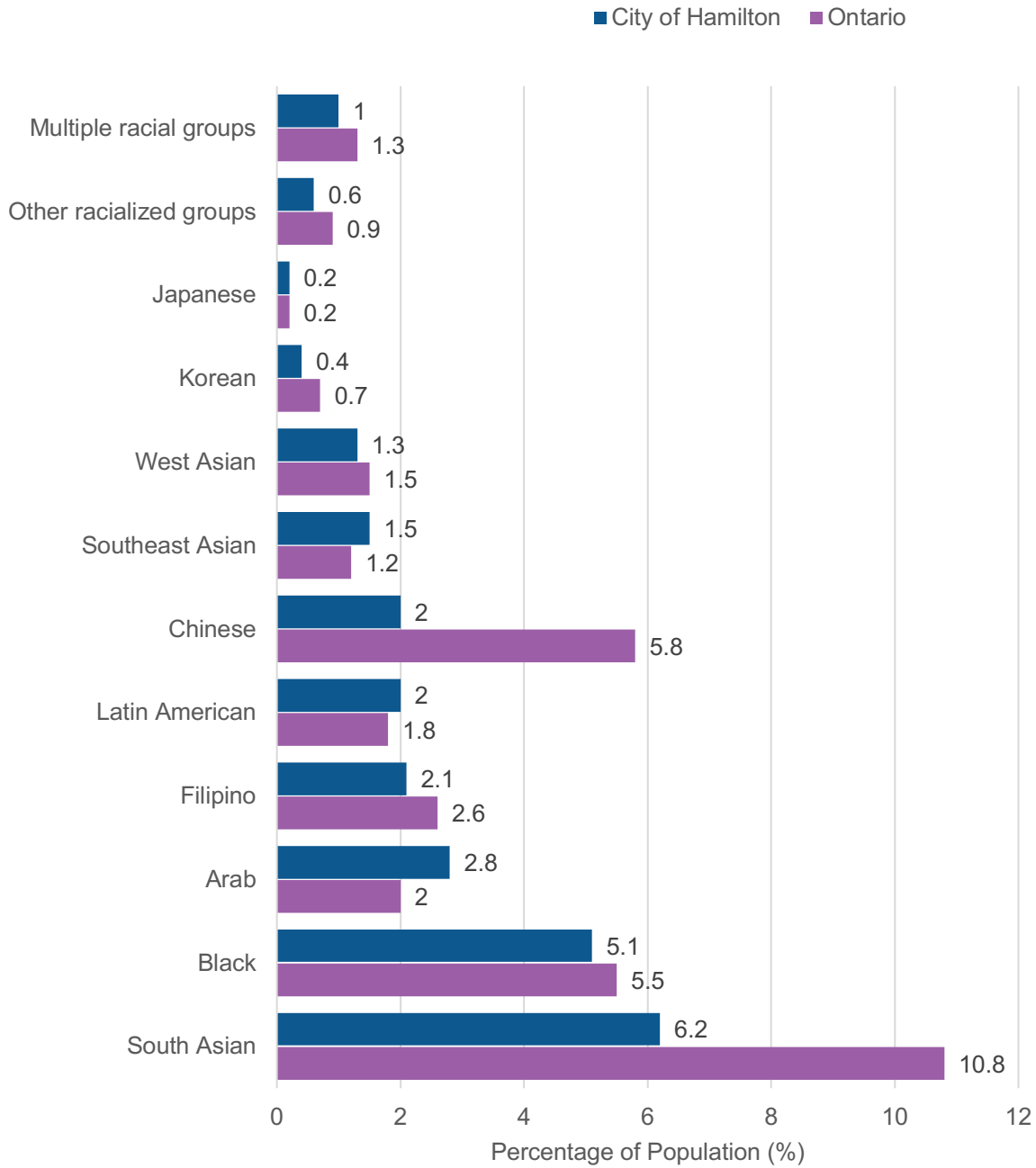
Similarly, the proportion of Hamiltonians identifying with each racialized group also differs by age. South Asian was the largest racialized group overall and among most age groups. Among the youngest age group, 0 to 14, Black was the largest racialized group.

Racism is pervasive. It adversely affects the treatment and opportunities of racialized people across every facet of society. That includes opportunities to be healthy. Racism is at the root of racial health inequities, as it intersects with other determinants of health, while discrimination and systematic barriers in healthcare settings can further deter racialized people's ability to be healthy.

Using racial categories in health data can increase our understanding of how racism impacts health. Yet different racialized groups have different experiences. Aggregating all racialized groups into one category may mask important differences.

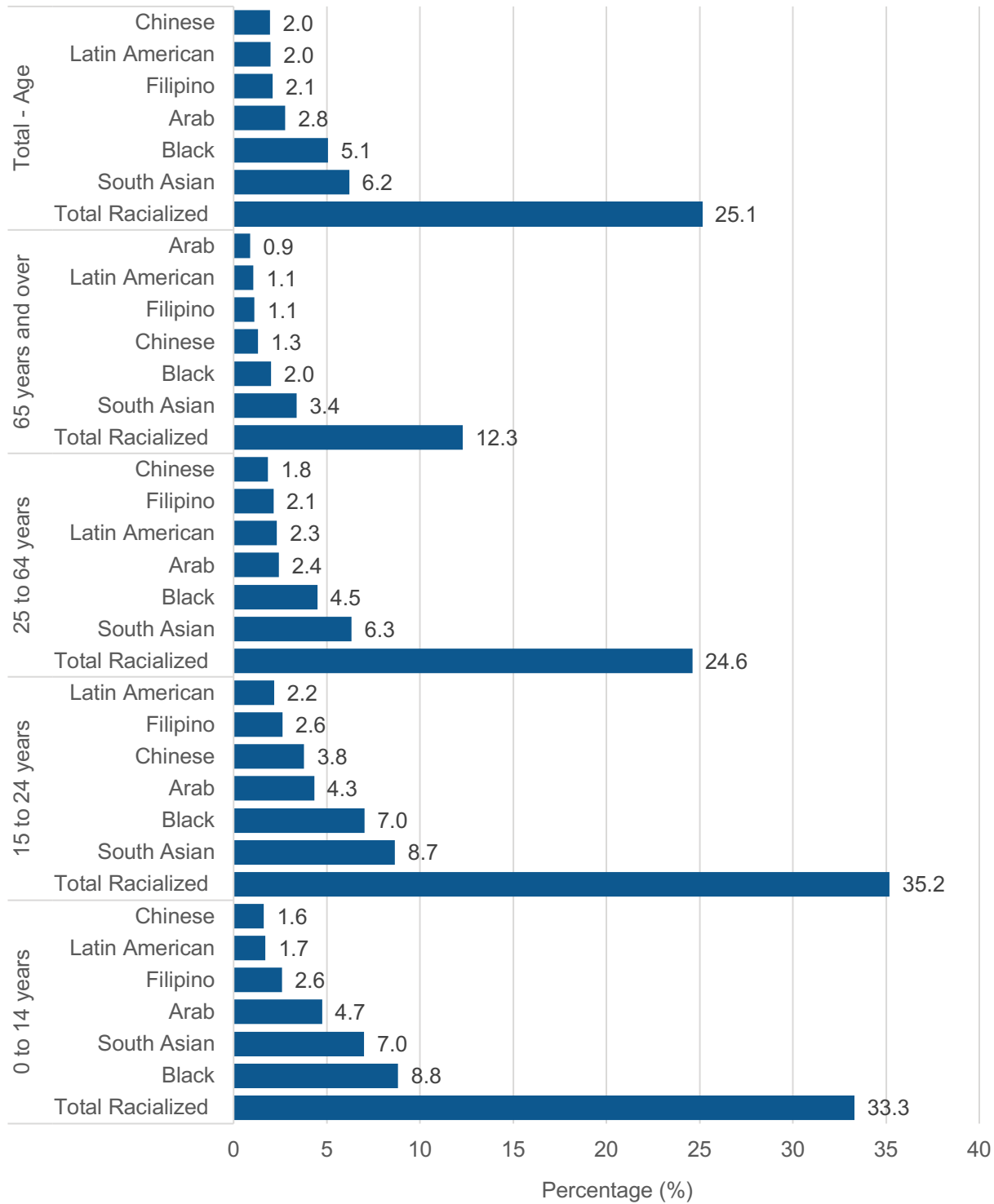
This report provides analysis for racialized groups in social circumstances, risk factors and health outcomes. It does not include direct measures on people's experiences of systemic racism, and this is acknowledged as a limitation. However, experiences of racism are evident in the racial inequities seen throughout the report.

Figure 2.1: Top 10 most populous racialized groups, multiple racial groups and other racialized groups, percent of total population, Hamilton and Ontario residents, 2021



Source: Statistics Canada, 2021 Census of Population: Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023. (Accessed August 23, 2023).

Figure 2.2: Racialized groups by age group, percent of age group's racialized population, Hamilton residents, 2021



Source: Statistics Canada, 2021 Census of Population Statistics Canada. Table 98-10-0352-02. Visible minority by gender and age: Census divisions by province or territory.

IMMIGRANT POPULATIONS

[Immigrants](#) often arrive to Canada with stronger health than their Canadian-born counterparts. However, many can experience a steep decline over time after migration to reach the Canadian-born population's health levels or lower.¹⁹

Being new to Canada may influence one's health due to factors such as language barriers, cultural differences and social isolation. Immigrants may confront challenges navigating the health system and receiving culturally safe care, which can lead to unmet healthcare needs. Additionally, they can face stresses adapting to new environments, which may contribute to poorer mental health outcomes.²⁰

Over a quarter (25.9%) of the 2021 population living in the City of Hamilton self-identified as immigrants (Appendix A Table 2.3). Their top three places of birth were:

- United Kingdom (8.4% of immigrants)
- India (7.5%)
- Italy (6.1%)

The proportion of Hamilton residents that were immigrants was slightly higher in 2021 than a decade ago in 2016 at 24.7%.¹⁸ That's lower than for Ontario at 30%.

Hamilton has a higher proportion of the immigrant population that report coming to Canada prior to 1980 (27.5%) compared to Ontario as a whole (20.5%) (Appendix A Table 2.3).

Similar to Ontario as a whole, almost a quarter of immigrants (23.8%) living in the City of Hamilton reported coming to Canada in the past 10 years. [Newcomers](#) are a sub-category

of all immigrants, defined as those who arrived between 2016 to 2021. They formed 3.6% of the population or 13.8% of all immigrants. That's similar to Ontario as a whole (4.2% of population; 13.9% of all immigrants).

The top three places of birth of newcomers to Hamilton were:

- India (15.9% of recent immigrants)
- Syria (13.1%)
- Philippines (8.9%)

That was notably different than the newcomer profile for Ontario as a whole (Appendix A Table 2.4). The top three places of birth among recent immigrants for Ontario were:

- India (23.9% of recent immigrants)
- China (9.3%)
- Philippines (7.7%)

The mix of newcomer populations within Hamilton is dynamic and ever-changing because of global events. The 2021 Census provides a reliable snapshot in time, although more recent global events have already affected the makeup of Hamilton's newcomer populations.

Temporary residents who request refugee protection upon or after arrival in Canada (also known as [asylum claimants](#)) may be included in the "non-permanent resident" category. Statistics Canada defines "non-permanent resident" as people from another country with a usual place of residence in Canada, and who have a work or study permit, or who have claimed refugee status (asylum claimants). In 2021, Hamilton had 12,650 [non-permanent residents](#), or 2.3% of the total population. This was similar to Ontario overall at 2.8% (Appendix A Table 2.3).

INCOME

Income is one of the strongest predictors of health status. It shapes access to resources that are fundamental to health, like healthy foods, safe housing, educational opportunities, recreation and other positive aspects of healthy living. Low income is linked with higher levels of stress, [food insecurity](#) and unhealthy environments. Living with incomes that constitute poverty is known to jeopardize health.²¹

Poverty

The [Market Basket Measure](#) is Canada's official measure of poverty. It's based on the cost of a specific basket of goods and services, representing a modest, basic standard of living. The Market Basket Measure threshold for a reference family of two adults and two children living in an urban area the size of Hamilton in 2020 was \$46,306.

In 2020, 43,325 Hamiltonians, or 7.7% of residents, lived in poverty and did not have enough money to meet their basic needs. This is according to the Market Basket Measure and 2020 income reported on the 2021 Census (Figure 2.3, Appendix A Table 2.5).

The poverty rate for Hamilton residents (7.7%) was lower than for Ontario overall (8.3%). Poverty rates decreased significantly from 2015 (14.8%) for Hamilton residents, and income inequality improved among residents of Hamilton in 2020 compared to 2015. Income inequality in Hamilton was smaller overall compared with Ontario.²²

The improvement in income inequality across Ontario is largely attributed to increases in government transfers during the pandemic, including the enhanced Canada Child Benefit and temporary COVID-19 pandemic relief benefits.²³

Poverty rates were higher in 2020 for male residents of Hamilton (8.0%) than female residents (7.5%). Young adults aged 18-24 experienced the highest rates of poverty in 2020 (13.7%) compared to other age groups.

Other age groups with higher poverty rates included children aged five and younger (9.1%) and adults aged 55-64 (9.4%). Seniors aged 65 and older experienced the lowest rates of poverty at 4.2%.

Higher poverty rates (Figure 2.3, Appendix A Table 2.6) were also experienced by Hamiltonians that:

- lived alone or not with immediate family
- recently immigrated to Canada (between 2016 to 2020)
- self-identified as racialized

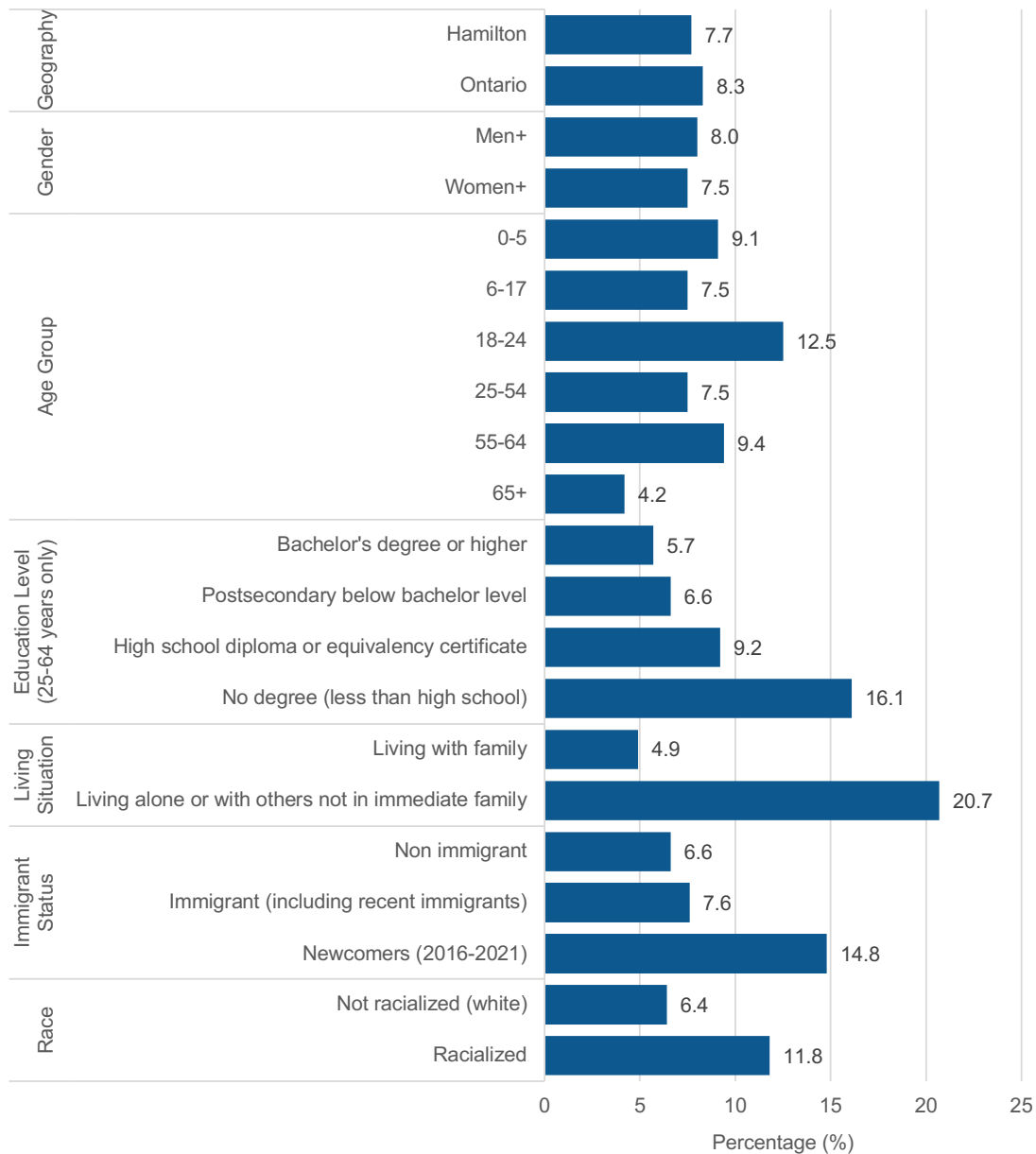
In 2020, Hamilton residents who immigrated to Canada before 1980 faced a 4.8% poverty rate. This is substantially lower than the 7.6% for all immigrants and the 7.7% for all residents.

Poverty rates were also higher for racialized Hamiltonians (11.8%) in 2020 as compared to non-racialized Hamiltonians (6.4%).

Experiences of racism may have contributed to this inequity. The available summary data does not provide additional analysis by individual racialized groups, or overlapping intersections for individual Hamilton residents that may belong to multiple groups. This can lead to an incomplete understanding of poverty, as many of the most vulnerable Hamilton residents are those who face intersecting barriers.

The Employment Equity Task Force's recommended reforms include measures to address systemic racism and discrimination in hiring, promotion and retention practices,

Figure 2.3: Poverty rate (percent individuals below Market Basket Measure) by different groups of Hamilton residents and compared to Ontario, 2020



Source: Target group profile of the low-income population (Market Basket Measure), Census, 2021. Community Data Program - Custom data order from Statistics Canada

Note: The term "racialized" is used in this report as defined by the Census 2021 concept of "visible minority" from the Employment Equity Act. This definition uses specific groups and does not include First Nations, Métis and Inuit peoples as a "visible minority".

all of which may impact poverty levels.²⁴ For example, it is notable that higher poverty rates in racialized Hamilton residents are not likely due to education levels; a greater percentage (42.8%) had completed a bachelor's degree compared to non-racialized residents (27.1%) (Figure 2.5).

Poverty rates for Hamilton residents after the pandemic are not yet available. After 2020 the average rate of poverty increased for Canada as the temporary pandemic benefits were discontinued but continued to be lower in 2021 than in 2015.²⁵

Living Wage

The [living wage](#) rate was estimated to be \$20.80 per hour in 2023 for Hamilton residents, which reflects what they need to earn to cover the actual costs of living here.²⁶ This is higher than the [general provincial minimum wage](#) throughout Ontario, which was \$16.55 as of October 1, 2023.²⁷ The living wage for Hamilton has increased from \$16.45 in 2019 to \$17.20 in 2021 to \$19.05 in 2022.²⁸

HOUSING

Access to safe, [affordable housing](#) is essential for optimal health. Unstable housing situations – such as [homelessness](#), staying with friends or family, and/or frequently moving – induces stress and hinders access to healthcare services and social supports.

Housing Tenure

Just over one-third (34.3%) of private households in Hamilton were rented (tenant households) while the remainder were owned (65.7%) according to the 2021 Census. There were slightly more tenant households in Hamilton as compared to Ontario households in 2021 (31.4%) (Appendix A Table 2.7).

Affordable Housing

Unaffordable housing is defined as spending 30% or more of your pre-tax household income on shelter. By this measure, over 1 in 5 Hamilton households (23.2%) lived in unaffordable housing in 2021, similar to Ontario as a whole at 24.2% (Appendix A Table 2.7).

Compared to owner households, a higher percentage (37.5%) of renter households lived in unaffordable housing and an additional 13.7% of renter households lived in subsidized housing.

Core Housing Need

More than 1 in 10 Hamilton households (13.0%) – 28,055 of them – lived in an unsuitable, inadequate or unaffordable dwelling and could not afford alternative housing in their community in 2021. This was similar to the 12.1% for Ontario (Appendix A Table 2.7).

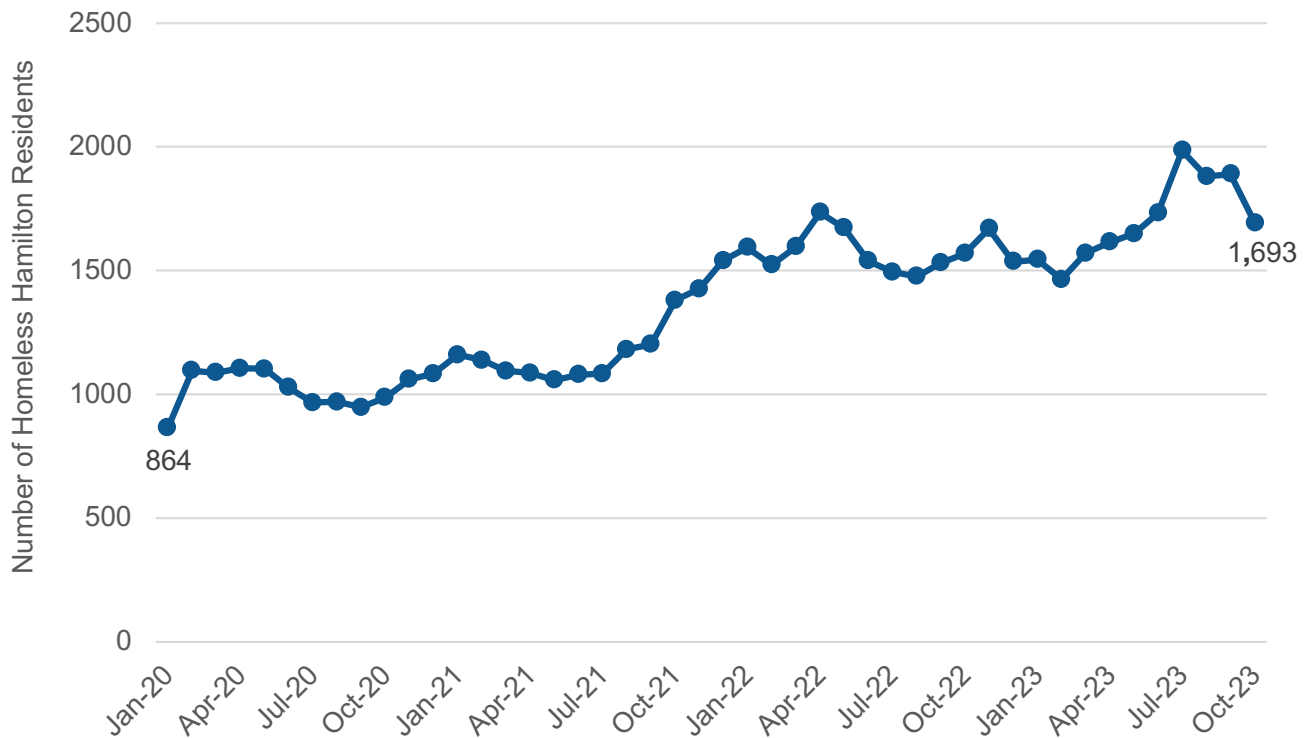
The rate of households with [core housing need](#) in Hamilton was similar to a decade ago (13.4% in 2011) and has improved since the previous Census (15.1% in 2016, representing 30,760 households) (Appendix A Table 2.8).²⁹

Homelessness

An estimated 1,693 Hamilton residents experienced [homelessness](#) in October 2023.³⁰ That year, homelessness ranged from 1,465 to 1,985 individuals per month (as of October 2023). This was up sharply from 2020, which had a monthly range from 864 to 1,105 individuals (Figure 2.4).

The number of residents in precarious housing situations may be even higher. For example, those staying with friends or family due to lack of housing likely aren't included in these homelessness figures.

Figure 2.4: Homeless Hamilton residents, count, January 2020 to October 2023



Source: City of Hamilton, Open Data, Scale of Homelessness, Accessed December 1, 2023, from Open Data Hamilton.

FOOD SECURITY

Adequate access to nutritious foods is vital to optimal health. Inadequate access is linked to poorer outcomes for early childhood growth and development, as well as mental health, and contribute to the development of chronic disease.³¹

Food insecurity is the inadequate or unstable access to food due to financial constraints. This indicator is Canada’s primary measure and covers a range of metrics, from worrying about running out of food, to children not eating for a whole day.³² The responses

are designed to measure household food insecurity (including marginal, moderate and severe³³) resulting from limited financial resources over the previous 12 months. This can also be used to estimate population-level food insecurity.

Approximately 18.0% of Hamilton households were food insecure in 2021-2022 (Appendix A Table 2.9). This was similar to 2019-2020 (19.1%) and to Ontario overall (17.4%).

That translates into an estimated 89,968 food insecure Hamiltonians in 2021-2022, or 15.8% of all residents.

EDUCATION

The level of education obtained by an individual influences their knowledge, behaviours, skills and opportunities. Education increases people's ability to make informed decisions about their health and can help them navigate complex health systems. People with higher levels of education have better health outcomes as they typically have more access to resources such as employment.

Across Hamilton residents aged 25-64: 65.0% of held a post-secondary education certificate, diploma or degree

- 24.7% had a high school diploma or equivalent as the highest education level achieved

- 10.4% had not completed high school or any other certificate, diploma or degree (Appendix A Table 2.10)

Looking more closely at post-secondary education for residents aged 25-64:

- 31.0% held a bachelor's degree or higher (34.3% women+ and 27.5% of men) (Figure 2.5, Appendix A Table 2.11)
- 34.0% held a post-secondary certificate or diploma below the bachelor level, including 5.6% that had an apprenticeship

The proportion of Hamiltonians with a bachelor's degree or higher was below the Ontario average (36.8%) but has increased since 2016 when 25.0% held a bachelor's degree or higher.¹⁸

Table 2.1: Bachelor's degree or higher, population aged 25-64 by selected racialized groups of City of Hamilton residents, 2021

Bachelor's degree or higher (age 25-64)	City of Hamilton	
	Count	Percent (%)
Racialized groups (Total)	31,950	42.8
South Asian	11,455	59.6
Chinese	3,325	59.3
Arab	3,115	42.3
Black	4,175	30.6

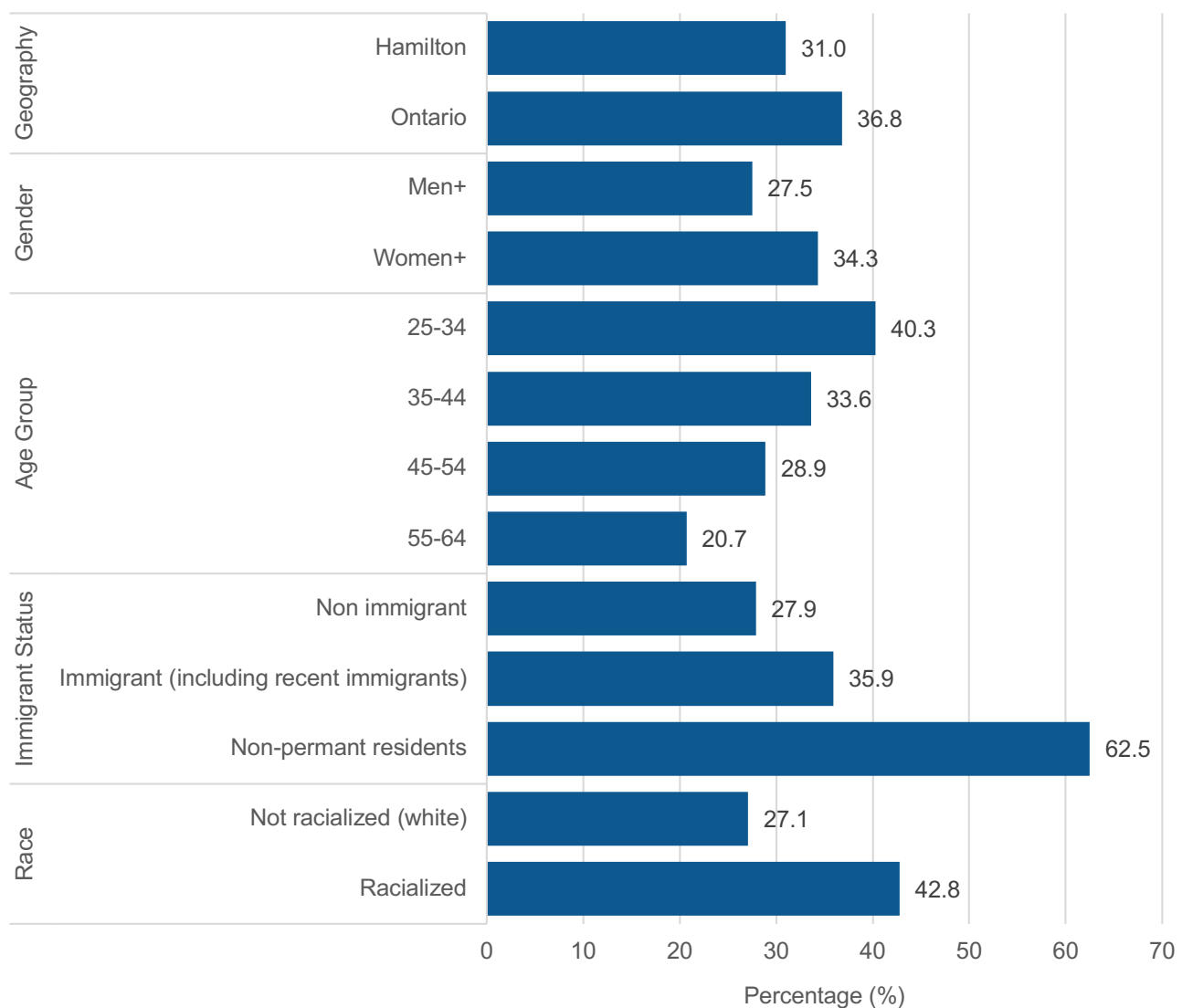
Sources: Statistics Canada. Table 98-10-0432-01. Highest level of education by visible minority and immigrant status: Canada, provinces and territories, census divisions and census subdivisions with a population 5,000 or more, DOI: <https://doi.org/10.25318/9810043201-eng> (accessed December 12, 2023) and Statistics Canada. Table 98-10-0415-01. Highest level of education by major field of study (summary)

Note: The term "racialized" is used in this report as defined by the Census 2021 concept of "visible minority" from the Employment Equity Act. This definition uses specific groups and does not include First Nations, Métis and Inuit peoples as a "visible minority".

Two out of every five Hamilton residents aged 25-34 held a bachelor's degree or higher (40.3%). This proportion decreased by age group; 1 in 5 Hamilton residents aged 55-64 had a bachelor's degree or higher (20.7%)

Higher rates were also found among Hamiltonians that self-reported as racialized (42.8%) (Table 2.1). Almost 6 in 10 Hamilton residents belonging to certain racialized groups – such as South Asian (59.6%) and Chinese (59.3%) – had a bachelor's degree or higher.³⁴ A higher percentage of immigrants also held a bachelor's degree or higher (35.9%) compared to [non-immigrants](#) (27.9%).

Figure 2.5: Bachelor's degree or higher level of education (percent individuals aged 25-64 in private households) by different groups of Hamilton residents and compared to Ontario, 2021



Source: Statistics Canada. Table 98-10-0432-01. Highest level of education by visible minority and immigrant status: Canada, provinces and territories, census divisions and census subdivisions with a population 5,000 or more.

Note: The term "racialized" is used in this report as defined by the Census 2021 concept of "visible minority" from the Employment Equity Act. This definition uses specific groups and does not include First Nations, Métis and Inuit peoples as a "visible minority".

FAMILY STRUCTURE

A stable and supportive family structure can influence better health outcomes as it may contribute to a sense of security and belonging. Conversely, family instability (such as strained familial relationships) can lead to stress and adversely impact health.

There were 157,125 families in the City of Hamilton in 2021. Statistics Canada defines a [family](#) on the census as:

- a married couple (including opposite or same sex) and the children (if any) of either one or both spouses
- a common-law couple (including opposite or same sex) with or without children of either one or both partners
- one parent of any marital status with at least one child living in the same dwelling, and that child or those children
- grandchildren living with their grandparent(s) but with no parents present

The average size of census families in Hamilton was 2.9 people, and the average number of children in census families with children was 1.8. Almost half of all census families in Hamilton were two-person families (48.5%), while 22.3% are three-person families, 20.0% were four-person families and 9.3% have five or more persons.

This report uses the term “one-parent family” for consistency and to align with Statistic Canada’s 2021 Census terminology. Families are complex and this grouping includes different family arrangements. There are many other recognized terms in use (e.g., single parent, independent parent, autonomous parent).

Two out of every 10 census families in

Hamilton (19.2% or 30,135) were one-parent families in 2021. The percentage was the same as in 2016 (19.2%) with an overall increase in the number of one-parent families (28,635 families)¹⁸, due to population growth in general.

The percent of one-parent families was higher in Hamilton than for Ontario overall in 2021 (17.1%). Most one-parent families were led by people who identify as female (23,985; 79.6%) (Appendix A Table 2.12).

While 82.3% of Hamilton residents in private households lived in census families in 2021, 11.1% lived alone (62,110 residents), 4.0% lived with a non-relative only and an additional 2.7% lived with other relatives.

Looking at household type:

- 60.3% of households are one-census-family households without additional persons
- 27.9% are one-person households
- 4.3% (9,535) are two-or-more-person non-census-family households
- 3.7% (8,140) are multi-generational households
- 3.2% (7,030) are one-census-family households with additional persons
- less than 1% (0.7%, 1, 570 households) are multi-census-family households, where the dwelling is shared by two or more families, excluding multi-generational households

Some family structures, living arrangements and relationship dynamics may not align with the Statistic Canada’s 2021 Census terminology. Other local research illustrates this and recognizes more complex possibilities for relationships, specifically for the Two Spirit and LGBTIQ+ population.⁹

COMMUNITY BELONGING

Having a sense of community belonging can contribute to better physical and mental health. That includes strong social support networks feeling connected to the community. Both can reduce feelings of isolation and loneliness. In contrast, experiences of discrimination in any form can erode the sense of community belonging for marginalized communities, influencing their health.

For the period of 2015 to 2020, 71.2% of Hamilton residents aged 12 and older described their sense of belonging to their local community as somewhat or very strong. This was similar to the Ontario average (70.9%) (Figure 2.6 and Appendix A Table 2.13).

Community belonging was greatest among those Hamiltonians aged 12-19 (83.2%) and 65-74 (82.2%). The lowest levels of community belonging were reported by those aged 20-44 (63.6%). There were no other differences among groups of Hamilton residents.

DISABILITY

Having a disability can intersect with various aspects of health and well-being. People with disabilities may encounter discrimination and the built environment can be a barrier to people with disabilities in accessing health and social services. That can lead to health inequities and negative health outcomes that are not associated with the disability itself.

Among Hamilton residents aged 15 and older in 2017, 29.0% had one or more disabilities that limited them in their daily activities (Appendix A Table 2.14). This was higher than for Ontario overall (24.1%).

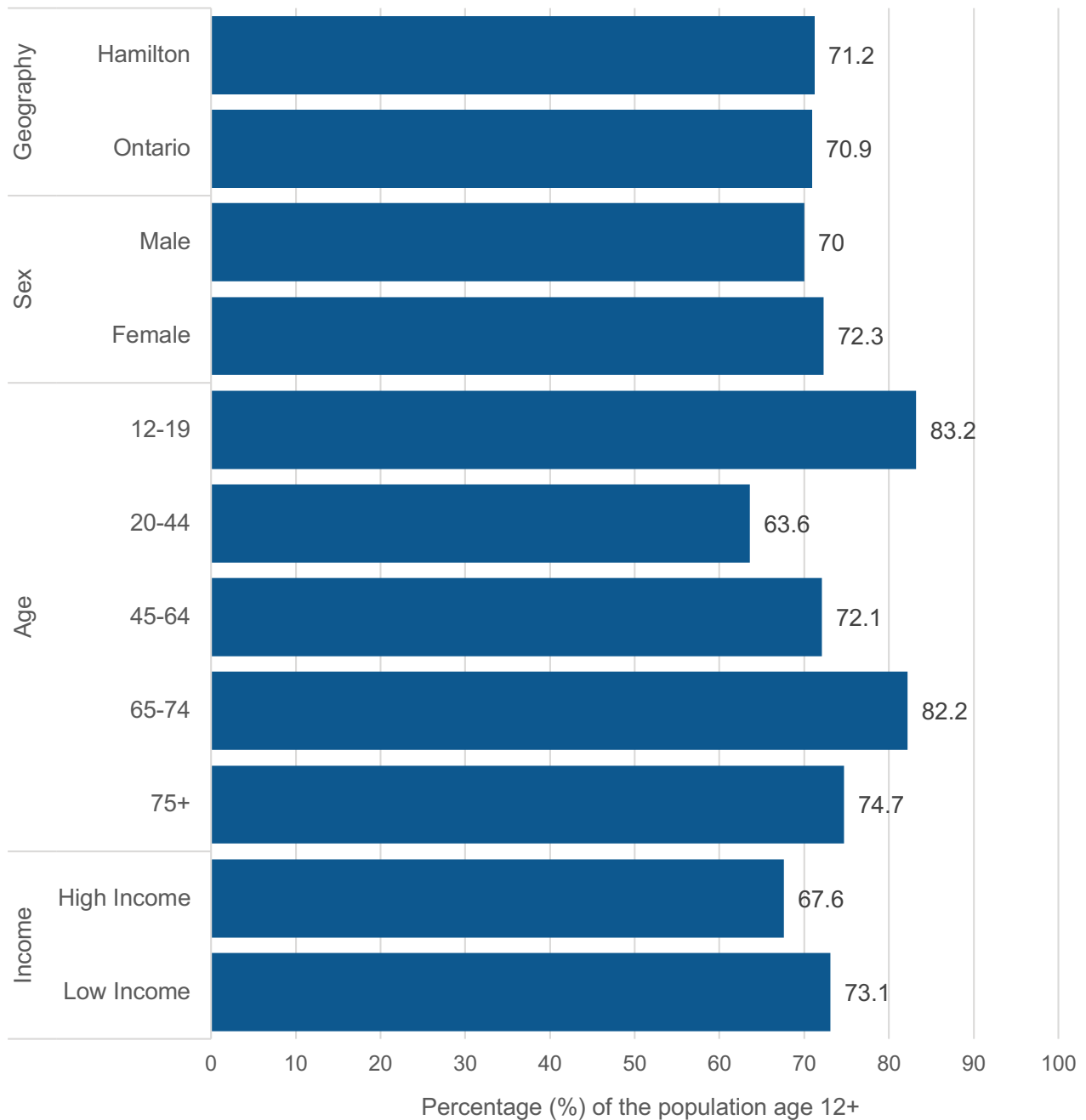
The definition of disability was determined by the data source and includes:

- anyone who reported being “sometimes,” “often” or “always” limited in their daily activities due to a long-term condition or health problem
- anyone who reported being “rarely” limited, if they were also unable to do certain tasks or could only do them with a lot of difficulty

The definition includes a broad range of limitations, including hearing, vision, mobility, pain, learning, mental health, memory and developmental disabilities.³⁵

Males (27.6%) and females (30.7) had similar rates of disability. The rates increased with age; among those aged 15-64, 25.9% had a disability (higher than the 19.8% for this age group in Ontario overall), while 45.4% did in the 65-plus age group.

Figure 2.6: Community belonging, percent (%) of Hamilton residents aged 12 and older by different groups of Hamilton residents and compared to Ontario, 2015-2020 combined



Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health

Notes: Additional equity analysis (e.g., for racialized groups) was not available for reporting. Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.



CHAPTER 3

GENERAL HEALTH

HIGHLIGHTS

- Hamilton residents are expected to live to be 81.3 years, below the Ontario average for life expectancy (82.6 years) based on 2015-2017 estimates.
- The rate of premature death increased for Hamilton residents between 2012 and 2021. This increase is far greater in neighbourhoods with more low-income households, which represents a widening inequality.
- Nearly half of premature deaths among Hamilton residents could potentially be avoided through population health and primary prevention efforts.
- Unintentional poisonings (primarily drug overdoses) are driving substantial increases in premature mortality and potential years of life lost among Hamilton residents.
- The top five leading causes of premature death for Hamilton residents in 2021: (1) ischemic heart disease; (2) cancer of the lung and bronchus; (3) unintentional poisoning; (4) cancer of the colon, rectum and anus; and (5) chronic lower respiratory diseases.

GENERAL HEALTH

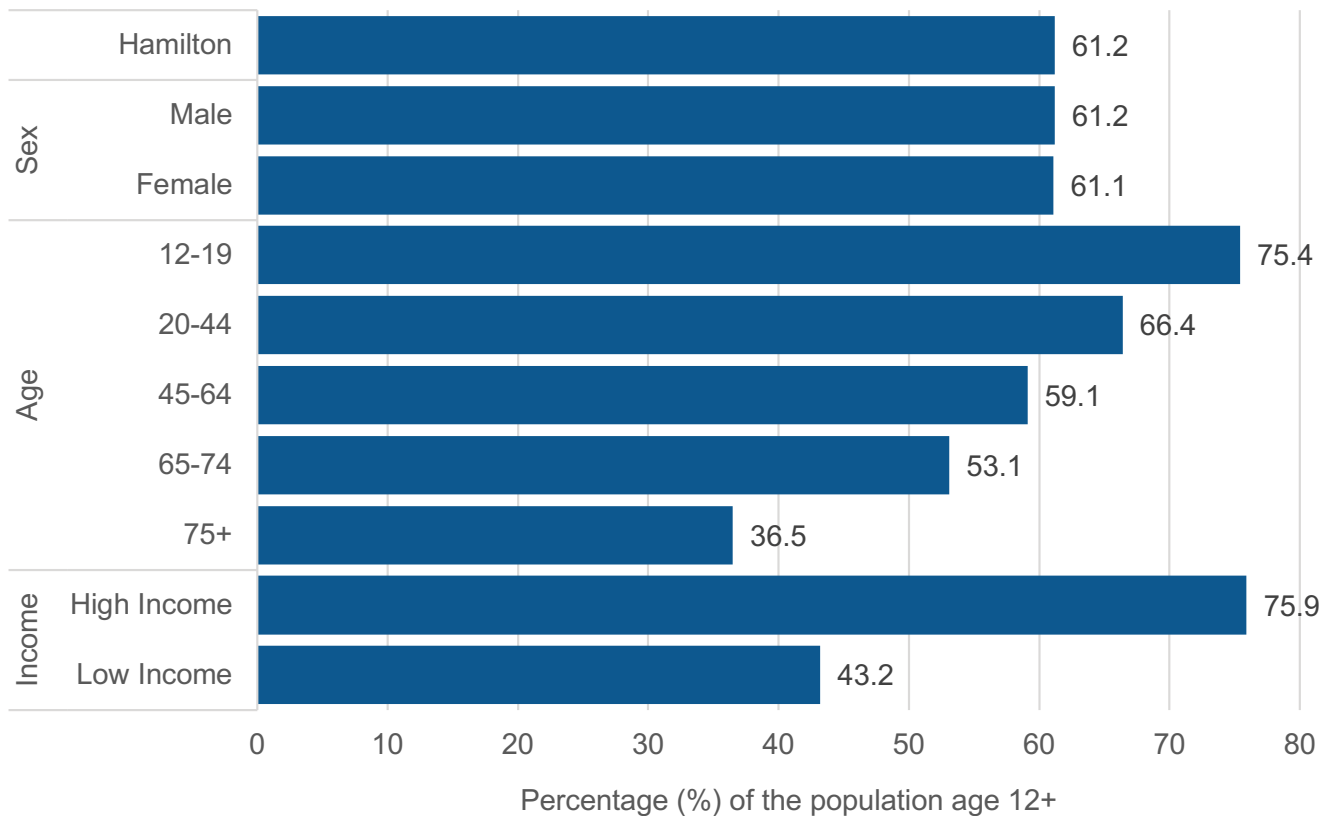
SELF-RATED HEALTH

On average, 61.2% of Hamilton residents aged 12 and older rated their general health as very good or excellent for the combined years from 2015 to 2020 (Figure 3.1). That was similar to the Ontario average (61.1%).

Positive self-rated general health of Hamiltonians was similar across time periods: 58.7% for 2015-2016, 61.2% for 2017-2018, and 63.5% for 2019-2020.

Self-rated positive general health was greatest among residents aged 12-19, and decreased with each subsequent age group. Hamiltonians in the highest household income group (top 20% of income earners) rated their general health higher compared to those in the lowest income group (bottom 20% of income earners).

Figure 3.1: Self-rated general health as very good to excellent by different groups of Hamilton residents aged 12 and older, 2015-2020 combined



Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Notes: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

LIFE EXPECTANCY

[Life expectancy](#) is estimated as either a person's entire life span (life expectancy at birth) or the number of years left to live once a person reaches a certain age (such as life expectancy at age 65). A higher life expectancy is considered an indicator of better overall health of the population and is sensitive to socioeconomic changes.

Hamilton residents born between 2015-2017 can expect, on average, to live to be 81.3 years old (Table 3.1). That's lower than for

Ontarians overall (82.6 years) born in that period, but 0.7 years greater than the life expectancy for those born from 2006-2008.

In Hamilton, females have life expectancy that's nearly five years greater than for males.

Hamilton residents who reached age 65 in 2015-17 could expect, on average, to live another 20.6 years. Life expectancy at age 65 in 2015-17 was 22.1 years for females, three years higher than for males. Life expectancy at age 65 in 2015-17 was lower in Hamilton compared to the Ontario average.

Table 3.1: Life expectancy, Hamilton and Ontario residents, 2015-2017 combined

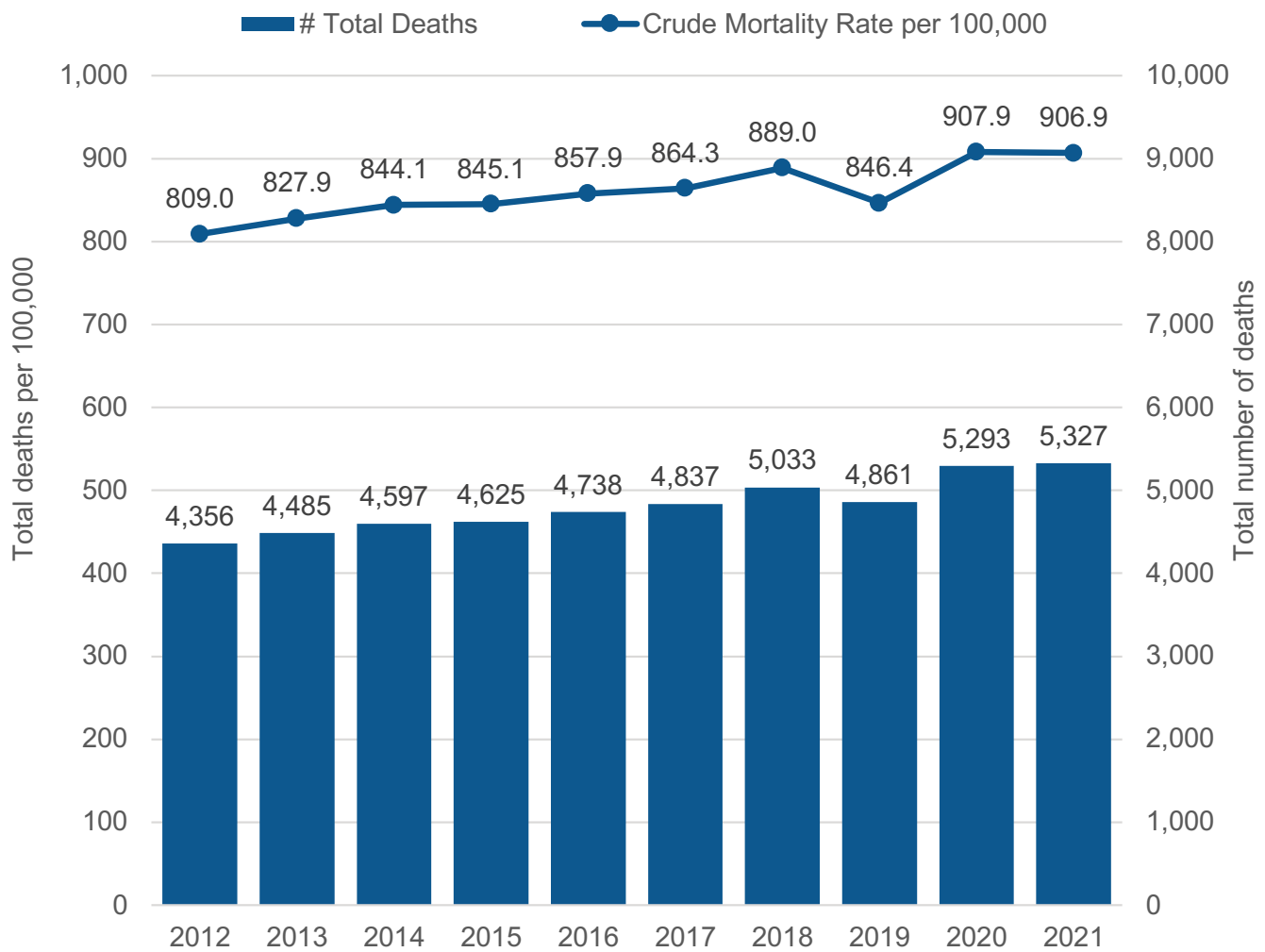
Life Expectancy	Groups	City of Hamilton	Ontario
Life Expectancy at Birth (years)	Males	78.8	80.5
	Females	83.6	84.6
	Total	81.3	82.6
Life Expectancy at Age 65 (years)	Males	19.0	19.8
	Females	22.1	22.6
	Total	20.6	21.3

Source: Statistics Canada. Table 13-10-0389-01 Life expectancy, at birth and at age 65, by sex, three-year average, Canada, provinces, territories, health regions and peer groups.

DEATH FROM ALL CAUSES

In 2021, 5,327 Hamilton residents died (Figure 3.2). Overall, the number and rate of deaths steadily increased in Hamilton since 2012. These rates do not account for changes over time in the age structure or socioeconomic conditions which are not accounted for in these rates and are known to influence health.

Figure 3.2: Total deaths and crude mortality rate, Hamilton residents, 2012-2021



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

LEADING CAUSES OF DEATH

The 15 leading causes of death for Hamilton residents are shown in Table 3.2 for the years 2021 and 2012. The ranking of the top five did not change between 2012 and 2021. In 2021 the top five causes accounted for 35.3% of all deaths, down from 39.0% in 2012 for the same top five causes.

There were two major changes to the leading causes of death for Hamilton residents over this period. One was the emergence of coronavirus disease 2019 (COVID-19).

The other was the substantial increase in [unintentional poisoning](#), which ranked 28th in 2012 (28 deaths) and seventh in 2021 (148 deaths).

Unintentional poisoning includes harm from swallowing, inhaling, absorbing, or injecting any substance (e.g., medicines, drugs, cleaning chemicals, alcohol, carbon monoxide). This report covers unintentional poisoning in Chapter 10: Substance Use.

The 15 leading causes of [premature death](#) (death before age 75) for Hamilton residents

Table 3.2: Leading causes of death, Hamilton residents, 2021 and 2012

Cause of Death	Rank in 2021	Deaths in 2021	Rank in 2012	Deaths in 2012
Ischemic heart disease	1	610	1	627
Dementia and Alzheimer disease	2	569	2	360
Cancer of the lung and bronchus	3	316	3	343
Cerebrovascular diseases	4	209	4	192
Chronic lower respiratory diseases	5	179	5	175
Cancer of the colon, rectum, and anus	6	158	7	131
Unintentional poisoning	7	148	28	34
Falls	8	140	9	123
Cancer of the lymph and blood	9	123	8	125
Coronavirus disease 2019	10	118	n/a	0
Diseases of the urinary system	11	115	13	80
Diabetes	12	111	6	147
Heart failure and complications	13	99	12	92
Cancer of the prostate	14	98	14	77
Cirrhosis and other liver diseases	15	91	15	75

Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Chronic lower respiratory diseases include chronic obstructive pulmonary disease (COPD) and asthma.

are shown in Table 3.3 for 2021 and 2012. The top five causes of premature deaths in 2021 differed from 2012, with unintentional poisonings rising to third from eleventh, and diabetes falling from third to ninth. These five leading causes accounted for 33.9% of all premature deaths in Hamilton in 2021.

There are notable differences among age groups (Table 3.4).

- Aged 19 and younger: The leading causes of death are perinatal conditions and congenital malformation, deformations and chromosomal conditions. Together, they account for 60.9% of deaths in that age group.
- Aged 20-44: Unintentional poisoning and intentional [self-harm](#) are the primary causes of death, accounting for 39.3% and 11.1% of deaths in that age group, respectively.
- Aged 45-64 and 65-74: Ischemic heart disease and cancer of the lung and bronchus are the leading causes of death.
- Aged 75 and older: While dementia and Alzheimer disease are the top cause of death, older populations in Canada tend to have multiple chronic conditions that may contribute to decline and death; only one condition may be listed as the primary cause of death.

Table 3.3: Leading causes of premature death (death before age 75), Hamilton residents, 2021 and 2012

Cause of Death	Rank in 2021	Deaths in 2021	Rank in 2012	Deaths in 2012
Ischemic heart disease	1	219	1	208
Cancer of the lung and bronchus	2	163	2	184
Unintentional poisoning	3	147	11	34
Cancer of the colon, rectum, and anus	4	74	4	62
Chronic lower respiratory diseases	5	72	5	58
Cirrhosis and other liver diseases	6	60	6	56
Cerebrovascular diseases	7	56	10	42
Coronavirus disease 2019	8	53	n/a	0
Diabetes	9	49	3	69
Cancer of the breast	10	47	8	47
Intentional self-harm	11	44	9	47
Cancer of the liver and intrahepatic bile ducts	12	43	13	27
Cancer of the pancreas	13	41	12	34
Cancer of the lymph and blood	14	40	7	53
Dementia and Alzheimer disease	15	32	15	19

Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Chronic lower respiratory diseases include chronic obstructive pulmonary disease (COPD) and asthma.

Table 3.4: Top five leading causes of death by age groups, Hamilton residents, 2021

Age Group (Total deaths)	Top 5 leading causes of death (number of deaths in 2021)				
	1	2	3	4	5
0 – 19 (46 deaths)	Perinatal conditions (20)	Congenital malformation, deformations, and chromosomal conditions (8)	Unintentional poisoning (2) Assault (2) Intestinal infection (2)	Intentional self-harm (1) Transport accidents (1) Cardiomyopathy (1)	Not available
20 – 44 (234 deaths)	Unintentional poisoning (92)	Intentional self-harm (26)	Assault (8)	Cirrhosis and liver diseases (7)	Transport accidents (5) Cerebro-vascular diseases (5)
45 – 64 (747 deaths)	Ischemic heart disease (91)	Cancer of the lung and bronchus (64)	Unintentional poisoning (46)	Cirrhosis and other liver diseases (32)	Cancer of the colon, rectum, and anus (27)
65 – 74 (964 deaths)	Ischemic heart disease (126)	Cancer of the lung and bronchus (99)	Chronic lower respiratory diseases (53)	Cancer of the colon, rectum, and anus (43)	Cerebro-vascular diseases (33)
75+ (3,336)	Dementia and Alzheimer disease (537)	Ischemic heart disease (391)	Cancer of the lung and bronchus (153) Cerebro-vascular diseases (153)	Falls (115)	Chronic lower respiratory diseases (107)

Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

PREMATURE DEATH

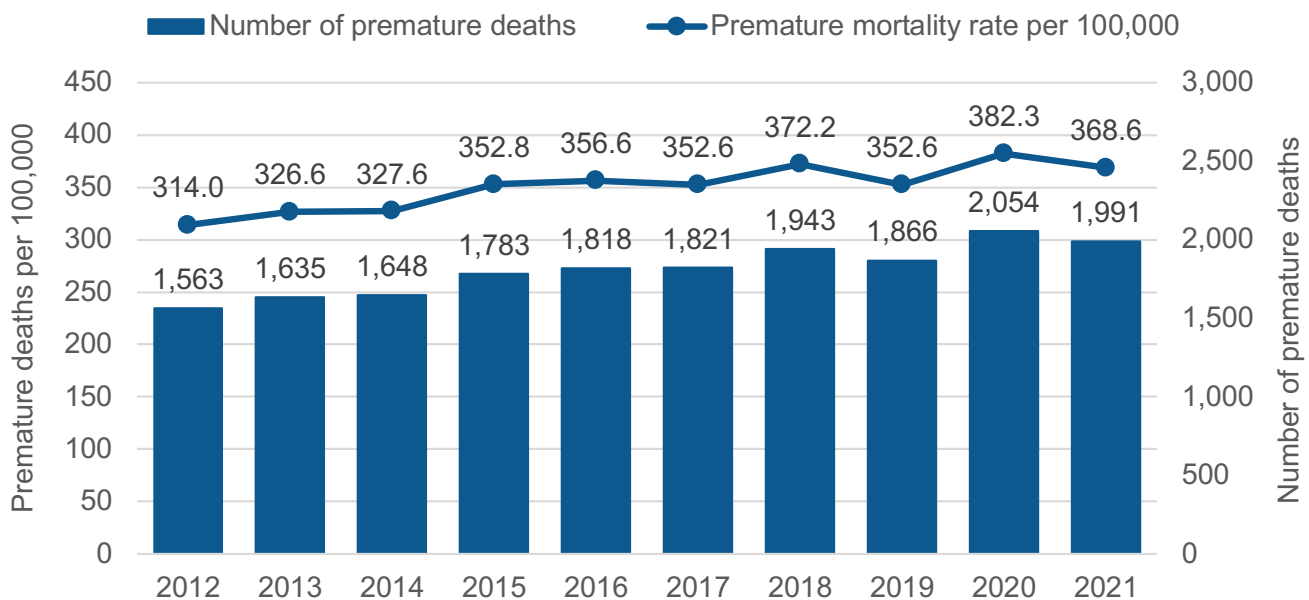
Any death before age 75 is considered premature. For the three-year period of 2018 to 2020, 15,187 Hamilton residents died, and 5,863 (38.6%) of those deaths were premature. The rate of premature deaths increased by 11.4% in Hamilton between 2012 and 2021. That translates to an estimated 203 additional premature deaths in 2021 (Figure 3.3).

Premature deaths can be further examined to determine whether they could potentially have been avoided. Of the 5,863 premature deaths between 2018 and 2020, Statistics Canada estimates that 4,165 (71.0%) were [potentially avoidable](#) through prevention (2,800 deaths) or treatment (1,365 deaths).

Nearly half (47.8%) of premature deaths among Hamilton residents could potentially be prevented through population health and primary prevention efforts. They include changes to modifiable factors, population interventions and addressing underlying systemic factors that influence health.

There is substantial inequality, which has been widening, in Hamilton's rate of premature deaths (Figure 3.4). For example, consider the proportion of low-income households in a neighbourhood. Hamilton neighbourhoods with the greatest proportion of such households experience a premature death rate that's 176.6% greater than neighbourhoods with the lowest proportion of these households.

Figure 3.3: Premature deaths, Hamilton residents, 2012-2021



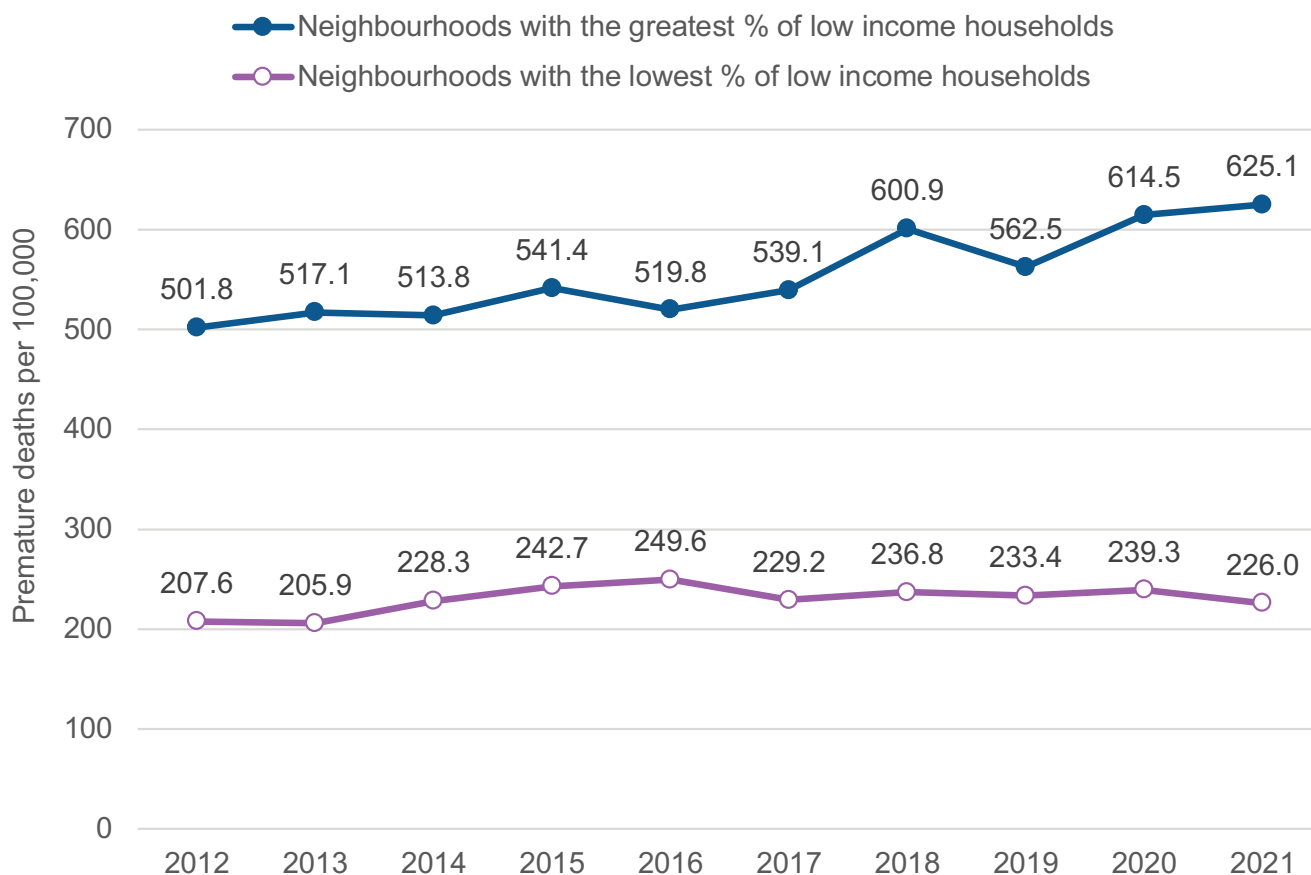
Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Between 2012 and 2021, Hamilton neighbourhoods with the most low-income households also experienced a greater increase in premature deaths compared to neighbourhoods with the least low-income households. This has contributed to a widening inequality.

Between 2012 and 2021, there were changes in the different causes of premature death. Figure 3.5 shows the top five causes of increasing and decreasing premature deaths. The overall outcome is a net increase, largely driven by premature deaths due to unintentional poisoning and COVID-19.

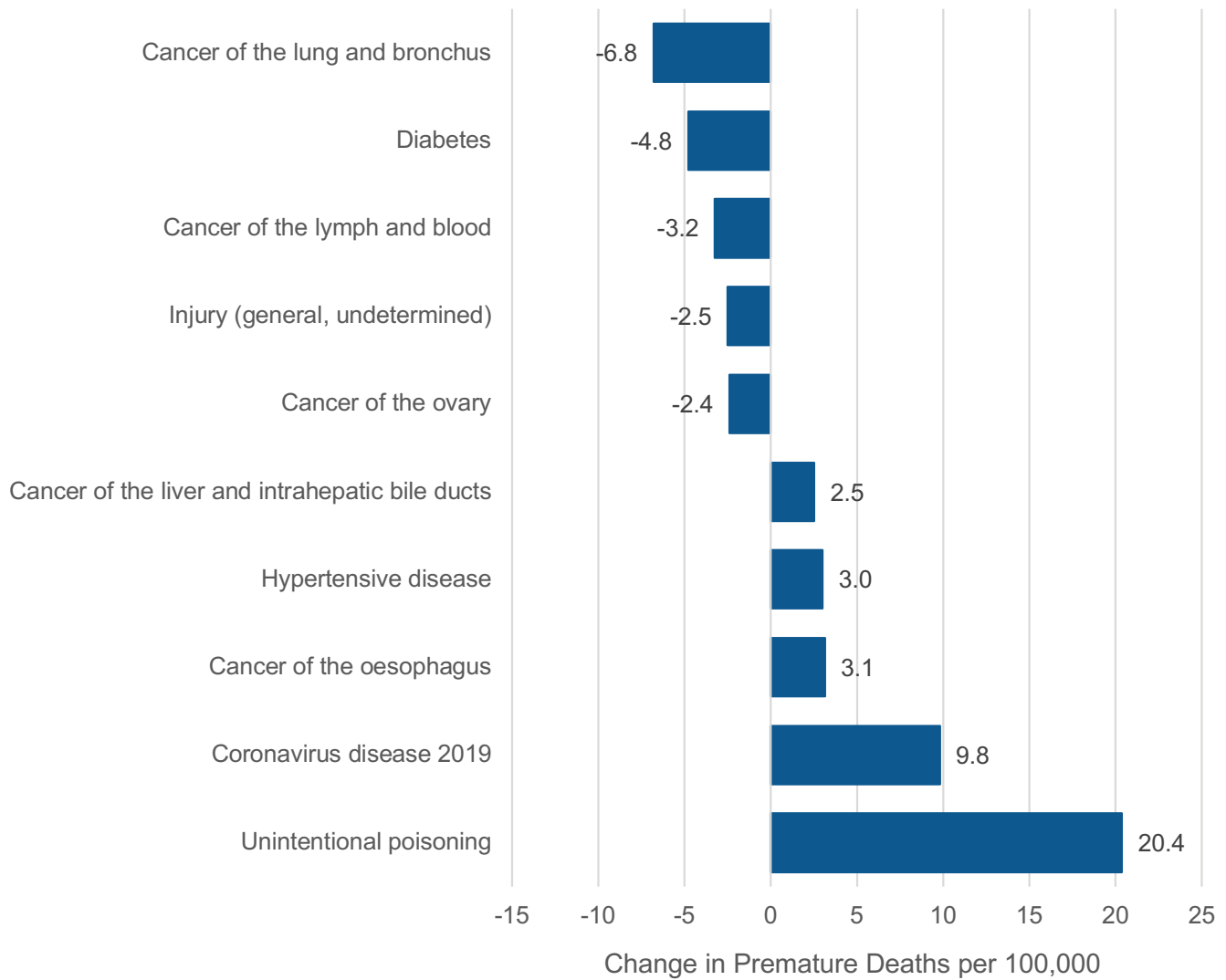
Figure 3.4: Premature deaths by neighbourhood household income, Hamilton residents, 2012-2021



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 3.5: Change in premature deaths by selected cause of death from 2012 to 2021, Hamilton residents



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

POTENTIAL YEARS OF LIFE LOST

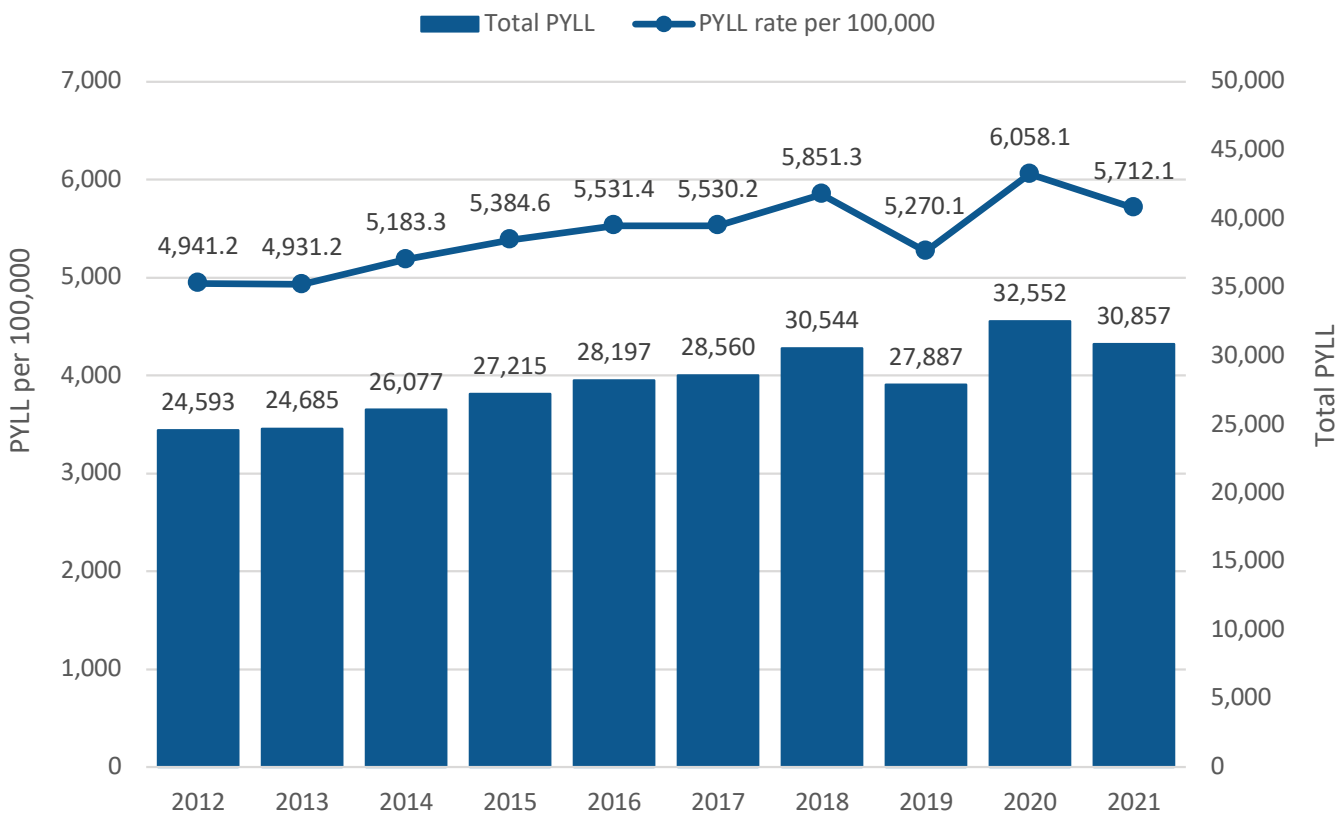
Potential years of life lost is a measure of how many years of life a person could have lived if they did not die prematurely (before age 75). These potential years can be summed to provide a population level total and rate (Figure 3.6).

In 2021, there were 30,857 potential years of life lost across the population of Hamilton.

Unintended poisoning caused 4,989 years of lost life in 2021 (the leading cause). This is a substantial increase from 2012, when unintentional poisonings ranked sixth with 1,007 years of lost life (Table 3.5).

The overall rate of potential years of life lost for Hamilton residents increased between 2012 and 2021. Unintentional poisoning contributed the most years to this net increase (Figure 3.7).

Figure 3.6: Potential years of life lost (PYLL), Hamilton residents, 2012-2021



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

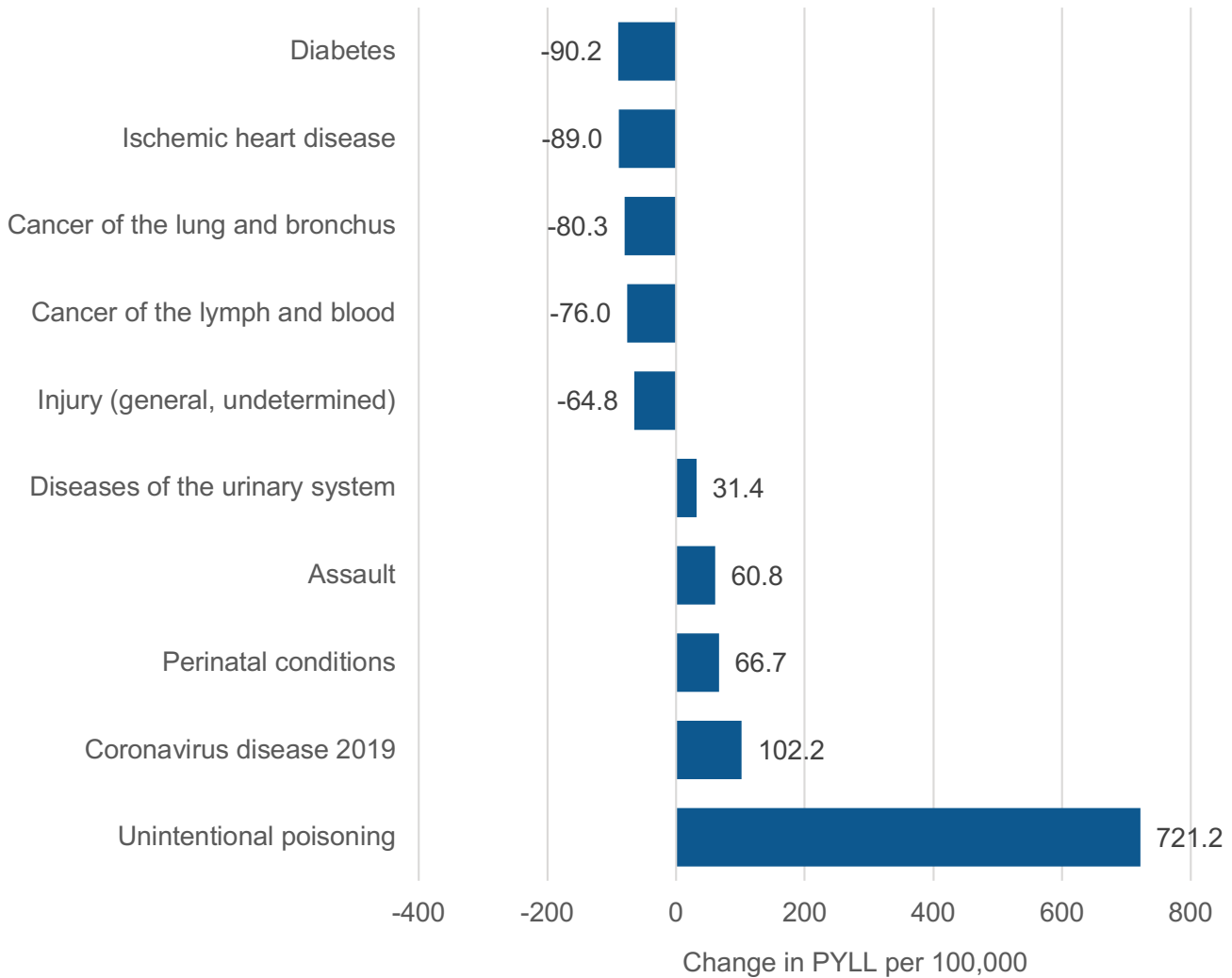
Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Table 3.5: Potential years of life lost (PYLL) by cause of death, Hamilton residents, 2021 and 2012

Cause of Death	Rank in 2021	PYLL in 2021	Rank in 2012	PYLL in 2012
Unintentional poisoning	1	4,989	6	1,007
Ischemic heart disease	2	2,222	1	2,490
Intentional self-harm	3	1,549	3	1,556
Perinatal conditions	4	1,500	4	1,050
Cancer of the lung and bronchus	5	1,495	2	1,777
Cirrhosis and other liver diseases	6	977	7	908
Cancer of the colon, rectum, and anus	7	809	10	702
Congenital malformation, deformation, and chromosomal conditions	8	734	11	658
Cancer of the breast	9	687	8	792
Cerebrovascular diseases	10	652	14	567
Diabetes	11	608	5	1,009
Chronic lower respiratory diseases	12	572	13	568
Assault	13	566	23	219
Coronavirus disease 2019	14	552	n/a	0
Cancer of the pancreas	15	483	16	401

Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Figure 3.7: Change in potential years of life lost (PYLL) by selected cause of death from 2012 to 2021, Hamilton residents



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.



CHAPTER 4

HEALTHY PREGNANCIES AND BIRTHS

HIGHLIGHTS

- Peripartum health risks related to mental health and weight gain have worsened for Hamilton residents who gave birth.
- Pregnancy and fertility rates are decreasing for residents of Hamilton but remain greater than those for Ontario residents.
- The rate of infants born with a low birth weight has increased in recent years, particularly for full-term infants.
- Rates of preterm births and low birth weights are higher among residents with lower incomes and lower education.
- Exclusive breastfeeding rates have decreased in recent years, while formula feeding in hospital has increased.

HEALTHY PREGNANCIES AND BIRTHS

PRECONCEPTION AND PERIPARTUM HEALTH

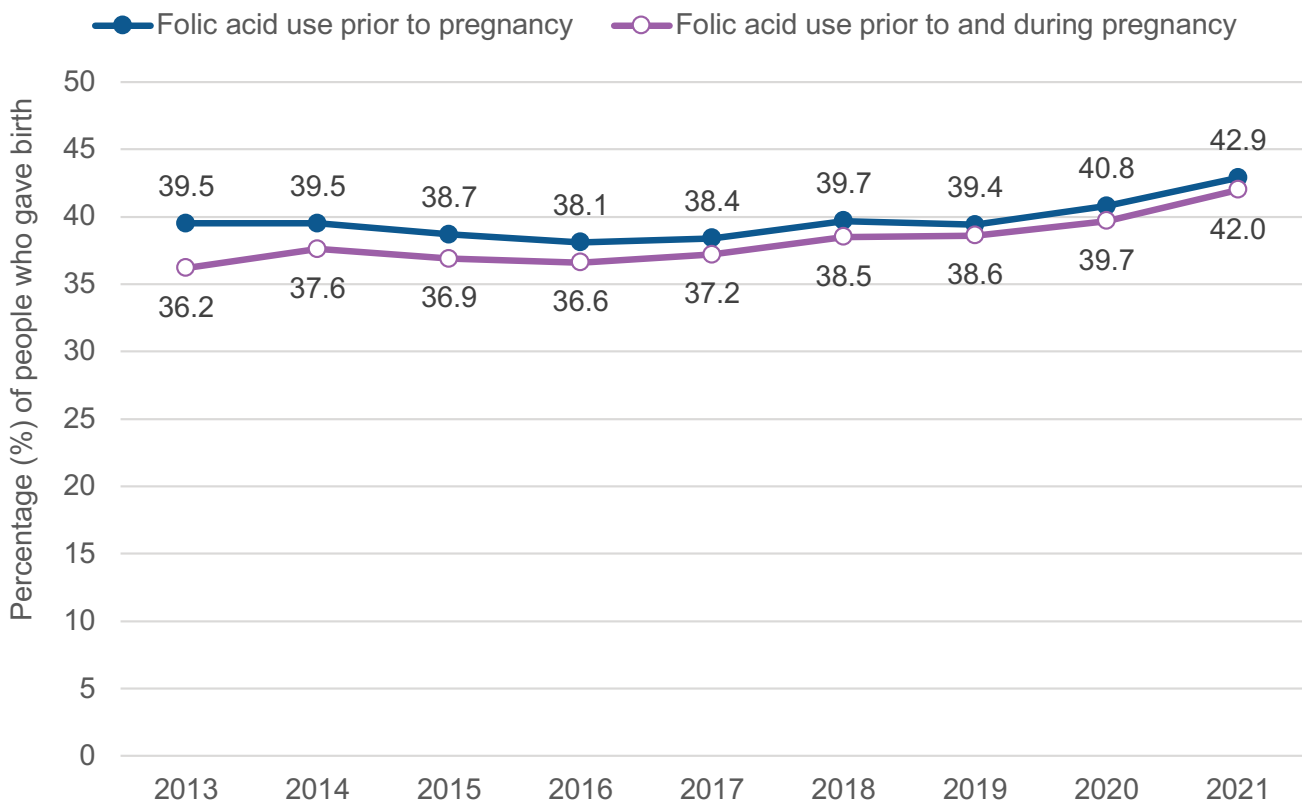
Taking a multivitamin with folic acid prior to and during pregnancy supports the normal growth of the baby’s spine, brain and skull. This is particularly important for preventing neural tube defects.³⁶

In 2021, 42.9% of Hamilton residents who gave birth used folic acid prior to pregnancy, and 42.0% used folic acid prior to and

during pregnancy (Figure 4.1). Both of these rates have increased since 2016, and are consistently greater than Ontario’s rates since 2013.

Among Hamilton residents who gave birth, 2.2% have no designated primary care provider for themselves or their infant (Figure 4.2). This rate has fluctuated between 1.3% and 2.3% since 2015. Hamilton’s rate remains lower than the Ontario rate for all years from 2015-2022.

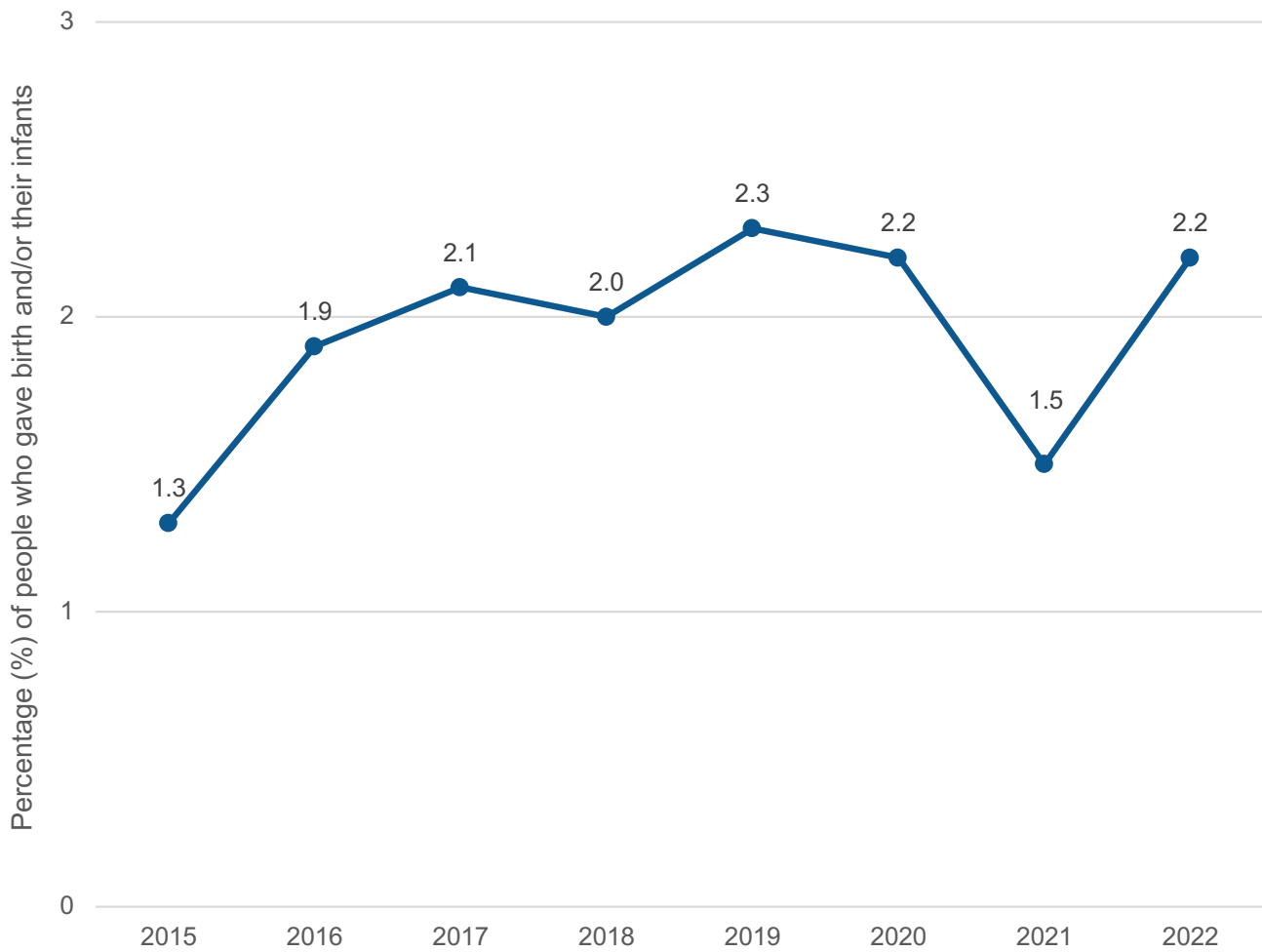
Figure 4.1: Folic acid use prior to and during pregnancy, Hamilton residents who gave birth, 2013-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: maternal health snapshot. Toronto, ON: King’s Printer for Ontario.

Notes: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 4.2: No designated primary care provider, Hamilton residents who gave birth and/or their infants, 2015-2022



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: risk factors for healthy child development snapshot. Toronto, ON: King's Printer for Ontario.

Notes: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

For Hamilton residents who gave birth in 2021, 28.0% had concerns about their mental health during their pregnancy (Figure 4.3). This was greater than the Ontario rate (22.9%) and has been trending upwards since 2018.

This rate has coincided with a rise in anxiety and depression during pregnancy. Among Hamilton residents who gave birth in 2021:

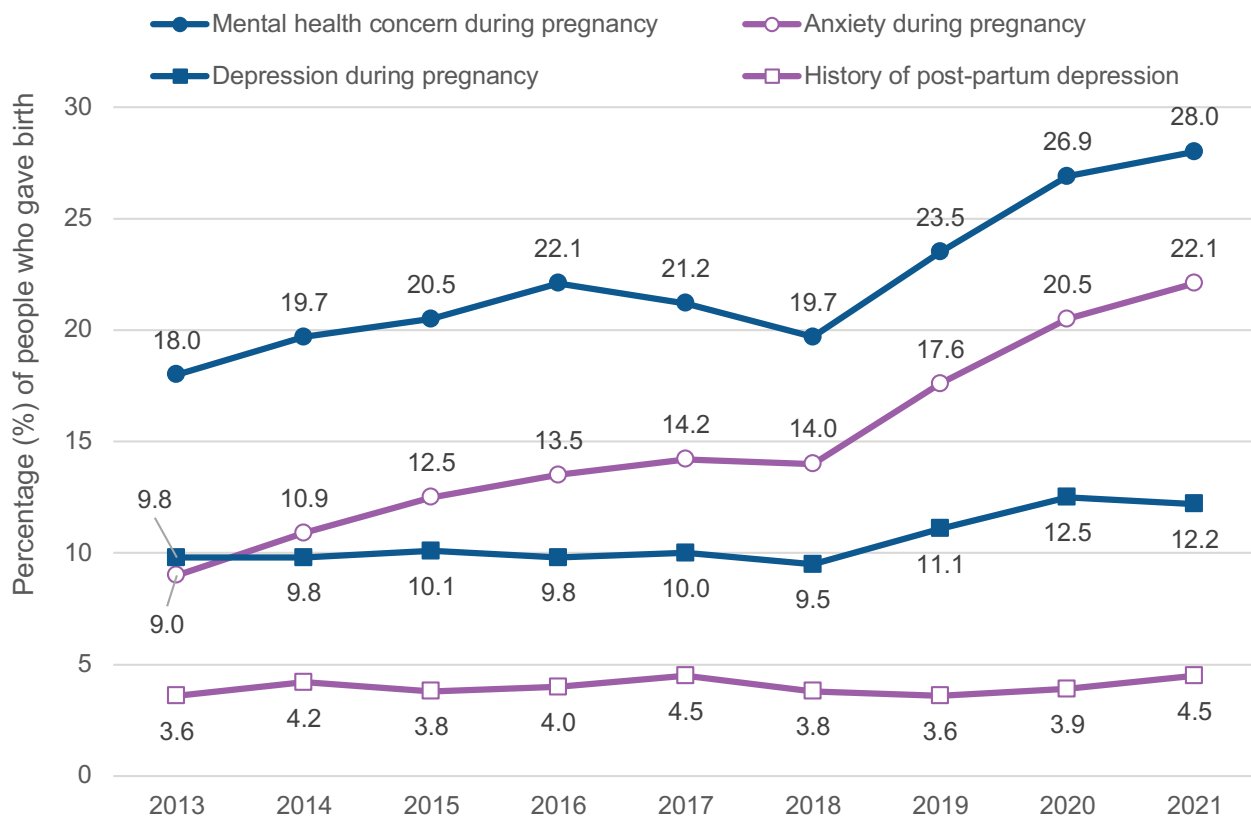
- 22.1% reported anxiety during pregnancy, which is greater than the Ontario rate (17.9%)
- 12.2% reported depression during pregnancy, which was also greater than the Ontario rate (10.3%)

Rates of reported post-partum depression has remained relatively stable among Hamilton residents who gave birth, and is similar to the Ontario rate.

Measures of weight gain during pregnancy are shown in Figure 4.4 for Hamilton residents who gave birth.

The percentage of Hamilton residents who gained more weight than recommended increased from 47.1% in 2018 to 51.3% in 2021, greater than the Ontario rate. In contrast, the percentage of Hamilton residents who gained less weight than recommended decreased from 21.5% in 2018 to 18.6% in 2021, which was lower than the Ontario rate.

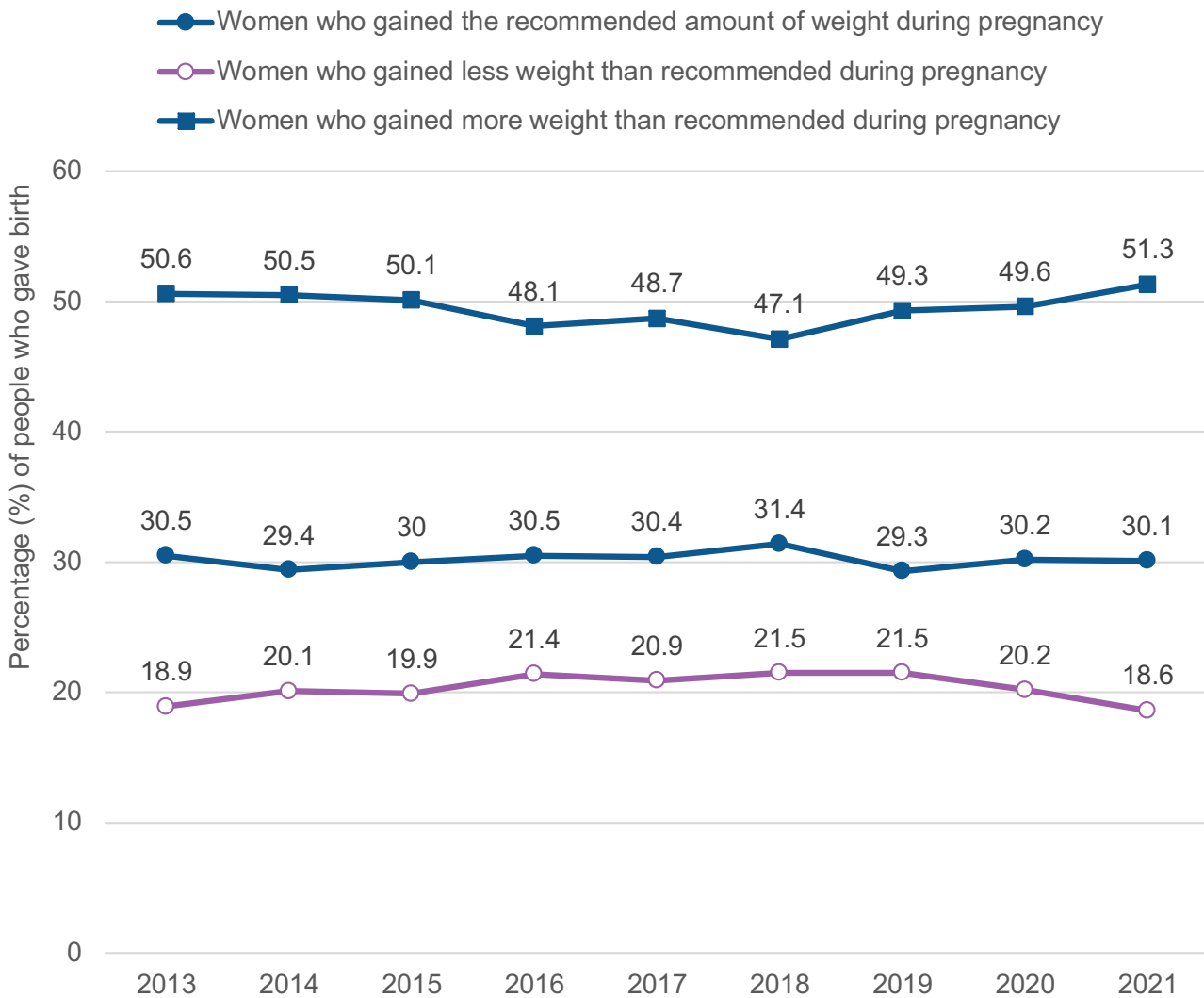
Figure 4.3: Mental health concerns, Hamilton residents who gave birth, 2013-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: maternal health snapshot. Toronto, ON: King's Printer for Ontario.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 4.4: Weight gain during pregnancy, Hamilton residents who gave birth, 2013-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: maternal health snapshot. Toronto, ON: King's Printer for Ontario.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

PREGNANCY AND FERTILITY

Pregnancy and [fertility rates](#) are important for monitoring our population’s reproductive status and demographics. Both measures focus on the female population age 15-49.

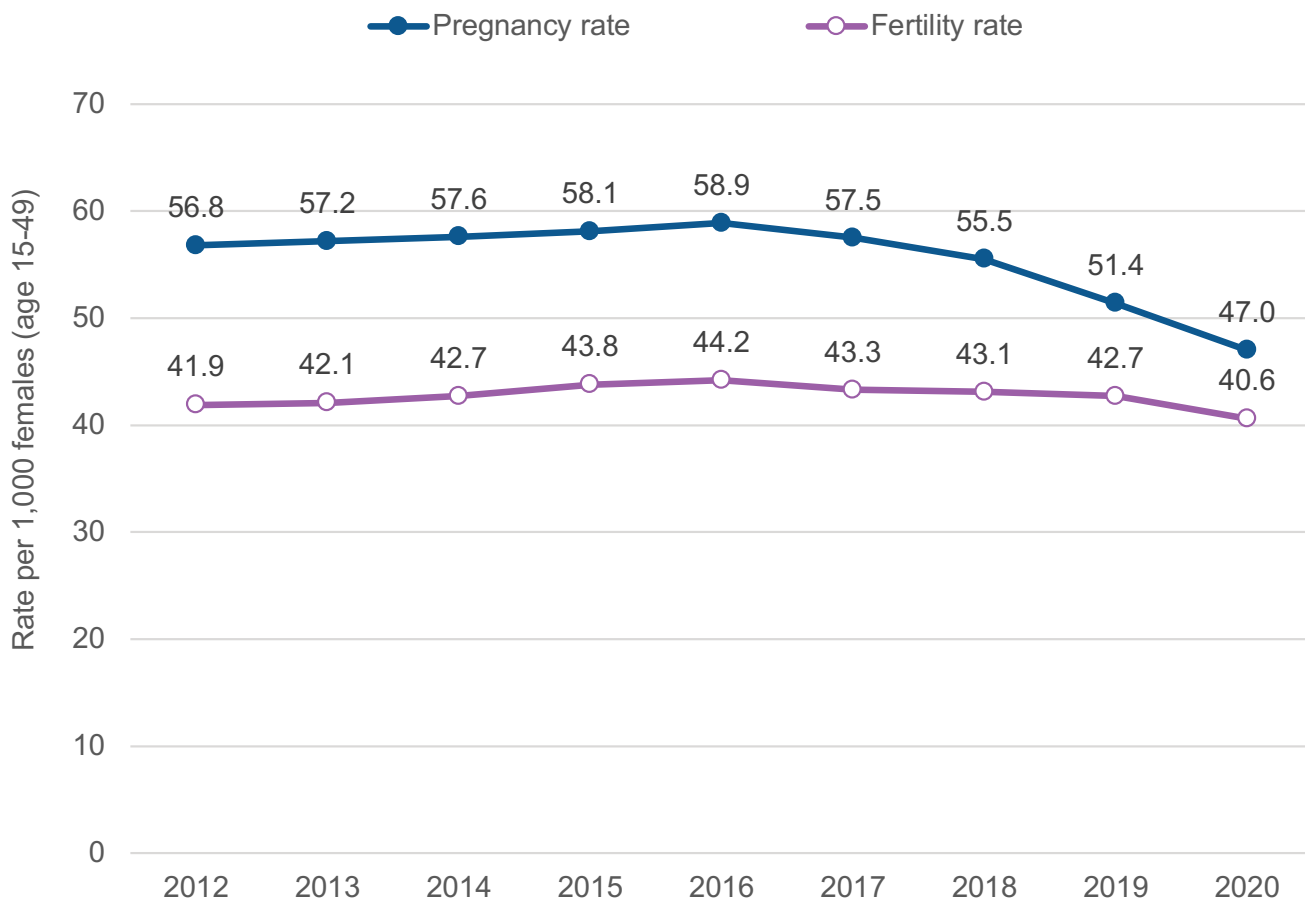
The [pregnancy rate](#) is a measure of all pregnancies, including those that result in live births, [stillbirths](#) or abortion. Among Hamilton females, there were 6,234 pregnancies and 5,385 live births in 2020. The pregnancy rate has decreased by 20.2% from 2016 to

2020, which translates to over 1,000 fewer pregnancies per year (Figure 4.5). But Hamilton’s pregnancy rate has remained greater than the Ontario rate since 2013.

The fertility rate is a measure of pregnancies that result in live births, and has decreased by 8.1% from 2016 to 2020 (Figure 4.5). Hamilton’s rate has remained greater than the Ontario rate since 2014.

The average age of Hamilton residents at the time of their first birth has increased from

Figure 4.5: Pregnancy and fertility rates, Hamilton females (age 15-49), 2012-2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: reproductive health snapshot. Toronto, ON: King’s Printer for Ontario.

27.8 years to 30.2 years (Figure 4.6), same as the Ontario average in 2021 (30.2 years).

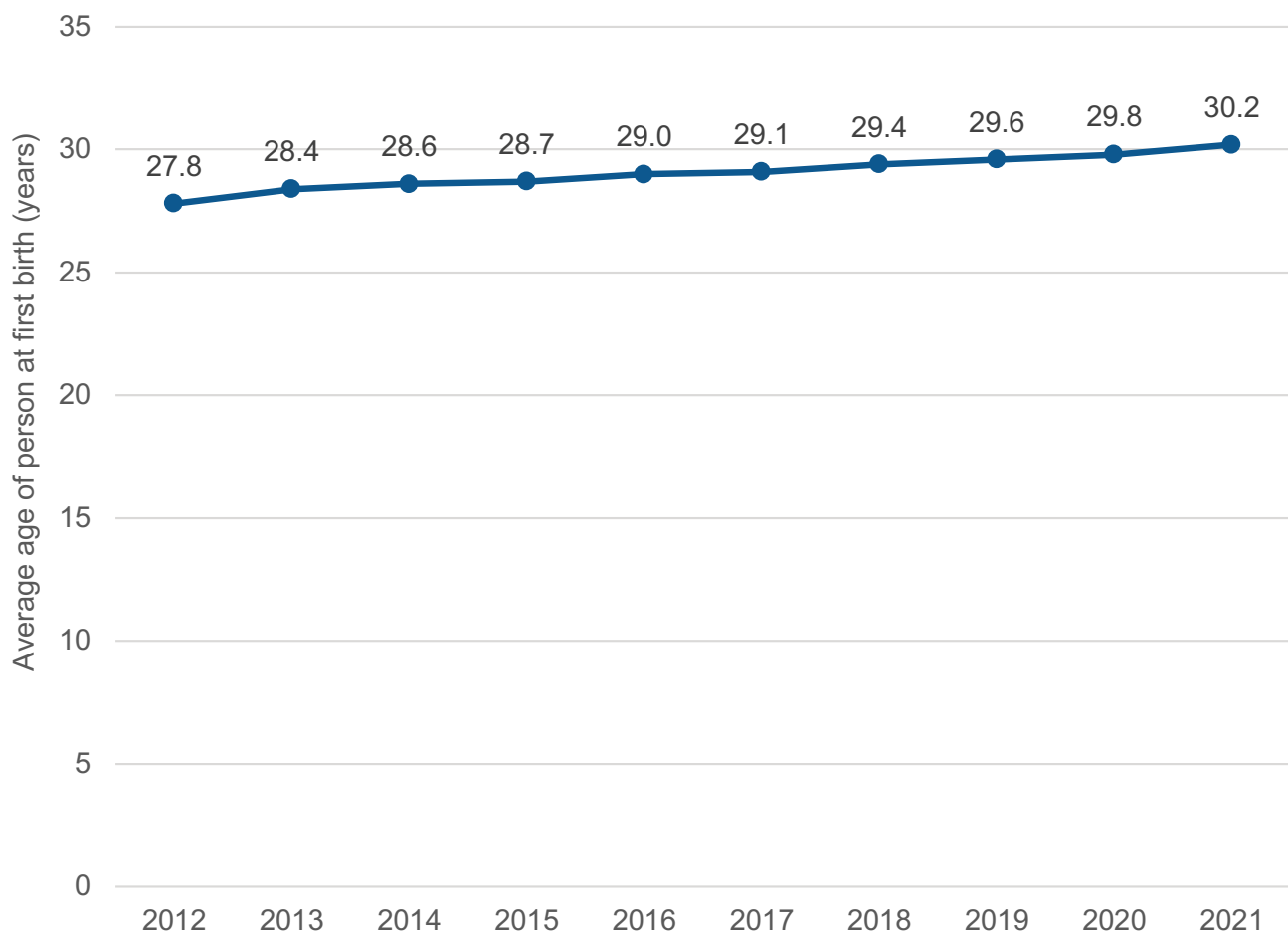
Chapter 5 on Child and Youth Health includes a more focused section on teen pregnancy.

Substance use during pregnancy can harm the unborn baby. In 2021, Hamilton had:

- greater rates of tobacco use (5.5%) and cannabis use (4.8%) during pregnancy compared to Ontario (4.8% tobacco use and 4.2% cannabis use); and
- lower rates of alcohol use during pregnancy (1.4%) compared to Ontario (1.8%) in 2021.

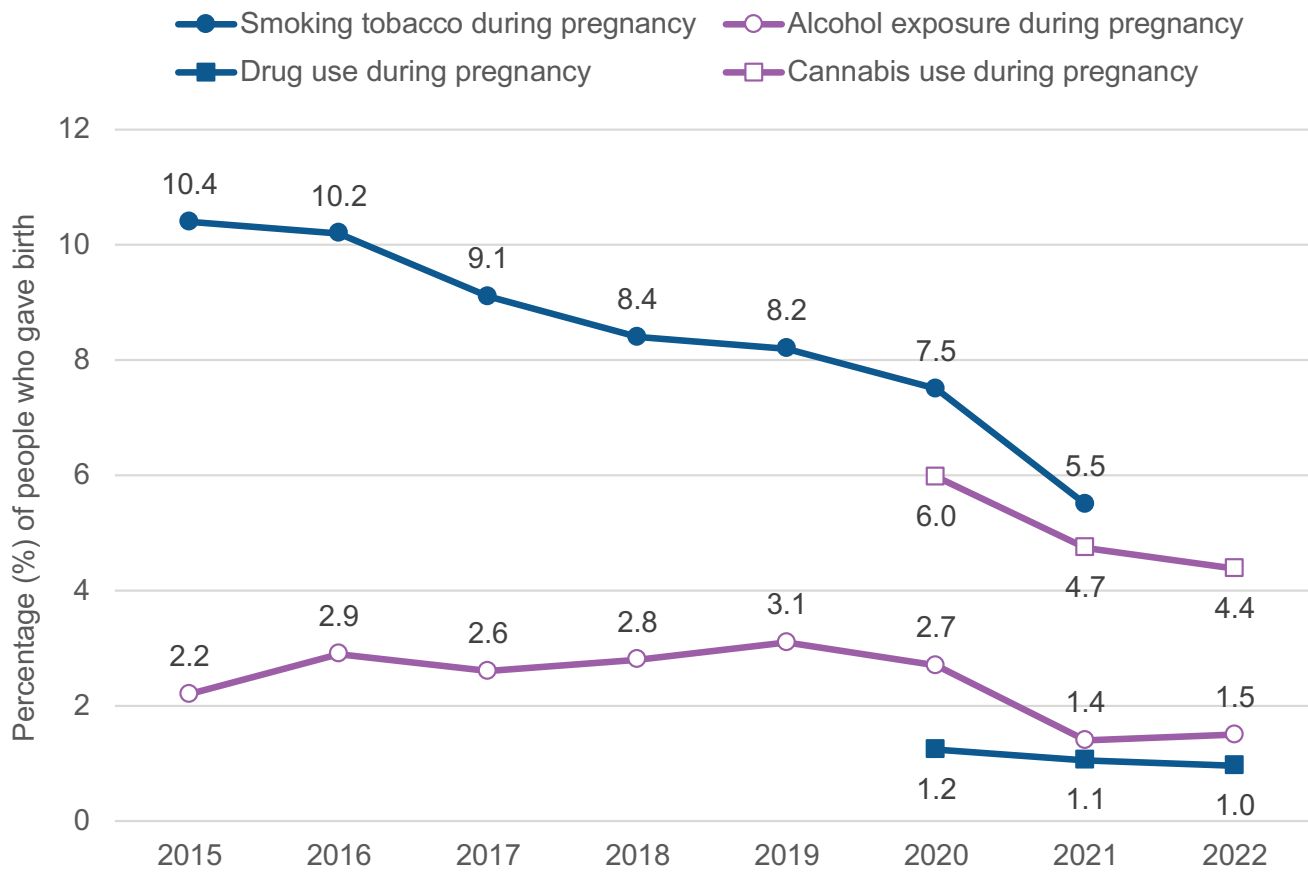
For Hamilton, all types of substance use during pregnancy has decreased in recent years (Figure 4.7).

Figure 4.6: Average age of person who gave birth at first birth, Hamilton residents who gave birth, 2012-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: reproductive health snapshot. Toronto, ON: King's Printer for Ontario.

Figure 4.7: Substance use during pregnancy, Hamilton residents who gave birth, 2015-2022



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: maternal health snapshot. Toronto, ON: King's Printer for Ontario; Better Outcomes Registry and Network, 2020-2022.

Notes:

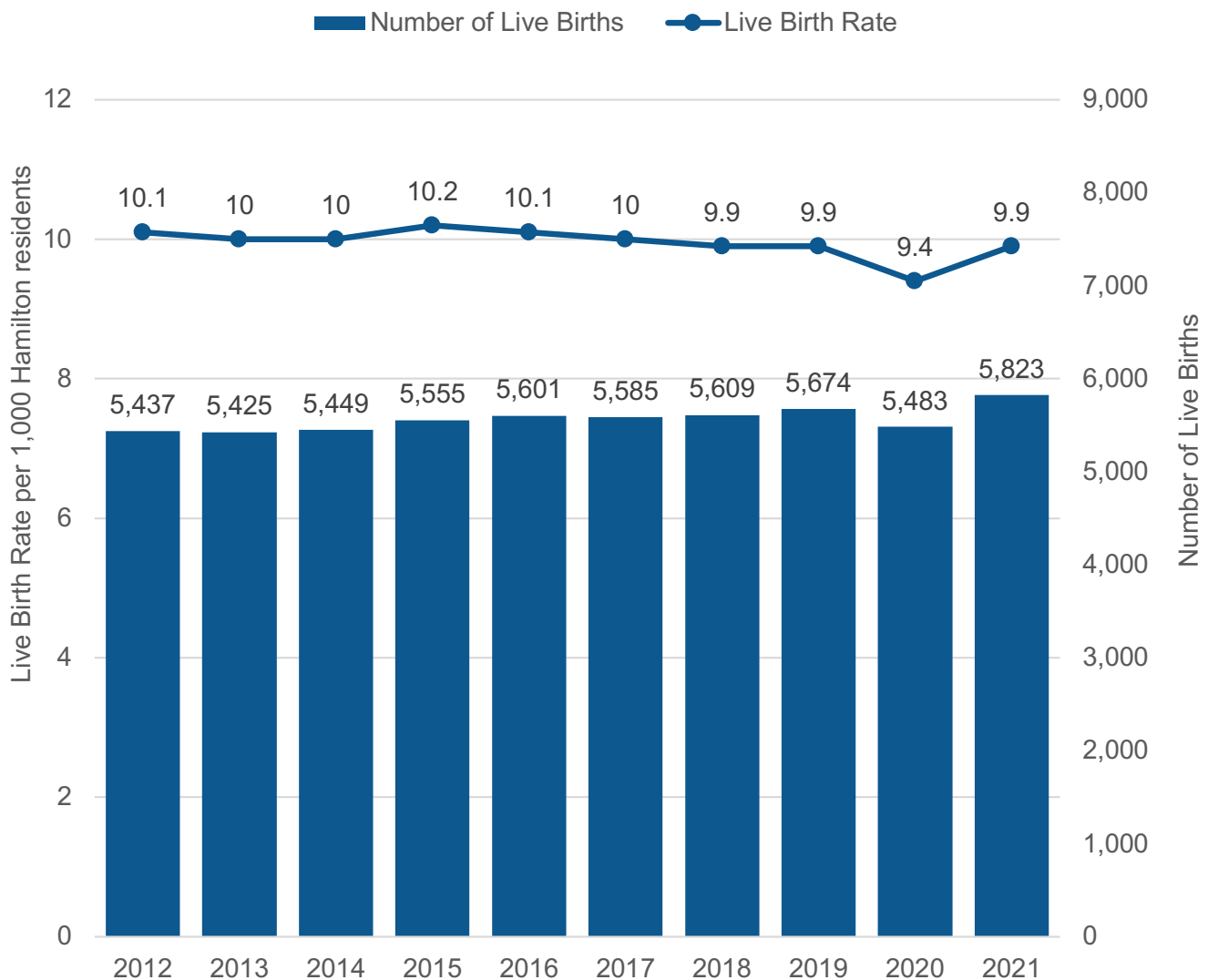
- Drug use excludes tobacco, alcohol, and cannabis use.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

BIRTHS

The [live birth rate](#) (a measure of the number of infants born alive among the total population) has remained relatively stable in Hamilton from 2012 to 2021 (Figure 4.8). There was one notable decrease in 2020 (approximately 290 fewer births than expected). Hamilton’s live birth rate has been greater than Ontario’s rate since 2016.

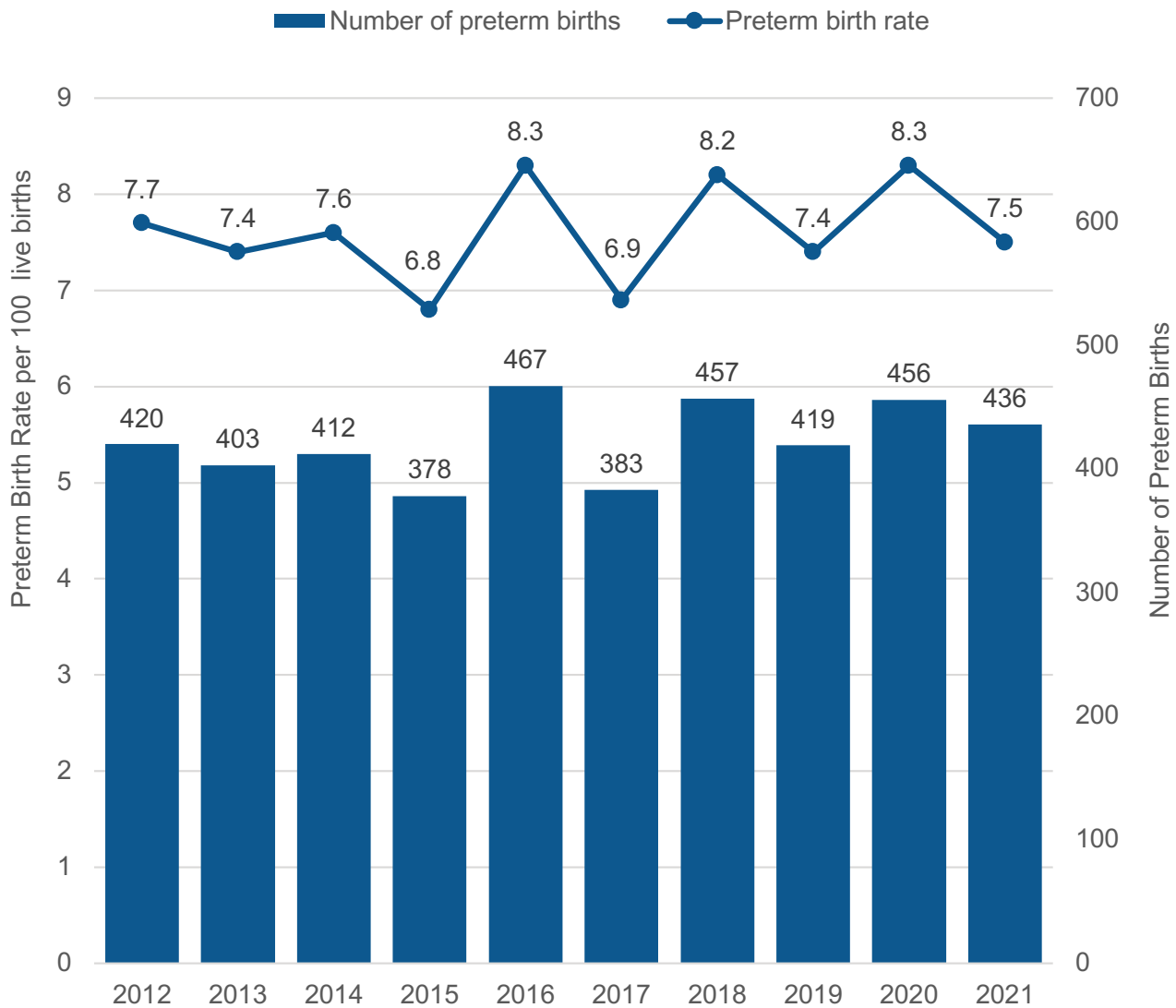
[Preterm birth](#) describes a baby born alive after less than 37 weeks of pregnancy. There were 436 preterm births among Hamilton residents in 2021 (Figure 4.9). The preterm birth rate for Hamilton tends to fluctuate, and there are no apparent trends over 2012-2021. Hamilton’s preterm birth rate was similar to the Ontario rate for most of that period.

Figure 4.8: Live births, number and rate (crude) per 1,000 Hamilton residents, Hamilton residents, 2012-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: reproductive health snapshot. Toronto, ON: King’s Printer for Ontario.

Figure 4.9: Preterm births, number and rate per 100 live births, Hamilton residents, 2012-2021



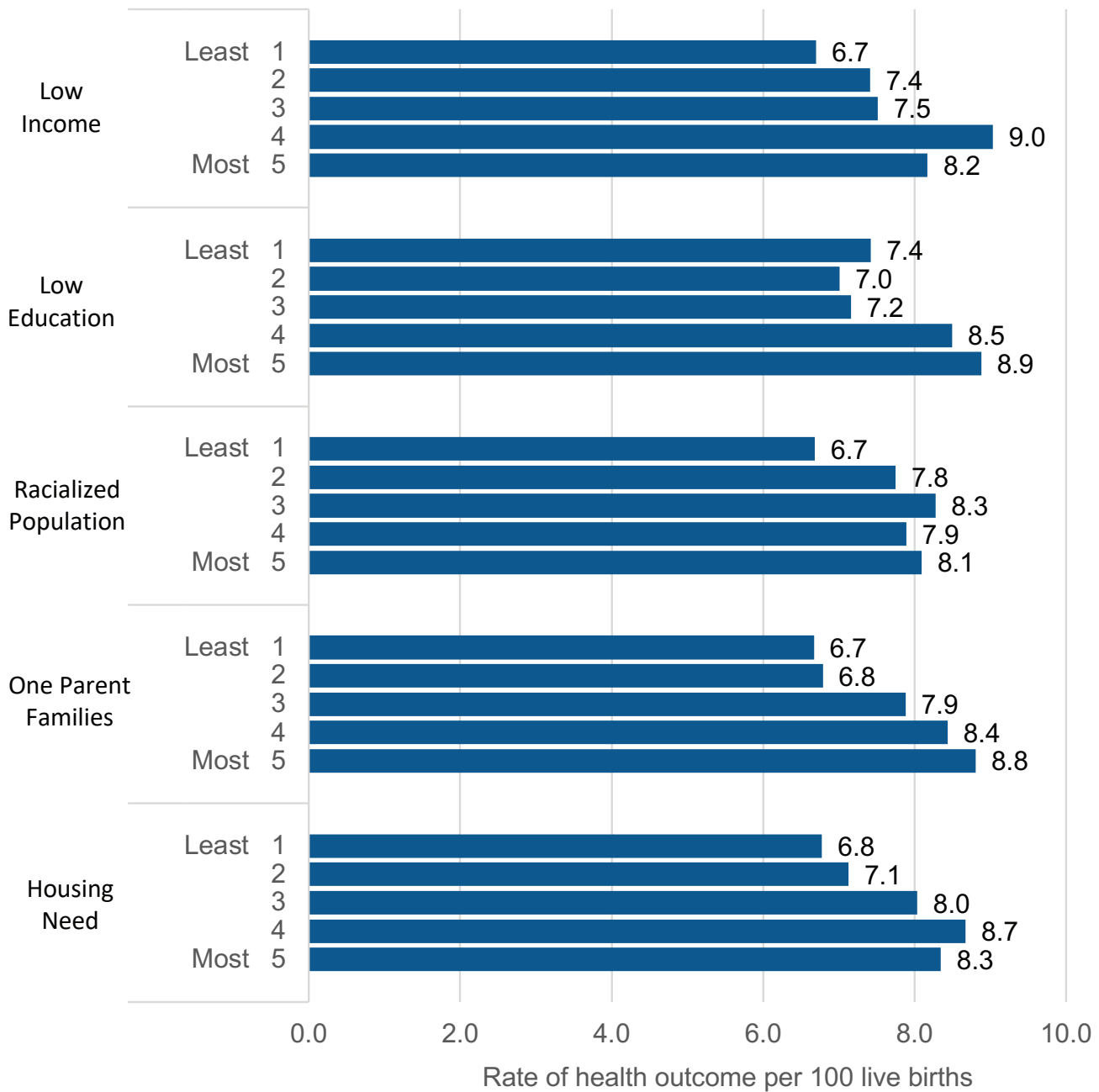
Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: reproductive health snapshot. Toronto, ON: King's Printer for Ontario.

For 2017-2022, Hamilton saw 7.8 preterm births per 100 live births. Preterm births vary among different groups of Hamilton residents

(Figure 4.10). Compared to Hamilton's overall rate of preterm births, rates were higher in:

- areas with a greater percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of individuals who self-identified as a race other than white or Indigenous
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of households that have a core housing need

Figure 4.10: Preterm births by area-based socioeconomic quintiles, rate per 100 live births, Hamilton residents, 2017-2022 combined



Source: BORN Information System (2017-2022).

Notes:

- For each socioeconomic metric, Hamilton's census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Low birth weight is defined as an infant born alive at less than 2.5 kilograms (5.5 pounds). In 2021, 351 infants were born in Hamilton with low birth weights (Figure 4.11). Most were born preterm (<37 weeks **gestation**), but 27.6% were full-term.

Hamilton experienced a greater rate of low birth weights (all births) for 2018-2020 compared to the previous five-year average (2013-2017), although this rate appears to have decreased in 2021.

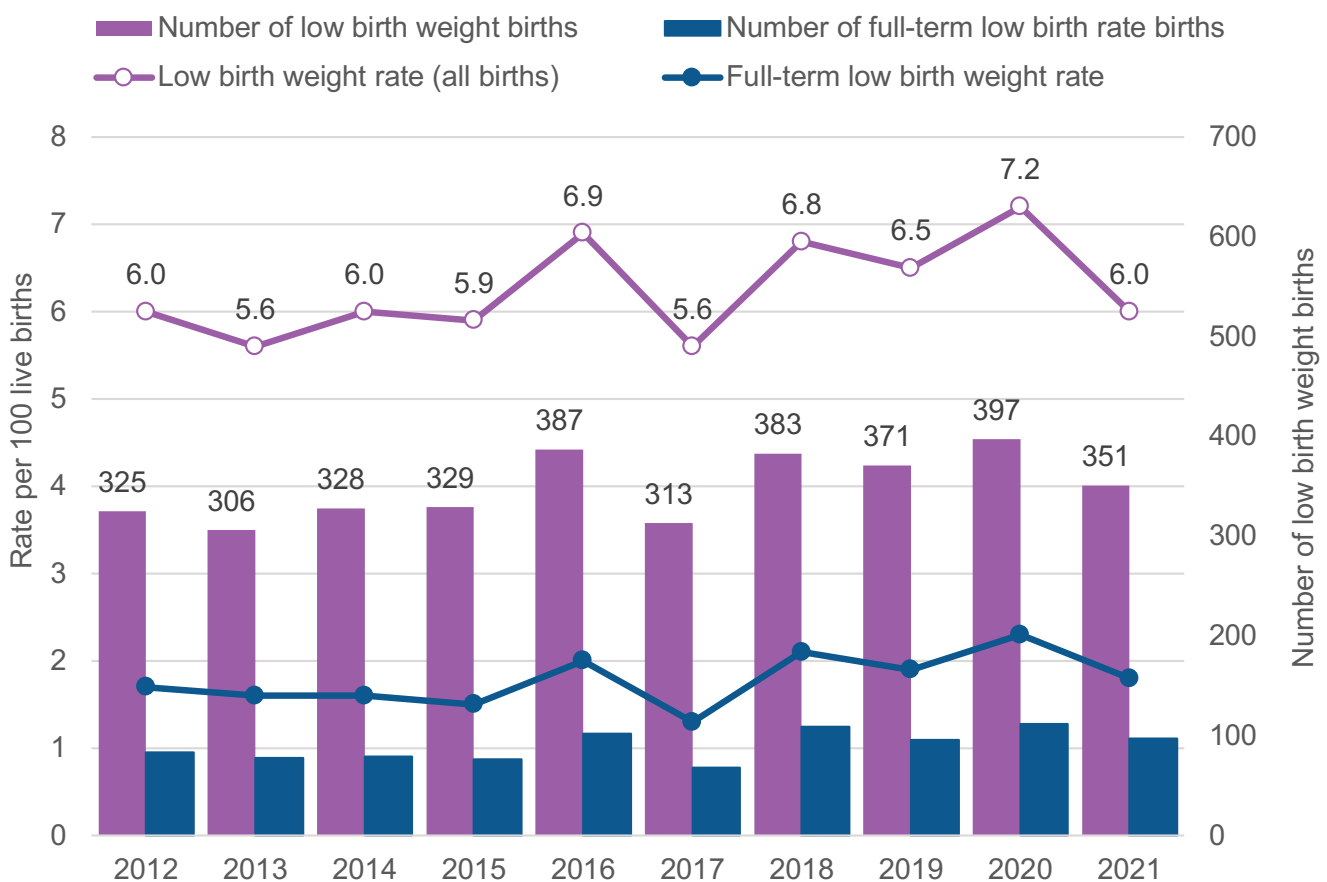
Similarly, the rate for low birth weights among full-term infants was 26.0% greater in 2018-

2021 compared to the previous five-year average (2013-2017). This resulted in an additional 85 full-term infants with low birth weights over 2018-2021.

This rate should be monitored closely for an emerging trend that could be elevating the overall low birth weight rate. Hamilton's rates of low birth weights tend to be similar or lower than the equivalent Ontario rates.

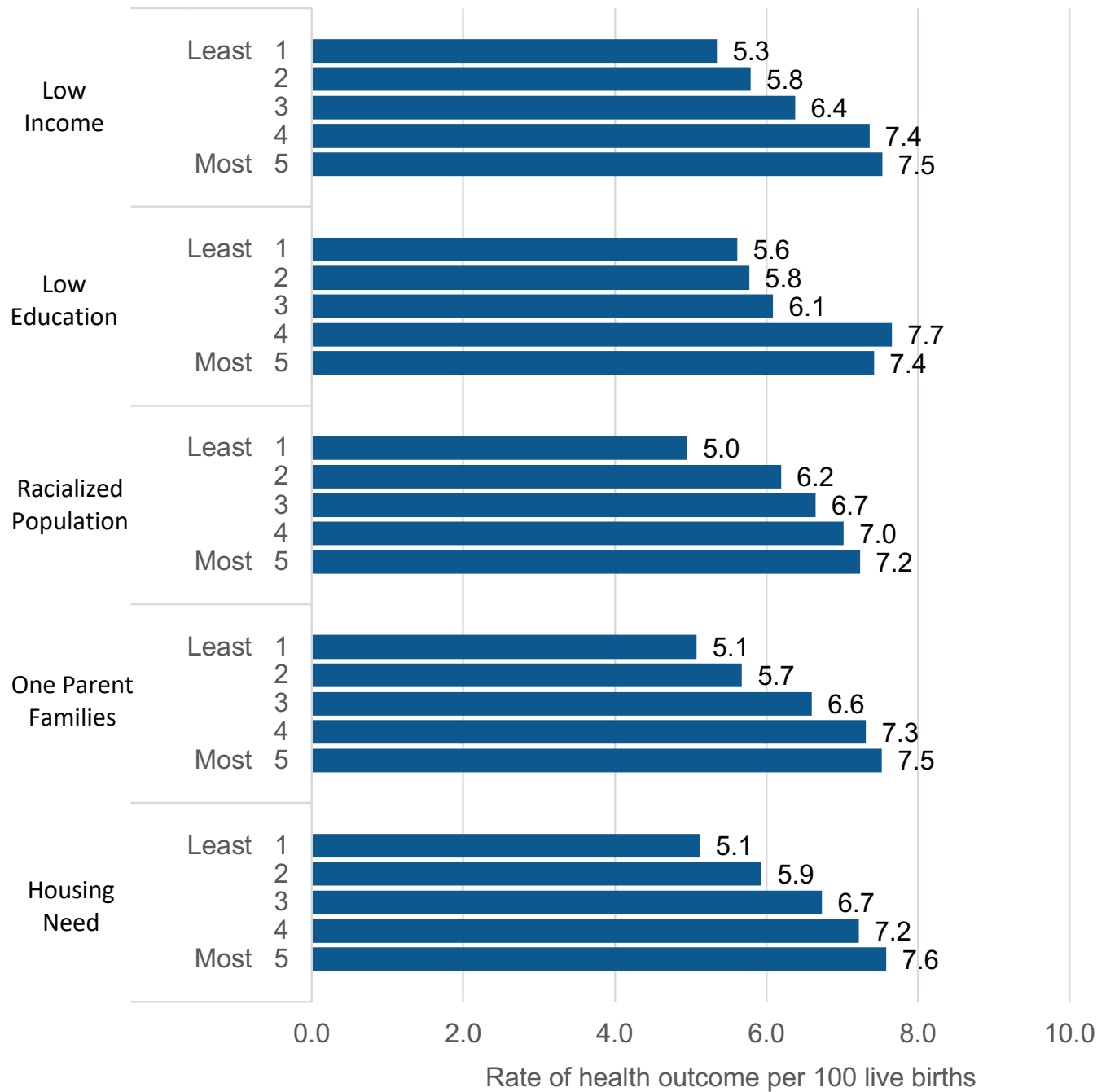
For 2017-2022, Hamilton saw 6.5 low birth weight infants per 100 live births. Low birth weights vary among groups of Hamilton residents (Figure 4.12).

Figure 4.11: Low birth weights, number and rate per 100 live births, Hamilton residents, 2012-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: reproductive health snapshot. Toronto, ON: King's Printer for Ontario.

Figure 4.12: Low birth weights by area-based socioeconomic quintiles, rate per 100 live births, Hamilton residents, 2017-2022 combined



Source: BORN Information System (2017-2022).

Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Compared to Hamilton's overall rate of low birth weights, rates were higher in:

- areas with the greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of individuals who self-identified as a race other than white or Indigenous
- areas with the greatest percentage of families with one parent
- areas with the greatest percentage of households that have a core housing need

INFANT FEEDING

[Infants](#) feeding can take different forms, including variations of breastfeeding and formula feeding.

[Any breastfeeding](#) refers to infants who receive human milk with or without formula or other liquids and solids. For Hamilton infants in 2021, 96.0% initiated any breastfeeding, declining to 84.5% at two months of age, 73.0% at four months and 67.7% at six months (Figure 4.13). All these rates have remained relatively stable between 2018 and 2021.

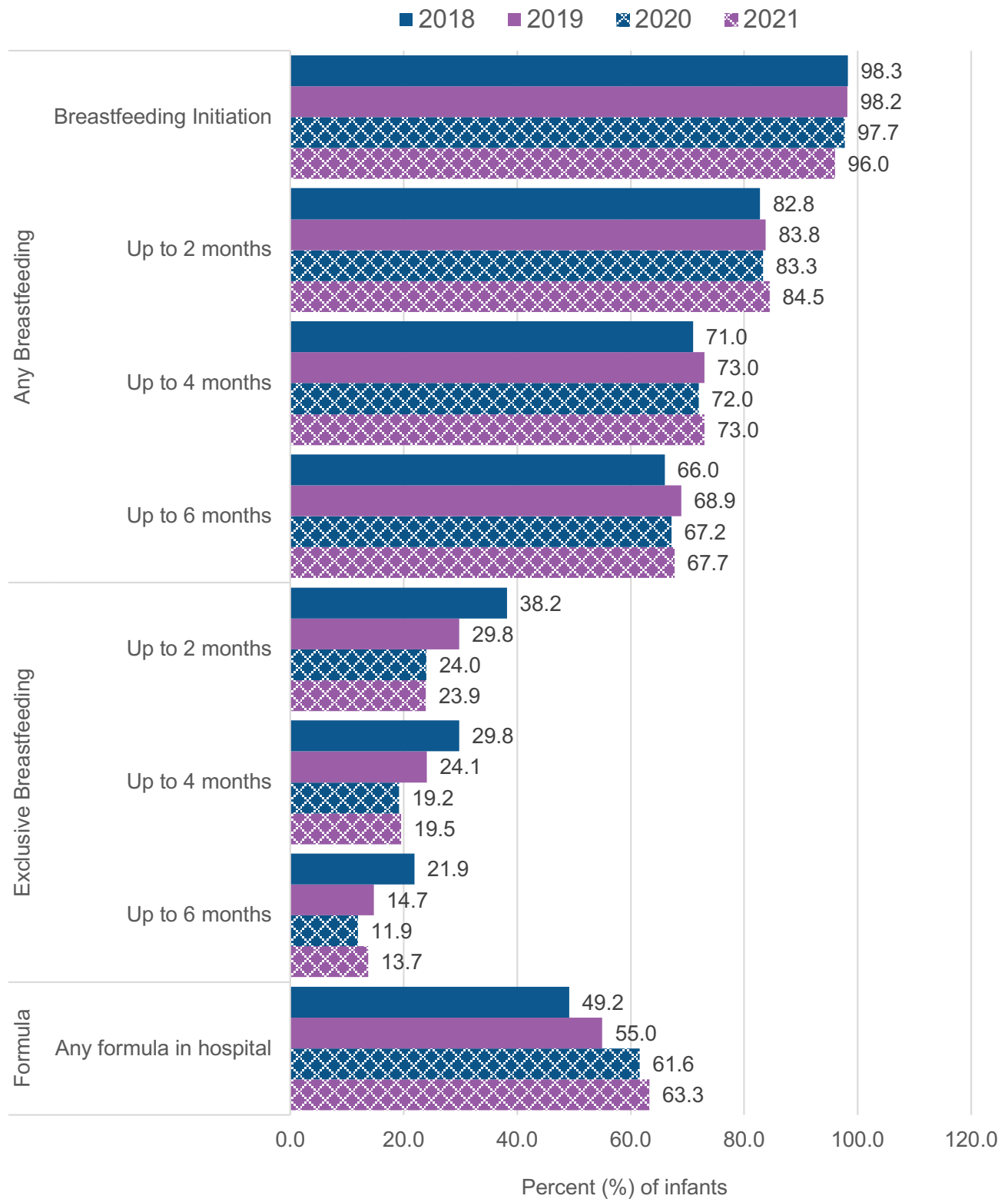
[Exclusive breastfeeding](#) refers to infants who receive only human milk and never formula or other liquids and solids (excluding vitamins and medicine). These rates were lower for 2021: 23.9% of Hamilton infants were exclusively breastfed at two months, followed by 19.5% at four months and 13.7% at six months.

These exclusive breastfeeding rates for 2021 were lower compared to the equivalent rates in 2018. Over the same period, the rate of infants receiving formula in hospital increased from 49.2% in 2018 to 63.3% in 2021.

Infant feeding rates vary among different groups of Hamilton residents who gave birth (Table 4.1). The highest rates of exclusive breastfeeding at two months, and the lowest rates of any formula use in hospital, were among caregivers:

- with college or university educations
- incomes of \$150,000 or more
- in a married or common law relationship
- who identified as white

Figure 4.13: Infant feeding rates, Hamilton infants, 2018-2021



Source: Infant Feeding Survey (2018-2021), City of Hamilton Public Health Services.

Table 4.1: Infant feeding rates by different socioeconomic groupings, Hamilton residents, 2018-2021 combined

Social Determinant	Characteristic	Breastfeeding Initiation (%)	Any Breastfeeding at 2 Months (%)	Exclusive Breastfeeding at 2 Months (%)	Any Formula in Hospital (%)
Education	High school or less	92.6	73.8	18.0	73.0
	Some post-secondary	98.2	82.1	25.0	57.1
	College/university	98.3	84.9	30.1	55.4
Income	Less than \$30,000	94.8	73.9	15.7	74.8
	\$150,000 or more	99.5	91.5	36.2	49.8
Marital Status	Married/common law	98.0	84.9	30.0	55.7
	Single, divorced, separated, other	93.9	72.8	16.7	72.6
Race	White	97.4	82.7	31.1	52.9
	Racialized	98.6	85.7	23.0	67.9

Source: Infant Feeding Survey (2018-2021), City of Hamilton Public Health Services.

Notes:

- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.



CHAPTER 5

CHILD AND YOUTH HEALTH HIGHLIGHTS

- 30% of kindergarten children are vulnerable in at least one domain of early development. Some of these domains have been changing over time, including rising vulnerability in emotional maturity and physical health and well-being.
- 43% of infants have at least one potential risk for experiencing an adverse childhood event; however, some of the most common risks have decreased in recent years.
- Teen pregnancy has decreased substantially in the past decade.
- Oral health status among children has remained relatively stable.

CHILD AND YOUTH HEALTH



Note that data on children and youth (aged 0-19) can be found throughout this report, presented alongside other age categories within the particular health chapters. This chapter contains some unique data and measures for children and youth that may not fit elsewhere in the report.

EARLY DEVELOPMENT

The early childhood period spans birth to six years. In Ontario, educators measure vulnerabilities for senior kindergarten students (aged 5-6) using the Offord Centre's Early Development Instrument (EDI). This population-based measure assesses children's developmental health, upon entry into school, across five domains:

- physical health and well-being
- social competence
- emotional maturity
- language and cognitive development
- communication skills and general knowledge

Vulnerability during early development is defined in relation to the population's EDI score (i.e., the bottom 10%) and these are the children who would most benefit from programs and services.³⁷

Six EDI cycles have been completed in Hamilton, starting in 2002. Figure 5.1 shows the 2002-2018 EDI results for Hamilton senior kindergarten (SK) students.

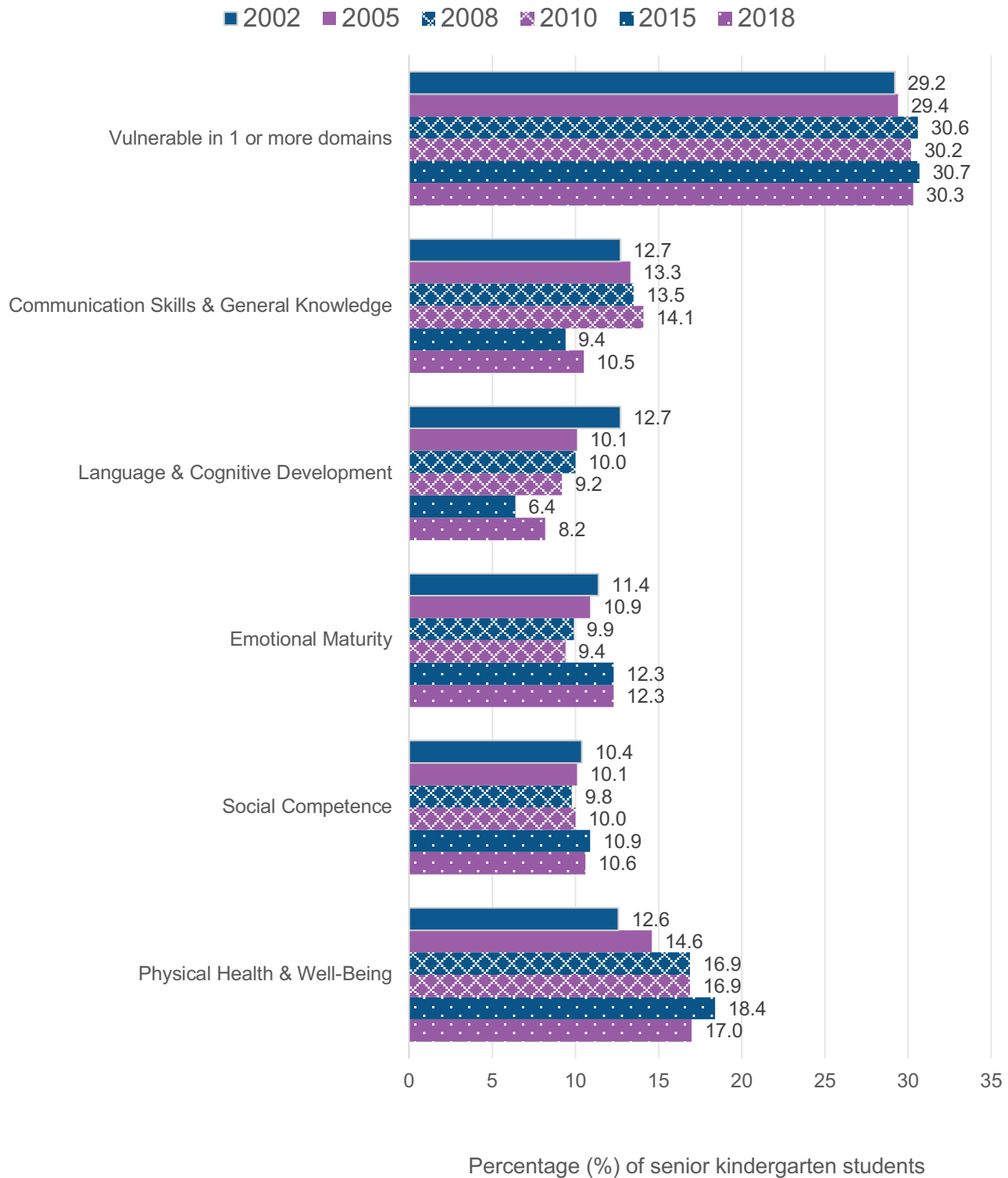
In the most recent cycle, 2018, 30.3% of SK students in Hamilton were vulnerable in one or more domains of early development. This percentage has been relatively consistent since 2002 and is similar to the provincial average (30%).

The physical health and well-being domain shows the greatest level of vulnerabilities (17%), and this has been trending up over time.

The emotional maturity domain demonstrated an increased level of vulnerability in 2015 and 2018 compared to previous years.

The language and cognitive development domain, as well as the communication skills and general knowledge domain, had lower levels of vulnerability for 2015 and 2018 when compared to previous years.

Figure 5.1: Vulnerability in the domains of the early child development, senior kindergarten students (age 5-6) in Hamilton, 2002-2018



Source: Early Development Instrument (2002-2018), City of Hamilton.

ADVERSE CHILDHOOD EXPERIENCES

Adverse childhood experiences are potentially traumatic events that can have negative, lasting effects on health and well-being. These experiences range from physical, emotional or sexual abuse to neglect or other household challenges.

The likelihood of an adverse childhood experience can be predicted by a combination of individual, relational, community and societal risk factors. That includes:

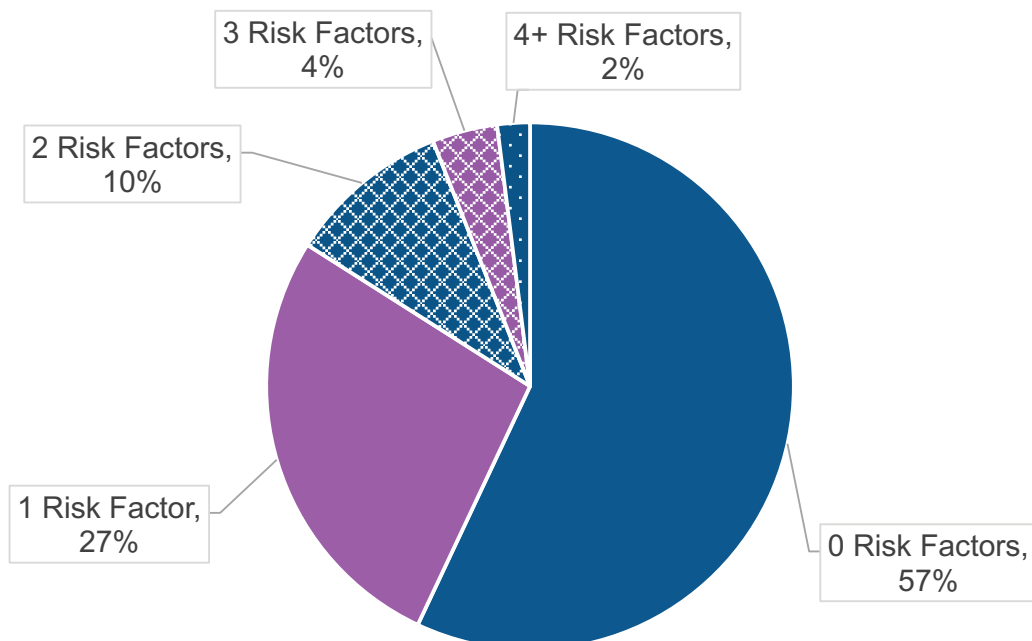
- children with special needs
- parental history of abuse
- substance use and mental health issues in the family
- social isolation

- family dynamics
- poor social conditions

As the number of risk factors increases, so does the likelihood of an adverse childhood experience. In 2018, an estimated 43.0% of Hamilton infants had at least one risk factor for adverse childhood experiences, and this estimate has been relatively stable since 2014.

The number of risk factors for Hamilton infants (age <1 year) is shown in Figure 5.2. Each year, about 100 infants (2.0%) fall into the highest risk group (4+ risk factors) for adverse childhood experiences. Among the highest risk group, the most common risks were involvement of child protection services, household mental illness, and substance use during pregnancy.

Figure 5.2: Infants with one or more risk factors for adverse childhood experiences, Hamilton infants (age <1 year), 2018



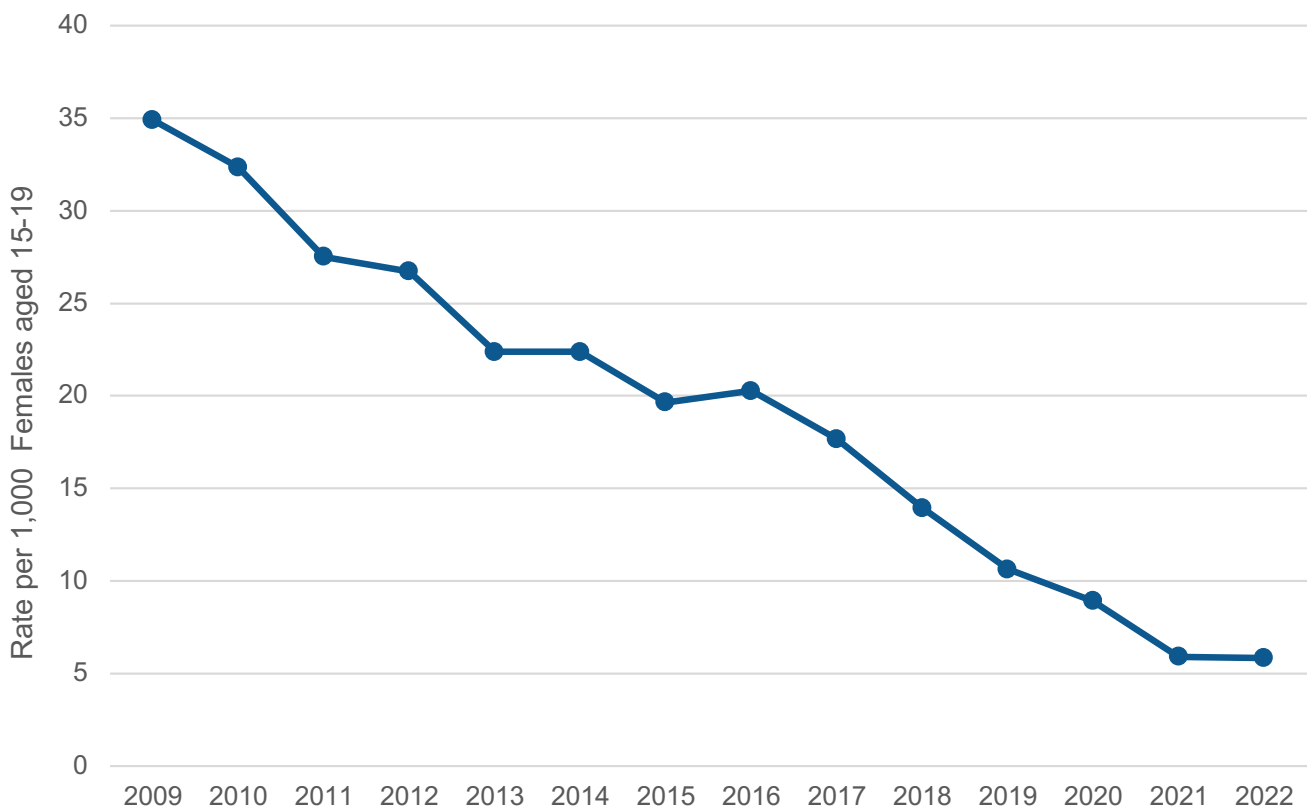
Source: Integrated Services for Children Information System [2018].

TEEN PREGNANCY

Teen pregnancy can increase the health risks for the baby and the person who gave birth. A teen pregnancy is any planned or unplanned pregnancy among a female aged 15-19 years which may result in a birth or termination of pregnancy. From 2009-2022, Hamilton's teen [pregnancy rate](#) decreased from 34.9 to 5.8 pregnancies per 1,000 female teens (Figure 5.3). There were 89 teen pregnancies among Hamilton residents in 2022.

The falling rate likely has several factors, but increased access to contraceptives is proposed as the primary cause.³⁸ The teen pregnancy rate was greater in Hamilton than the Ontario average from 2012-2019, but was similar in 2020.³⁹

Figure 5.3: Teen pregnancy rate, female Hamilton residents aged 15-19, 2009-2022



Source: Inpatient Discharges and External Cause Table, IntelliHEALTH ONTARIO, Ontario Ministry of Health [July 6, 2023].

Notes:

- Information on sex is sourced from the health record associated with the Ontario Health Card.
- This data does not include miscarriages or pregnancies terminated using pharmacological medicine.

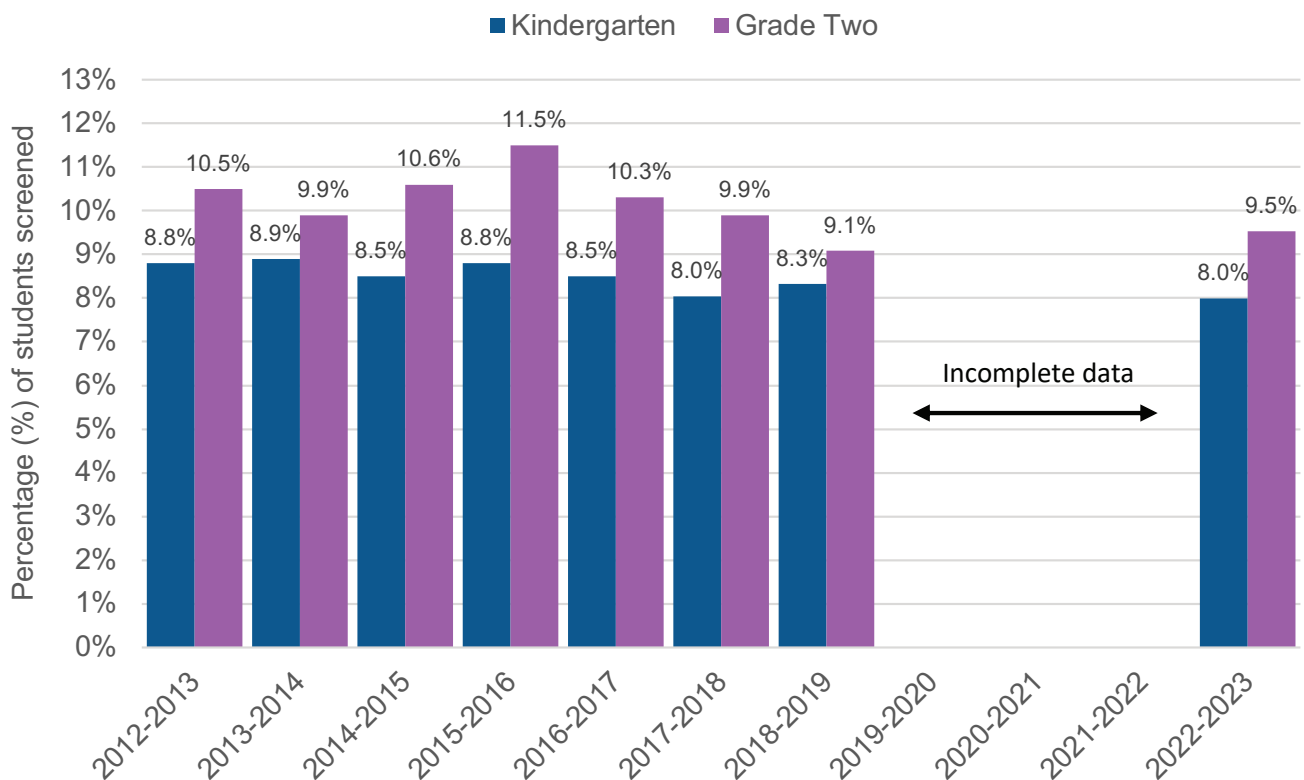
ORAL HEALTH

Hamilton Public Health Services conducts oral health screenings on kindergarten (age 4-6) and grade two students (age 7-8). This includes identifying children who require urgent dental care, such as open obvious decay, pain, infection, trauma or irreversible periodontal condition.

In the 2022-2023 school year, 8.0% of screened kindergarten students and 9.5% of screened grade two students required urgent dental care (Figure 5.4). This has remained relatively consistent from 2012-2013 to 2022-2023 (though data is missing or incomplete for the 2019-2020, 2020-2021 and 2021-2022 school years).

Accessing dental care from emergency departments is another measure that can be monitored as a proxy for dental care access. Each year, an average of 135 of Hamilton’s children and youth visit an emergency department for dental care. That rate has remained relatively stable between 2012 and 2021 (Figure 5.5).

Figure 5.4: Urgent dental care needs among screened kindergarten (junior and senior kindergarten) and grade two students attending publicly-funded schools in Hamilton, 2012-2023

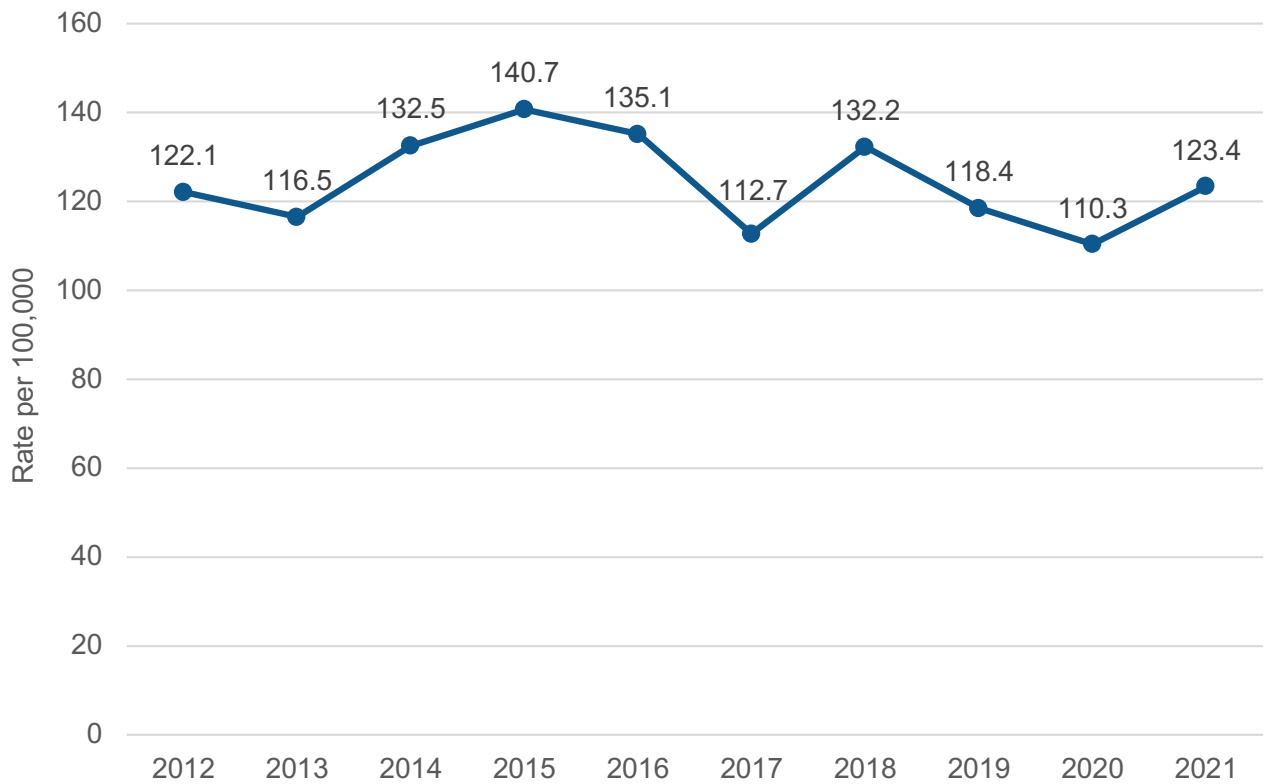


Source: Hamilton Public Health Services, Dental Program [30 Oct 2023].

Notes:

- Data from 2019-2020, 2020-2021, and 2021-2022 is missing or incomplete due to service disruptions caused by the COVID-19 pandemic.
- These data do not include children who are in private school or home school.

Figure 5.5: Oral health-related emergency department visits, rate per 100,000 children and youth (age 0-19), Hamilton residents, 2012-2021



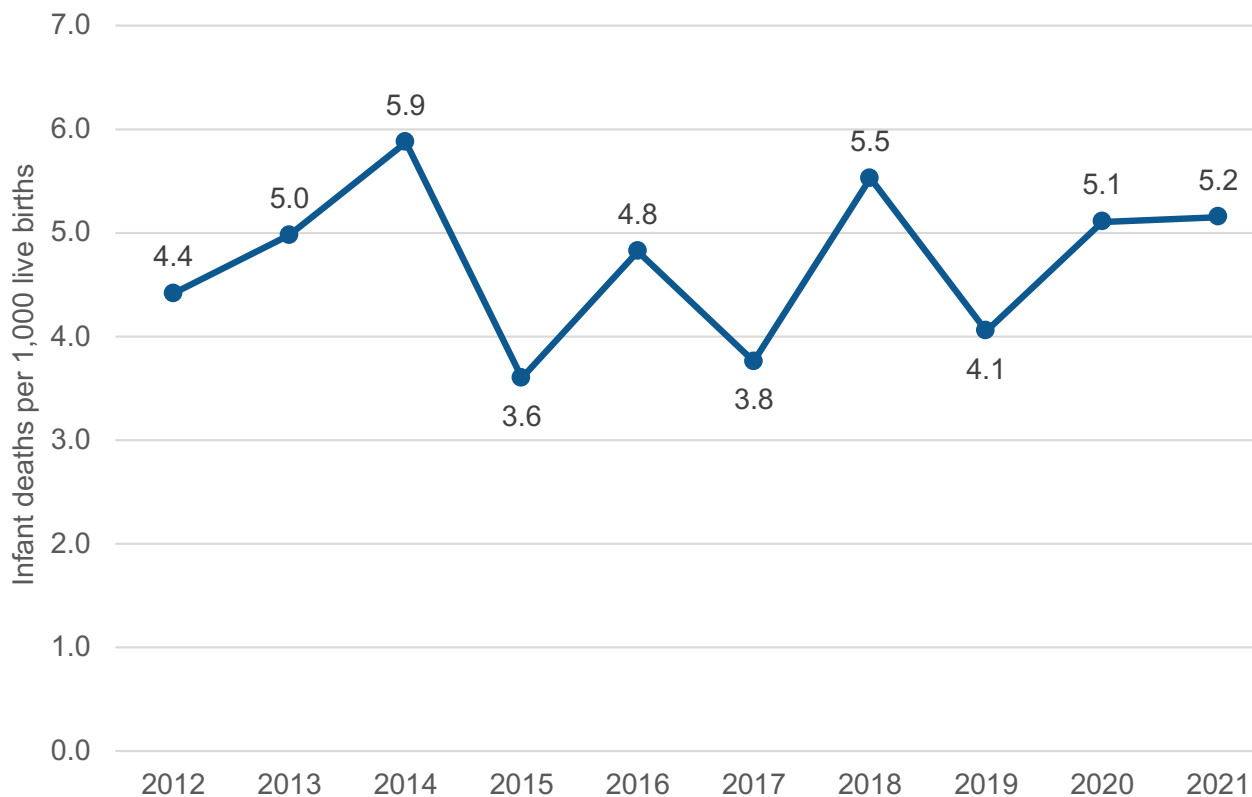
Source: Inpatient Discharges [2012-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

INFANT MORTALITY

[Infant](#) mortality is a key population health indicator, one that is closely associated with overall well-being and socioeconomic conditions of a community. On average, there are 26 deaths among Hamilton infants (age <1 year) each year. Hamilton’s infant mortality rate has remained relatively consistent (Figure 5.6) and is similar to the Ontario average. From 2012 to 2021, the primary causes of death for Hamilton infants were:

- short [gestation](#) and [low birth weight](#) (32 deaths)
- ill-defined and unspecified causes (24 deaths)
- sudden death with unknown cause (21 deaths)
- complications of placenta, cord, and membranes (19 deaths)
- maternal complications of pregnancy (17 deaths)

Figure 5.6: Infant mortality, Hamilton residents age <1 year, 2012-2021



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.



CHAPTER 6

IMMUNIZATION

HIGHLIGHTS

- More than 1 in 3 students born in 2015 do not have an up-to-date vaccination record with Hamilton Public Health for most diseases listed under Ontario's Immunization of School Pupils Act.
- Most Hamilton residents have not received a vaccine for Coronavirus disease 2019 (COVID-19) in the past 6 months.

IMMUNIZATION

VACCINATION OF SCHOOL STUDENTS

Apart from COVID-19 vaccinations, Ontario does not have a universal population-based registry that captures vaccinations administered at point of care. Students attending school must submit certain vaccination records to their local public health unit as stipulated by Ontario's *Immunization of School Pupils Act* (ISPA). In most cases, that responsibility falls to the student's parent or guardian. Self-reported vaccination records to public health may not be fully complete or accurate even for students who are up to date on their vaccinations. Using these records may result in an underestimation of vaccine coverage amongst students.

Table 6.1 shows the percentages of Hamilton students born in either 2015 (aged 7-8 years in the 2022-2023 school year) or 2006 (aged 16-17 years in 2022-2023 school year) who have an [up-to-date vaccination record](#) with Hamilton Public Health Services. The vaccination status of students without an up-to-date record with Hamilton Public Health Services is unknown.

The percentage of Hamilton students with an up-to-date vaccination record varied by birth cohort and disease. For all diseases (except rubella), approximately 2,300-2,500 (36.1-39.6%) students born in 2015 do not have an up-to-date vaccination record with Hamilton Public Health Services.

Approximately 2,500 (36.3-36.8%) students born in 2006 do not have an up-to-date vaccination record for diphtheria, pertussis and tetanus. The percentage of students with an exemption record (for medical or philosophical/conscience belief reasons) averaged 2.3%, with some slight variation between birth cohorts and disease.

Vaccination for Human Papilloma Virus (HPV) and Hepatitis B are publicly funded by the province but are not listed under ISPA. These vaccinations are typically offered through public health clinics.

The percentage of Hamilton students born 2005-2010 with up-to-date vaccination records for HPV and Hepatitis B vaccines are shown in Table 6.2. The percentage of students with up-to-date vaccination records for HPV and Hepatitis B vaccines is substantially lower for those born in 2007 and 2008 when compared to other birth cohorts.

Table 6.1: Vaccination record status by disease and student birth cohort, Hamilton students born in 2015 (aged 7-8 years in the 2022-2023 school year) and 2006 (aged 16-17 years in 2022-2023 school year), as of January 8, 2024

Disease	Birth Year	% with up-to-date vaccination record	% with no up-to-date vaccination record or exemption record	% with exemption record
Diphtheria	2015	60.6%	37.5%	1.9%
	2006	61.2%	36.5%	2.3%
Measles	2015	61.6%	36.1%	2.3%
	2006	90.9%	6.4%	2.7%
Mumps	2015	61.3%	36.3%	2.4%
	2006	90.7%	6.6%	2.7%
Pertussis	2015	60.5%	37.6%	1.9%
	2006	60.9%	36.8%	2.3%
Poliomyelitis	2015	60.9%	37.2%	1.9%
	2006	89.5%	8.3%	2.3%
Rubella	2015	87.9%	9.8%	2.3%
	2006	92.4%	5.0%	2.7%
Tetanus	2015	60.7%	37.4%	1.9%
	2006	61.4%	36.3%	2.3%
Varicella*	2015	58.3%	39.6%	2.1%
	2006	37.4%	60.3%	2.3%
Meningococcal	2006	85.9%	11.7%	2.4%

Source: Panorama, Hamilton Public Health Services [extracted 8 January 2024].

Notes:

- Diseases in this table are listed under Ontario's Immunization of School Pupils Act.
- (*) Varicella vaccine record only required for students born after 2010.

Table 6.2: Vaccination record status by disease and student birth cohort, Hamilton students born 2005-2010, as of January 8, 2024

Disease	Birth Year	% with up-to-date vaccination record	% with no up-to-date vaccination record or exemption record
Hepatitis B Virus	2010	65.8%	34.1%
	2009	58.5%	41.5%
	2008	28.4%	71.5%
	2007	39.4%	60.6%
	2006	71.1%	28.9%
	2005	74.1%	25.9%
Human Papilloma Virus	2010	58.6%	41.4%
	2009	54.7%	45.3%
	2008	22.6%	77.4%
	2007	34.9%	65.1%
	2006	63.0%	36.9%
	2005	66.4%	33.6%

Source: Panorama, Hamilton Public Health Services [extracted 8 January 2024].

Notes:

- Diseases in this table are not listed under Ontario's Immunization of School Pupils Act (ISPA) but are publicly funded by the province of Ontario.
- Exemptions were not included as a unique category because these immunizations are not required under ISPA and there is no requirement to submit an exemption.

CORONAVIRUS DISEASE 2019 VACCINATION

As of January 9, 2024:

- 13.5% of the Hamilton residents had received a vaccine for Coronavirus disease 2019 (COVID-19) in the previous six months'
- 1.9% of residents were vaccinated 6-12 months ago
- 65.2% of residents were vaccinated 12 or more months ago

Recency of vaccination varied substantially by age group. Over the previous six months, less than 5% of youth and young adults but more than 30% of seniors (aged 65 and older) have been vaccinated (Table 6.3).

Table 6.3: Recency of receiving a vaccine for Coronavirus disease 2019 (COVID-19) by age group, Hamilton residents, as of January 9, 2024

Age Group	Previously vaccinated	Previously vaccinated 12+ months ago	Previously vaccinated 6 to less than 12 months ago	Previously vaccinated less than 6 months ago
0 to 4 Years	7.9%	4.0%	1.1%	2.7%
5 to 11 Years	41.1%	36.9%	1.1%	3.1%
12 to 17 Years	76.5%	72.4%	0.9%	3.2%
18 to 24 Years	82.1%	78.0%	1.1%	3.1%
25 to 29 Years	86.9%	81.1%	1.2%	4.6%
30 to 34 Years	84.4%	77.0%	1.3%	6.1%
35 to 39 Years	85.3%	76.6%	1.4%	7.3%
40 to 44 Years	86.7%	78.0%	1.4%	7.3%
45 to 49 Years	88.6%	79.4%	1.4%	7.8%
50 to 54 Years	91.4%	79.8%	1.5%	10.0%
55 to 59 Years	90.0%	74.0%	1.8%	14.2%
60 to 64 Years	91.7%	68.2%	2.2%	21.3%
65 to 69 Years	92.4%	57.3%	3.4%	31.7%
70 to 74 Years	93.8%	49.3%	4.1%	40.4%
75 to 79 Years	96.4%	46.6%	4.6%	45.2%
80 to 84 Years	96.0%	46.2%	4.3%	45.4%
85+ Years	95.9%	46.2%	5.2%	44.6%

Source: IntelliHEALTH ONTARIO, COVAXon Data Load [extracted 9 January 2024].



CHAPTER 7

INFECTIOUS DISEASE

HIGHLIGHTS

- In 2023, the five most common reportable infectious diseases in Hamilton were COVID-19 (6,821 cases), Chlamydial infections (1,750 cases), Influenza (579 cases), Gonorrhea (479 cases) and latent Tuberculosis (402 cases).
- Respiratory virus season is a continuing burden for our community. Hamilton had 321 respiratory outbreaks in 2023, with the majority (75.7%) being COVID-19.
- In the last 10 years (2014 to 2023), the rate of Invasive Group A Streptococcal (iGAS) infections has increased by more than 250%. Hamilton's rate has remained consistently above the Ontario average since 2019. Approximately 10-15% of these cases are fatal.
- Syphilis rates have increased by more than 300% in Hamilton during the last 10 years (2014 to 2023). While syphilis continues to disproportionately impact males, local data shows an increasing trend emerging among females.
- The rate of Lyme disease increased by more than 1,300% between 2014 (0.9 cases per 100,000) and 2023 (13.4 cases per 100,000).

INFECTIOUS DISEASE

Germs such as bacteria, viruses, parasites and fungus can enter the human body and multiply. This can lead to infections and pose a serious health risk to the population.⁴⁰

The typical ways infectious (or communicable) diseases can spread include:

- from person to person through direct contact
- by germs carried in air, water, food or soil
- through animals and insects to humans⁴⁰

In Ontario, public health units work to prevent and control the spread of infectious diseases in their communities. Under the *Health Protection and Promotion Act* (HPPA), diseases of public health significance must be reported to the local Medical Officer of Health (see Table 7.1 for a list of 2023 case count and [incidence](#) rate data).

Many of the reportable diseases are rare in Canada. That's due to effective control through immunization, drinking water treatment, safe food regulations, pasteurization, improved sanitation, public education, and other infection prevention practices.

This chapter highlights the diseases with significant trends in the past 10 years and significant differences when compared to Ontario. We've grouped them into five categories:

1. Enteric diseases: acquired through consuming contaminated food or water; or spread through direct person-to-person contact, fecal-oral contact, or indirect transmission through contact with contaminated surfaces.

2. Respiratory diseases: transmitted from person to person through air droplets (such as coughing or sneezing); by direct contact with an infected person; or by indirect transmission through contact with contaminated surfaces.

3. Sexually-transmitted and blood-borne infections: transmitted through sexual contact and bodily fluids.

4. Vaccine-preventable diseases: caused by viruses or bacteria that can be prevented by immunization through vaccination.

5. Vector-borne diseases: caused by parasites, bacteria and viruses that are transmitted by infected insects or ticks, also known as vectors.

6. Antimicrobial-resistant infections: have gained resistance to antimicrobial treatments.

The number of infectious disease cases reported to public health may not represent the full number of cases in the community.

For example, an Ontario study found that for every one case of enteric illness reported to public health, there could be several hundred unreported cases in the community.⁴¹

Usually, cases are only reported to public health if the infected person seeks care from a healthcare provider and diagnostic testing is completed. Depending on the disease, many cases go undetected. People with reportable infections may recover independently without seeking care, and diagnostic testing may not be warranted for everyone.

Table 7.1: Case counts and incidence rate of diseases of public health significance, Hamilton and Ontario, 2023

Disease of Public Health Significance	Hamilton		Ontario	
	Number of cases	Rate per 100,000	Number of cases	Rate per 100,000
Acquired Immunodeficiency Syndrome (AIDS)	4	0.7	67	0.4
Amebiasis	6	1.0	79	0.5
Brucellosis	2	0.3	5	0.0
Campylobacter Enteritis	58	9.6	2,516	16.4
Carbapenemase-producing Enterobacteriaceae (CPE)	71	11.7	767	5.0
Chlamydial Infections	1,750	288.9	42,688	277.8
Cryptosporidiosis	21	3.5	531	3.5
Cyclosporiasis	27	4.5	662	4.3
COVID-19	6,821	1,125.9	140,978	917.5
Encephalitis/Meningitis	11	1.8	155	1.0
Giardiasis	32	5.3	1,033	6.7
Gonorrhoea (All Types)	479	79.1	14,151	92.1
Group A Streptococcal Disease, Invasive	95	15.7	1,993	13.0
Group B Streptococcal Disease, Neonatal	4	0.7	46	0.3
Haemophilus Influenzae Disease (All Types, Invasive)	19	3.1	346	2.3
Hepatitis A	8	1.3	154	1.0
Hepatitis B (acute)	2	0.3	139	0.9
Hepatitis B (chronic)	61	10.1	1,560	10.2
Hepatitis C	156	25.7	3,394	22.1
Human Immunodeficiency Virus (HIV)	44	7.3	1,373	8.9
Influenza	579	95.6	10,326	67.2
Legionellosis	19	3.1	339	2.2
Listeriosis	2	0.3	68	0.4
Lyme Disease	81	13.4	1,791	11.7
Meningitis	3	0.5	155	1.0
Meningococcal Disease, Invasive	2	0.3	30	0.2
Paratyphoid Fever	3	0.5	85	0.6
Pertussis (Whooping Cough)	1	0.2	288	1.9
Salmonellosis	84	13.9	2,366	15.4
Shigellosis	6	1.0	263	1.7

Table 7.1: Continued on page 76

Table 7.1: Continued from page 75

Disease of Public Health Significance	Hamilton		Ontario	
	Number of cases	Rate per 100,000	Number of cases	Rate per 100,000
Streptococcus Pneumoniae (Invasive)	66	10.9	1,576	10.3
Syphilis, Early Congenital	1	0.2	13	0.1
Syphilis, Infectious	146	24.1	3,222	21.0
Syphilis, Latent	100	16.5	1,964	12.8
Syphilis, Other	8	1.3	404	2.6
Tuberculosis	23	3.8	881	5.7
Tuberculosis infection, Latent	402	66.4	7,060	45.9
Typhoid Fever	2	0.3	137	0.9
Varicella (Chickenpox)	21	3.5	613	4.0
Verotoxin Producing <i>E.coli</i> (VTEC)*	5	0.8	135	0.9
West Nile Virus Illness	6	1.0	48	0.3
Yersiniosis	4	0.7	224	1.5

Source: Integrated Public Health Information System (iPHIS) and Case and Contact Management System (CCM) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Notes:

- Case counts include confirmed cases only. Cases are pulled based on “episode date” (estimate of the onset date of disease), except for CPE, HIV, AIDS and TB.
- Population estimates and projections are used to calculate rate per 100,000 population.
- Diseases with a count of 0 in Hamilton were excluded from the table: Acute Flaccid Paralysis; Anaplasmosis; Anthrax; Babesiosis; Blastomycosis; Botulism; Chancroid; Cholera; Creutzfeldt-Jakob Disease, All Types; Diphtheria; Echinococcus Multilocularis Infection; Encephalitis; Food Poisoning, All Causes; Hantavirus Pulmonary Syndrome; Hemorrhagic Fevers; Lassa Fever; Leprosy; Measles; Mpox; Mumps; Ophthalmia Neonatorum; Paralytic Shellfish Poisoning; Plague; Poliomyelitis, Acute; Powassan virus; Psittacosis/Ornithosis; Q Fever; Severe Acute Respiratory Syndrome (SARS); Smallpox; Rabies; Rubella; Rubella (congenital syndrome); Tetanus; Trichinosis; Tularemia.
- Sex and gender are not clearly defined in the Integrated Public Health Information System (iPHIS) and could include a combination of sex assigned at birth or gender identity. Sex from Case and Contact Management (CCM) refers to sex assigned at birth.
- (*) Includes hemolytic uremic syndrome (HUS).
- Data for rubella (congenital syndrome) were last updated on 31 July 2024.

ENTERIC DISEASES

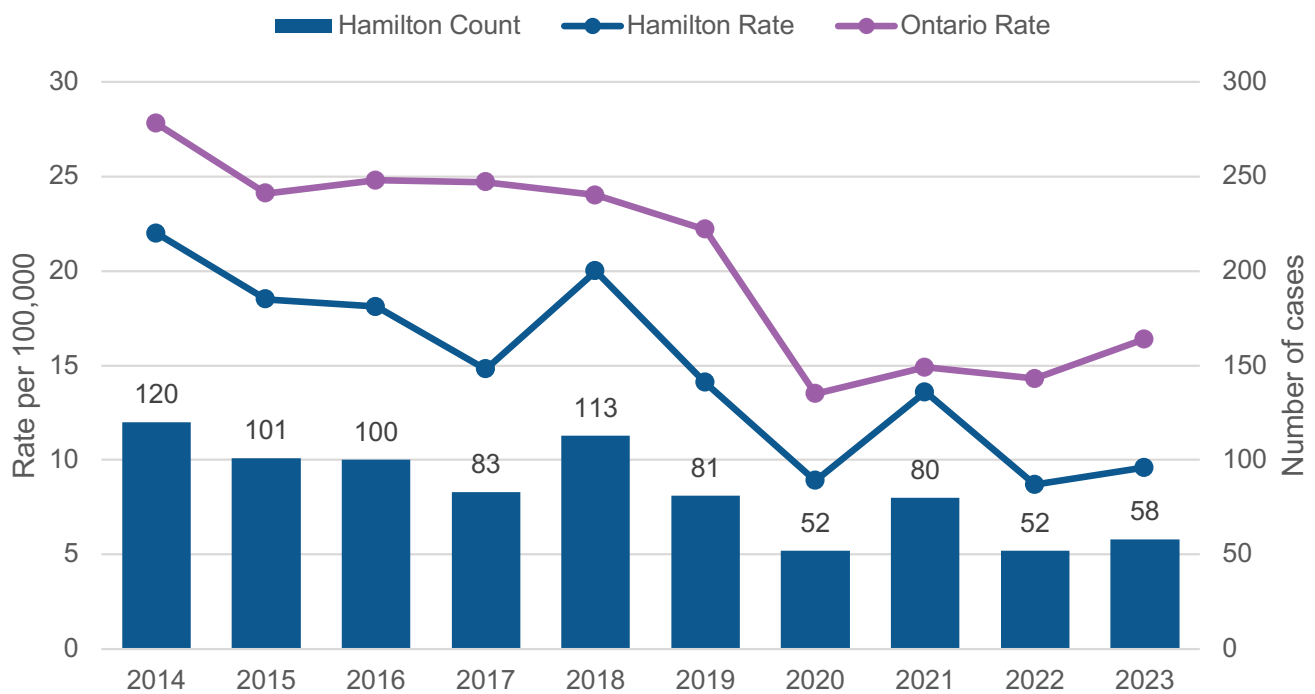
Campylobacter enteritis

Campylobacter enteritis is a bacterial disease that can cause diarrhea, abdominal pain, nausea and vomiting.⁴² Infection can occur from:

- eating contaminated food including raw or undercooked chicken, pork
- drinking contaminated water or raw milk
- handling infected animals such as puppies, kittens and farm animals

In 2023, there were 58 confirmed cases of Campylobacter enteritis in Hamilton. In the past 10 years (2014-2023), the rate of this disease has decreased significantly and dropped in half in Hamilton, from 22 cases per 100,000 population in 2014 to 9.6 cases per 100,000 population in 2023 (Figure 7.1). When compared to Ontario (16.4 cases per 100,000 population), Hamilton's rate was 1.7 times lower.

Figure 7.1 Campylobacter enteritis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



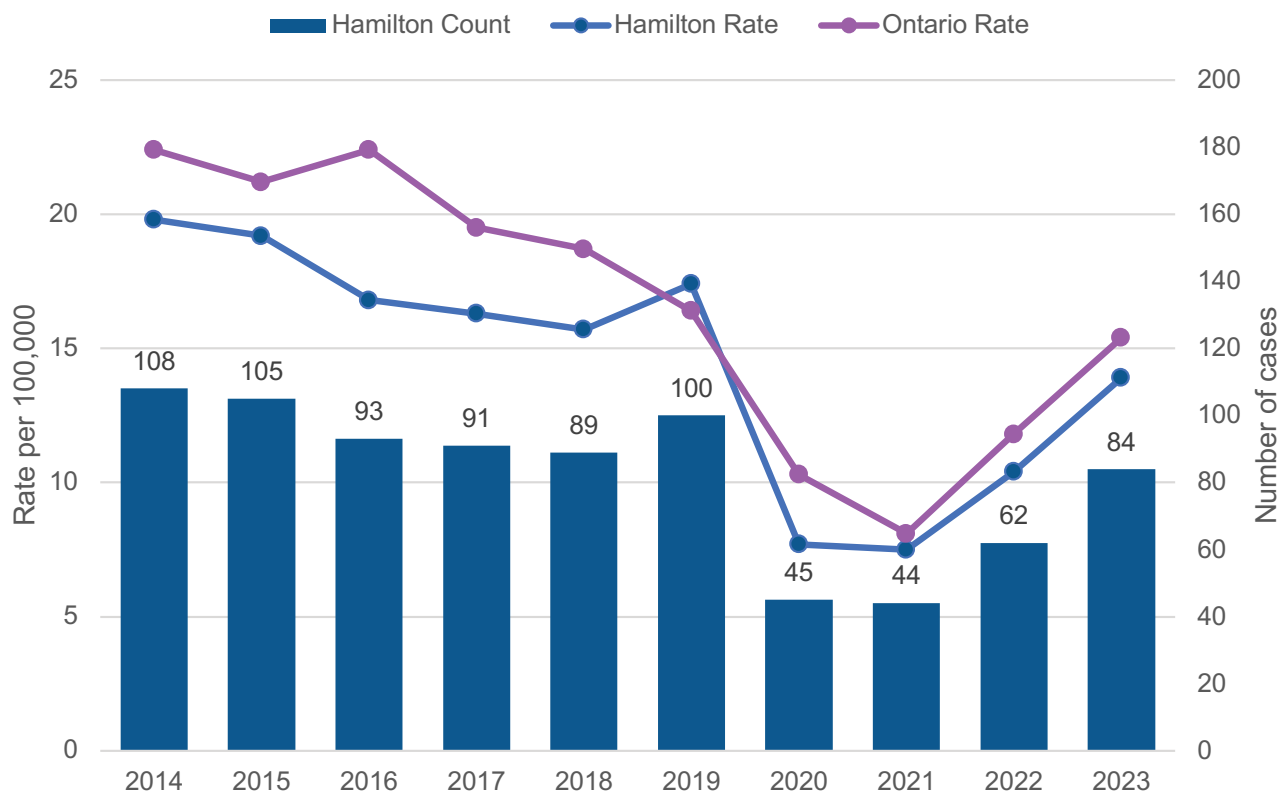
Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Salmonellosis

Salmonellosis is a food-borne infection caused by the bacteria *Salmonella*. It is commonly spread through consuming contaminated food or water.⁴³ Most people develop diarrhea, abdominal cramping and fever.⁴³

The rate of Salmonellosis has decreased by 42.4% in the past 10 years (2014-2023), with 84 confirmed cases in Hamilton for 2023 (Figure 7.2). The lowest rates were seen during the COVID-19 pandemic in 2020 and 2021.

Figure 7.2 Salmonellosis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



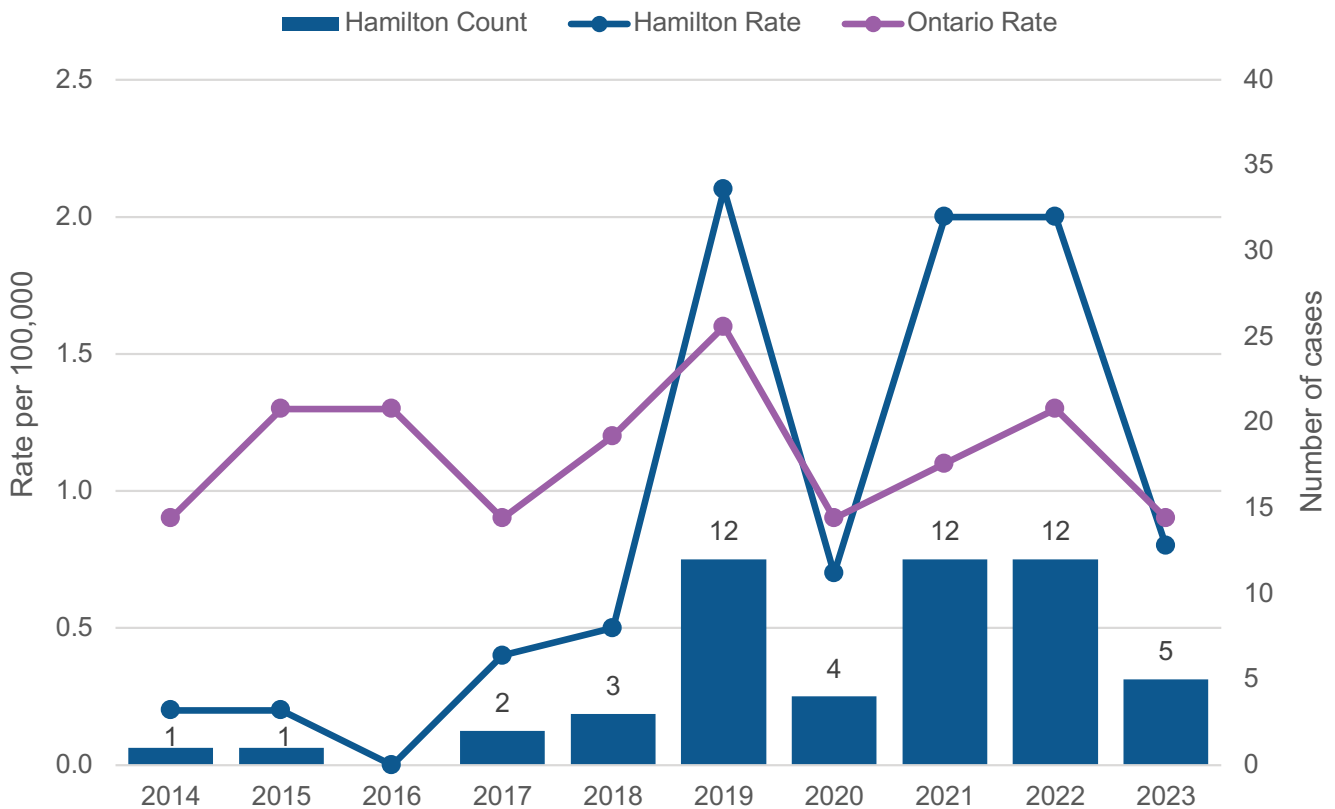
Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Verotoxin-producing E.Coli including HUS (VTEC)

Verotoxin-producing Escherichia coli (VTEC) is a group of bacteria that causes gastrointestinal illness. Transmission includes direct or indirect contact with humans infected with VTEC, animals or waste.⁴⁴ The transmission route may include the consumption of contaminated food, fecal-oral, and person-to-person contact.

In 2023, there were five confirmed VTEC cases in Hamilton. The rate has significantly increased between 2014 (0.2 cases per 100,000 population) to 2023 (0.8 cases per 100,000 population) (Figure 7.3).

Figure 7.3 Verotoxin-producing E. coli (VTEC) confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Note: VTEC cases includes those with hemolytic uremic syndrome (HUS)

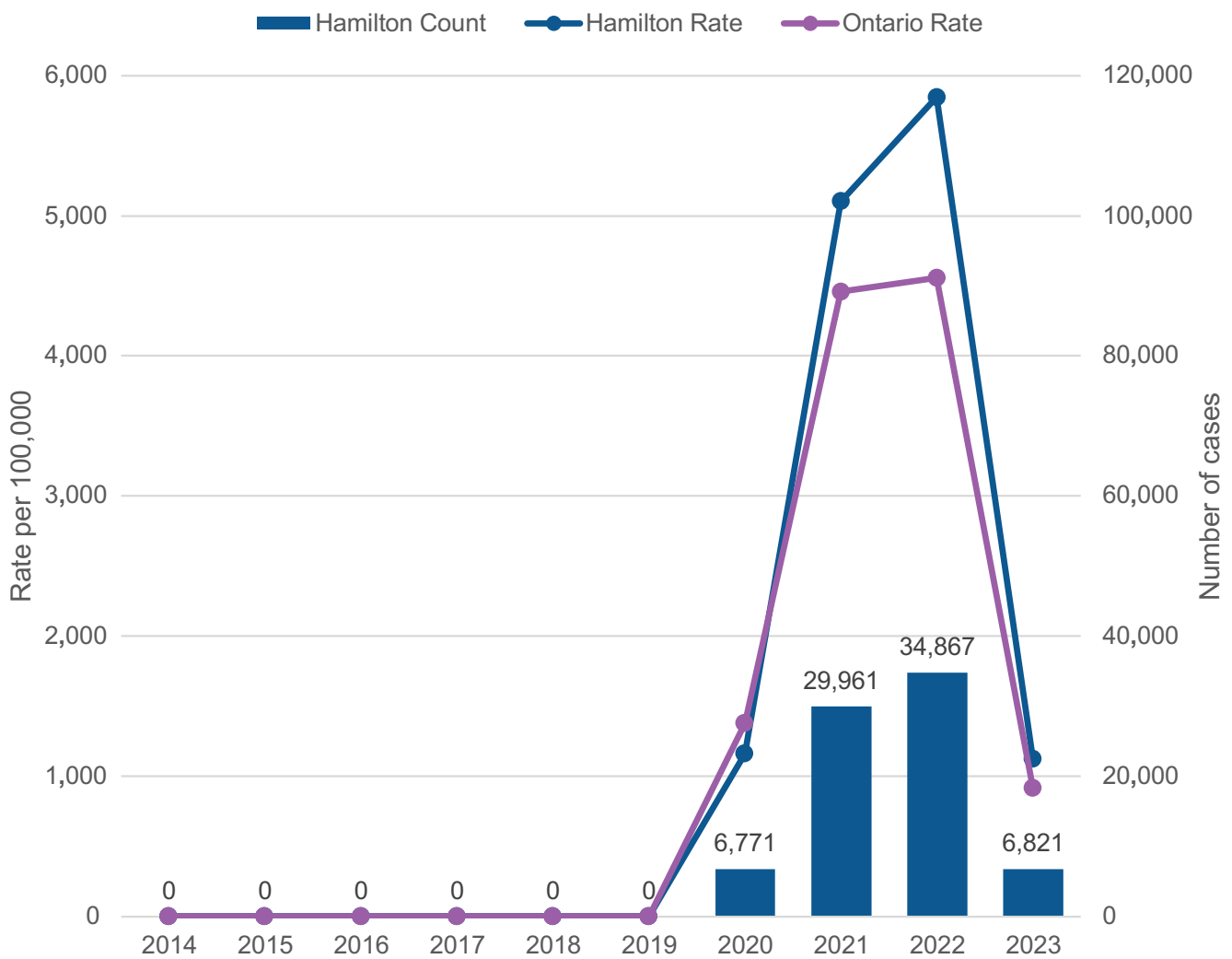
RESPIRATORY DISEASES

COVID-19

Coronavirus disease 2019 (COVID-19) is a respiratory disease caused by SARS-CoV-2 virus. COVID-19 became a global pandemic in 2020. It can be highly contagious and spread quickly through respiratory droplets when a person with COVID-19 breathes, coughs, sneezes or talks. Transmission can also occur by touching contaminated surfaces.

Symptoms of COVID-19 ranges from mild (like flu or cold) to severe (such as pneumonia or multi-organ failure).⁴⁵ People with COVID-19 that do not have symptoms can also spread COVID-19.

Figure 7.4 COVID-19 confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Case and Contact Management System (CCM) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

In Hamilton, the COVID-19 rate peaked in 2022 with 5,847.4 cases per 100,000 population (Figure 7.4). As access to testing has changed to focus on those at highest risk, the number of confirmed cases are likely an undercount. The true rate of infections in the community could be much higher.

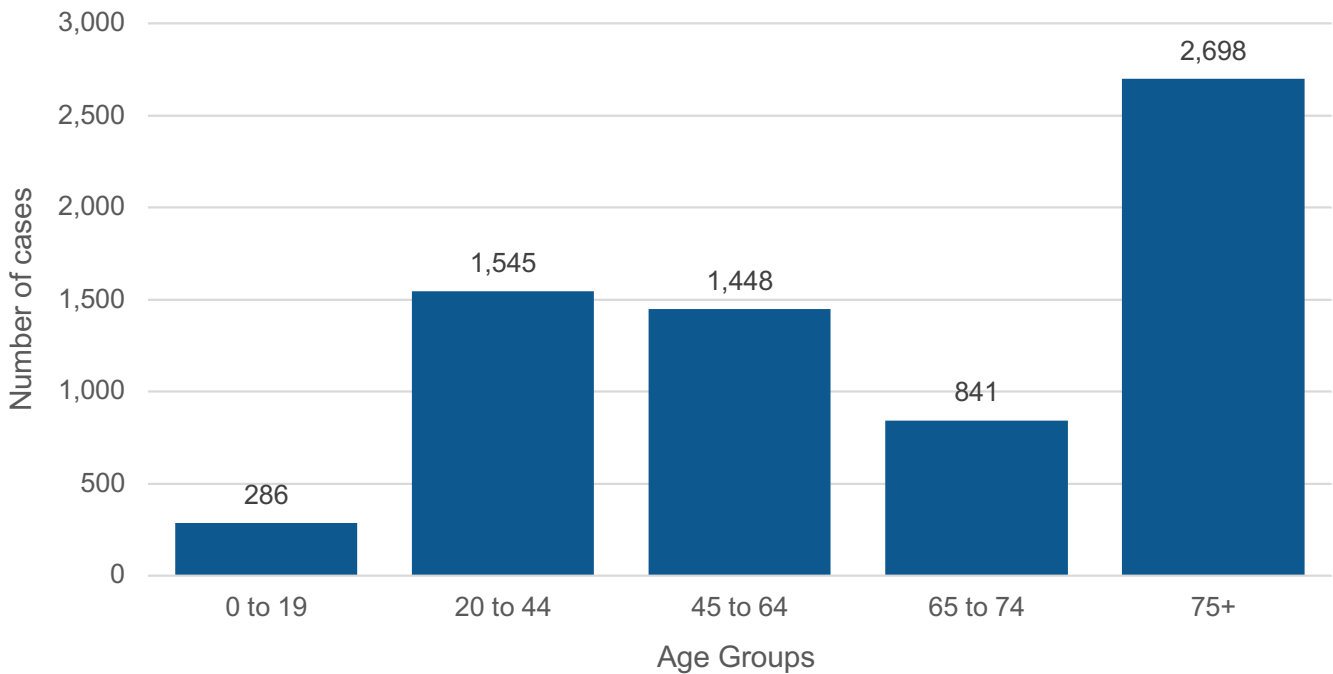
In 2023, Hamilton had 6,821 confirmed COVID-19 cases, representing 1,125.9 cases per 100,000 population (Figure 7.4). The local rate was significantly higher than the provincial rate of 917.5 cases per 100,000

population (22.7% higher). Females were more likely to have a reported COVID-19 infection, accounting for 63% of total cases in 2023.

There were 321 respiratory outbreaks in Hamilton in 2023. The majority (243 outbreaks, 75.7%) were caused by COVID-19.

Rates of COVID-19 in 2023 were highest among seniors aged 75 years and older, who accounted for 40% of all cases in Hamilton (Figure 7.5).

Figure 7.5 COVID-19 confirmed cases by age group, Hamilton, 2023



Source: Case and Contact Management System (CCM) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Group A Streptococcus, Invasive (iGAS)

Group A streptococcus (GAS) are bacteria naturally found in the throat. It can cause non-invasive infections such as strep throat and impetigo, but it can become an invasive disease when the bacteria enter the blood or deep tissue.⁴⁶

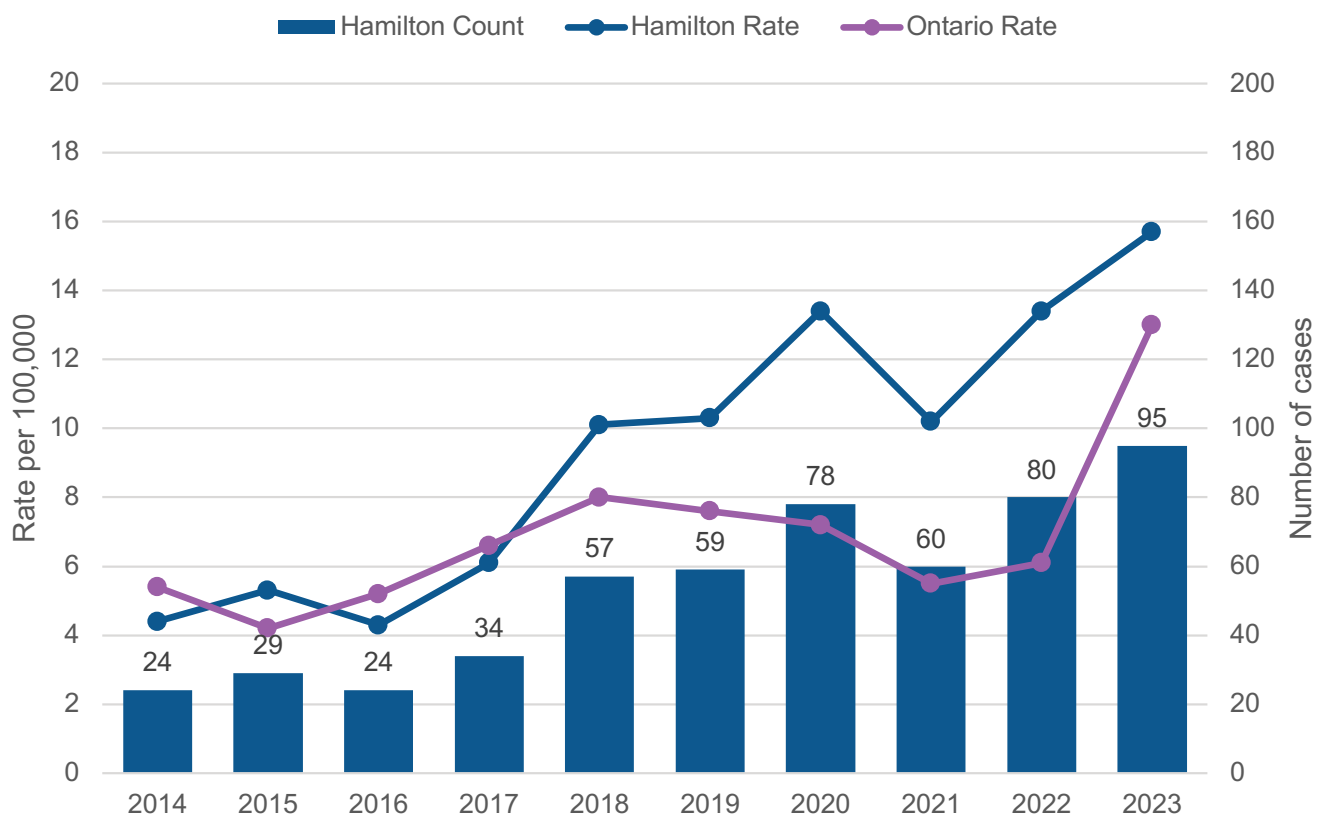
iGAS can spread from direct contact with mucus from the nose or throat of an infected person, or from contact with infected wounds or sores on the skin. This disease is of particular concern because approximately 10-15% of cases in Ontario are fatal.

In Hamilton, the rate of iGAS increased 3.5 times in the past 10 years, from 4.4 cases per 100,000 population in 2014 to 2023 (15.7 cases per 100,000 population), with 2023 having the highest rate to date (Figure 7.6).

Those 65 years and older had the most iGAS cases (32 confirmed cases), accounting for 33.7% of all cases, followed by the 45-64 age group (29 confirmed cases) (Figure 7.7).

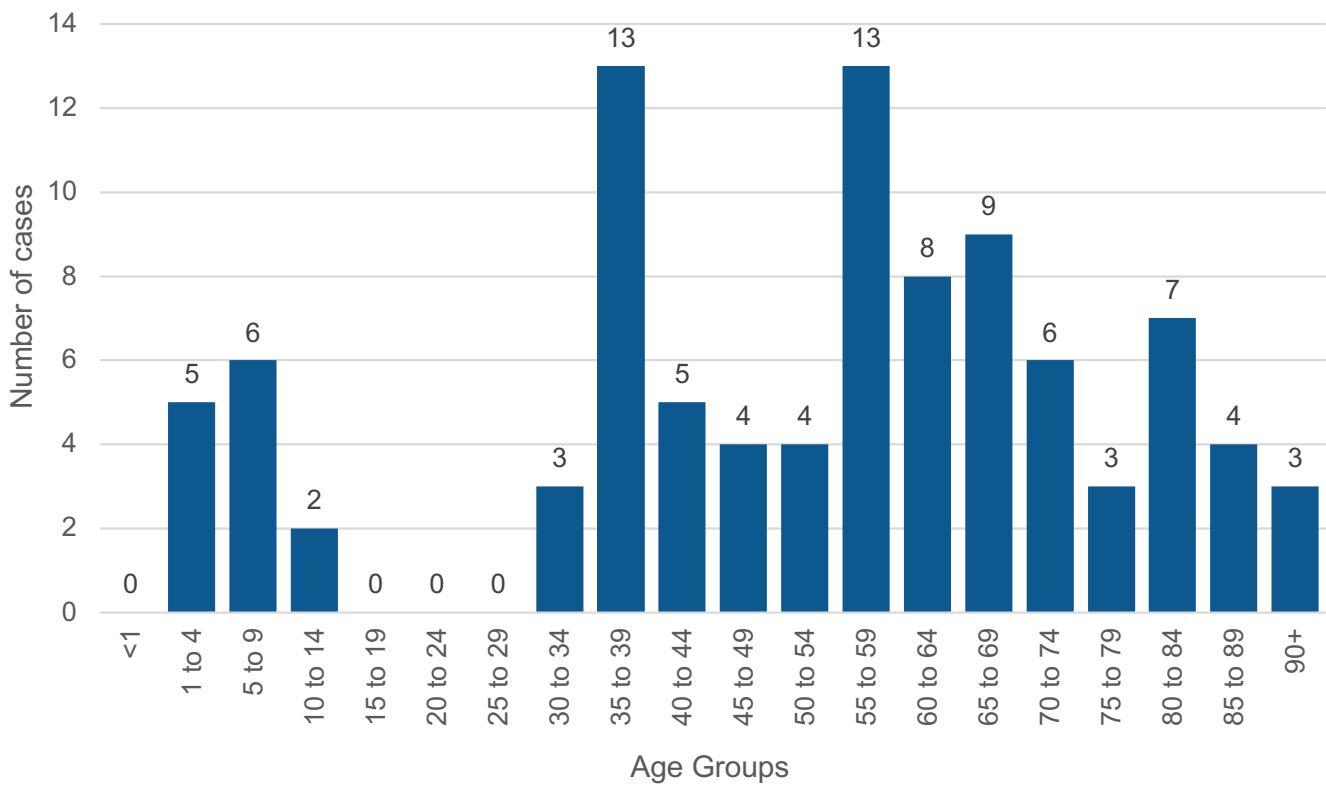
Compared to 2022, the largest increases in 2023 were seen in children aged 1-4 (from one case in 2022 to five in 2023) and aged 5-9 (from no cases in 2022 to six in 2023).

Figure 7.6 Group A Streptococcus, Invasive (iGAS) confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.7 Group A Streptococcus, Invasive (iGAS) confirmed cases by age group, Hamilton, 2023



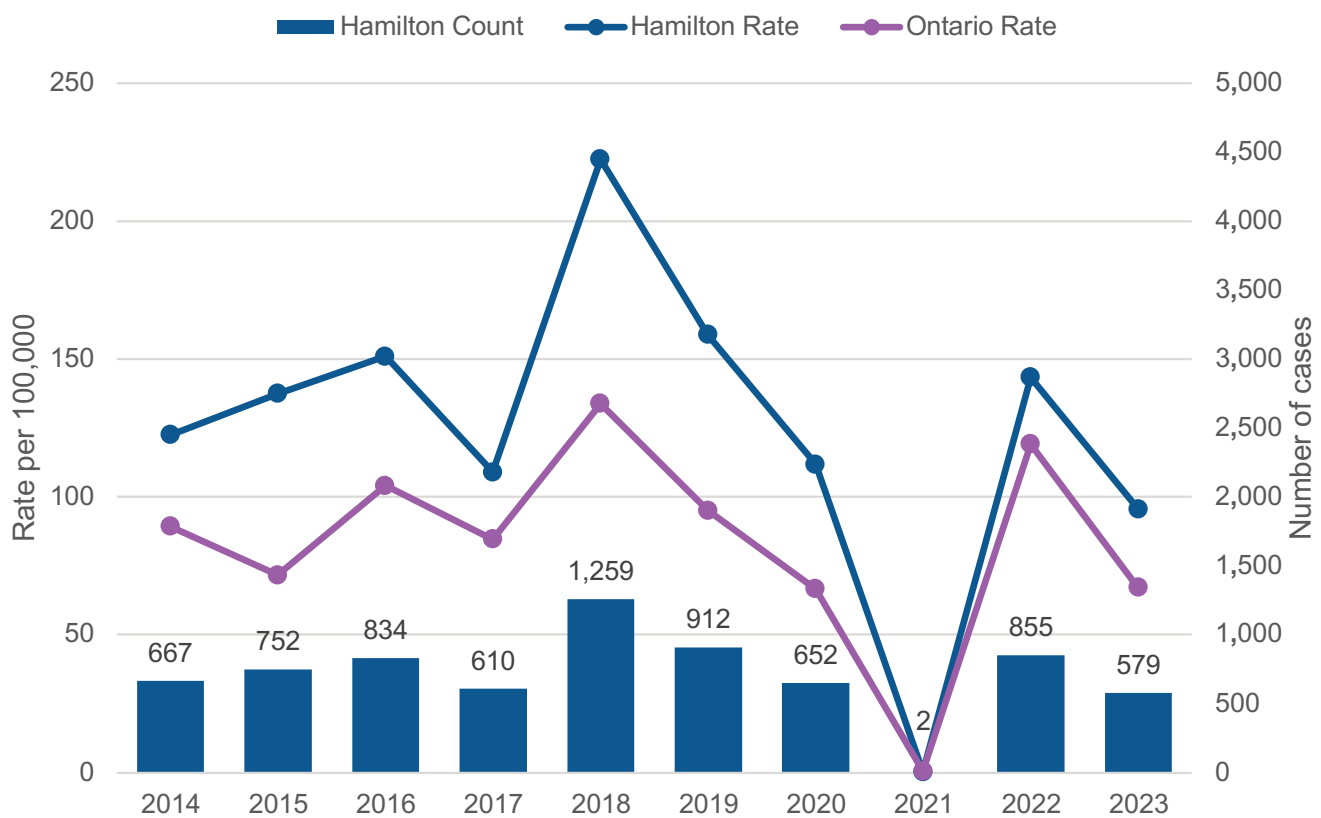
Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Influenza

Influenza or flu is a viral respiratory infection that usually circulates during the fall and winter season. It can easily spread from person to person by coughing or sneezing.⁴⁷

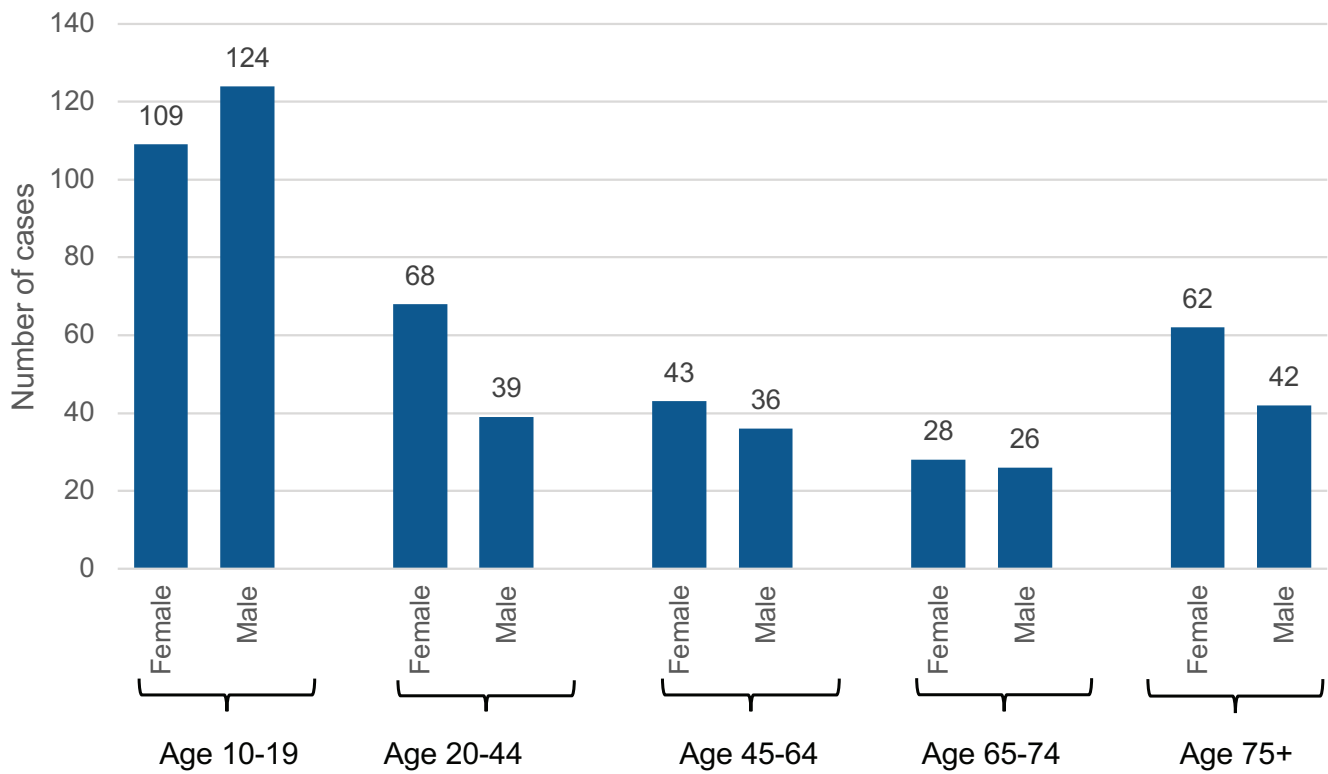
In 2023, the rate of Influenza in Hamilton (95.6 cases per 100,000 population) was 42.3% higher than Ontario (67.2 cases per 100,000 population) (Figure 7.8). Local rates were highest among females (53.8% of total Influenza cases), and those between 0 to 19 years (233 cases or 40.2% of total Influenza cases) (Figure 7.9). In the chart below, note that due to the COVID-19 pandemic lockdown, there were only 2 reported cases of influenza in 2021.

Figure 7.8 Influenza confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.9 Influenza confirmed cases by age group and sex, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

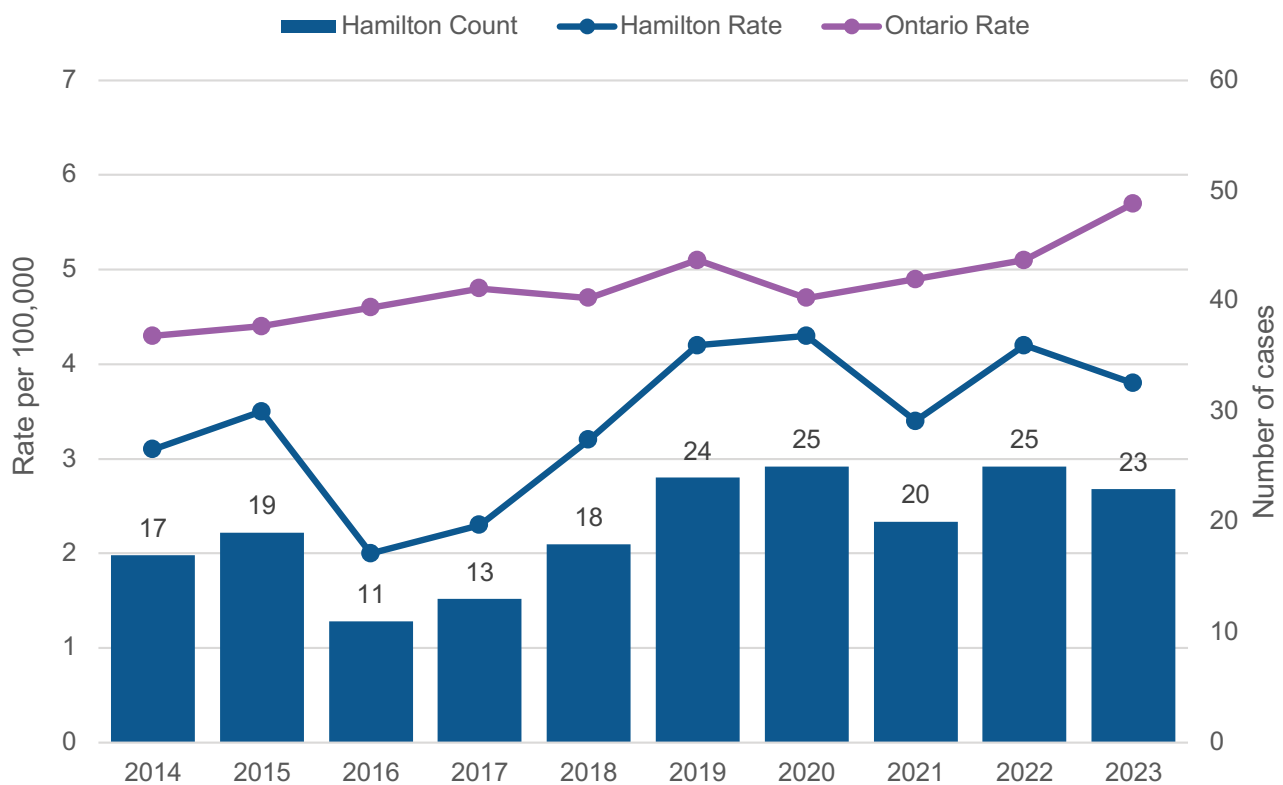
Tuberculosis

Tuberculosis or TB is caused by breathing in a bacteria called *Mycobacterium tuberculosis* from someone with active TB disease in their lungs or airways. Latent TB infections occur when a person’s immune system can fight the bacteria and keep it from growing. They have no symptoms, don’t feel sick and are unable to spread this respiratory disease to others.⁴⁸

In 2023, the rate of active TB in Hamilton (3.8 cases per 100,000 population) was 1.5 times lower when compared to Ontario (5.7 cases per 100,000 population) (Figure 7.10).

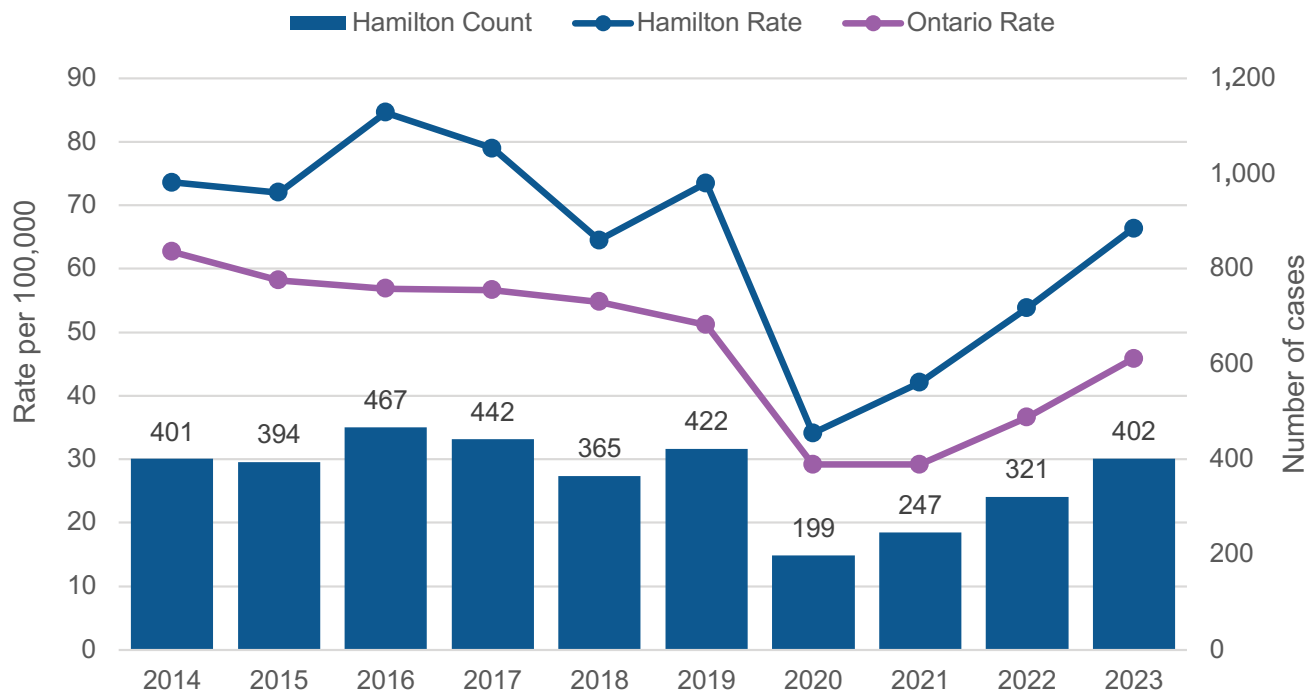
In 2023, the rate of latent TB cases in Hamilton (66.4 cases per 100,000 population) was significantly higher than Ontario (45.9 cases per 100,000 population) (Figure 7.11). The highest rates were seen among people in their 20s (Figure 7.12). Females were disproportionately affected by latent TB, accounting for 70.1% of total cases.

Figure 7.10 Active tuberculosis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



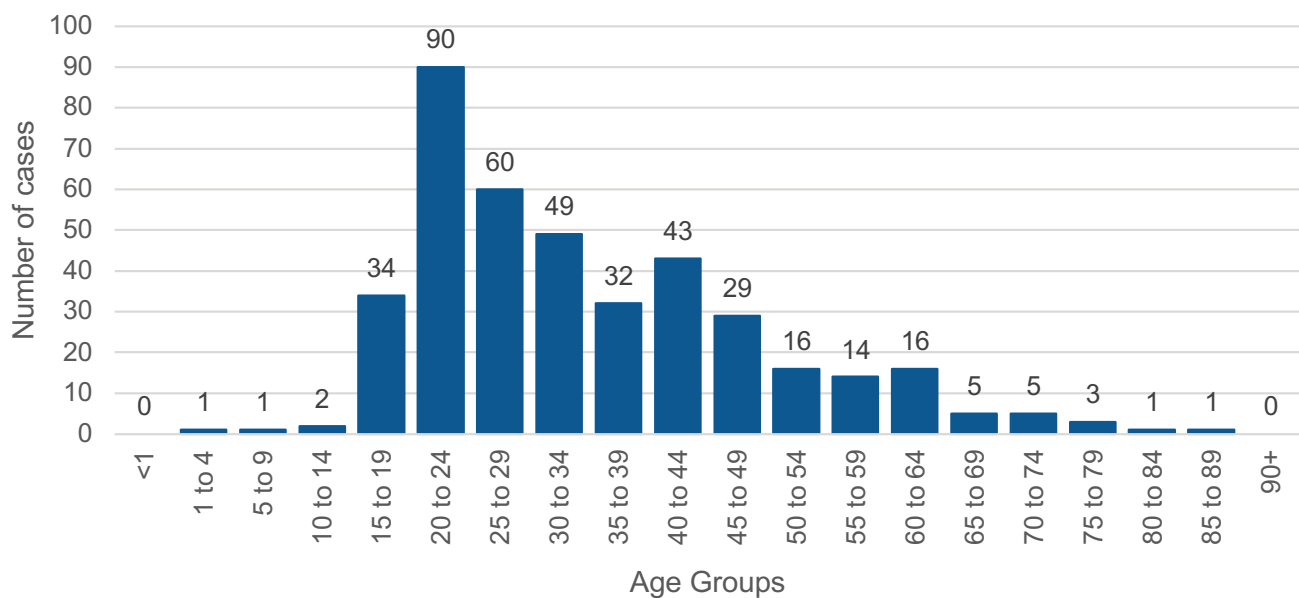
Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.11 Latent tuberculosis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.12 Latent tuberculosis confirmed cases by age group, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

SEXUALLY-TRANSMITTED AND BLOOD-BORNE INFECTIONS

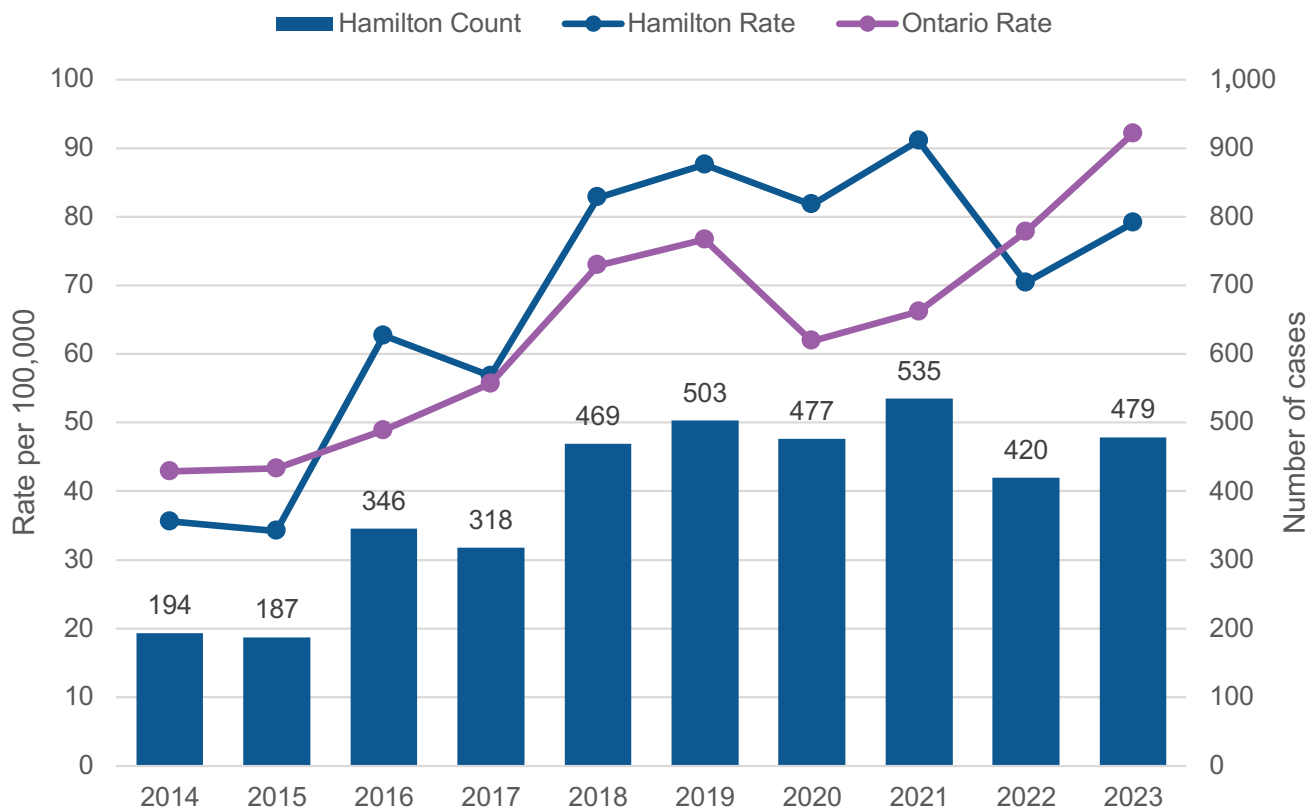
Gonorrhea

Gonorrhea is transmitted through unprotected oral, vaginal or anal sex; if left untreated, it can be passed on from mother to child during childbirth or can lead to infertility.⁴⁹

Gonorrhea cases in Hamilton increased 2.2 times across the 10 years from 2014 (35.6 cases per 100,000 population) and to 2023 (79.1 cases per 100,000 population). However, when compared to the 2023 provincial rate (92.1 cases per 100,000 population), the local rate was significantly lower (Figure 7.13).

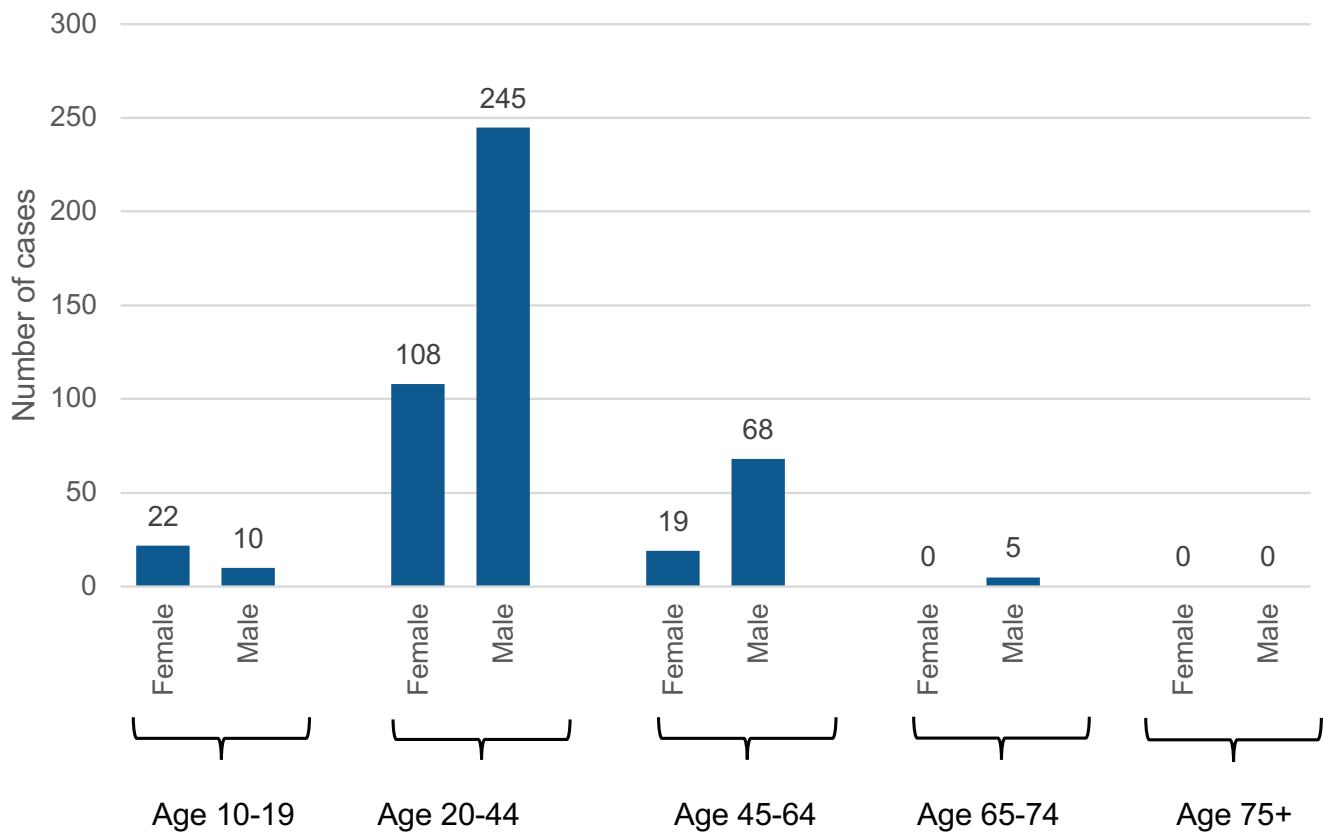
Males had a higher rate of Gonorrhea in Hamilton, accounting for 68.5% of total cases for 2023. Gonorrhea cases were highest among those in their 20s and 30s, and 355 confirmed cases (74.1% of total cases) were seen in those between 20-44 (Figure 7.14).

Figure 7.13 Gonorrhea confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.14 Gonorrhoea confirmed cases by age group and sex, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Hepatitis C

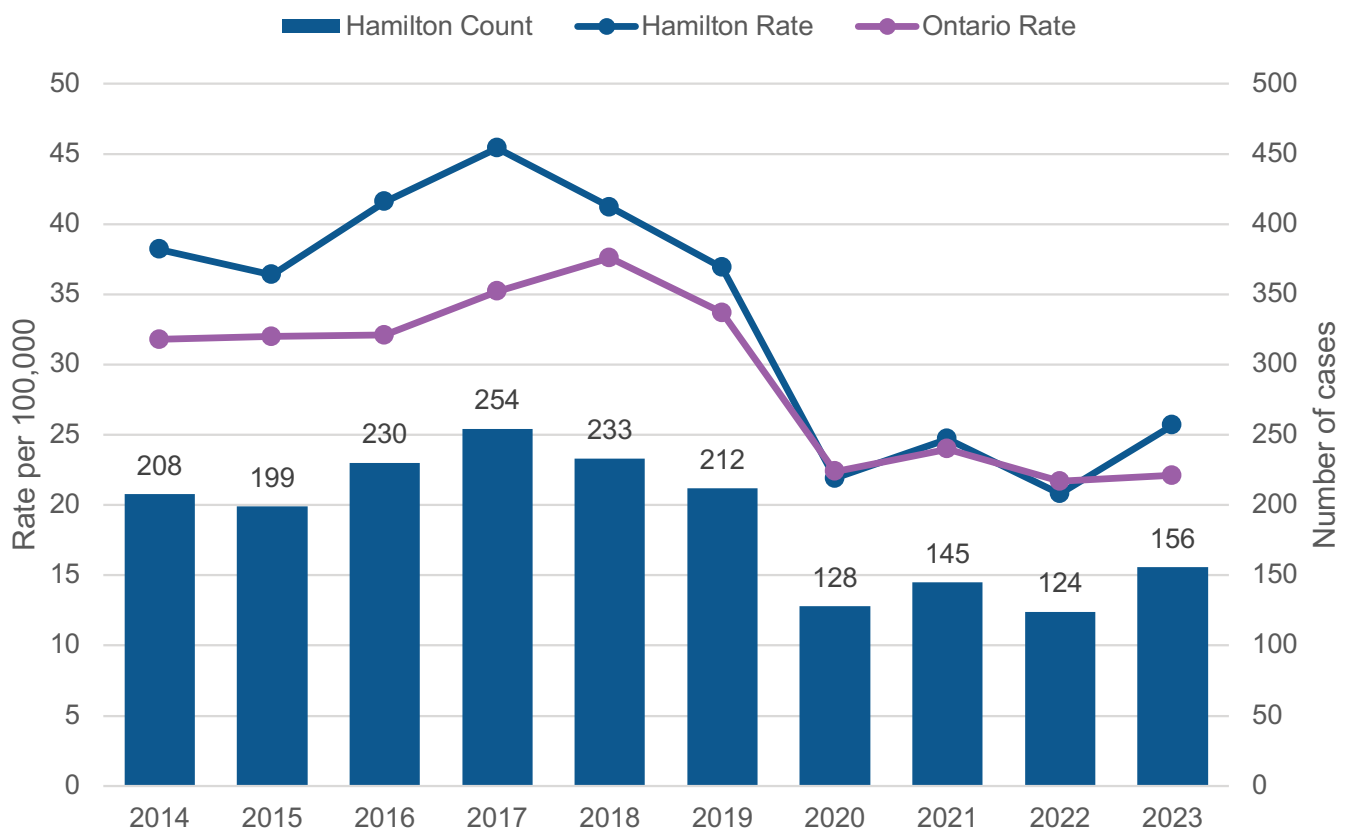
Hepatitis C is a liver infection caused by a virus. Infection can come:

- from blood contact, including sexual activity
- by sharing needles, razors, scissors, nail clippers or toothbrushes
- through mother-to-child during childbirth

Between 2014 to 2023, Hepatitis C infections in Hamilton decreased by 48.6% from 38.2 cases per 100,000 population to 25.7 cases per 100,000 population (Figure 7.15).

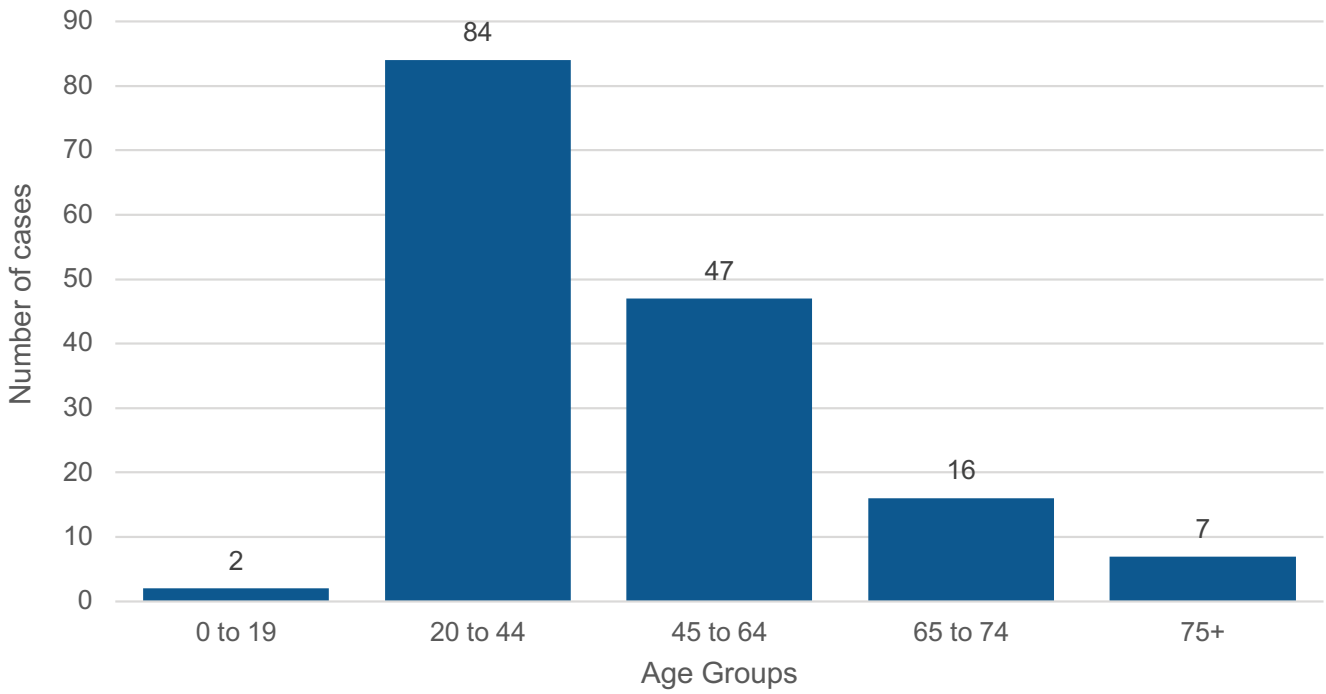
Three-fifths (60.3%) of Hepatitis C infections diagnosed in 2023 were among males. The highest rate was among those in the 20-44 group, which accounted for half (53.8%) of all cases in 2023 (Figure 7.16).

Figure 7.15 Hepatitis C confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.16 Hepatitis C confirmed cases by age group, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Syphilis

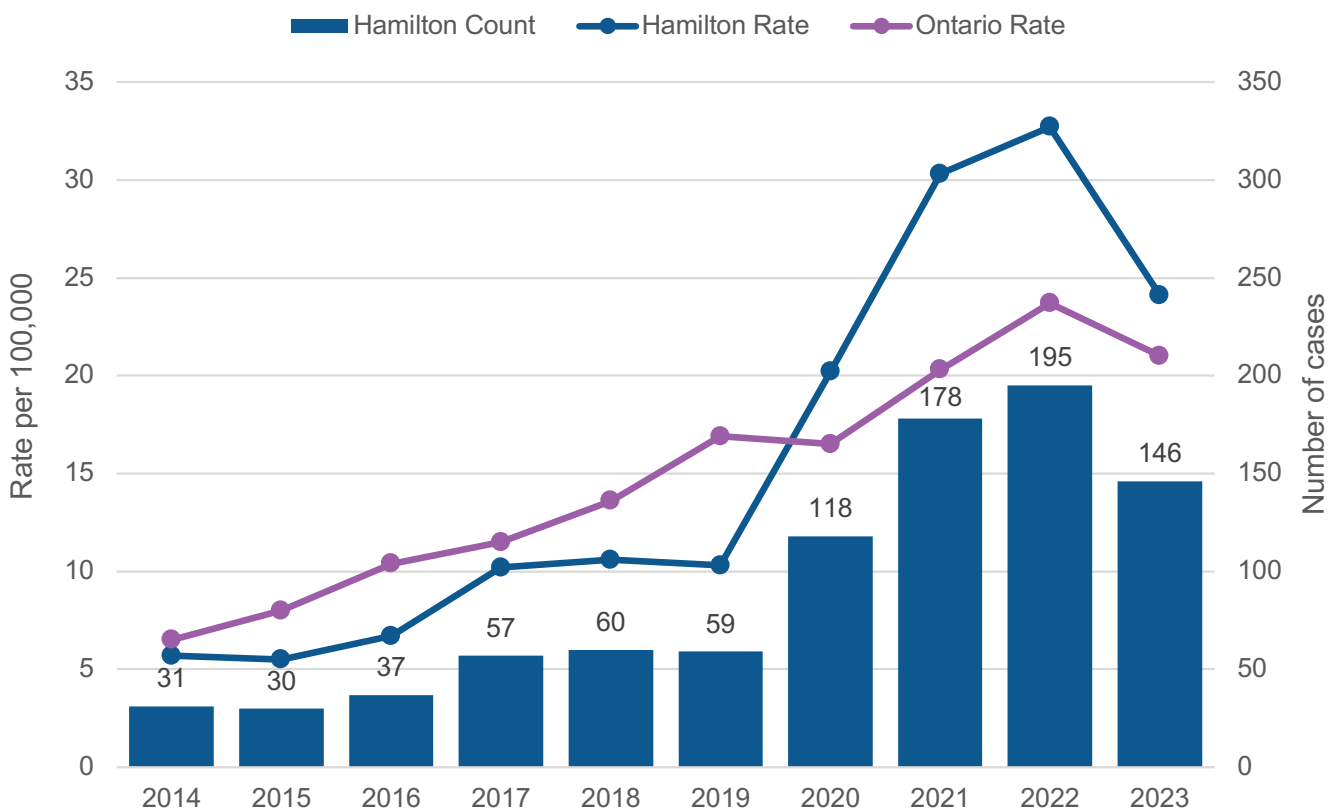
Syphilis is caused by bacteria that are transmitted through direct contact (oral, genital, or anal). It can also be passed on from mother-to-child during pregnancy or childbirth.

Early congenital syphilis occurs when a mother with syphilis pass on the infection to her baby during pregnancy, which can cause lifelong health impacts, miscarriage or [stillbirth](#).⁵⁰

Infectious syphilis includes early latent, primary and secondary stages. Late latent syphilis is non-infectious and does not show any symptoms.

In Hamilton, the rate of infectious syphilis increased significantly from 2014-2023, rising four-fold (Figure 7.17). The greatest increase was seen during the COVID-19 pandemic; the rate more than doubled from 2019 to 2020, and continued to rise in 2021 and 2022. There were 146 confirmed infectious syphilis cases in 2023, representing 24.1 cases per 100,000 population.

Figure 7.17 Infectious syphilis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Note: Infectious syphilis includes (1) early latent syphilis; (2) infectious neurosyphilis; (3) primary anal, genital or other sites syphilis; and (4) syphilis, secondary of skin and mucous membranes or other sites.

The majority (82.9%) of infectious syphilis cases were among men in 2023, affecting 40.3 males per 100,000 population. The rates of infectious syphilis were highest among those aged 20-44, followed by 45-64-year-olds (Figure 7.18).

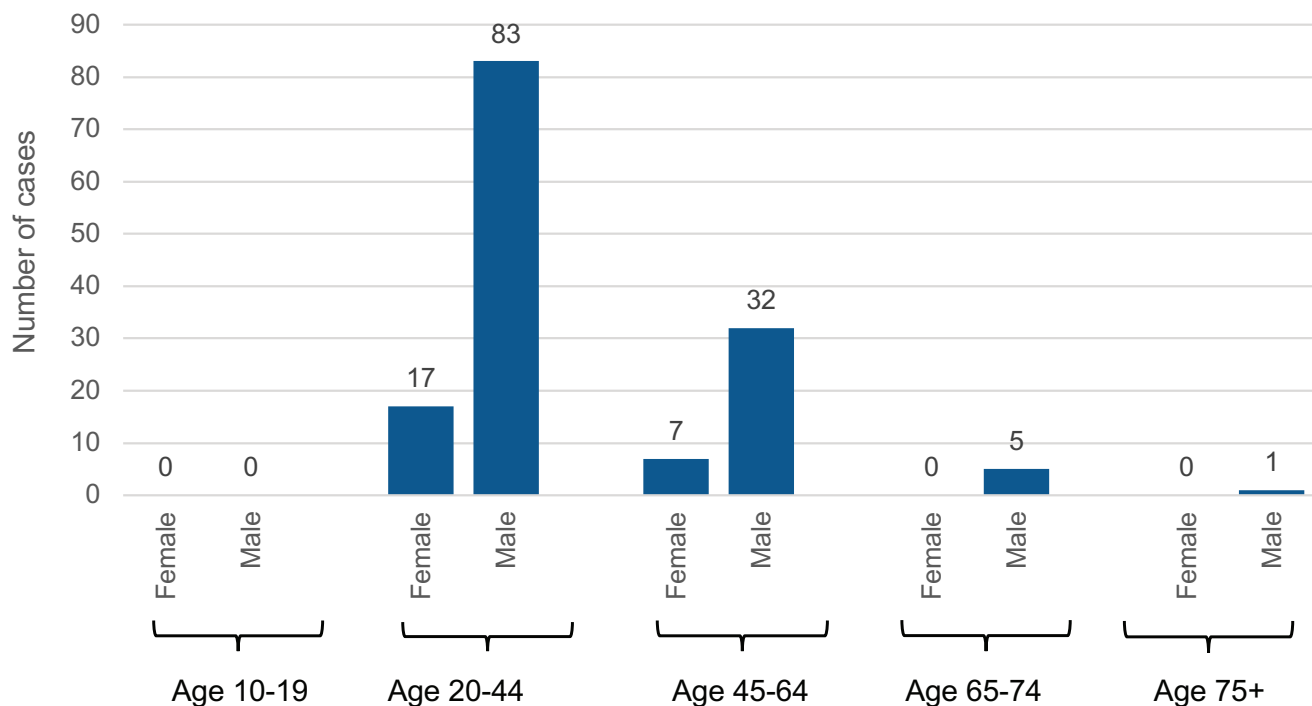
For latent syphilis, Hamilton has seen a four-fold increase in confirmed cases from 2014 (4.2 cases per 100,000 population) to 2023 (16.5 cases per 100,000 population) (Figure 7.19).

In 2023, the local rate of latent syphilis was 28.9% higher than the provincial comparison (12.8 cases per 100,000 population).

Most of the latent syphilis cases (62%) were among males. The highest rates of were among those in aged 20-44, accounting for 64% of total latent syphilis cases in Hamilton for 2023.

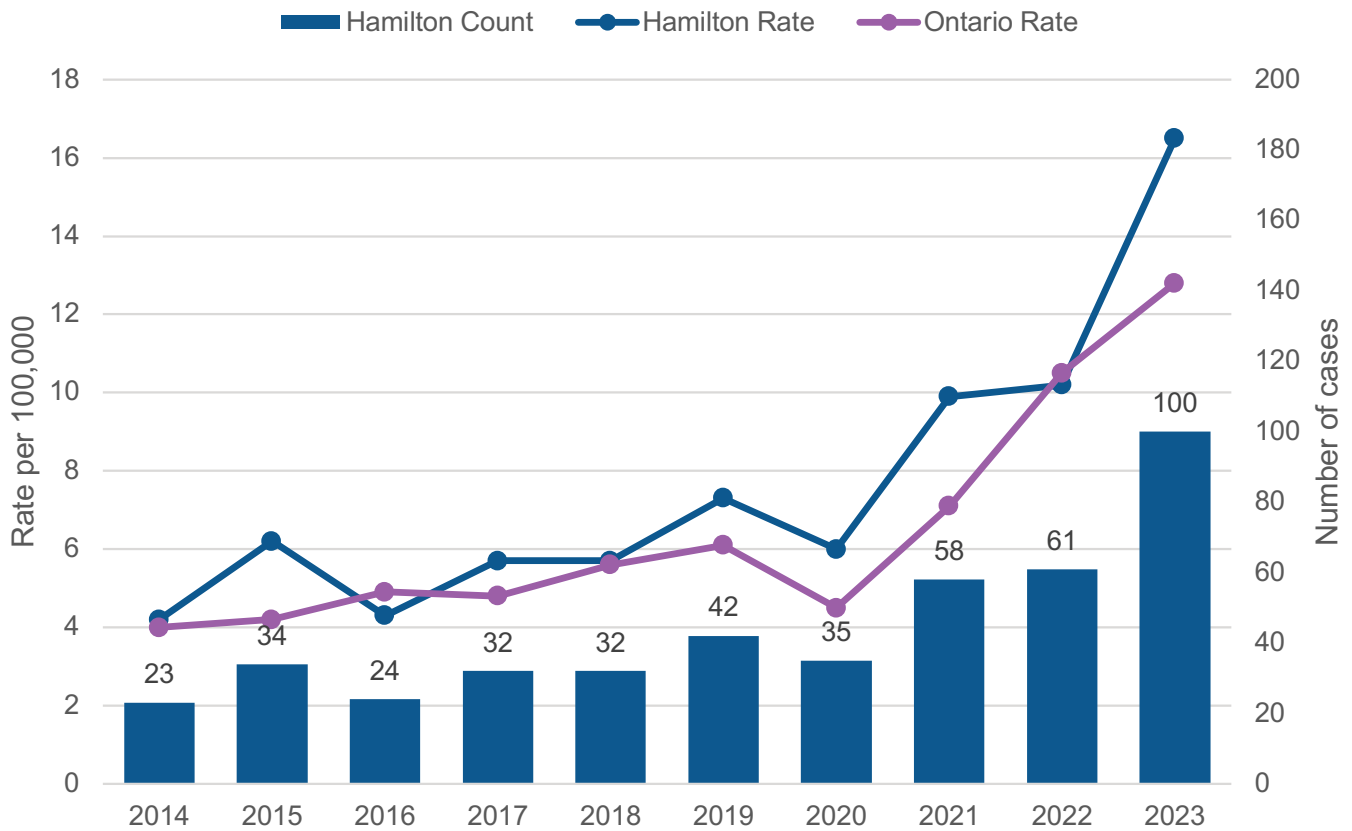
Prior to 2018, Hamilton saw no confirmed cases of early congenital syphilis. In the last six years, however, confirmed cases have re-emerged, and two were reported in Hamilton in 2020.

Figure 7.18 Infectious syphilis confirmed cases by age group and sex, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Figure 7.19 Latent syphilis confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

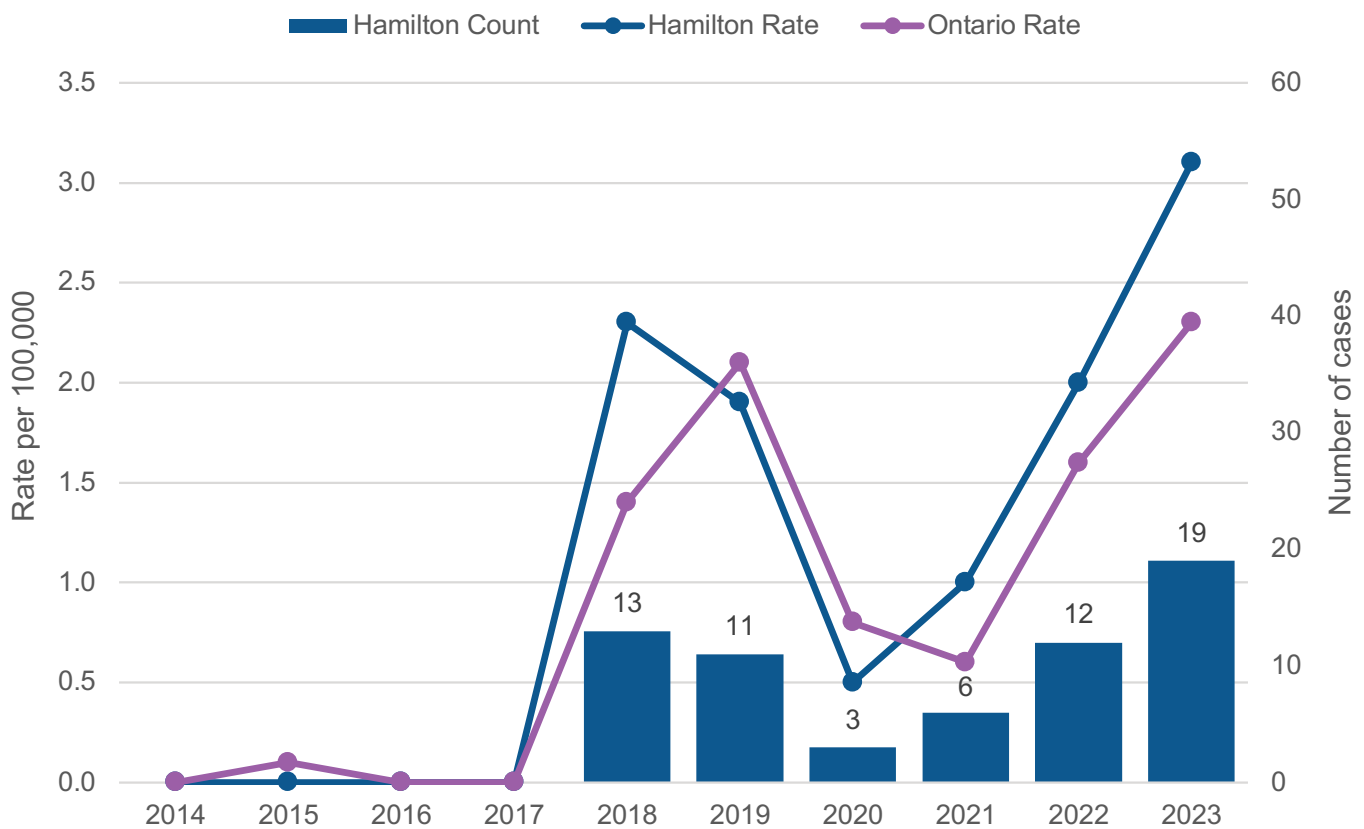
VACCINE-PREVENTABLE DISEASES

Haemophilus influenzae disease, all types, invasive

Haemophilus influenzae (*H. influenzae*) is a bacteria that can be spread from person to person through respiratory droplets by sneezing and/or coughing.

In Hamilton, the rate of *H. influenzae* disease increased three-fold from 2021-2023. In 2023, there were 3.1 cases per 100,000 population, the highest rate to date (Figure 7.20).

Figure 7.20 Haemophilus influenzae disease, all types, invasive confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

VECTOR-BORNE DISEASES

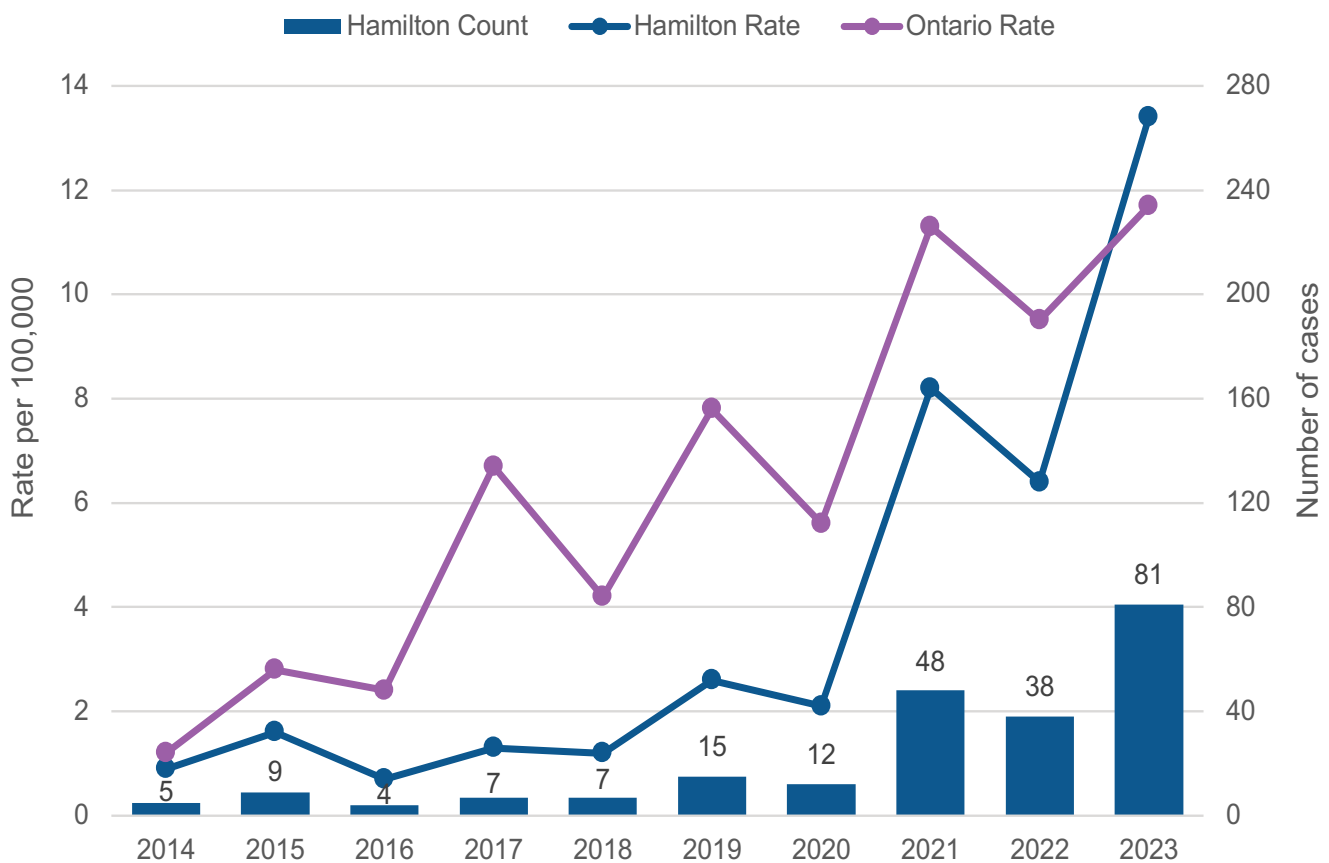
Lyme Disease

Lyme disease can be spread to humans through the bite of an infected blacklegged tick. Hamilton and much of the surrounding region is deemed a risk area for Lyme disease.

The past 10 years has seen a significant increase in confirmed Lyme disease cases in Hamilton. In just three years, the rate of Lyme disease increased 63.4% (13.4 cases per 100,000 population in 2023 compared to 8.2 cases per 100,000 population in 2021) (Figure 7.21).

In 2023, Hamilton had the highest number of reported confirmed cases to date with 81.

Figure 7.21 Lyme disease, confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



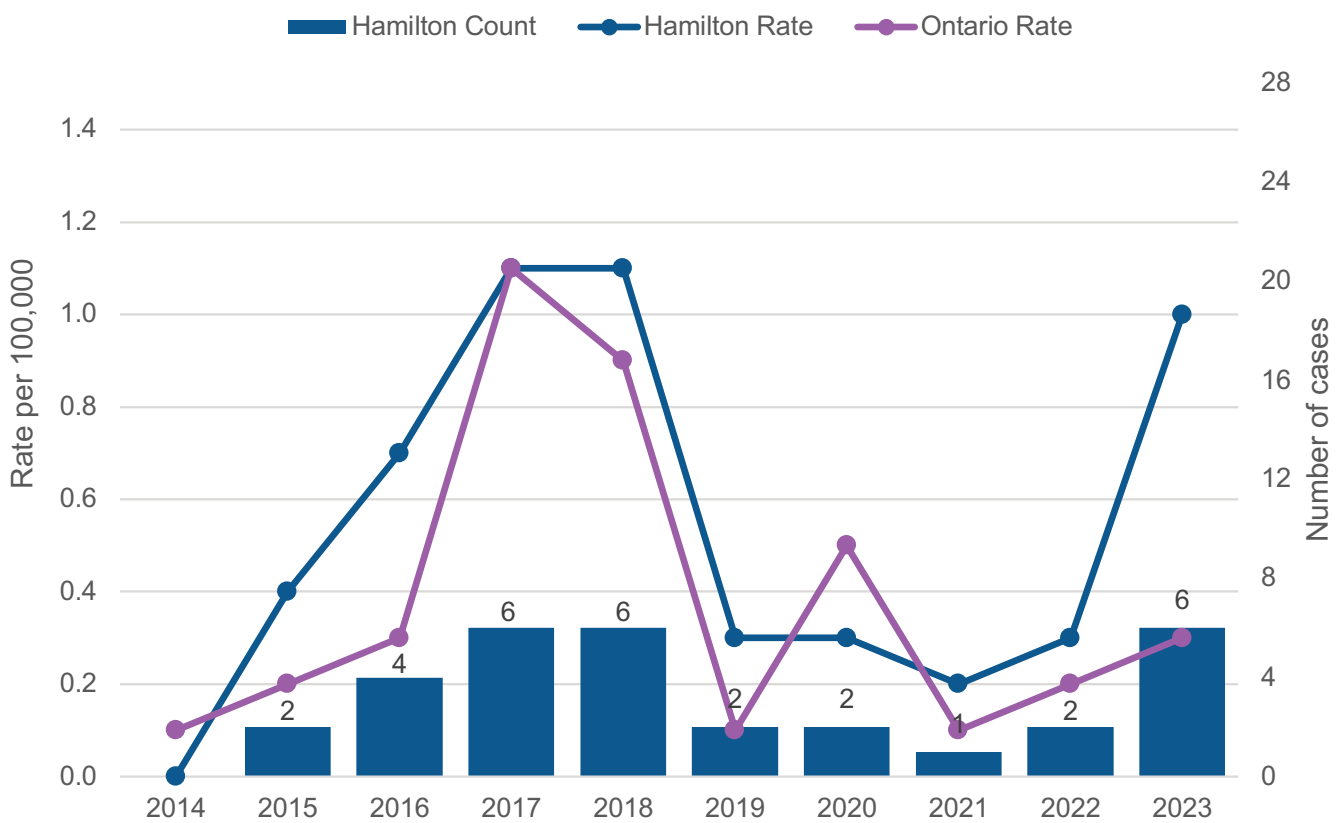
Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

West Nile Virus

West Nile virus is spread to humans from the bite of an infected mosquito.

In 2023, Hamilton had six confirmed cases of West Nile virus, a significantly higher rate (1 case per 100,000 population) than for Ontario as a whole (0.3 case per 100,000 population) (Figure 7.22).

Figure 7.22 West Nile virus, confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

ANTIMICROBIAL-RESISTANT INFECTIONS

Carbapenemase-producing Enterobacteriaceae (CPE)

Enterobacteriaceae are a family of bacteria. Carbapenemase-producing Enterobacteriaceae (CPE) are resistant to carbapenem antimicrobials.

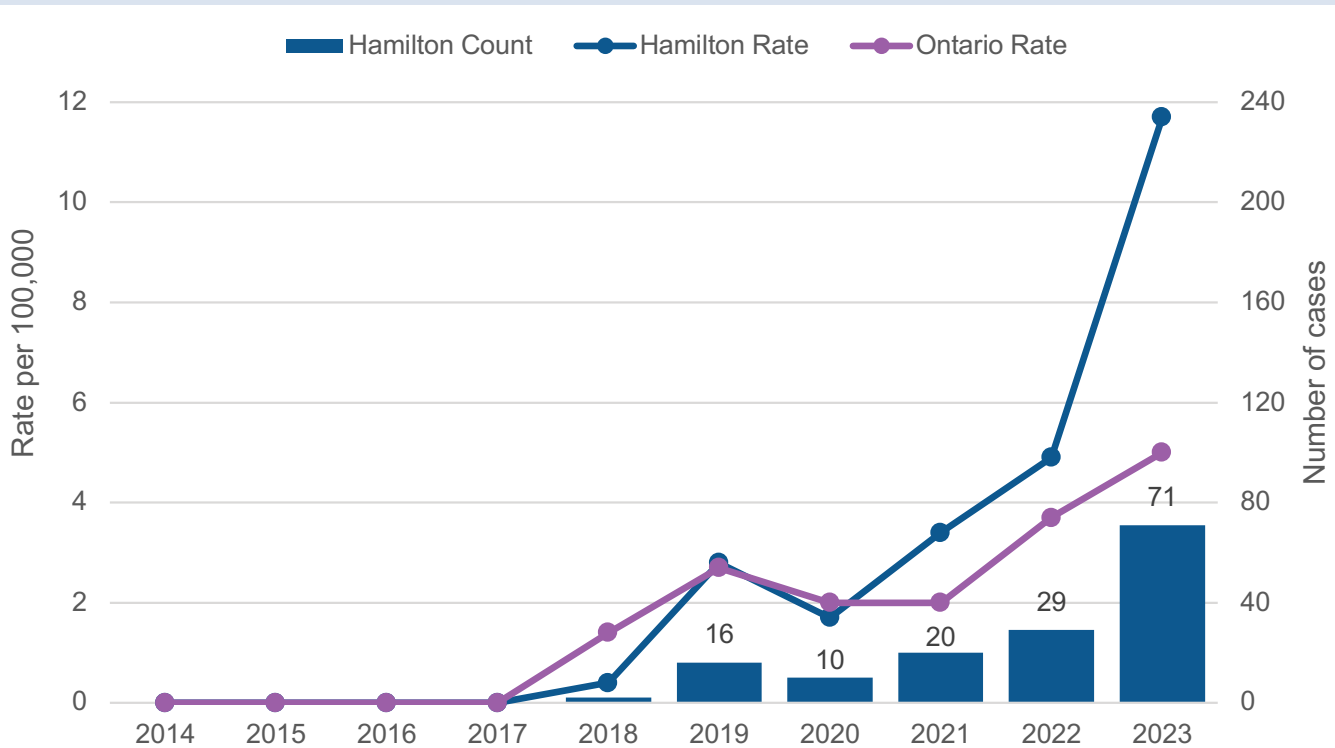
CPE can spread through direct or indirect contact, and can cause pneumonia, or infections of the gastrointestinal tract, urinary tract and skin. One risk factor for infection is receiving healthcare in settings that have CPE.

In Hamilton, the rate of CPE increased significantly in the past 10 years (2014-2023). The greatest increases occurred from 2022 to 2023 when the CPE rate more than doubled.

There were 71 confirmed CPE cases in 2023, representing 11.7 cases per 100,000 population (Figure 7.23). This rate increased almost 12-fold from 2018 (0.4 cases per 100,000 population) to 2023.

Compared to Ontario (5 cases per 100,000 population), Hamilton had more than twice as high a rate of CPE in 2023. Some or most of this increase is likely attributed to changes in reporting requirements and surveillance practices. Reporting of this disease became mandatory in 2018, and ever since there have been increased efforts to screen and test for this disease in healthcare settings.

Figure 7.23 Carbapenemase-producing Enterobacteriaceae (CPE) confirmed cases (count and incidence rate per 100,000 population), Hamilton and Ontario, 2014-2023

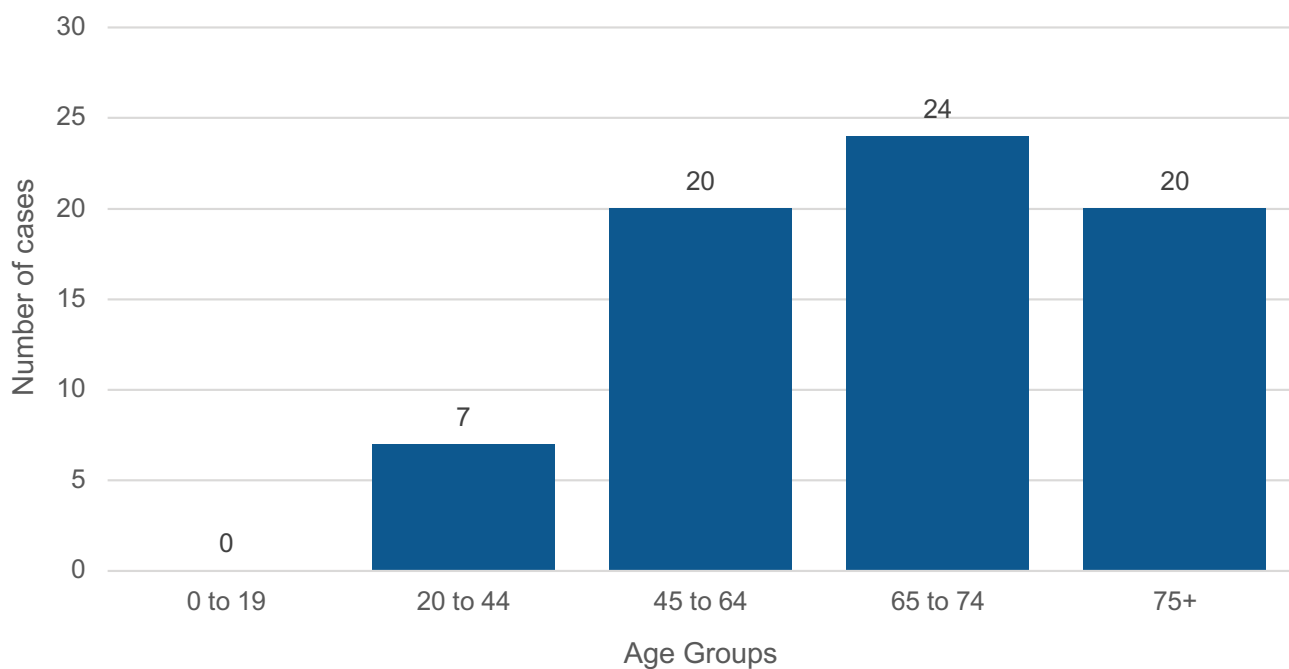


Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]

Males are disproportionately affected by CPE, accounting for 63.4% of cases in 2023 (5 males compared to 8.5 females per 100,000 population).

CPE cases were most frequently seen in older population, specifically in 65- to 74-year-olds, which accounted for 33.8% of all CPE cases in 2023. This is followed by the 45–65-year-olds and 75+ age groups (Figure 7.24).

Figure 7.24 Carbapenemase-producing *Enterobacteriaceae* (CPE) confirmed cases by age group, Hamilton, 2023



Source: Integrated Public Health Information System (iPHIS) accessed through Public Health Ontario Infectious Disease Query [5 April 2024]



CHAPTER 8

ENVIRONMENTS AND HEALTH

HIGHLIGHTS

- Outdoor air quality in Hamilton has improved over the past decade, however some specific air pollutants continue to reach levels that are a risk to human health.
- Five Special Air Quality Statements were issued for Hamilton in 2023, the highest number since warnings began in 2015.
- Fine particulate matter levels in Hamilton improved overall between 2012 and 2021. But in 2021 they exceeded the point where residents would be considered protected against chronic effects.
- Air pollution accounted for an estimated 55 deaths of Hamilton residents in 2018.
- The number of heat warning days in Hamilton generally increased from 2011 to 2023, and the city's annual average temperature is projected to rise.
- From 2012 to 2021, Hamilton residents visited the emergency department more often for heat-related illness (1,291 visits) than for cold-related illness (791 times). While no deaths were attributed to heat-related illness in that period, there were 17 deaths due to cold-related illness.
- Some residents live in areas with greater potential risks to their health due to overall exposure to heat and heat vulnerability (sensitivity to heat combined with fewer options to seek relief).
- Inequalities exist in heat- and cold-related illness, particularly in areas with the greatest percentage of households below the low-income cut-off after tax and areas with the greatest percentage of households that have a core housing need.

ENVIRONMENTS AND HEALTH

PHYSICAL OUTDOOR AIR QUALITY

Air Quality Health Index

Poor air quality comes from a number of factors, including emissions from various natural and man-made sources (e.g., vehicles, forest fires, power plants, industrial processes and residences), and is influenced by atmospheric and weather conditions.

The [Air Quality Health Index](#) (AQHI) is based on the combined health effects of three common air pollutants that are known to harm human health: ozone (O₃) at ground level; particulate matter (PM_{2.5}/PM₁₀); and nitrogen dioxide (NO₂).

The AQHI was implemented across Ontario in 2015, and uses a scale ranging from 1-10+ to cover four health risk categories:

- low health risk: 1-3
- moderate health risk: 4-6
- high health risk: 7-10
- very high health risk: 10+

Ontario issues air quality alerts in partnership with Environment and Climate Change Canada. There are two levels of alerts: [Special Air Quality Statement](#) (SAQS) and Smog and Air Health Advisory (SAHA).

SAQS inform the public of the potential for degrading air quality. It's issued if an AQHI of 7 or greater and is expected to last for 1-2 hours, or for areas where forest fire smoke is expected to cause deteriorating air quality. SAHA is issued when AQHI levels of 7 or greater are expected to continue for three hours or more.

The SAQS is meant to notify the residents –

especially those at risk due to age, underlying illnesses or sensitivities – to pay attention to air quality and adjust their activities if they observe adverse health effects. In 2023, five SAQS were issued for Hamilton, primarily due to forest fire smoke, up from two in 2022 and the highest number since implementation in 2015 (Figure 8.1).

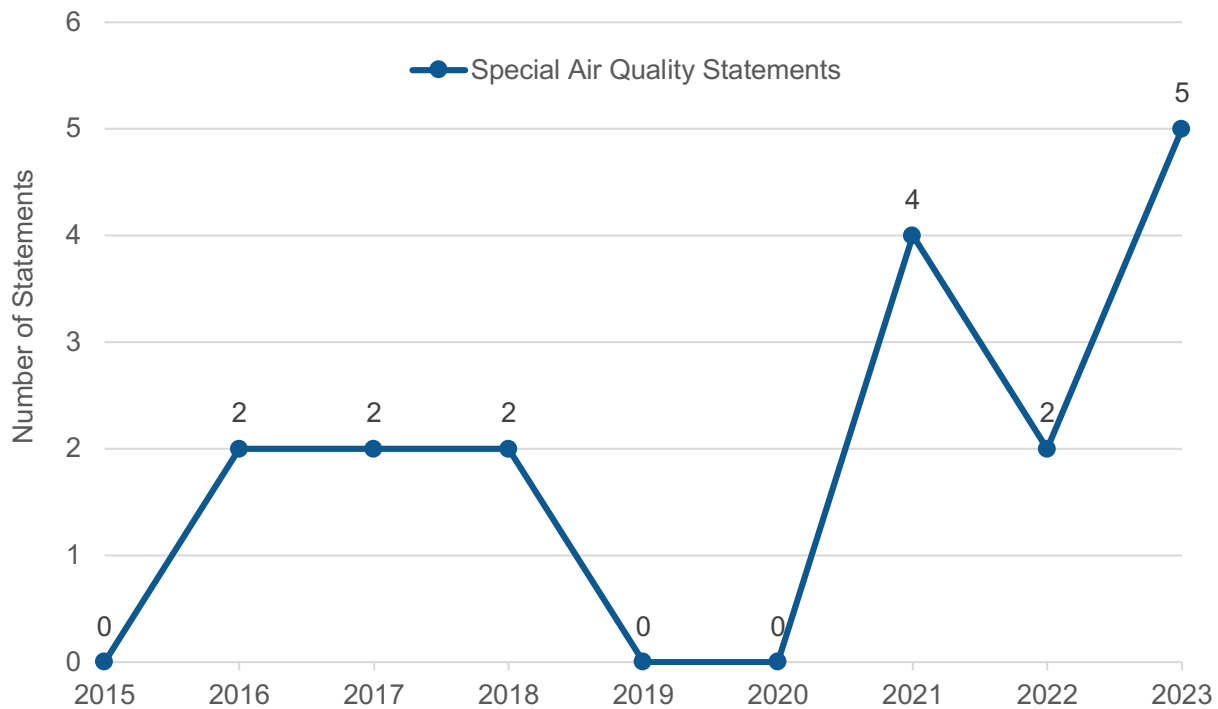
No SAHAs have been issued for Hamilton since reporting began in 2015.

In 2021, the Hamilton Downtown monitoring station reported low risk air quality about 85.6% of the time, based on the annual reported hours and moderate risk or above 14.5% of the time based on the AQHI. For that same year, the respective figures in Ontario were 93.1% and 6.8% (with high risk 0.03% of the time).⁵¹

AQHI results varied for the seven-year period that results were available and generally decreased over that time (Appendix A Table 8.1). In 2015, the AQHI was at or above a moderate health risk level 20.3% of the time. It fluctuated from 2016 through 2019 from 14.2% to 16.7%, then dipped in 2020 to 9.8% before increasing again in 2021 (Figure 8.2).

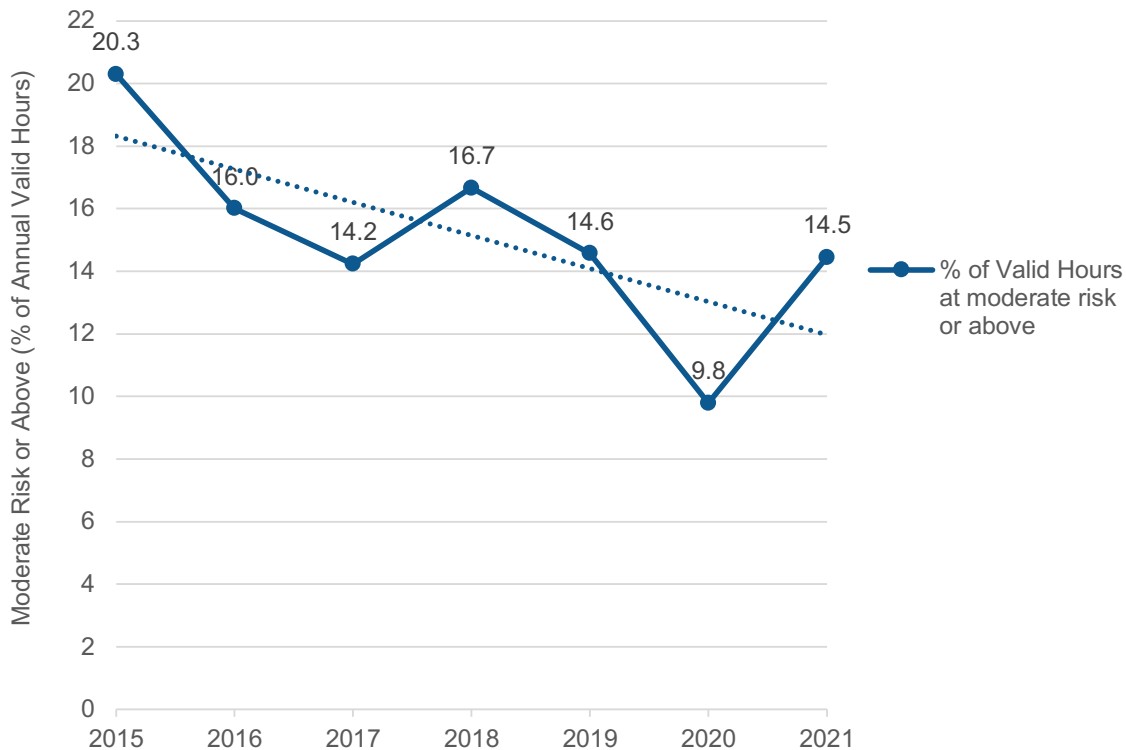
Measures put in place in 2020 due to the COVID-19 pandemic, such as the temporary stay-at-home order, reduced transportation and industrial activities across Ontario. Monitoring on the Highway 401 corridor indicated the pandemic measures reduced emission of nitrogen dioxide (NO₂), while road traffic reductions made little impact on [fine particulate matter](#) (PM_{2.5}) and ozone (O₃) levels.⁵²

Figure 8.1: Special Air Quality Statements, City of Hamilton, 2015-2023



Source: Air Quality Ontario, Summary of Special Air Quality Statements and Smog and Air Health Advisories 2015-2023, accessed January 15, 2024, and available at: https://www.airqualityontario.com/aqhi/advisories_stats.php

Figure 8.2 Air Quality Health Index (AQHI), moderate risk or above, percent of annual valid hours, Hamilton Downtown monitoring station, 2015-2021



Source: Air Quality Ontario. Air Quality in Ontario Reports 2015-2021. Available from: www.airqualityontario.com/press/publications.php and <https://www.ontario.ca/document/air-quality-ontario-2021-report>

AIR POLLUTANTS

Outdoor air quality in Hamilton has improved over the past decade, however some specific air pollutants continue to reach levels that are a risk to human health.

Appendix A Table 8.2 provides the 10-year trends from 2012 to 2021 (the most recent comprehensive reporting year) for concentrations of 16 air contaminants at the Hamilton Downtown [air monitoring station](#).

Hamilton has three air monitoring stations: Downtown, Hamilton Mountain and Hamilton West. Hamilton Downtown (located at Elgin/Kelly streets), typically has poorer outdoor air quality results and was therefore selected as the indicator station. This station is also classified as one of Ontario's roadside stations to better understand traffic-related air pollution in urbanized settings. Roadside air monitoring stations are typically located within approximately 100 metres of a major roadway with daily traffic volumes greater than 10,000 vehicles per day.⁵²

In 2021, fine particulate matter (PM_{2.5}) exceeded the recommended provincial [Ambient Air Quality Criteria](#) (AAQC) for preventing chronic health effects. [Sulphur dioxide](#) (SO₂) levels also exceeded the AAQC criteria for acute health effects.

Fine particulate matter

Fine particulate matter, along with ozone (O₃), are the main components of smog. Breathing in unhealthy levels of PM_{2.5} can increase the risk of health problems like heart disease and respiratory diseases including asthma. People living with heart or lung disease, children and older adults aged 65 and older are particularly sensitive to this pollutant.⁵²

Health Canada identified that exposure to PM_{2.5} contributed 65% of all premature mortality due to air pollution in Canada when the three main contributors to poor health are considered (i.e., PM_{2.5}, NO₂, and ozone).⁵³

The annual mean concentration of PM_{2.5} at the Hamilton Downtown ambient air monitoring station in 2021 was 8.9 µg/m³, higher than the 2020 level of 8.1 µg/m³ (Figure 8.3).

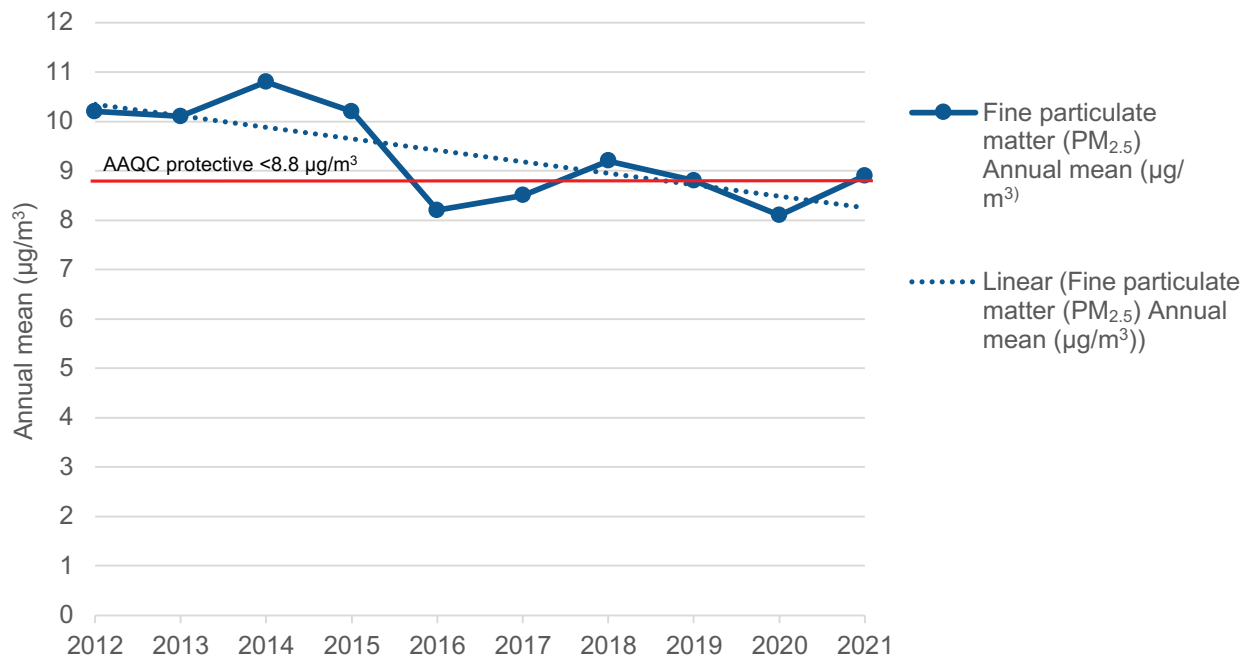
Overall, fine particulate matter levels at the Hamilton Downtown station decreased by 20.9% over a 10-year period, from 10.2 µg/m³ in 2012 to 8.9 µg/m³ in 2021. The levels in Ontario decreased by 18% for the same period.

An Annual Ambient Air Quality Criteria (AAQC) of 8.8 µg/m³ was introduced in 2020 for PM_{2.5}. It's the level that assesses whether residents are protected against chronic effects. The annual level, averaged over three years from 2019-2021, was within those criteria at 8.6 µg/m³. For levels above that, active management is advised to reduce pollutant levels.

Hamilton Downtown and Windsor West were the only two air monitoring stations in the province that recorded 2021 annual mean concentration of PM_{2.5} levels above the Ontario AAQC.

In 2021, Ontario experienced several wildfire smoke events. That included one event that caused widespread elevated PM_{2.5} concentrations and poor air quality across the province. It prompted the issuance of a SAQS for most of Southern Ontario, including Hamilton, on July 19, 2021.⁵¹

Figure 8.3: Fine particulate matter (PM_{2.5}) annual mean (µg/m³), Hamilton downtown monitoring Station (#29000), 2012-2021



Source: Air Quality in Ontario 2021 Report, 10-year trend for fine particulate matter (PM_{2.5}), annual mean (µg/m³) Available from: www.ontario.ca/document/air-quality-ontario-2021-report/appendix#section-6

Notes: To ensure trend comparability, a correction factor was applied to PM_{2.5} concentrations measured in 2012 to approximate the [SHARP](#) measurement approach used in Ontario from 2013 onward.

Sulphur dioxide

Exposure to high levels of [sulphur dioxide](#) (SO₂) can cause breathing problems and respiratory illness, and exacerbate respiratory and cardiovascular disease.

People with asthma, chronic lung disease or heart disease are particularly affected by short-term exposures to SO₂. Exposures can cause respiratory deaths in adults, particularly in those with asthma.⁵²

The annual mean concentration of SO₂ at the Hamilton Downtown station in 2021 was 3.8 ppm, slightly higher than the 2020 level of 3.7 ppm (Figure 8.4).

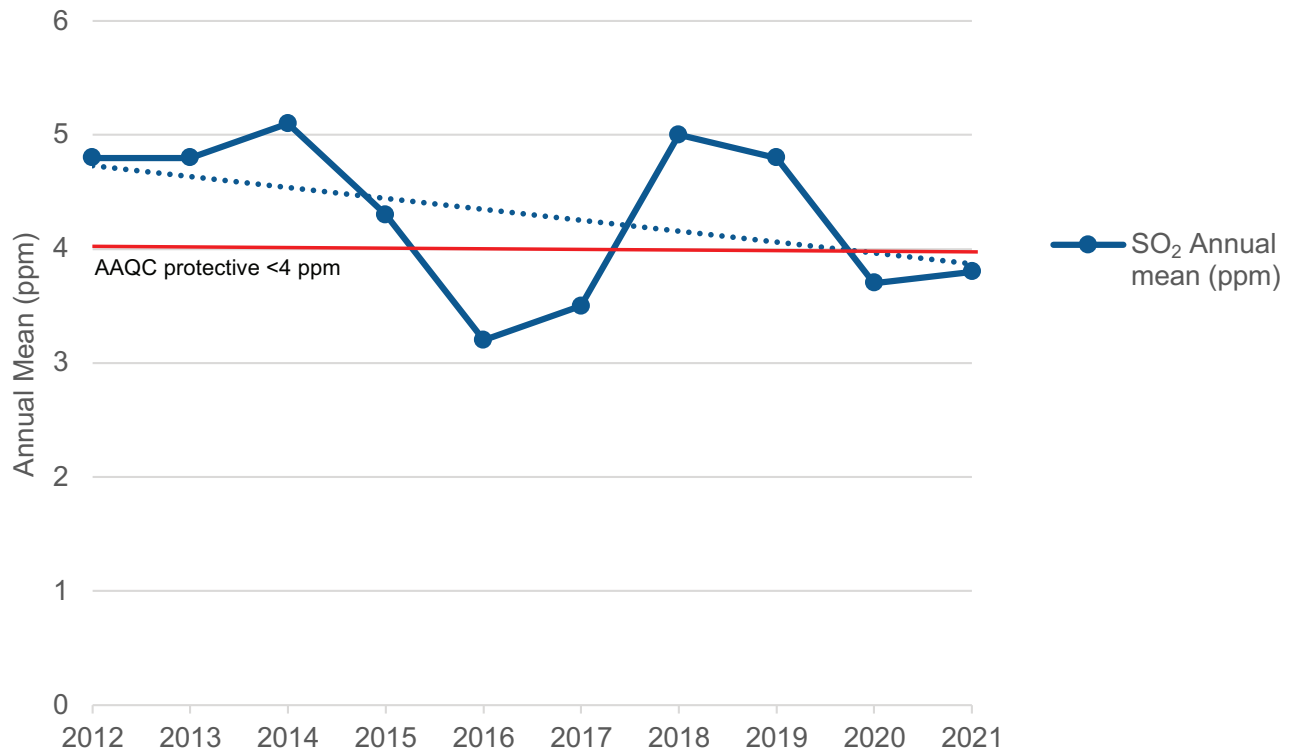
Overall, SO₂ levels at the Hamilton Downtown station decreased by 14.2% over the 10-year period, from 4.8 ppm in 2012 to 3.8 ppm in

2021. Ontario decreased by 54% for the same period.

Hamilton Downtown's 2021 annual mean concentration of SO₂ was the highest recorded in Ontario that year. That was below the AAQC level of 4 ppm, indicating that Hamiltonians were generally protected against chronic effects.

However, the SO₂ level exceeded the AAQC standard in six of the 10 years between 2012-2021, most recently in 2019 (Appendix A Table 8.2). The one-hour SO₂ levels also assess protection against acute effects. In 2021, Hamilton Downtown exceeded the AAQC criteria of 40 [ppb](#) 169 times, the highest number for the reported monitoring stations in Ontario.⁵¹

Figure 8.4: Sulphur Dioxide (SO₂) annual mean (ppm), Hamilton downtown monitoring station, 2012-2021



Source: Air Quality in Ontario 2021 Report, 10-year trend for sulphur dioxide (SO₂) annual mean (ppm) Available from: www.ontario.ca/document/air-quality-ontario-2021-report/appendix#section-6

(see Chapter 3: General Health, Table 3.3), including deaths due to ischemic heart disease (#1) lung cancer (#2) and COPD (#5).

Poor air quality can exacerbate symptoms of chronic disease, including COPD and asthma putting Hamiltonians living with chronic diseases at risk during poor air quality days.

The number of Hamiltonians of all ages living with asthma in 2020 was 80,416.⁵⁶ That's twice as many as the number of Hamiltonians aged 20 and older living with COPD in 2020 at 40,217. The [prevalence](#) rate for COPD, when age was taken into consideration, was higher for Hamiltonians (7,950 per 10,000 population) compared to Ontario (7,454 per 10,000 population).⁵⁷

PHYSICAL HEAT

Hamilton's annual average outdoor temperature for all seasons is projected to increase from the baseline of 8.3°C (1976-2005) to 10.4°C (2021-2050) and then to 12.5°C (2051-2080).⁵⁸

Heat Warning Days

Hamilton's Medical Officer of Health issues a heat warning when two or more consecutive day are expected with:

- daytime highs greater than or equal to 31°C and nighttime lows greater than or equal to 20°C, or
- it feels like 40°C or greater with the Humidex

In 2023, Hamilton had 11 [heat warning days](#) (Figure 8.5). The annual number of heat warning days increased overall from 2011-2023. The five-year average was 8.8 days from 2011-2015 and 14 days from 2019-2023.

AIR QUALITY-RELATED ILLNESS AND DEATH

The Global Burden of Disease (GBD) Study is the largest systematic, data-driven project to quantify the loss of health from major diseases and risk factors such as air pollution.⁵⁴ It adds up the risk from pollutants – including ambient ozone and fine particulate matter – for health outcomes attributed to air pollution in Canada.

These outcomes include ischemic heart disease, stroke, lung cancer, chronic obstructive pulmonary disease (COPD), lower respiratory infections and type II diabetes. The estimates do not currently include the impact of air pollution on various mental or neurological health outcomes, such as dementia.

Using the GBD Study approach, air pollution was estimated to account for 55 deaths of Hamiltonians in 2018. That included approximately:

- 17 deaths due to ischemic heart disease
- 13 deaths due to COPD
- 11 deaths due to lung cancer
- 6 deaths to cerebrovascular disease
- 5 deaths to diabetes and kidney disease
- 3 deaths are from all other diseases combined

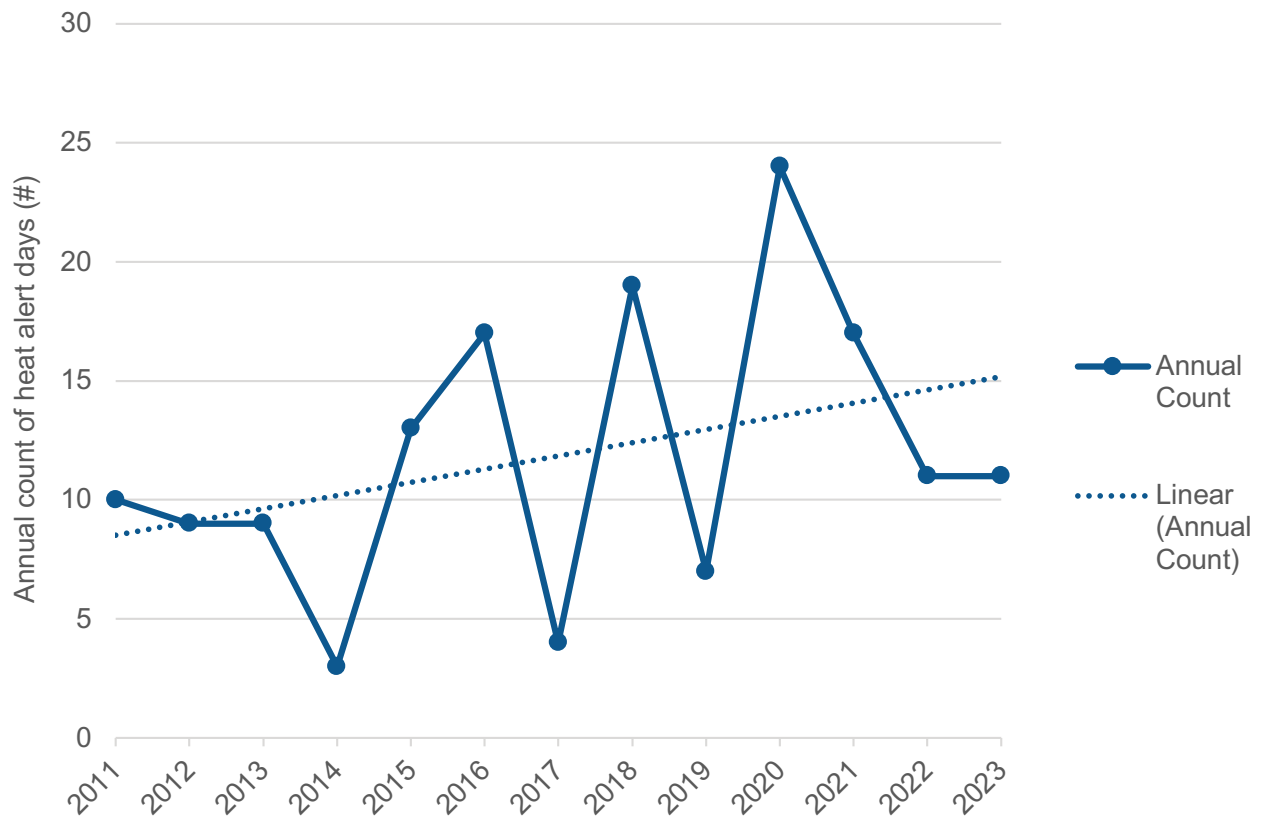
This total could be much higher, as Health Canada modelling indicated that approximately 378 [premature deaths](#) could be attributed to air pollution for Hamiltonians in 2016.⁵³ The 2018 estimate is lower than that from 2012 when 90 deaths of Hamiltonians were attributed to air pollution (Appendix A Table 8.3).⁵⁵

Diseases that are linked to poor air quality are also among the five leading causes of premature deaths to Hamiltonians in 2021

Heat warning days peaked in 2020 at 24 days and were at their lowest in 2014 at three days (Appendix A Table 8.4).

The length of an average heatwave is expected to increase from 3.8 days to 8.4 days by 2080. The total annual number of days at or above 30°C is projected to increase from 16.1 days at baseline to 37.2 days by the 2050s and 63.3 days by the 2080s.⁵⁸

Figure 8.5: Heat warning days, annual counts, City of Hamilton, 2011-2023



Source: City of Hamilton Public Health Services, Summary of Heat Warnings 2011 – present. Accessed October 25, 2023

EXTREME WEATHER: HEAT-RELATED ILLNESS

Over the 10-year period from 2012-2021 Hamilton recorded no deaths attributed to heat-related illness (there were two deaths in 2011)⁵⁹ and 28 heat-related hospitalizations. The peak number of hospitalizations was six in in 2020, a year when heat warnings also peaked at 24 days.⁶⁰

Over the three-year period from 2019-2021, the average annual rate of emergency department visits for heat-related illness among Hamilton residents was 18.1 per 100,000 population, which was similar to the Ontario rate of 18.8 per 100,000 population.

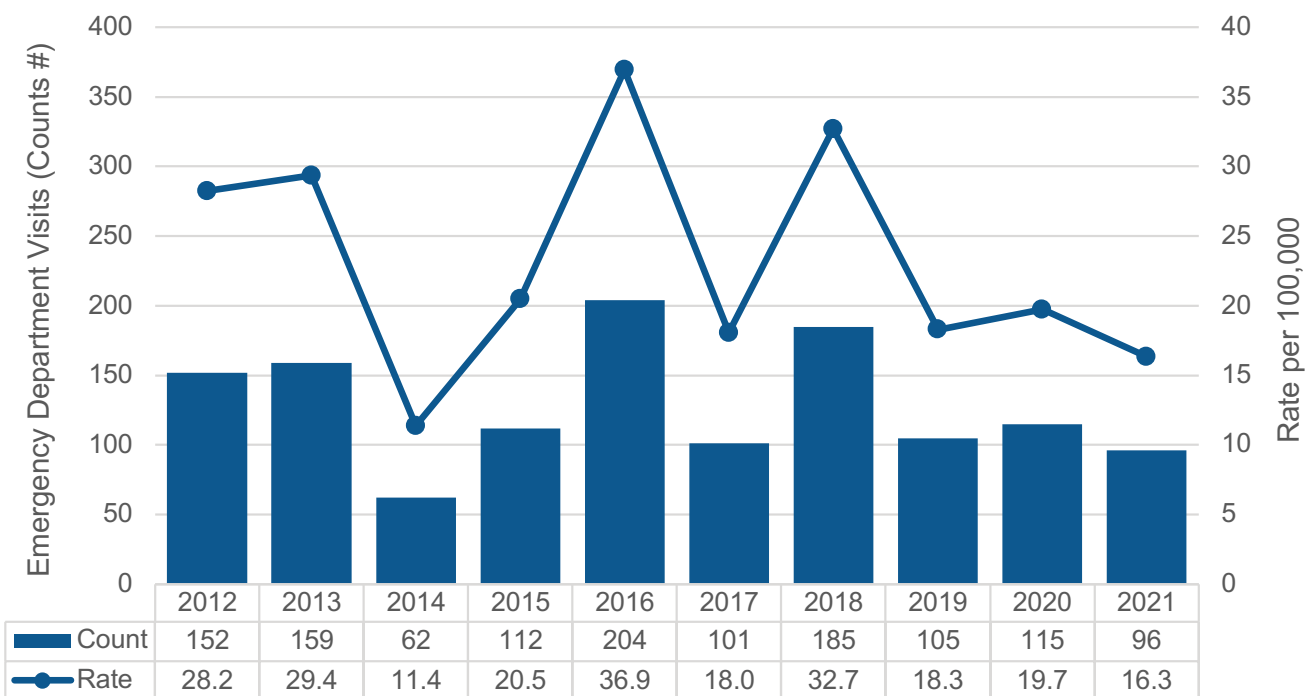
Figure 8.6 illustrates trends over time of

emergency department visits for heat-related illness among Hamiltonians. There were 96 such visits in 2021, the most recent year of data assessed, and 1,291 from 2012-2021. The peak number of visits was 204 in 2016 (coinciding with an observed increase in heat warning days); the lowest was 62 in 2014.⁶¹

Even when the number of heat warning days was up (19 days in 2018 and 24 days in 2020), Hamilton residents experienced fewer emergency department visits than in 2016.

Heat-related emergency department visits for Hamiltonians from 2017-2021 were not equally distributed (Figure 8.7). When assessing area-based inequality, higher rates of heat-related emergency department visits existed among

Figure 8.6: Heat-related emergency department visits, counts and rate, Hamiltonians, 2012-2021

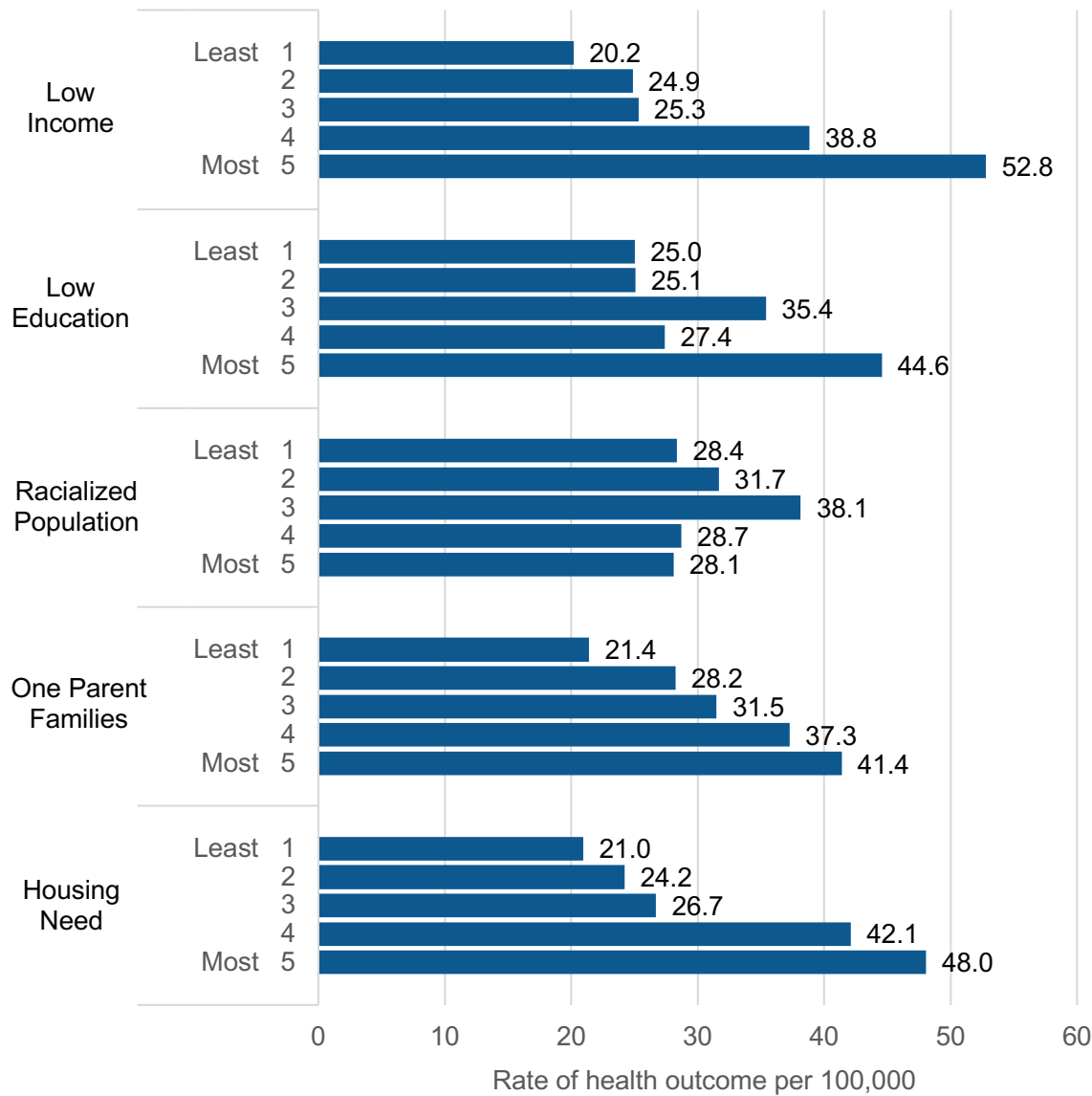


Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health, IntelliHEALTH ONTARIO [Date Extracted 18 April 2022]; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [Data Effective 5 April 2023].

Notes:

- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 8.7: Heat-related emergency department visits by area-based socioeconomic quintiles, average annual crude rate per 100,000 population, Hamilton residents, 2017-2021 combined



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Hamilton residents who lived in (Figure 8.7):

- areas with greatest percentage of households below the low-income cut-off after tax (more than double the rate seen in neighbourhoods with the lowest percentage of such households)
- areas with the greatest percentage of households that have a core housing need (more than double the rate of neighbourhoods with the lowest percentage of such households)
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of individuals with no high school diploma or equivalent

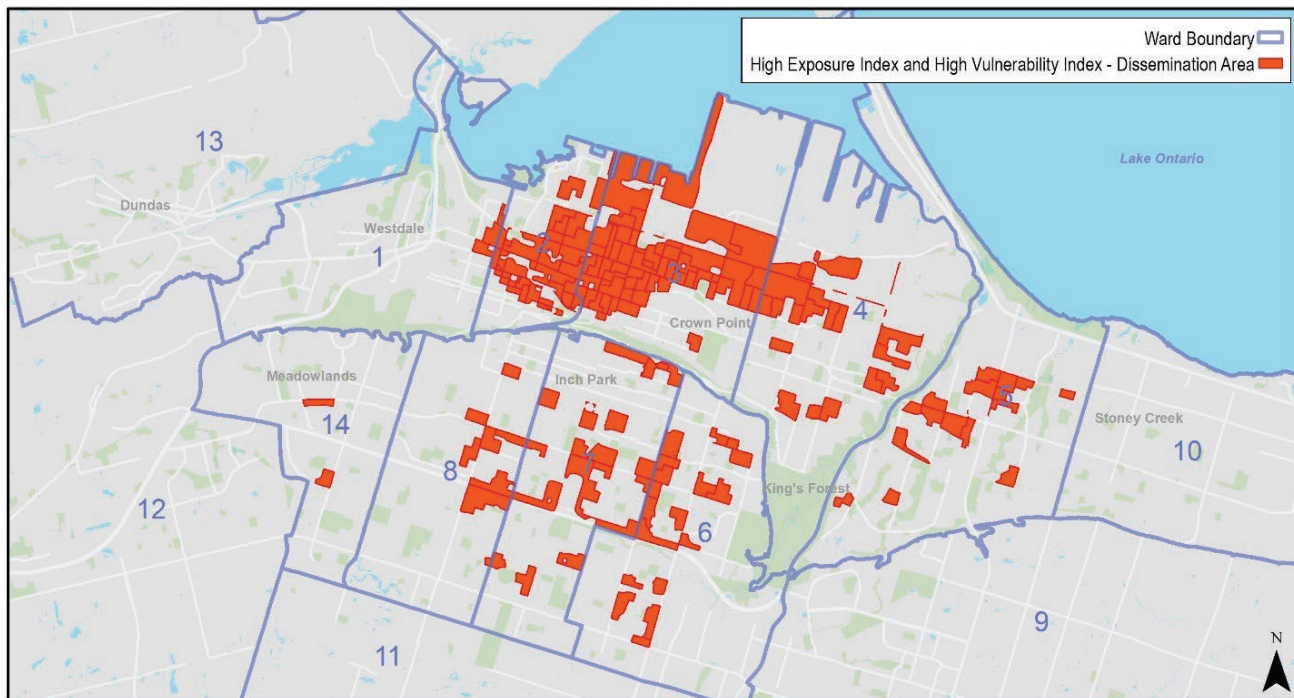
Risks rise with both exposure and vulnerability.

An individual's exposure to extreme heat can be influenced by the environment (e.g., built environment, the presence or absence of beneficial conditions such as plant cover, water proximity and altitude).

Vulnerability to heat is influenced by the sensitivity or intensity with which heat waves are felt (e.g., population age, types of households, housing characteristics). In periods of heat, some areas also have fewer factors that could enhance an individual's ability to cope, such as access to shopping malls, other air-conditioned spaces and public cooling spaces.

Figure 8.8 identifies geographic areas in Hamilton with the highest potential risk due to extreme heat, and combines both risk of exposure and vulnerability.

Figure 8.8: Extreme heat potential risk areas (High Exposure Index and High Vulnerability Index), City of Hamilton, 2023



Source: Public Health Services, City of Hamilton, 2023, Adapted from: Department of Geography, Université Laval. (2023) Mapping the vulnerability and exposure to extreme heat waves of populations living in housing in Canadian Communities. [Heatwaves.ffg.ulaval.ca](https://heatwaves.ffg.ulaval.ca)

PHYSICAL COLD

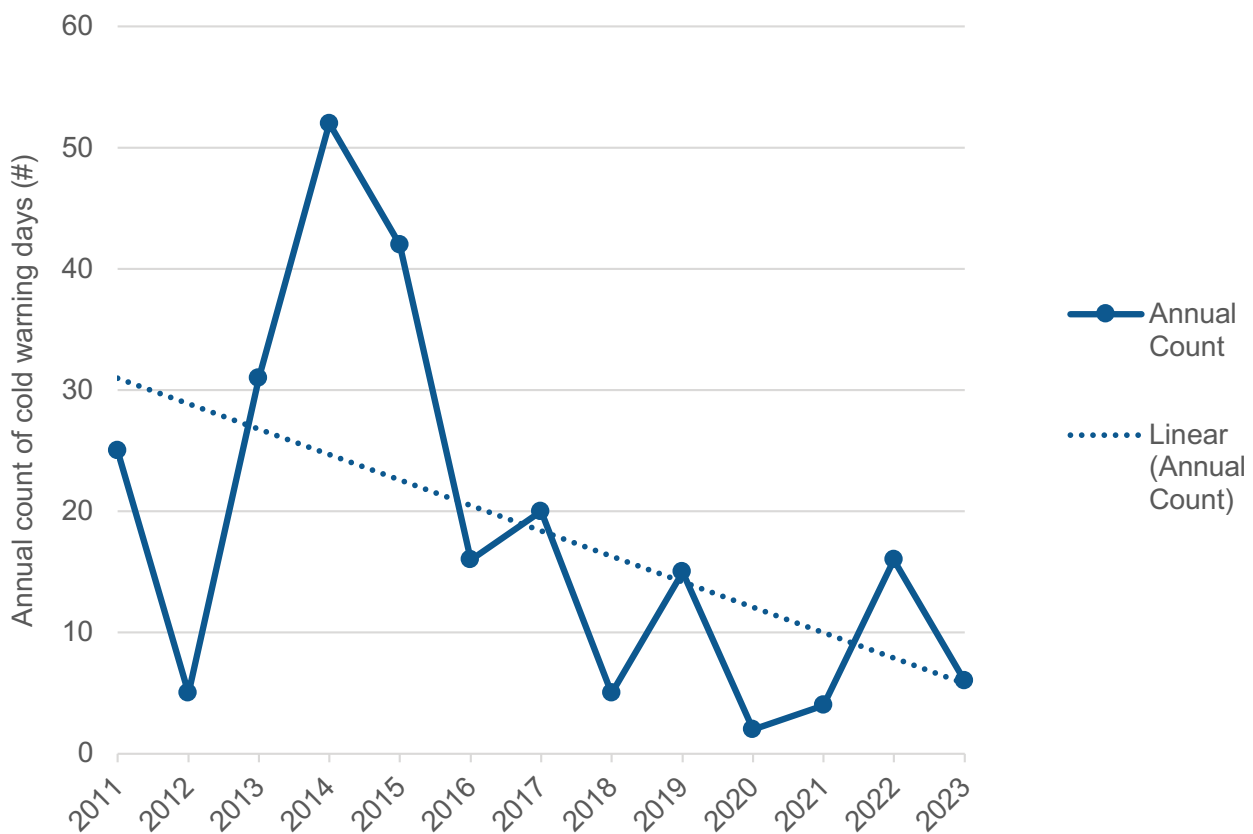
Cold Warning Days

Hamilton’s Medical Officer of Health issues a cold warning when the temperature drops or is expected to drop below -15°C , or the temperature feels like -20°C with wind chill. In 2023 there were six [cold warning days](#) in Hamilton.

The annual number of cold warning days decreased from 2010-2023 with year-to-year fluctuations (Figure 8.9). The five-year averages were 31 days for 2011-2015 and 8.6 days for 2019-2023.

Cold warning days peaked in 2014 at 52 days and were at their lowest in 2020 at two days (Appendix A Table 8.4).

Figure 8.9: Cold warning days, annual counts, City of Hamilton, 2011-2023



Source: City of Hamilton Public Health Services, Summary of Cold Warnings 2011 – present. Accessed January 22, 2024

EXTREME WEATHER: COLD-RELATED ILLNESS

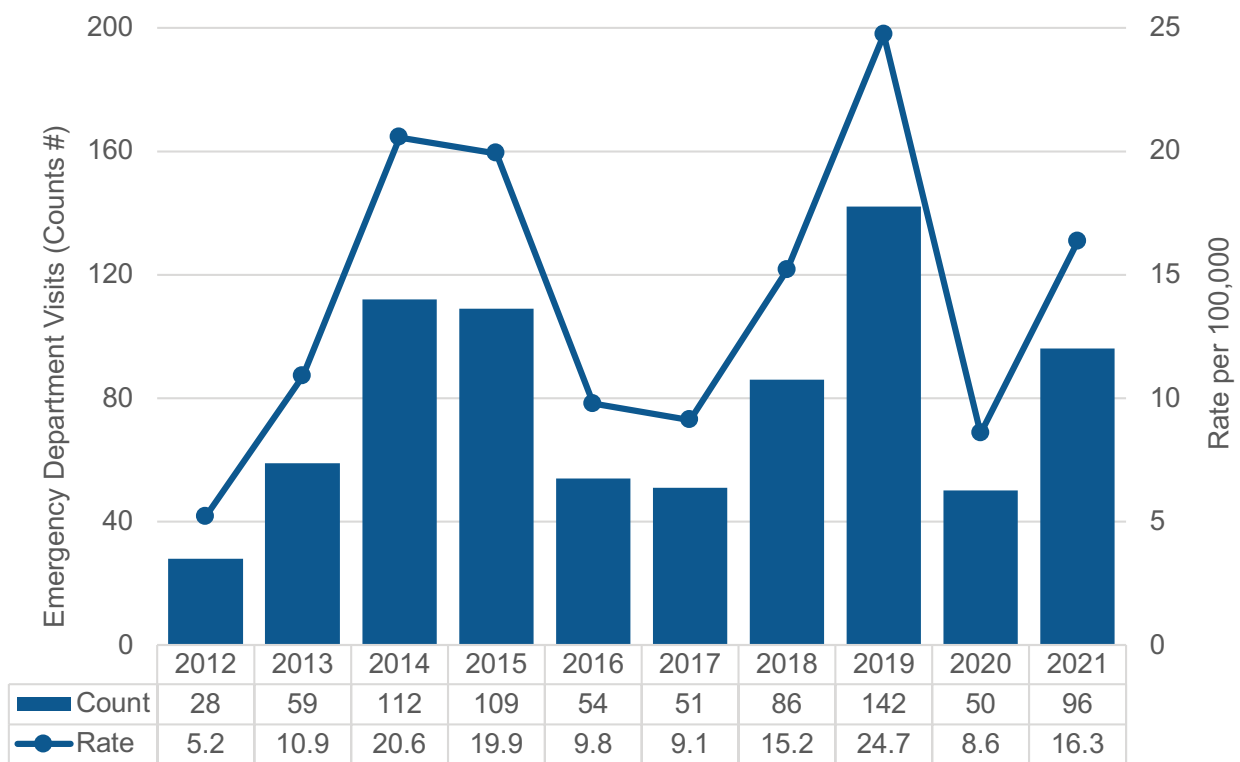
Over the 10-year period from 2012-2021 there were 17 deaths among Hamilton residents attributed to cold-related illness, including two in 2021 (the most recent year where data is available).⁵⁹

Figure 8.10 illustrates trends over time of emergency department visits for cold-related illness among residents. There were 96 such visits in 2021, for a rate of 16.3 per 100,000

population, and 787 from 2012-2021. The peak number of visits was 142 in 2019; the lowest was 28 in 2012.⁶¹

The greatest peak in the number of cold warning days, 52 in 2014, coincided with a peak in emergency department visits that year. However, the greatest peak for cold-related emergency department visits in the 10-year period from 2012 to 2021, occurred in 2019, and that coincided with only a small peak in cold warning days at 15 days.

Figure 8.10: Cold-related emergency department visits counts and rate, Hamiltonians, 2012-2021

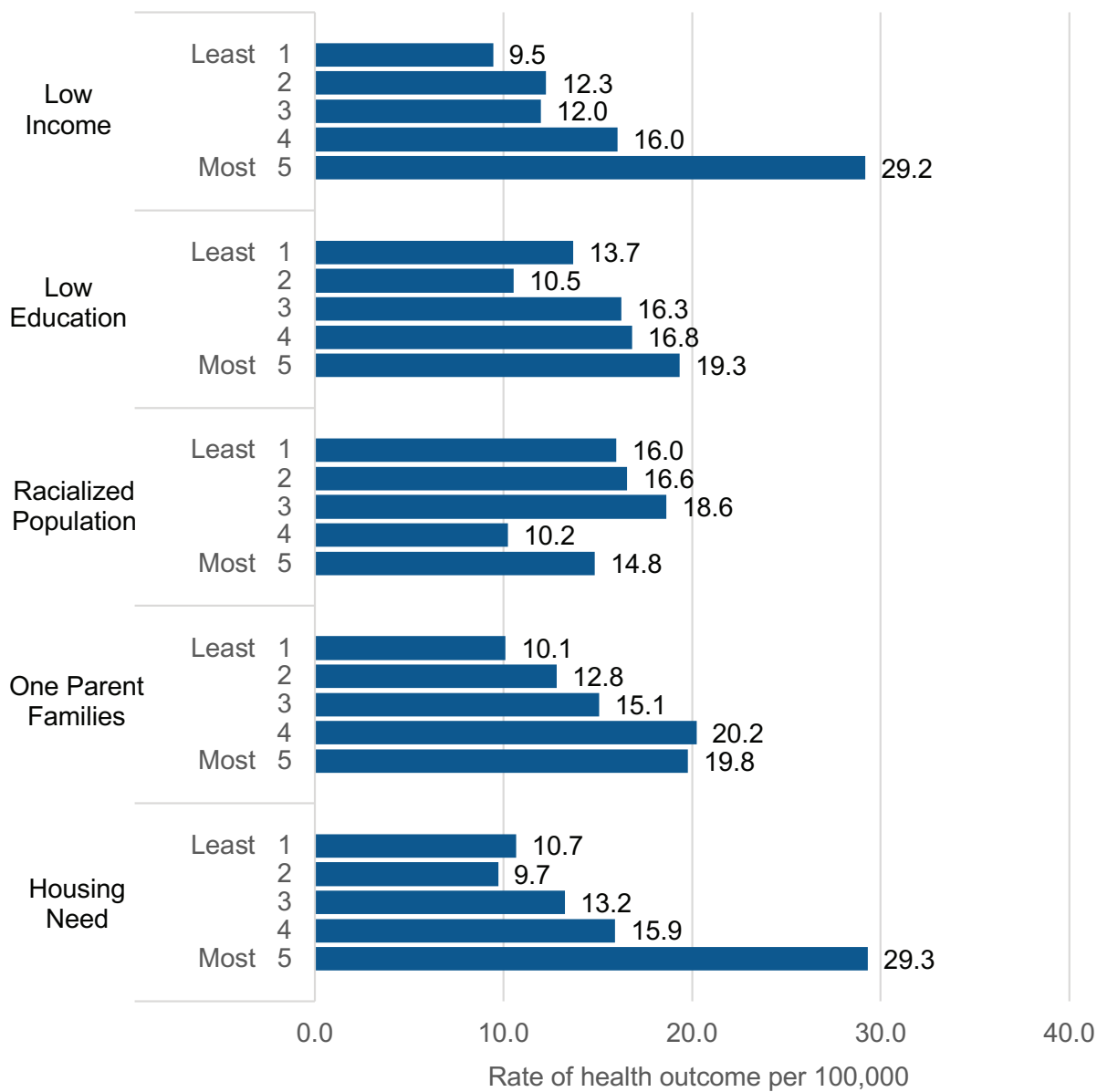


Data Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health, IntelliHEALTH ONTARIO [Date Extracted 18 April 2022]; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [Data Effective 5 April 2023].

Notes:

- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 8.11: Cold-related emergency department visits by area-based socioeconomic quintiles, average annual crude rate per 100,000 population, Hamilton residents, 2017-2021 combined



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Cold-related emergency department visits for Hamiltonians from 2017-2021 were not equally distributed by geographic area. When assessing area-based inequality, higher rates of cold-related emergency department visits existed among Hamilton residents who lived in (Figure 8.11):

- areas with greatest percentage of households below the low-income cut-off after tax (three times as high as the rate seen in neighbourhoods with the lowest percentage of such households)
- areas with the greatest percentage of households that have a core housing need (almost twice as high as the rate seen in neighbourhoods with the lowest percentage of such households)
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of individuals with no high school diploma or equivalent

RADON

Radon is a colourless, odourless gas produced by the decay of natural uranium in the ground. It's quickly diluted outdoors but can accumulate to harmful levels indoors and can build up in lower levels of buildings. As radon is found naturally in the environment, most buildings have some level of radon. Radon gas is drawn into buildings when the air pressure inside the house is lower than in the ground beneath.

Indoors, radon gas can accumulate to harmful levels. People can inhale radioactive particles, and damage cells that can become cancerous. Radon, along with fine particulate matter (PM_{2.5}) and solar ultraviolet radiation, contribute over 90% of the environmental burden of cancer in Ontario according to Cancer Care Ontario and Public Health Ontario.⁶²

While there is no safe level of radon, Health Canada's current guideline recommends remedial action to reduce levels greater than 200 Bq/m³. The Hamilton Household Radon Survey (2019-2020) found that 14.3% of participating homes had radon levels exceeding that guideline, three times greater than the Ontario provincial percentage of 4.6%.⁶³

Higher levels may be due to the soil and rocks below a building. Drains, cracks in the foundation, gaps around pipes and other openings provide points of entry. Energy-efficient methods that make a building more airtight (e.g., sealing around windows and doors) also reduce passive ventilation. Without employing reduction strategies, that can lead to higher indoor radon concentrations.⁶⁴



CHAPTER 9

MENTAL HEALTH

HIGHLIGHTS

- Self-rated mental health is good or excellent for two-thirds of residents aged 12 and older, but is much higher for those in the highest income groups compared to the lowest income group.
- Hospitalizations for mood and anxiety disorders have decreased in recent years.
- Hospitalizations for schizophrenia, substance use related disorders and other adult personality disorders have increased over the past decade.
- Outpatient visits for mental health and substance use increased during the COVID-19 pandemic.
- While suicide deaths remained unchanged from 2018-2022, emergency department visits for self-harm have increased. Those visits are much higher for female youth and other groups such as lower income and racialized.
- The rate of deaths due to dementia and Alzheimer's disease increased among Hamilton residents over the past decade.

MENTAL HEALTH

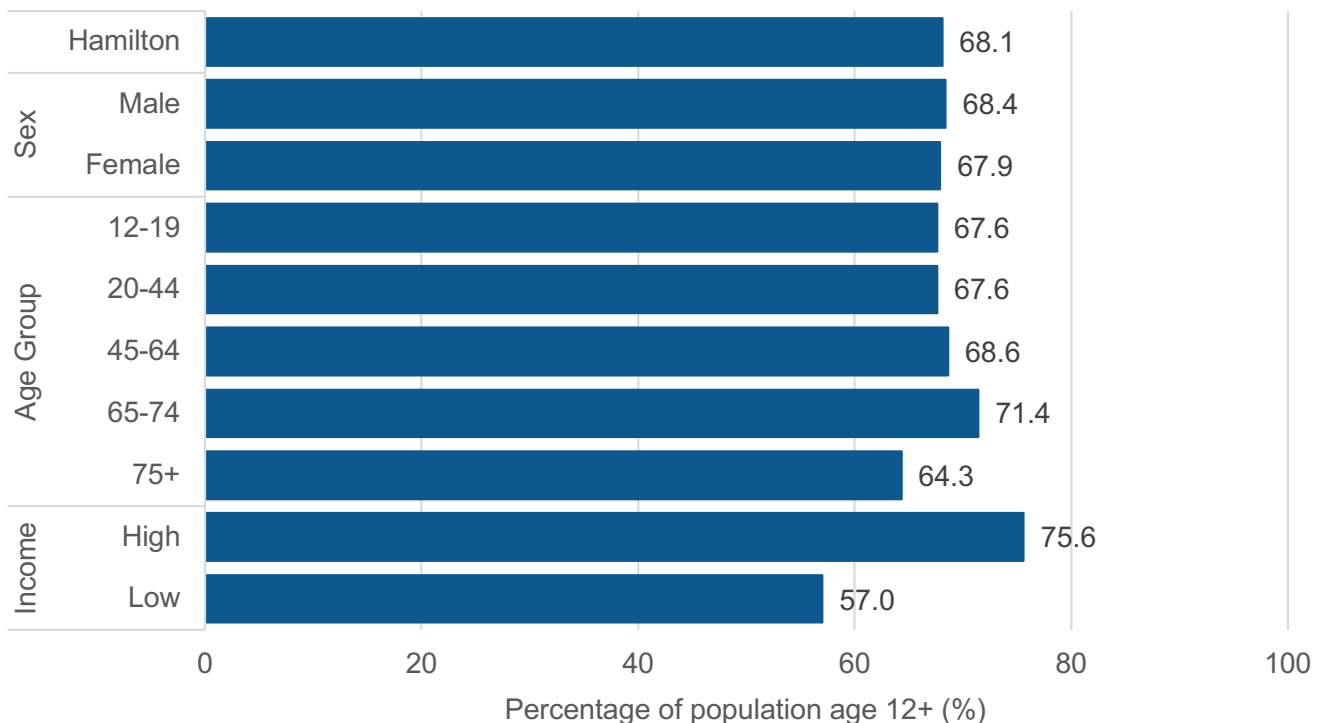
SELF-RATED MENTAL HEALTH

On average, over two-thirds of Hamilton’s residents aged 12 and older rated their mental health as very good or excellent (68.1%) for the combined years from 2015 to 2020 (Figure 9.1). This is similar to the Ontario average for the same time-period (68.5%).

Positive self-rated mental health of Hamiltonians was similar for 2015-2016 (70.6%), 2017-2018 (69.4%), and 2019-2020 (64.4%).

There were few differences across age groups, and a similar percent of females (67.9%) and males (68.4%) aged 12 and older rated their mental health as very good or excellent in Hamilton. One notable difference was Hamiltonians in the highest household income group rated their mental health much higher (75.6%) compared to Hamiltonians in the lowest income group (57.0%).

Figure 9.1: Self-rated mental health as very good-to-excellent by different groups of Hamilton residents age 12+, 2015-2020 combined



Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Compared to Ontario as a whole, Hamiltonians have a:

MENTAL ILLNESS

This section assessed hospitalizations across five groups of mental illnesses (Figure 9.2):

- mood disorders (mood/affective disorders)
- schizophrenia (schizophrenia, delusional and non-organic psychotic disorders)
- substance-related disorders
- anxiety disorders
- other adult personality disorders (selected disorders of adult personality and behaviour)

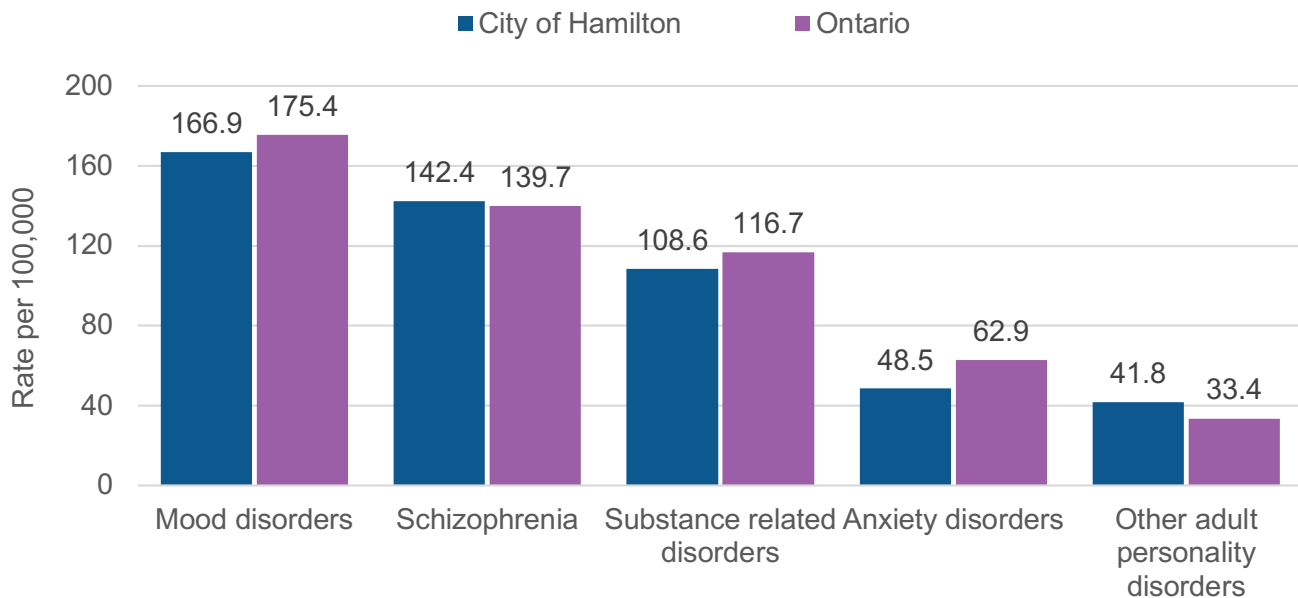
For 2021, there were 2,955 hospitalizations for these conditions among Hamilton’s residents. On average, eight Hamilton residents were hospitalized each day from 2019 to 2021 for one of those five groups of mental illness.

- lower rate of hospitalizations for mood disorders, substance-related disorders and anxiety disorders
- similar hospitalization rate for schizophrenia
- higher hospitalization rate for other adult personality disorders

Hospitalization rates increased over 2012-2021 for schizophrenia (37.7% increase), substance use-related disorders (46.1% increase), and other adult personality disorders (77.5% increase) (Figure 9.3).

During 2020-2021, the rate of hospitalizations decreased for mental health and substance use-related disorders among Hamilton’s

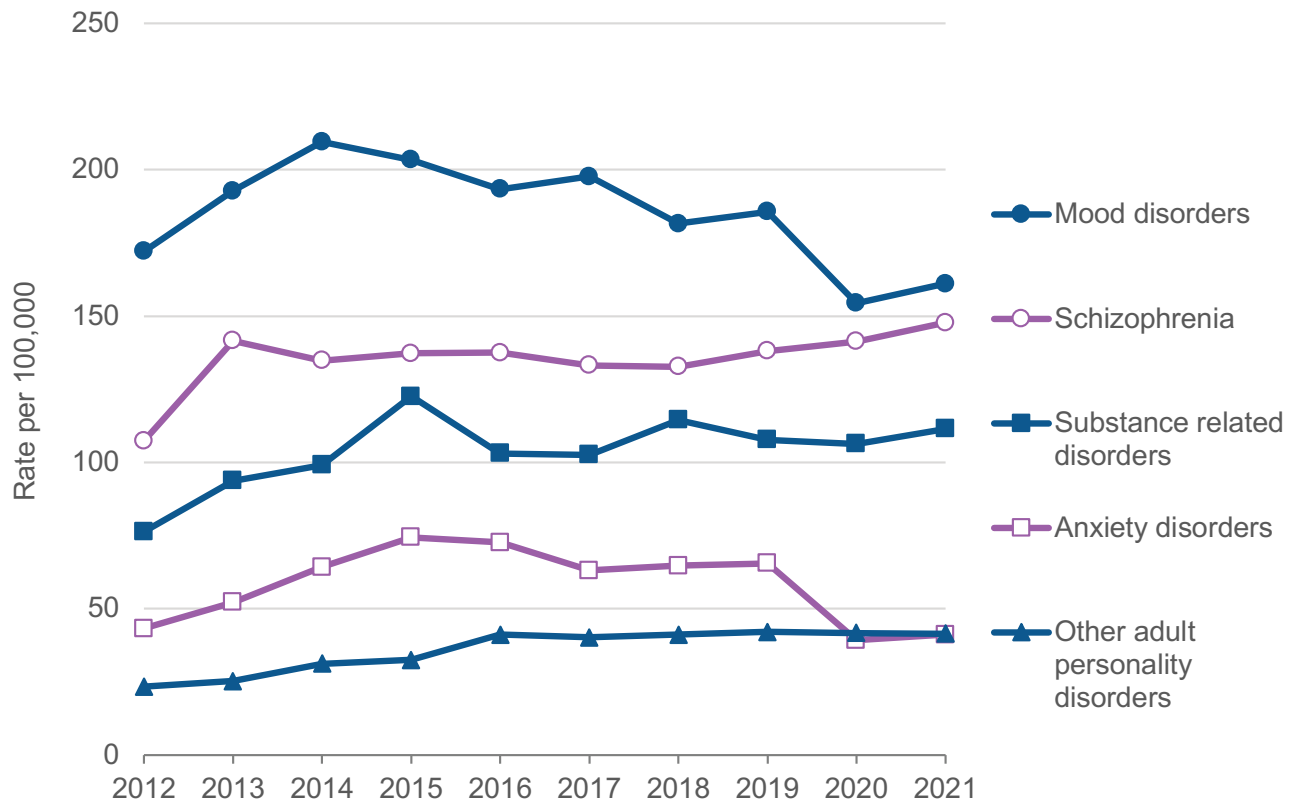
Figure 9.2: Mental health and substance use related disorders, average annualized crude hospitalization rate, Hamilton and Ontario residents, 2019-2021



Sources: Inpatient Discharges [2019-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 9.3: Trends in mental health and substance related disorders, crude hospitalization rate, Hamilton residents, 2012-2021



Sources: Inpatient Discharges [2012-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

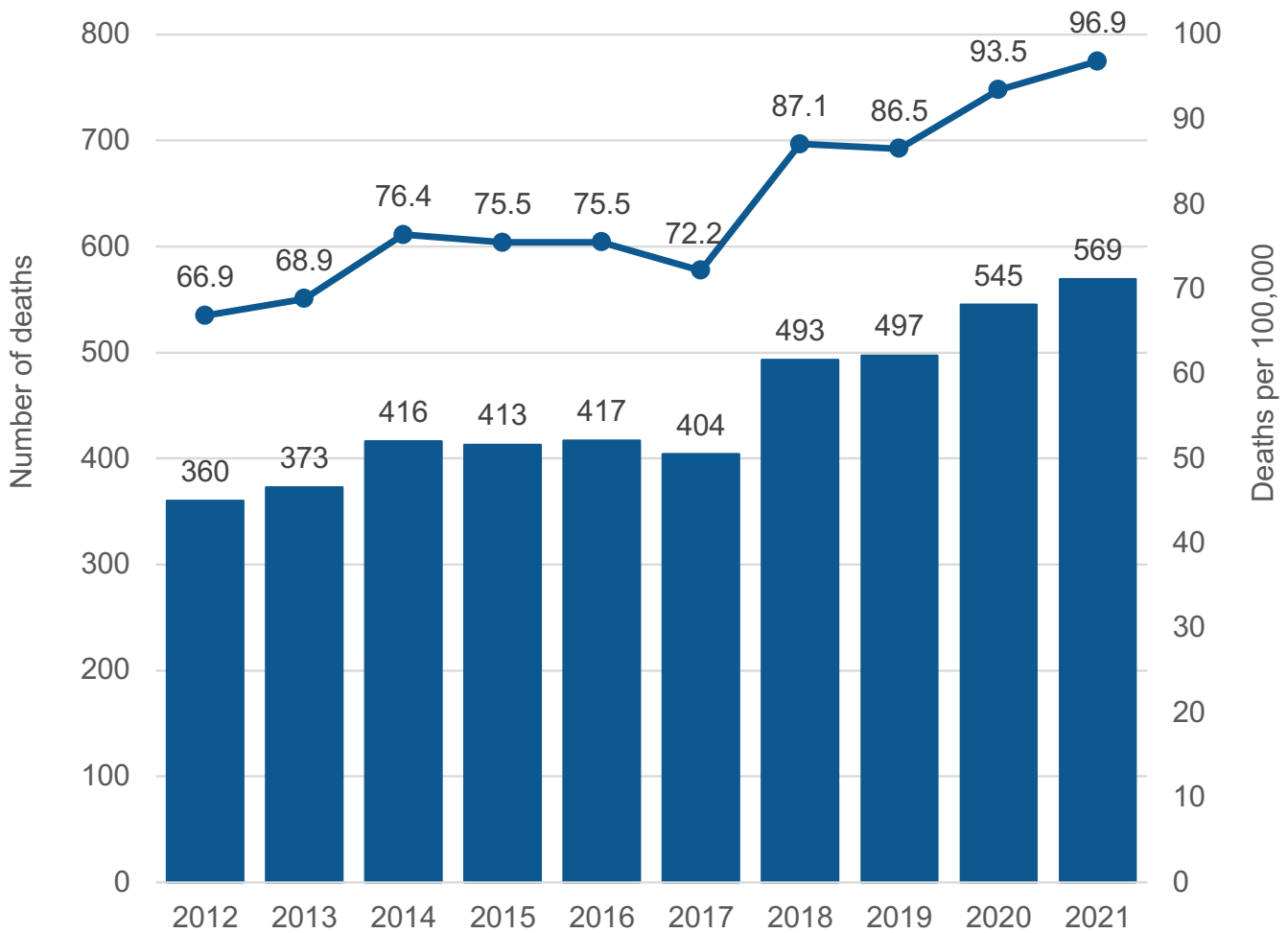
Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

residents. Per 100,000 population, the rate was 451.5 hospitalizations, compared to 495.5 in the pre-pandemic period of 2017-2019. This drop was primarily related to a decrease in hospitalizations for mood/affective disorders (declining since 2015) and anxiety disorders.

The rate of hospitalizations for all other mental health conditions remained stable or increased during 2012-2021.

Another mental health indicator that was assessed was deaths related to dementia and Alzheimer’s disease. The number and rate of deaths for Hamiltonians due to dementia and Alzheimer’s disease are shown in Figure 9.4. These figures increased between 2012 and 2021, but that doesn’t account for changes in the age structure of the population over this period.

Figure 9.4: Deaths due to dementia and Alzheimer’s disease, Hamilton residents, 2012-2021



Source: Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Many people seek and receive care for mental health concerns outside hospitals as outpatients. These data only represent individuals who seek and can access care. Many barriers may prevent someone from accessing care, including stigmatization and discrimination.

[Outpatient mental health and substance use](#) visits increased during the pandemic period for Hamilton's residents. There were 5.8 visits per 100 population per month from 2020-2021, compared to 5.1 visits in the pre-

pandemic baseline period of 2017-2019.

Outpatient service visits for mental health and substance use varied among different groups. Rates of outpatient visits were greater among Hamilton residents from areas with the most low-income households, and with more racialized and newcomer populations (Table 9.1).

This inequality persisted during the pandemic, throughout which each of the groups experienced increasing rates.

Table 9.1: Comparison of mental health and substance use outpatient visits by different groups, Hamilton residents, pre-pandemic (2017-19) and pandemic periods (2020-21)

Grouping	Defined Groups	Pre-Pandemic (2017-2019): visits per 100 population per month	Pandemic (2020-2021): visits per 100 population per month
Income	Population residing in the lowest income quintile areas	7.2	8.0
	Population residing in the highest income quintile areas	4.0	4.5
Racialized & Newcomer	Population residing in the areas with the most racialized and newcomer populations	5.3	6.1
	Population residing in the areas with the least racialized and newcomer populations	4.8	5.6

Source: Institute for Clinical Evaluative Sciences, Project Number 2022 0950 133 000 [21 September 2022].

Notes:

- Outpatient visits include Hamilton residents who visit any physician specialty (e.g., family physician, psychiatrist, pediatrician) in Ontario for outpatient service for either a mental health or substance use.
- The racialized and newcomer population index is defined according to the Ontario Marginalization Index and these populations are combined into one domain of marginalization related to racism and discrimination; however, this does not allow for more granular analysis of inequities within unique racial or newcomer populations.
- An area-based approach was used to determine inequalities between equity populations

SELF-HARM AND SUICIDE

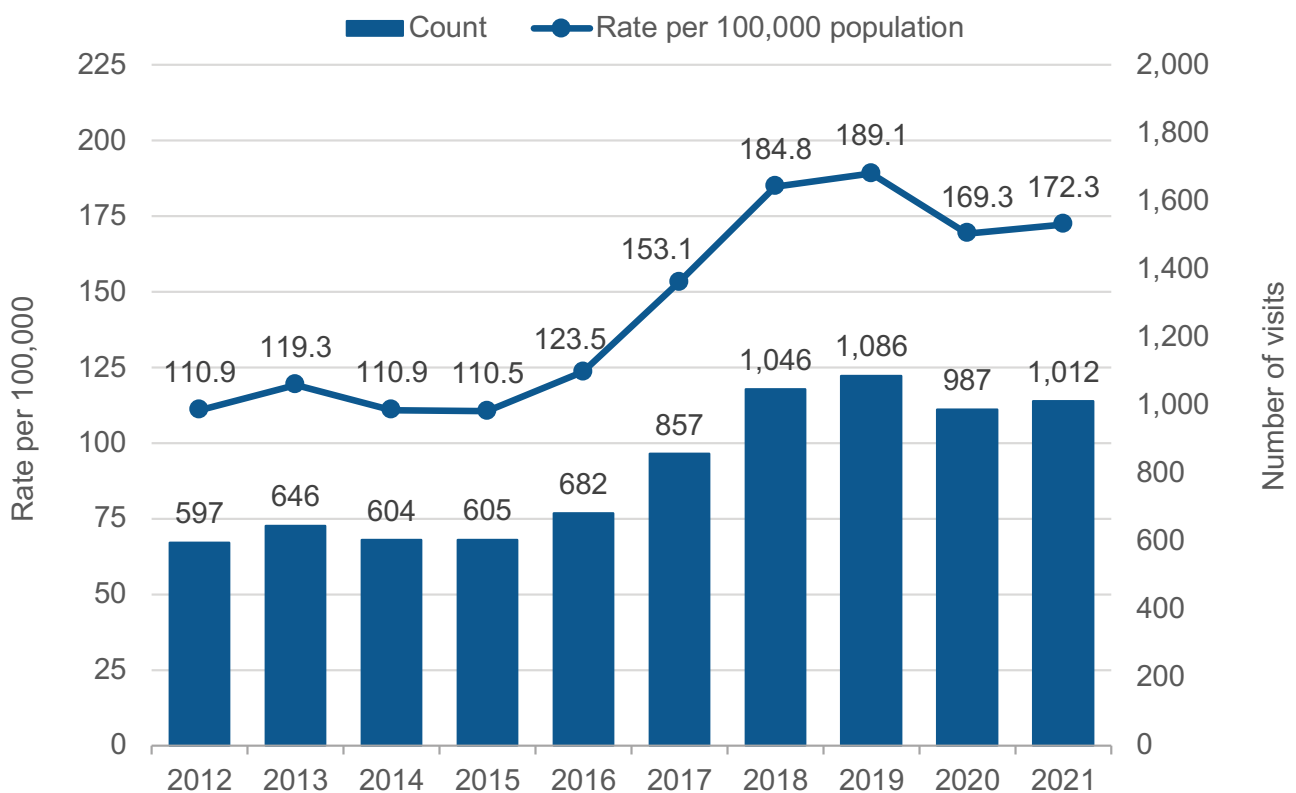
Self-harm encompasses intentional self-inflicted injury or poisoning, which includes attempted and completed suicide.

On average, Hamilton residents made 1,028 emergency department (ED) visits each year for self-harm from 2019-2021 (176.8 ED visits per 100,000 population). This was higher than the Ontario average (125.6 ED visits per 100,000 population).

Self-harm ED visits for Hamilton's residents increased 55.4% between 2012 and 2021 – up to 172.3 ED visits per 100,000 population from 110.9 visits (Figure 9.5).

ED visits for self-harm vary among different groups of Hamilton residents. Females aged 10-19 years had the highest rate of ED visits for self-harm (784.9 ED visits per 100,000 population). In general, rates of self-harm decreased among females as age increased (Figure 9.6).

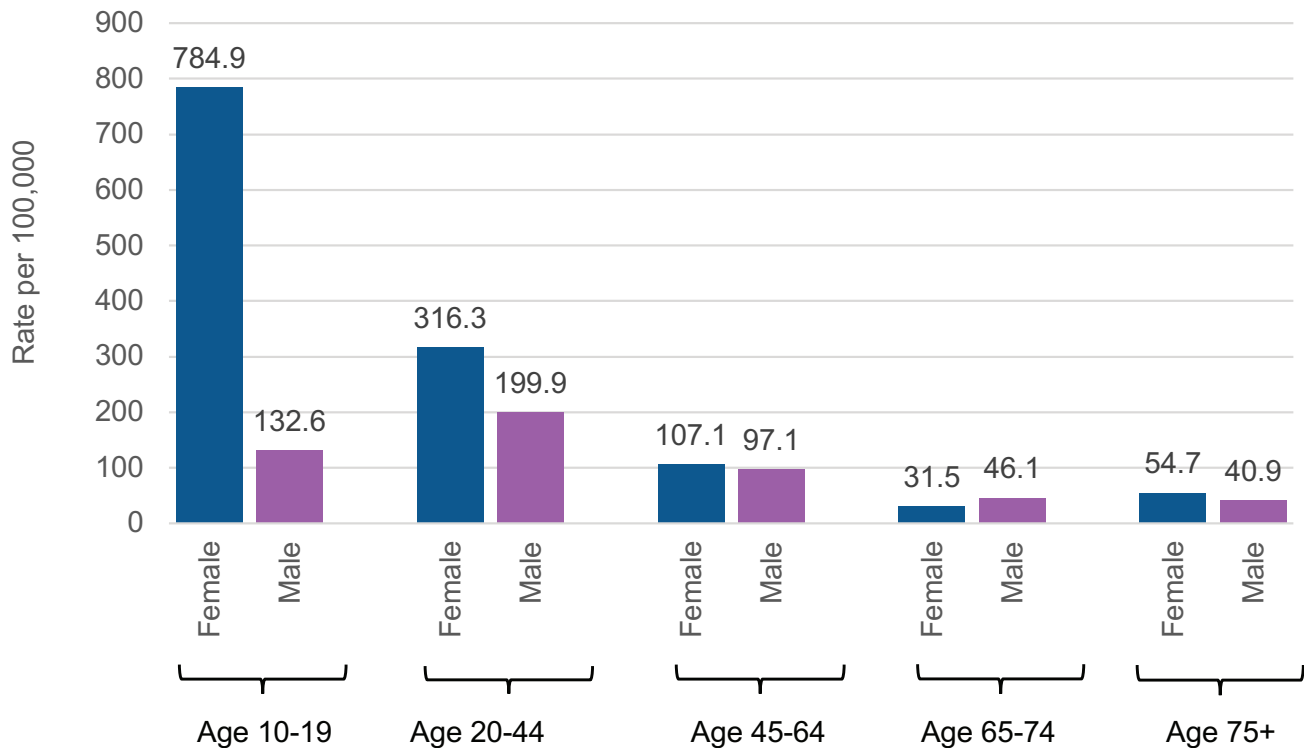
Figure 9.5: Self-harm emergency department visits (number and crude rate per 100,000 population), Hamilton residents, 2012-2021



Sources: Ambulatory Emergency External Cause [2012-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 9.6: Self-harm emergency department visits by age group and sex, group-specific rates per 100,000 population, Hamilton residents, 2021



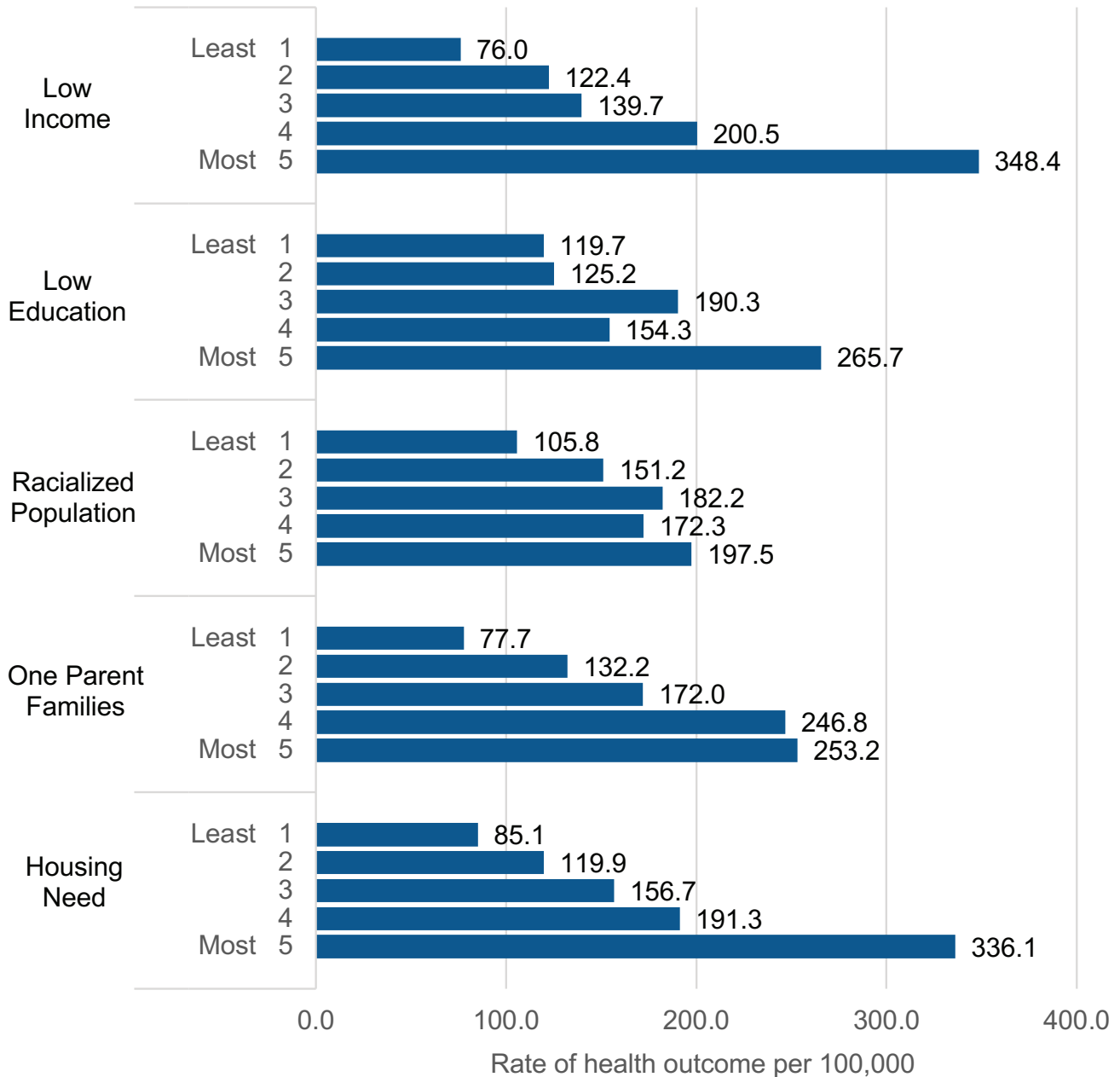
Sources: Ambulatory Emergency External Cause [2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

When assessing area-based inequality (Figure 9.7), higher rates of ED visits for self-harm existed among Hamilton residents who lived in:

- areas with the greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of individuals who self-identified as a race other than white or Indigenous
- areas with a greater percentage of one-parent families
- areas with the greatest percentage of households that have a core housing need

Figure 9.7: Self-harm emergency department visits by area-based socioeconomic quintiles, crude rate per 100,000 population, Hamilton residents, 2017-2021 combined



Sources: Ambulatory Emergency External Cause [2017-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

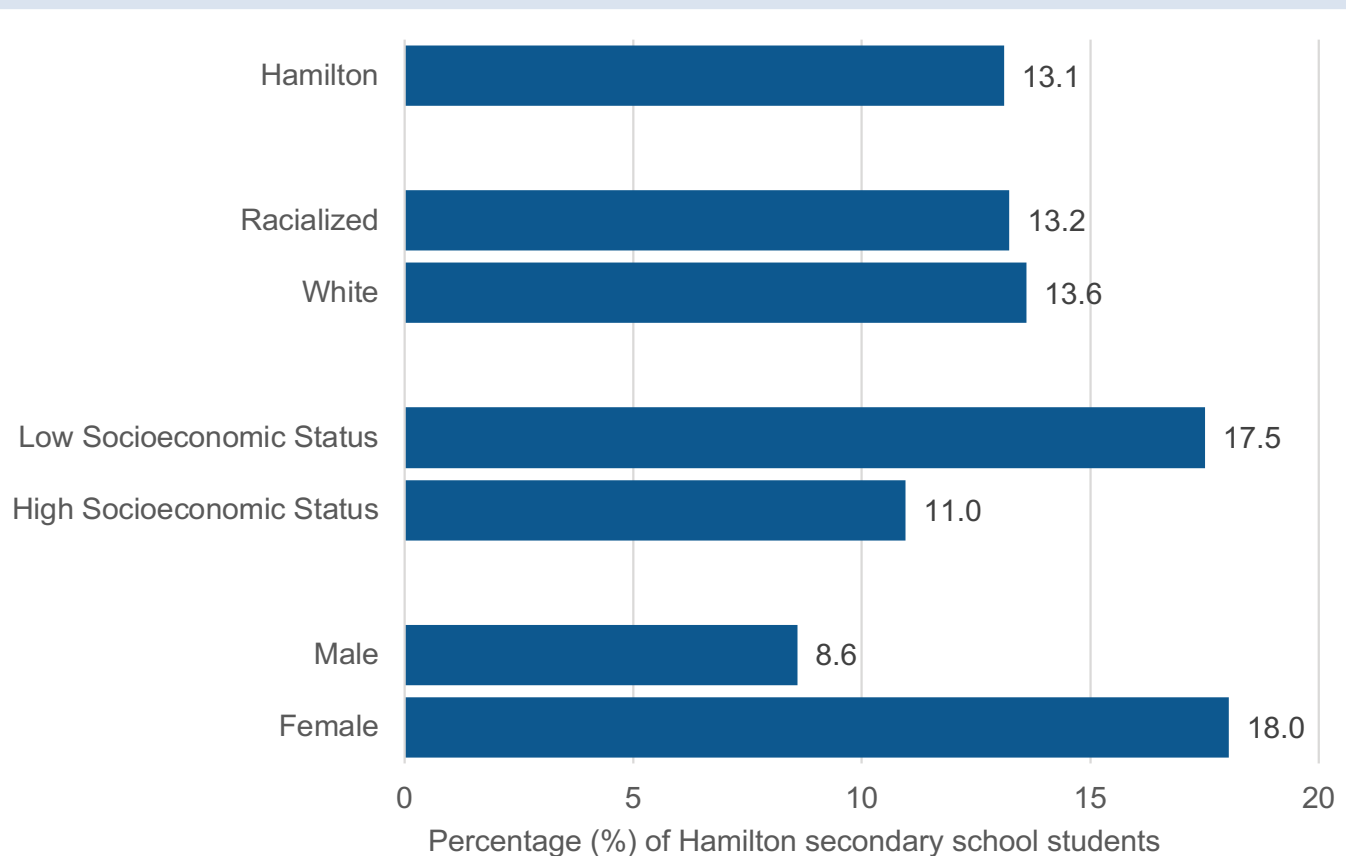
Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Among grade 9-12 students in Hamilton, 1 in 8 reported that they seriously contemplated attempting suicide in the past year (Figure 9.8). Students identifying as female and those from low socioeconomic status were more likely to contemplate a suicide attempt in the past year.

On average there were 62 suicide deaths each year for Hamilton's residents from 2018-2022, similar to Ontario's rate. The rate of suicide deaths for Hamilton's residents remained relatively stable between 2015 to 2022 (Figure 9.9).

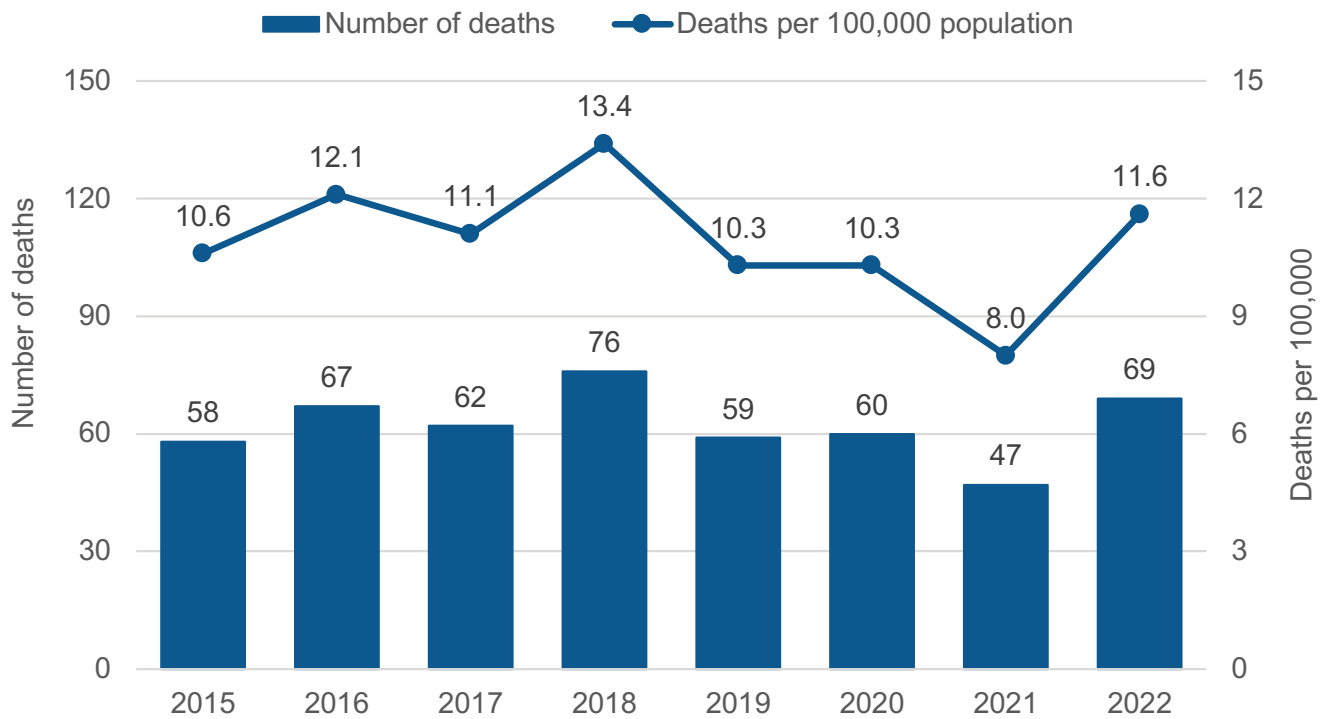
Figure 9.8: Contemplation of attempting suicide in the past year, percentage of Hamilton secondary school students (grades 9-12), 2019



Source: Ontario Student Drug Use and Health Survey, 2019.

Note: Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.

Figure 9.9: Suicide deaths, number and crude rate per 100,000 population of suicide deaths, Hamilton residents, 2015-2022



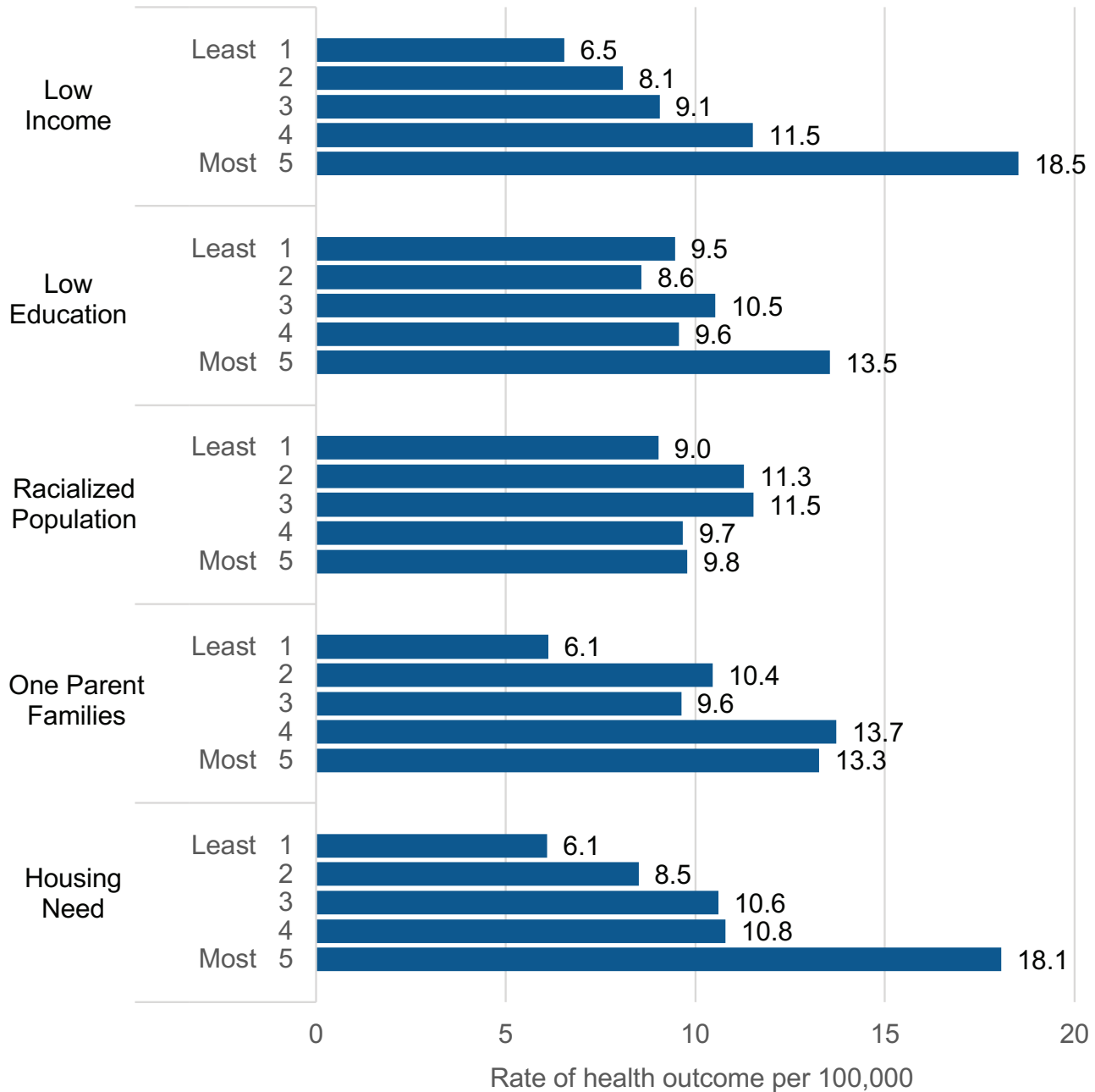
Sources: Office of the Chief Coroner of Ontario [April 2023]; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Suicide deaths vary among different groups of Hamilton residents (Figure 9.10). Compared to Hamilton’s overall rate of suicide deaths for 2012-2021 (10.2 deaths per 100,000 population), there were higher rates among:

- areas with greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of households with a core housing need

Figure 9.10: Suicide deaths by area-based socioeconomic quintiles, crude rate per 100,000 population, Hamilton residents, 2009-2018 combined



Sources: Ontario Mortality Data [2012-2021], IntelliHEALTH ONTARIO, Ontario Ministry of Health; Statistics Canada, Table 17-10-0142-01 Population Estimates by Census Division [5 April 2023].

Notes:

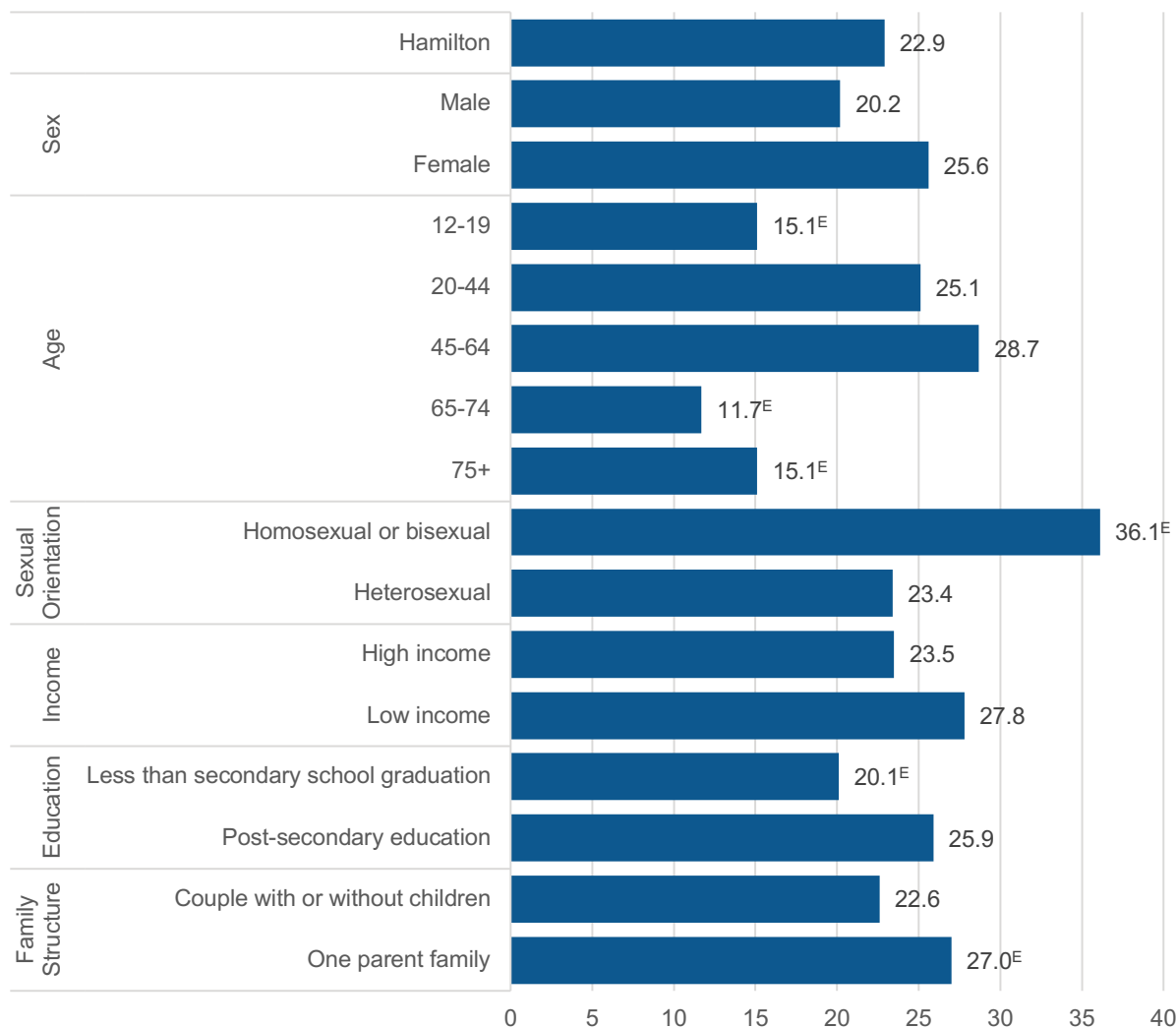
- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

LIFE STRESS

More than 1 in 5 Hamilton residents aged 12 and older indicated that most days are quite a bit or extremely stressful in the 12 months prior to the survey (22.9%). This was for 2015 to 2020 on average (Figure 9.11). This percentage was similar to Ontario overall for the same time-period (21.5%). There was no difference over time from 2015-16 (22.0%) through 2017-18 (24.6%) to 2019-20 (22.2%).

The highest rates of life stress were reported among those aged 20-44 (25.1%) and 45-64 (28.7%). There were no further differences among socioeconomic groupings of Hamilton residents.

Figure 9.11: Life stress by different groups, percent self-rated that most days are quite a bit or extremely stressful, Hamilton residents aged 12+, 2015-2020 combined



Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Notes:

- E – interpret estimate with caution due to high variability in responses.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.



CHAPTER 10

SUBSTANCE USE

HIGHLIGHTS

- Over 1,000 deaths are caused each year by tobacco (783), alcohol (208), and opioids (168) among Hamilton residents.
- Nearly 1 in 6 Hamilton adults smoke tobacco. Rates continue to decrease and fewer youth initiate smoking each year. But this trend is at risk of reversing or slowing with one-third of students using vapes or e-cigarettes in secondary schools.
- Over 1 in 3 Hamilton residents had three or more alcoholic drinks in the past week. This rate has increased, while the percentage who report no alcohol consumption in the past week is decreasing.
- The rate of emergency department visits for cannabis-related harms has doubled over the decade of 2012-2021 for Hamilton residents.
- Opioid-related deaths have increased substantially in Hamilton and are greater than the Ontario average. Males aged 25-64, people identified as homeless, and people identified racially as Black or white have a greater risk of death from opioids.

SUBSTANCE USE

UNINTENTIONAL POISONING

Unintentional poisoning is a broad categorization that includes any harm from swallowing, inhaling, absorbing or injecting any substance (e.g., medicines, drugs, cleaning chemicals, alcohol, carbon monoxide).

Hamilton’s rate of deaths due to unintentional poisoning increased by 300% between 2012 and 2021. The death rate was greater for Hamilton residents (22.1 deaths per 100,000) when compared to the Ontario average (15.8 deaths per 100,000).

The primary driver of unintentional poisoning deaths is opioid overdoses. This has emerged as a major population health burden and leading cause of preventable deaths, particularly for younger adults. Opioid-related deaths increased by over 400% in Hamilton

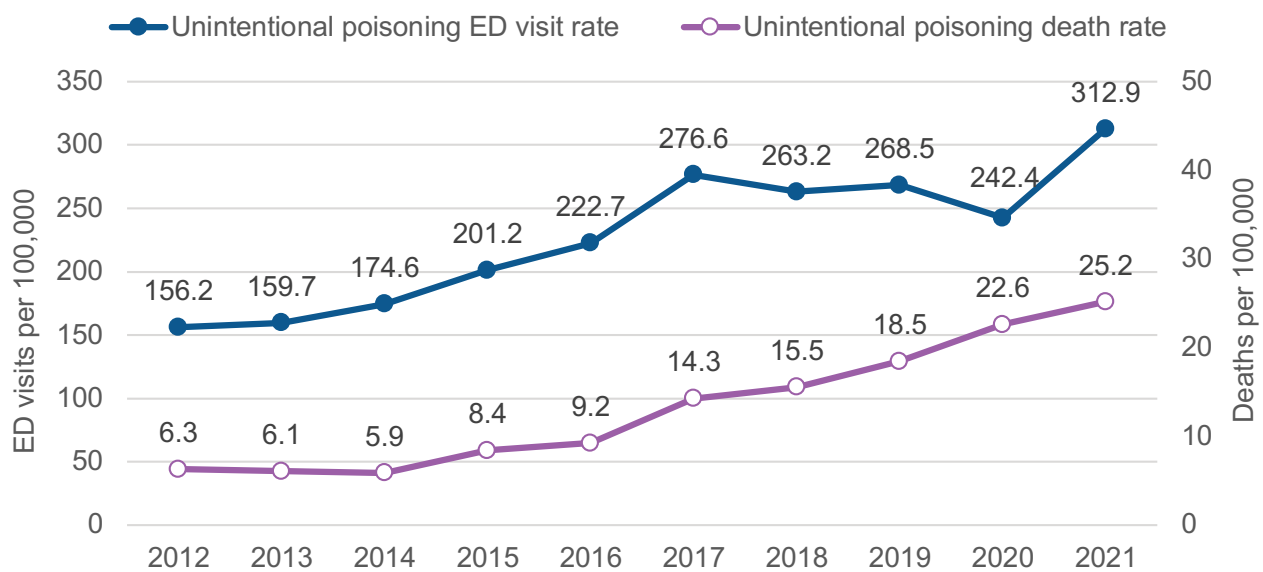
since 2005, and are consistently greater than the provincial rate. See more on opioids later in this chapter.

From 2012 to 2021, there were 750 deaths due to unintentional poisoning among Hamilton residents. A specific cause was noted in 64% of cases, and the top ones were:

- narcotics and psychodysleptics/hallucinogens (412 deaths)
- specified non-narcotic/hallucinogenic drugs (35 deaths)
- alcohol (28 deaths)

Similarly, Hamilton’s rate of ED visits for unintentional poisoning doubled between 2012 and 2021, from 156.2 per 100,00 population to 312.9 (Figure 10.1). For 2019-2021, this rate was greater for Hamilton residents (274.7 visits per 100,000) when compared to the Ontario average (199.6 visits per 100,000).

Figure 10.1: Unintentional poisoning emergency department visits and deaths, Hamilton residents, 2012-2021



Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO; Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

TOBACCO

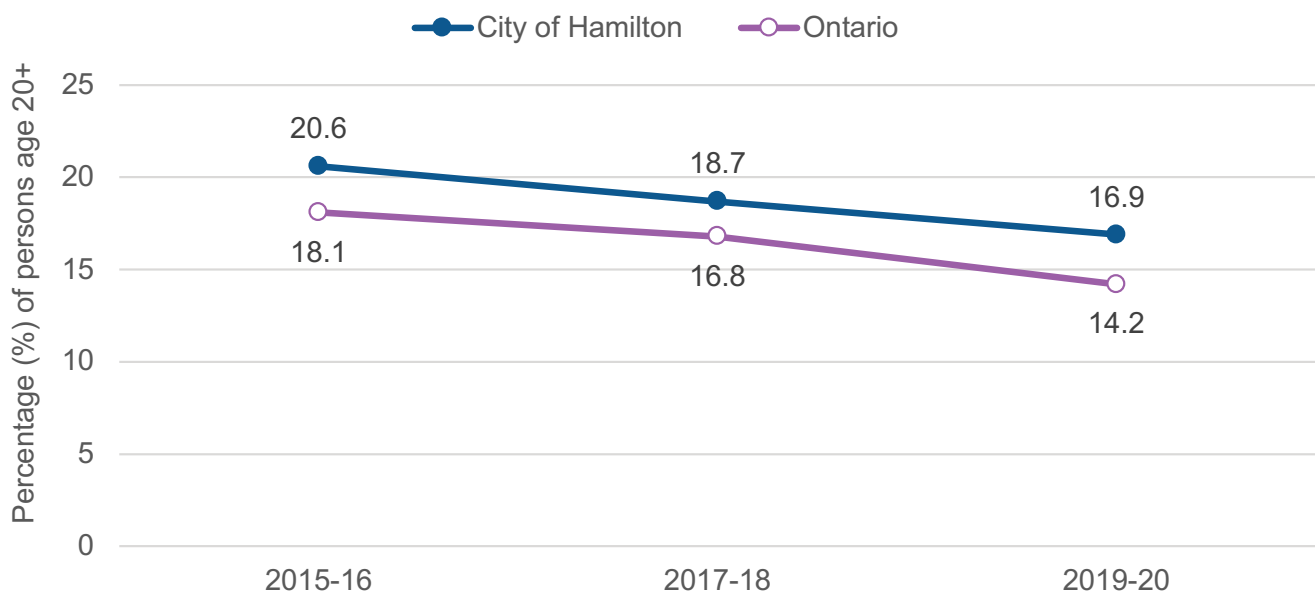
One in six (16.7%) Hamilton adults (age 20+) currently smoke tobacco. When age is taken into consideration, the rate for Hamilton residents is similar to Ontario (Figure 10.2). Current tobacco smoking rates declined in Hamilton and provincially between 2015-16 and 2019-20.

Looking at different groups (Figure 10.3), Hamilton residents were more likely to be a current tobacco smoker if they identified as lesbian, gay or bisexual, were in one-parent families, or had not completed secondary school. Hamilton seniors (age 65+) were less likely to currently smoke tobacco.

In an average year in Hamilton, tobacco smoking causes an estimated 783 deaths, 3,113 hospitalizations and 4,972 emergency department visits (Table 10.1).⁶⁵ Among Hamilton residents age 35+, 1 in 6 deaths are attributed to tobacco smoking.

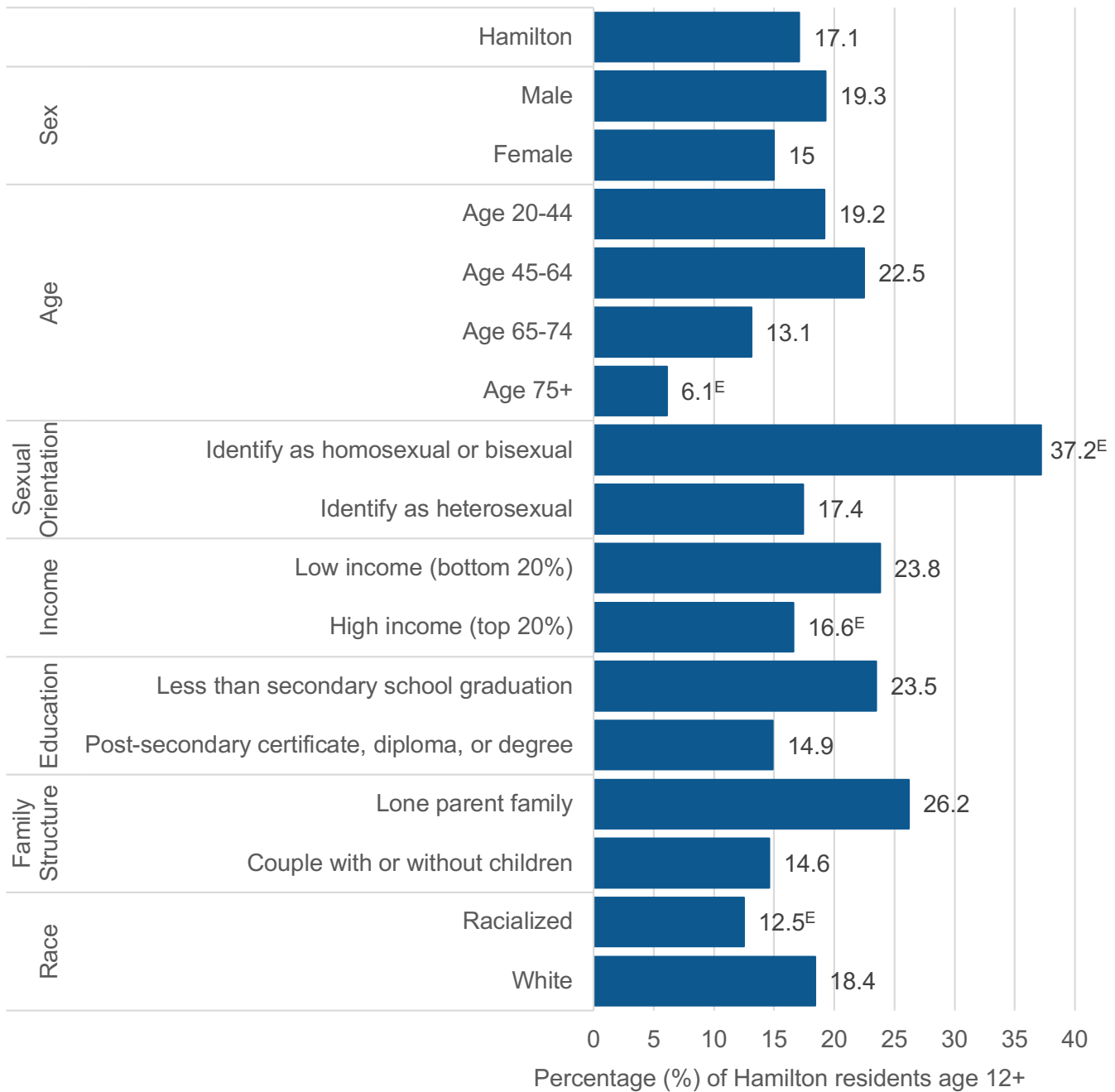
Over 9 in 10 Hamilton youth (age 12-19) report that they have never smoked tobacco (Figure 10.4), similar to the Ontario average. The percentage of Hamilton youth who have never smoked tobacco has increased year-over-year from 2015-16 to 2019-20.

Figure 10.2: Adults who currently smoke tobacco, Hamilton and Ontario residents aged 20+ (age-standardized), 2015-2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: smoking snapshot. Toronto, ON: King's Printer for Ontario.

Figure 10.3: Current tobacco smoking prevalence by different groups, Hamilton residents aged 12+, 2015-2020 combined



Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Notes:

- E – interpret estimate with caution due to high variability in responses.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

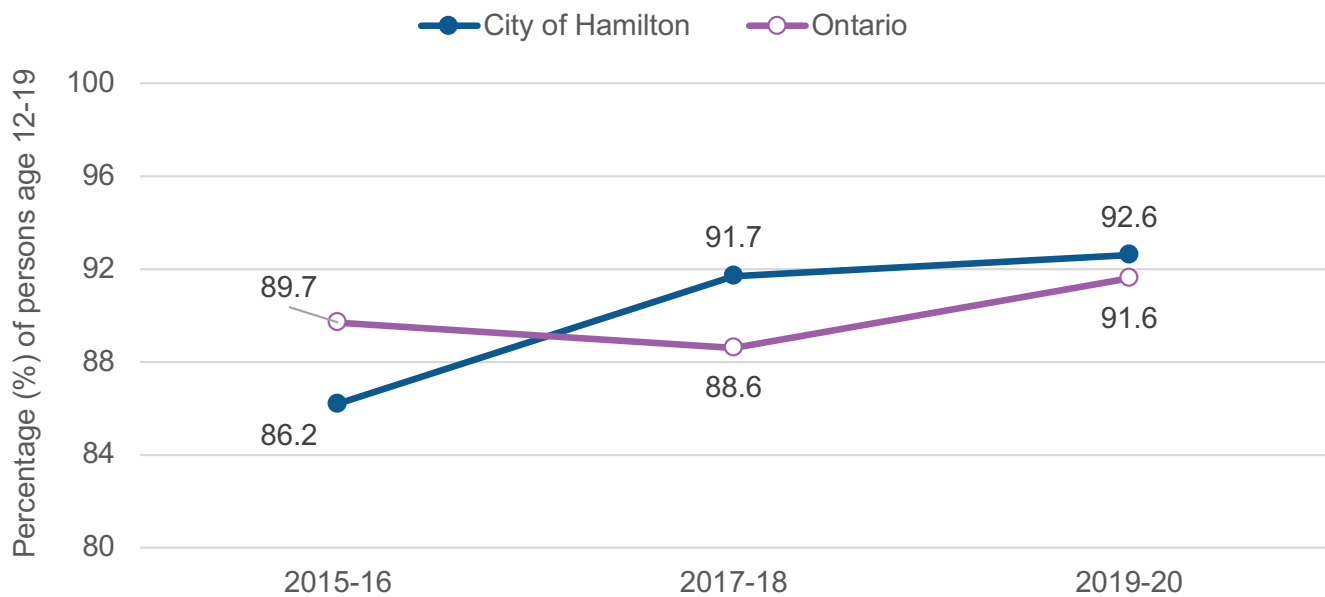
Table 10.1: Estimates of the average annual deaths, hospitalizations, and emergency department visits from health conditions attributed to smoking tobacco, Hamilton resident age 35+

Outcome	Number of outcomes attributed to smoking tobacco				
	Total	Cancer	Cardiovascular	Diabetes	Respiratory
Deaths	783	352	240	8	182
Hospitalizations	3,113	369	1,339	27	1,377
Emergency Department Visits	4,972	93	1,349	52	3,478

Source: Ontario Health and Ontario Agency for Health Protection and Promotion (Public Health Ontario). Burden of Health Conditions Attributable to Smoking and Alcohol by Public Health Unit in Ontario. Toronto: King's Printer for Ontario; 2023.

Note: These estimates were generated using various data inputs from the years 2014 to 2019.

Figure 10.4: Youth who have never smoked tobacco, Hamilton and Ontario residents aged 12-19, 2015-2020

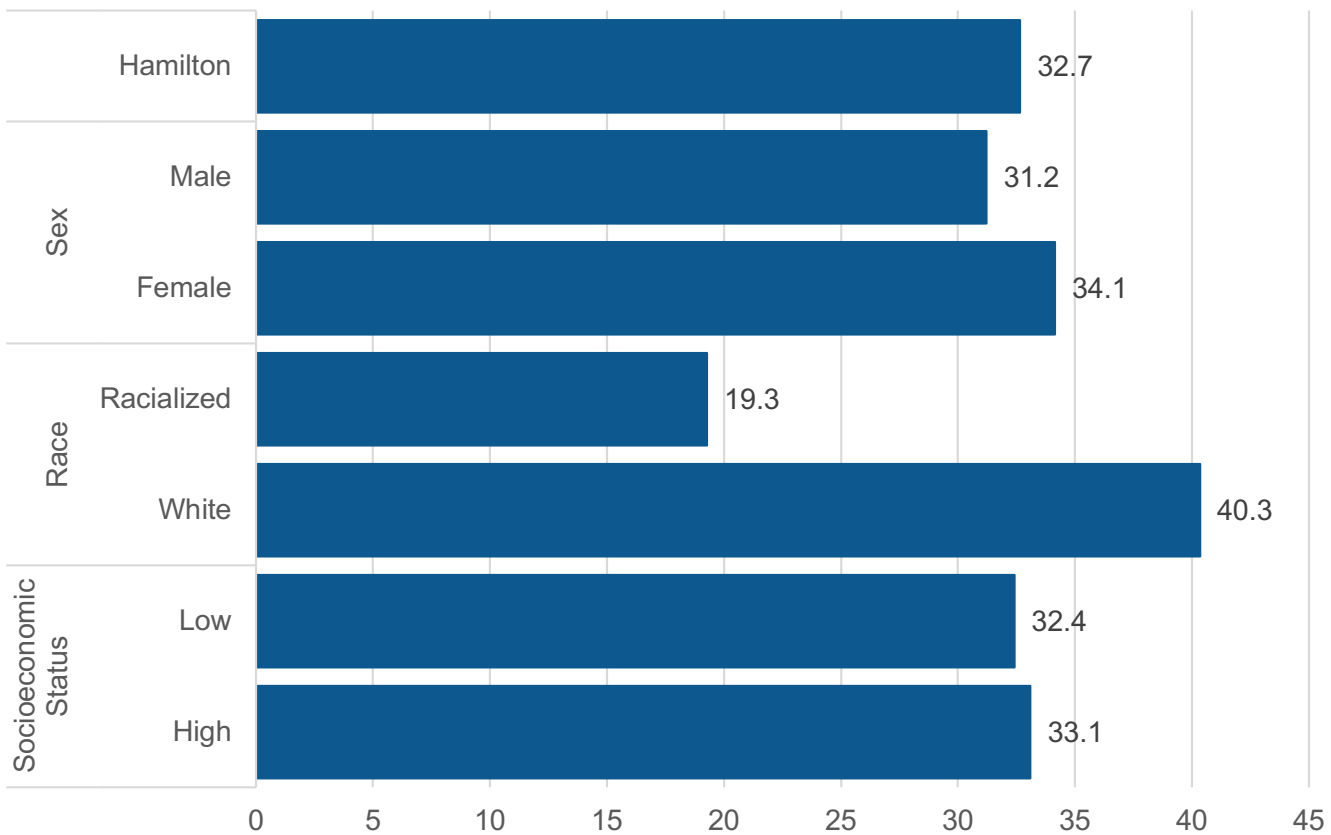


Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: smoking snapshot. Toronto, ON: King's Printer for Ontario.

VAPING

In 2019, nearly 1 in 3 Hamilton secondary school students report using an e-cigarette or vaping in the previous year (Figure 10.5), similar to the Ontario average (28.4%). The most likely to try were students identifying as white. With the emergence and substantial rise in youth vaping rates, there is concern that the progress made to reduce tobacco smoking rates may stall or reverse. Research has found that for every 6 youth who start vaping, 1 of them will go on to start smoking tobacco.⁶⁶

Figure 10.5: E-cigarette use or vaping in the past year, percentage of Hamilton secondary school students (grades 9-12), 2019



Source: Ontario Student Drug Use and Health Survey, 2019.

Note: Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.

ALCOHOL

Over 1 in 3 (34.0%) Hamilton residents had three or more alcoholic [drinks](#) in the past week. When age is taken into consideration, the rate for Hamilton resident is similar to Ontario (Figure 10.6).

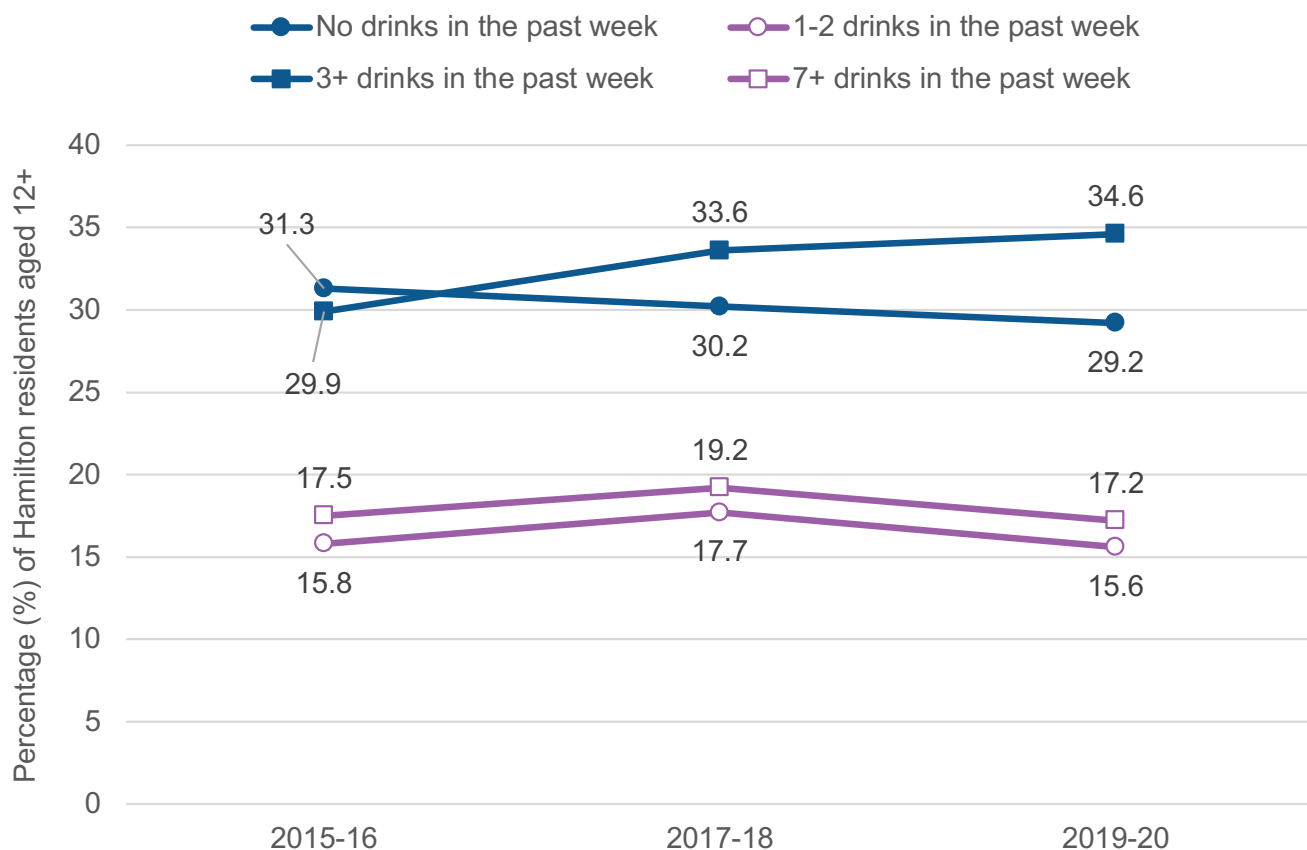
The age-standardized measure has increased year-over-year, from 29.9% in 2015-2016 to 34.5% in 2019-2020. Over the same period, the percentage of Hamilton residents who had no alcoholic drinks in the past week decreased year-over-year from 31.3% in 2015-2016 to 29.2% in 2019-2020.

Just over 1 in 6 (17.1%) Hamilton residents reported that they consumed seven or more alcoholic drinks in the previous week. When age is taken into consideration, Hamilton's rate has remained stable since 2015-2016 and is similar to Ontario.

Similarly, over 1 in 6 (18.0%) Hamilton residents report at least one [heavy drinking](#) episode per month. When age is taken into consideration, Hamilton's rate remained stable since 2015-2016 and is similar to Ontario.

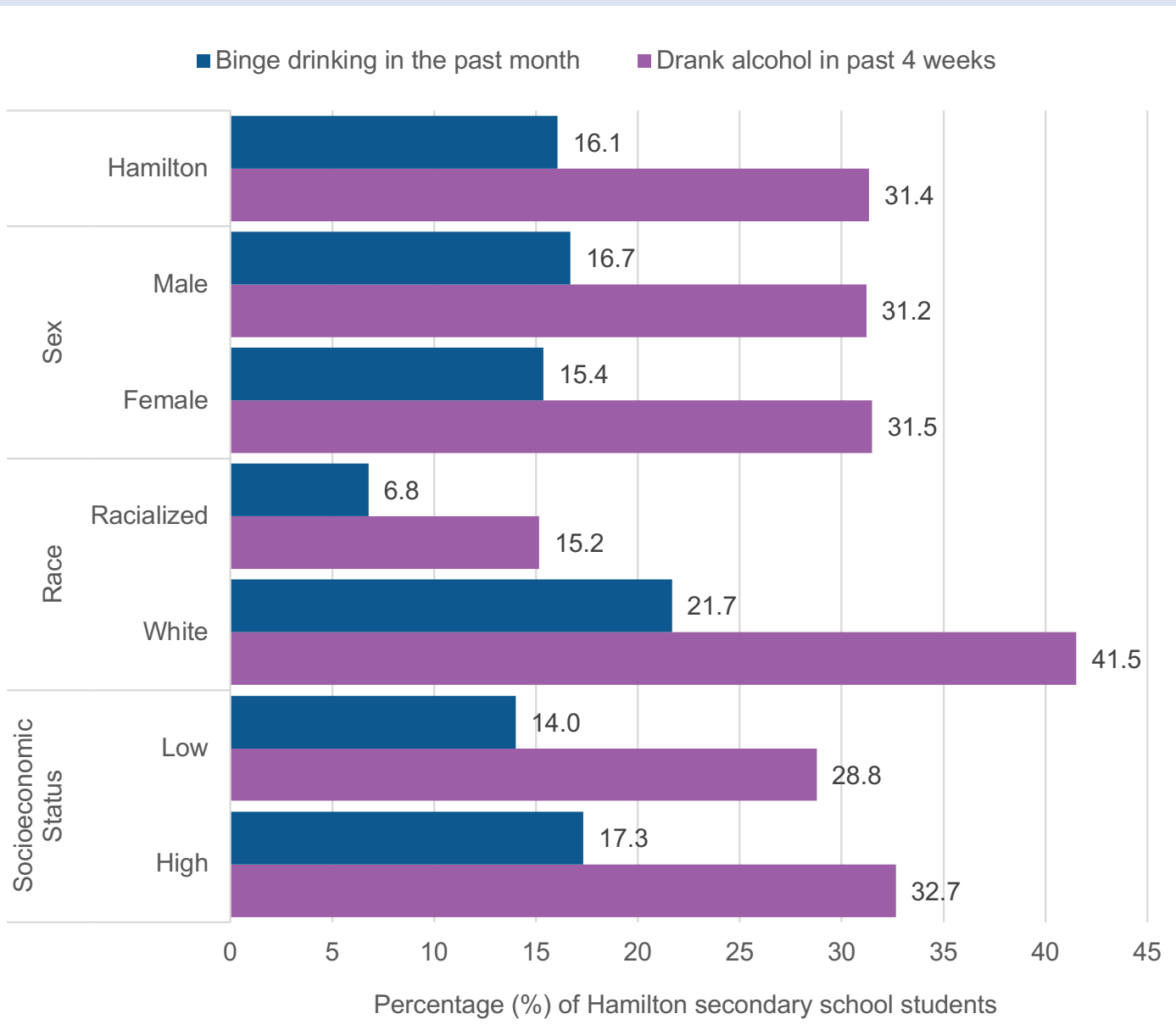
Among Hamilton secondary school students, nearly 1 in 3 (31.4%) report drinking alcohol in the past four weeks, and 1 in 6 (16.1%) report

Figure 10.6: Standard alcoholic drinks consumed in the past week (seven days), City of Hamilton residents aged 12 and older (age-standardized), 2015-2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: alcohol use snapshot. Toronto, ON: King's Printer for Ontario.

Figure 10.7: Alcohol consumption in the past four weeks and binge drinking in the past month, percentage of Hamilton secondary school students (grades 9-12), 2019



Source: Ontario Student Drug Use and Health Survey, 2019.

Note: Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.

[binge drinking](#) in the past month (Figure 10.7). Both measures were similar to the Ontario average. Hamilton secondary school students identifying as white were more likely to drink alcohol in the past four weeks.

In an average year, it is estimated that alcohol causes 208 deaths, 1,073 hospitalizations and 9,123 emergency department visits among Hamilton residents (Table 10.2).⁶⁵ For Hamilton residents age 15+, nearly 1 in 20 deaths (4.4%) are attributed to alcohol consumption.

Looking at emergency department visits for health conditions caused by alcohol, Hamilton's rate increased from 2014 to 2018 but saw decreases especially in 2020 and 2021; it is possible that people avoided emergency departments during the COVID-19 pandemic. This rate is greater in Hamilton when compared to Ontario. So is the rate of hospitalizations for health conditions caused by alcohol that has remained relatively stable in Hamilton between 2012 and 2021 (Figure 10.8).

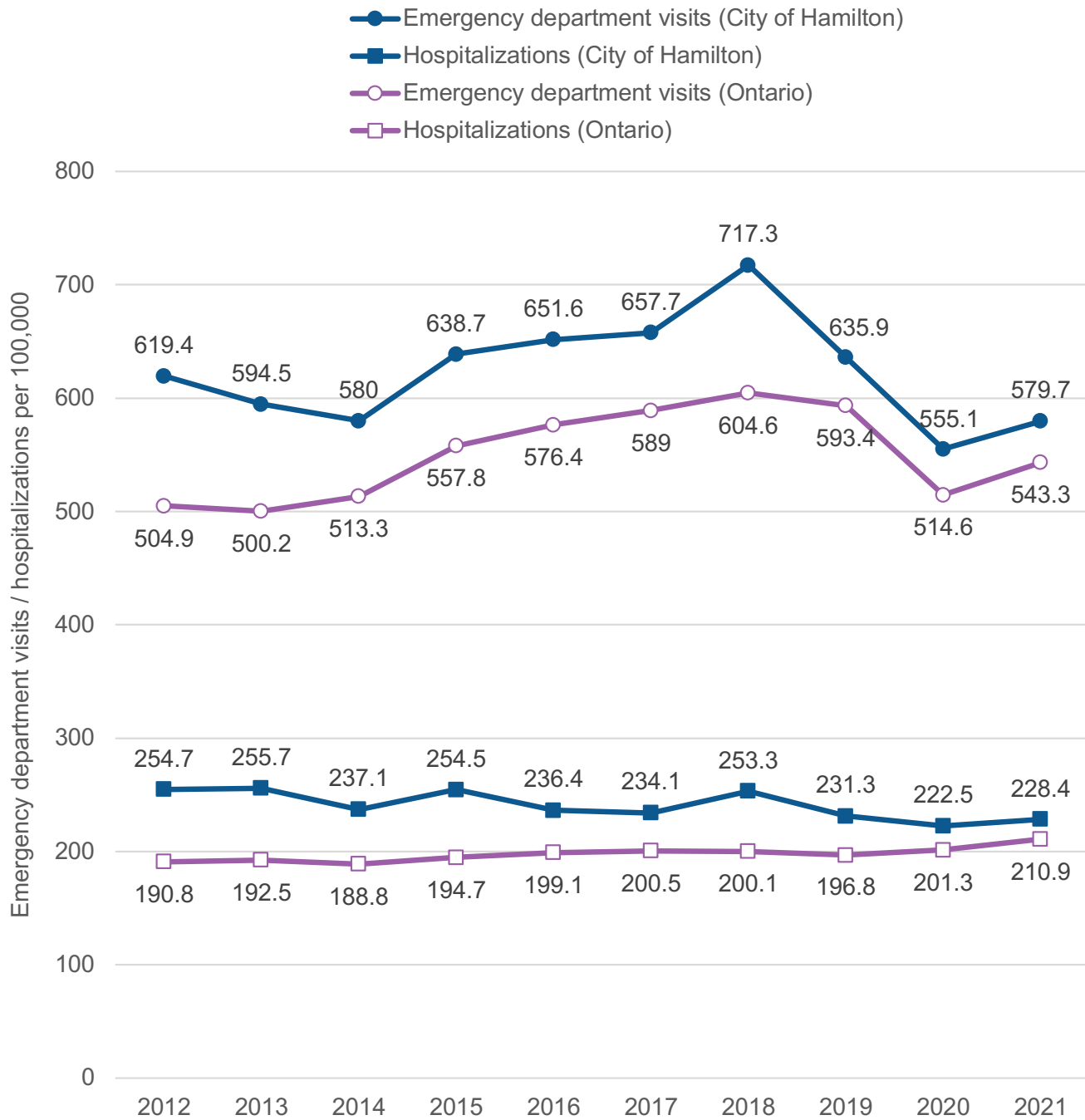
Table 10.2: Estimates of the average annual deaths, hospitalizations, and emergency department visits from health conditions attributed to alcohol, Hamilton resident age 15+

Outcome	Number of outcomes attributed to alcohol					
	Total	Cancer	Cardiovascular	Digestive Condition	Neuro-psychiatric	Unintentional Injury
Deaths	208	57	46	40	18	27
Hospitalizations	1,073	85	82	221	399	302
Emergency Department Visits	9,123	18	85	222	2,710	4,953

Source: Ontario Health and Ontario Agency for Health Protection and Promotion (Public Health Ontario). Burden of Health Conditions Attributable to Smoking and Alcohol by Public Health Unit in Ontario. Toronto: King's Printer for Ontario; 2023.

Note: These estimates were generated using various data inputs from the years 2014 to 2019.

Figure 10.8: Emergency department visits and hospitalizations for health conditions entirely caused by alcohol, Hamilton and Ontario residents (age-standardized), 2012-2021



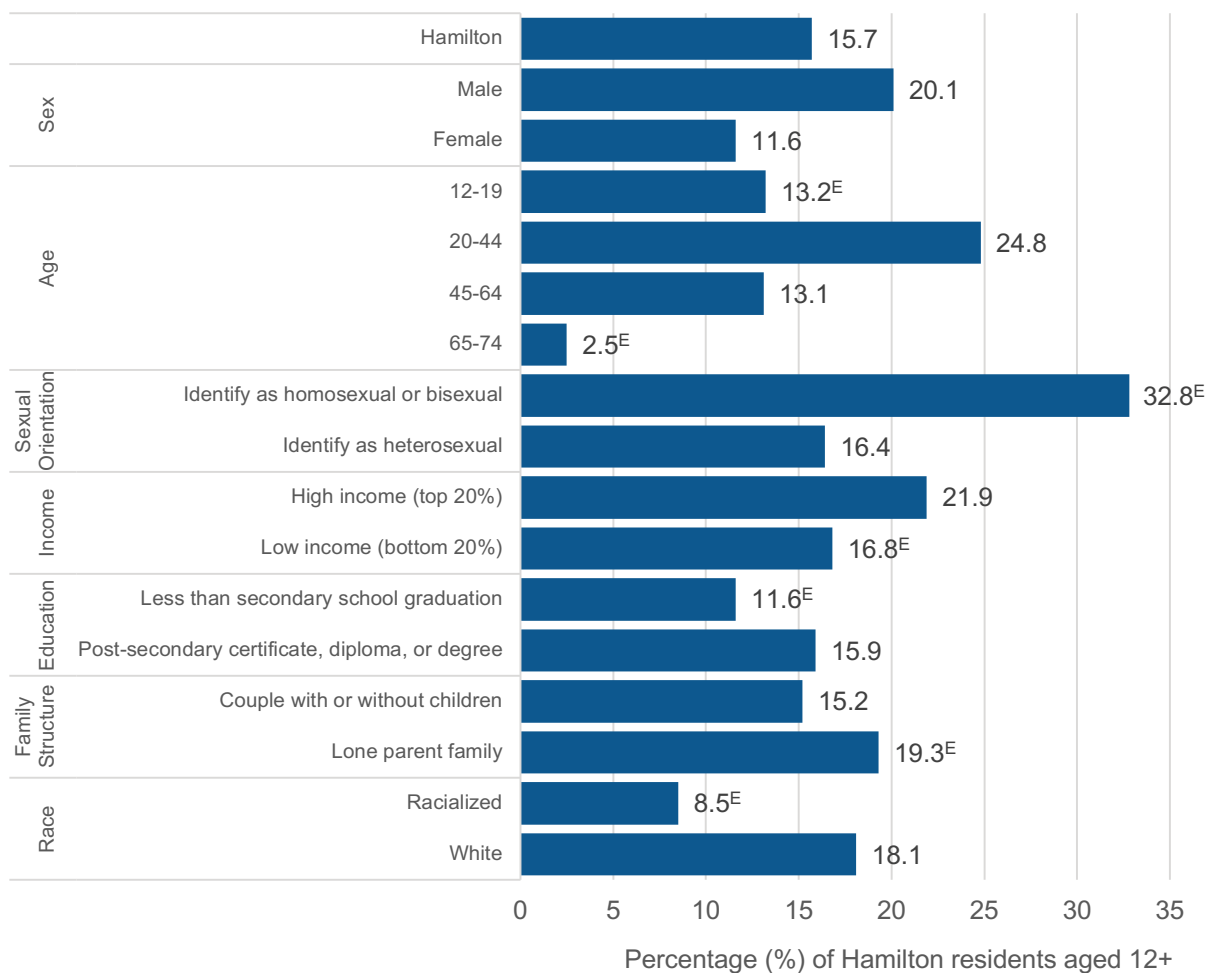
Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: alcohol harms snapshot. Toronto, ON: King's Printer for Ontario.

CANNABIS

Nearly 1 in 6 (15.7%) Hamilton residents (aged 12 and older) used cannabis in the past year (Figure 10.9), higher than the Ontario rate (12.7%). Among Hamilton residents, cannabis use was greater among adults aged 20-44, males and those who identified as white.

In 2021, 606 Hamilton residents visited an emergency department due to cannabis-related harms. The rate of emergency department visits for cannabis-related harms doubled over 2012-2021 for Hamilton residents (Figure 10.10), which follows a similar trend for Ontario. However, in 2020 and 2021, Hamilton's rate of emergency department visits for cannabis-related harms was lower than the Ontario rate.

Figure 10.9: Cannabis use in the past year, Hamilton residents (aged 12 and older), 2015-2020 combined

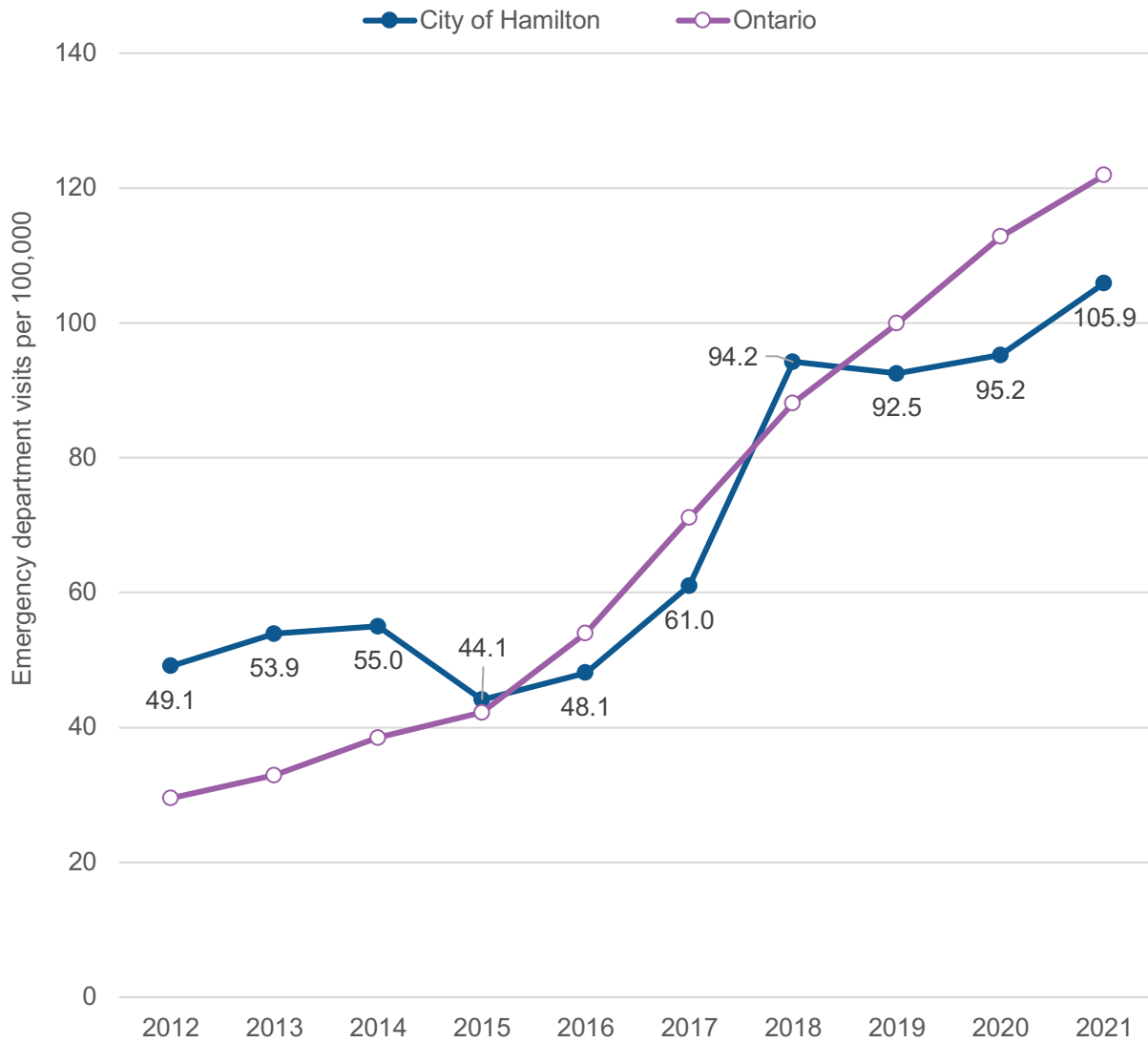


Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Notes:

- E – interpret estimate with caution due to high variability in responses.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 10.10: Emergency department visits for cannabis-related harms, Hamilton and Ontario residents (age-standardized), 2012-2021



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: cannabis harms

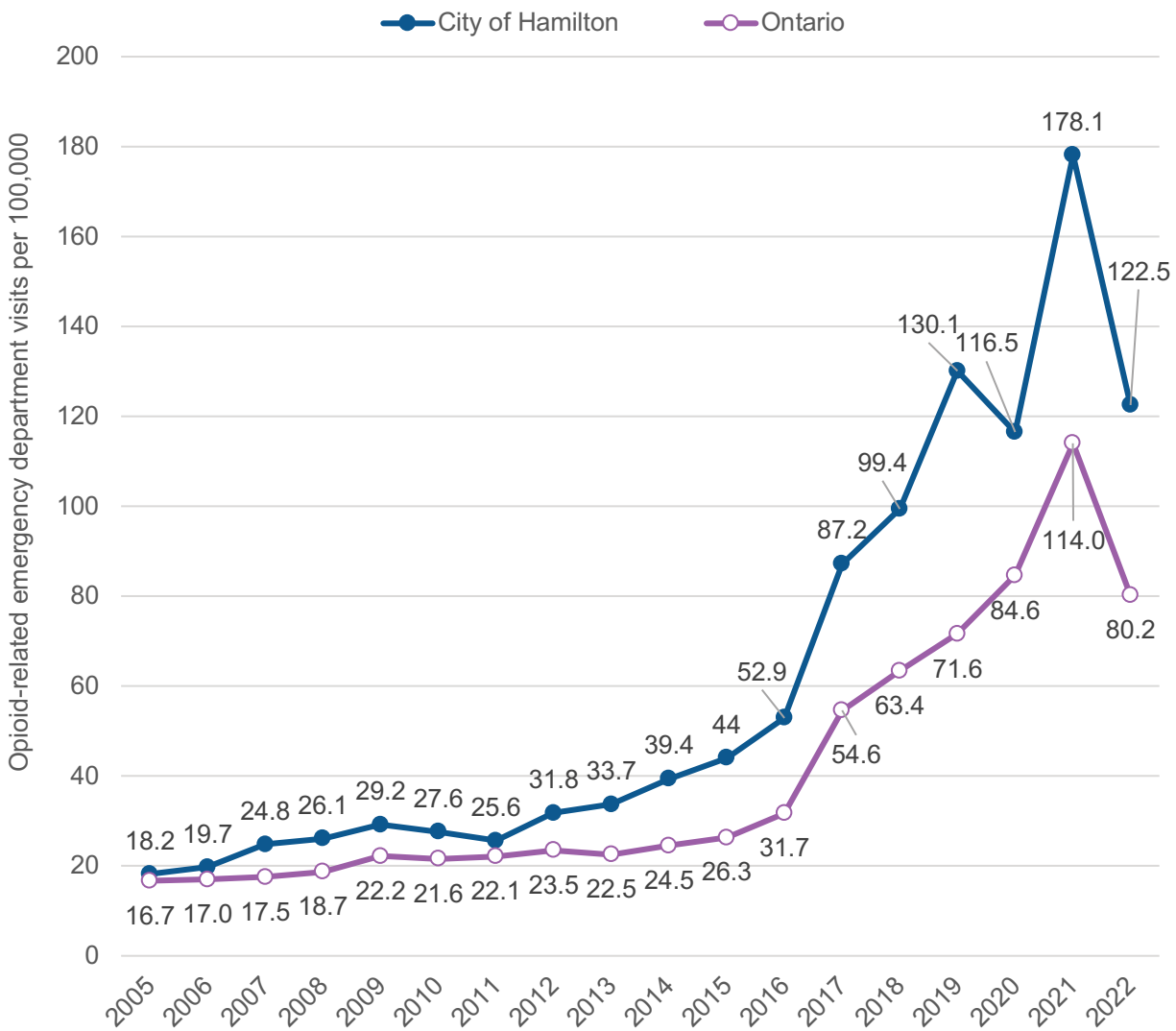
OPIOIDS

The rate of opioid-related emergency department visits increased by 878.6% between 2005 and 2021 for residents of Hamilton (Figure 10.11). In 2022, this rate decreased to a level similar to the 2019 rate. Hamilton's rate has remained consistently greater than that of Ontario – 52.7% greater in 2022.

There were 168 opioid-related deaths in Hamilton in 2022 according to the most current data (Figure 10.12).

Hamilton's opioid-related death rate increased by 446% from 2005-2022. This rate has remained consistently greater than the Ontario rate, and was 63.5% higher in 2022.

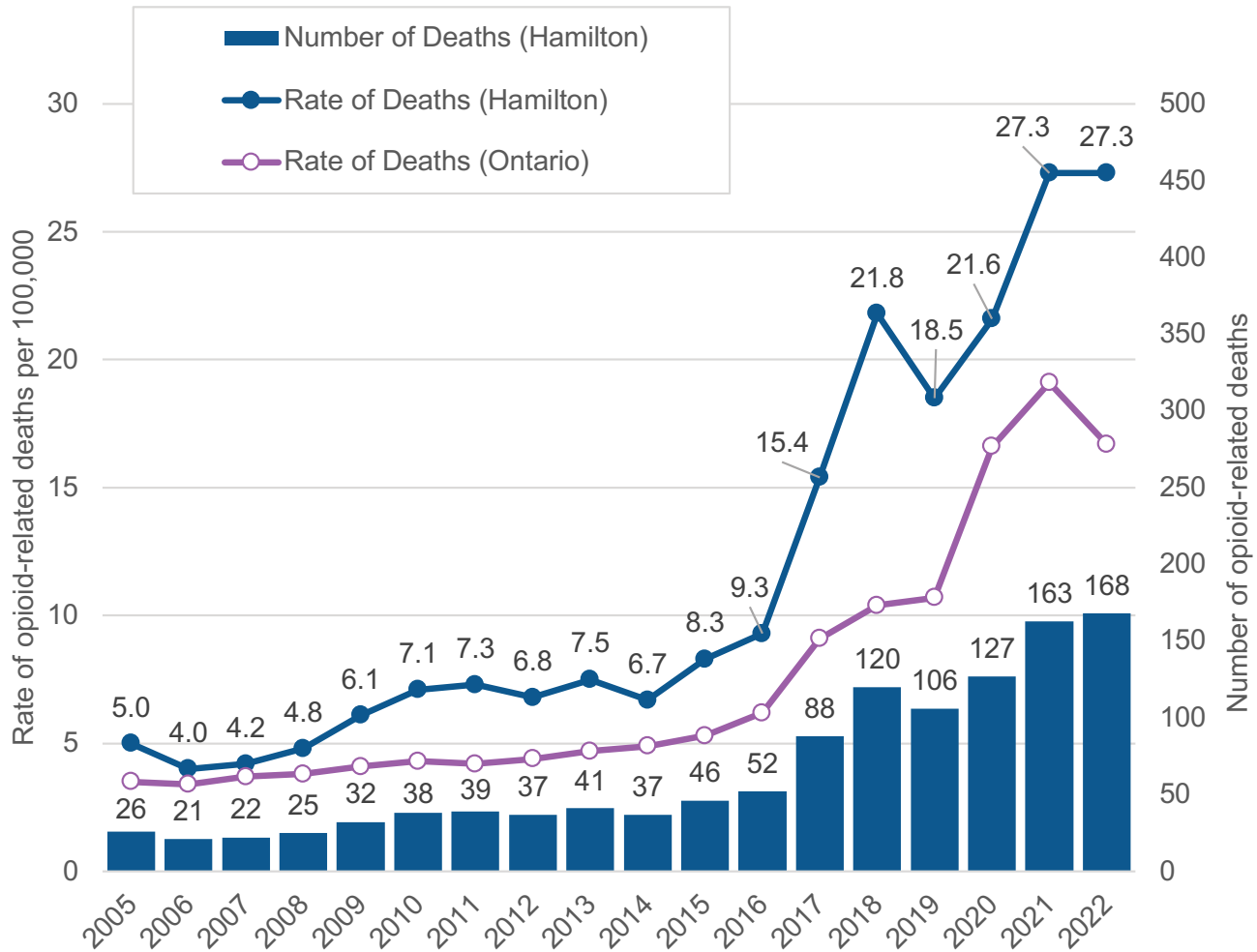
Figure 10.11: Opioid-related emergency department visits, Hamilton and Ontario residents, 2005-2022



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Interactive opioid tool. Toronto, ON: King's Printer for Ontario; 2023.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 10.12: Opioid-related deaths in Hamilton and Ontario, 2005-2022



Source: Office of the Chief Coroner of Ontario.

Notes:

- Data includes probable and confirmed deaths. Data are subject to change as pending investigations are completed by the coroner's office.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

The rate of opioid-related deaths differs by sex and age groups in Hamilton (Figure 10.13). In 2022, 72.2% of opioid-related deaths were among males aged 25-64 years. This group is experiencing the most substantial and disproportionate increase in opioid-related deaths in Hamilton.

There are many types of opioids. Multiple ones may be connected to an opioid-related death. Based on the most available data from 2022, fentanyl (all types) was the most common linked to opioid-related deaths in Hamilton. It was present in 86.4% of all opioid-related deaths. This is a substantial increase from 2005, when only 3.8% of opioid-related deaths were connected to fentanyl (all types).

Oxycodone was present in 5.6% of Hamilton’s opioid-related deaths in 2022, which is a substantial decrease from 42.3% in 2005.

Heroin, hydrocodone, hydromorphone, methadone, morphine and nitazenes were each present in less than 10% of Hamilton’s opioid-related deaths in 2022.

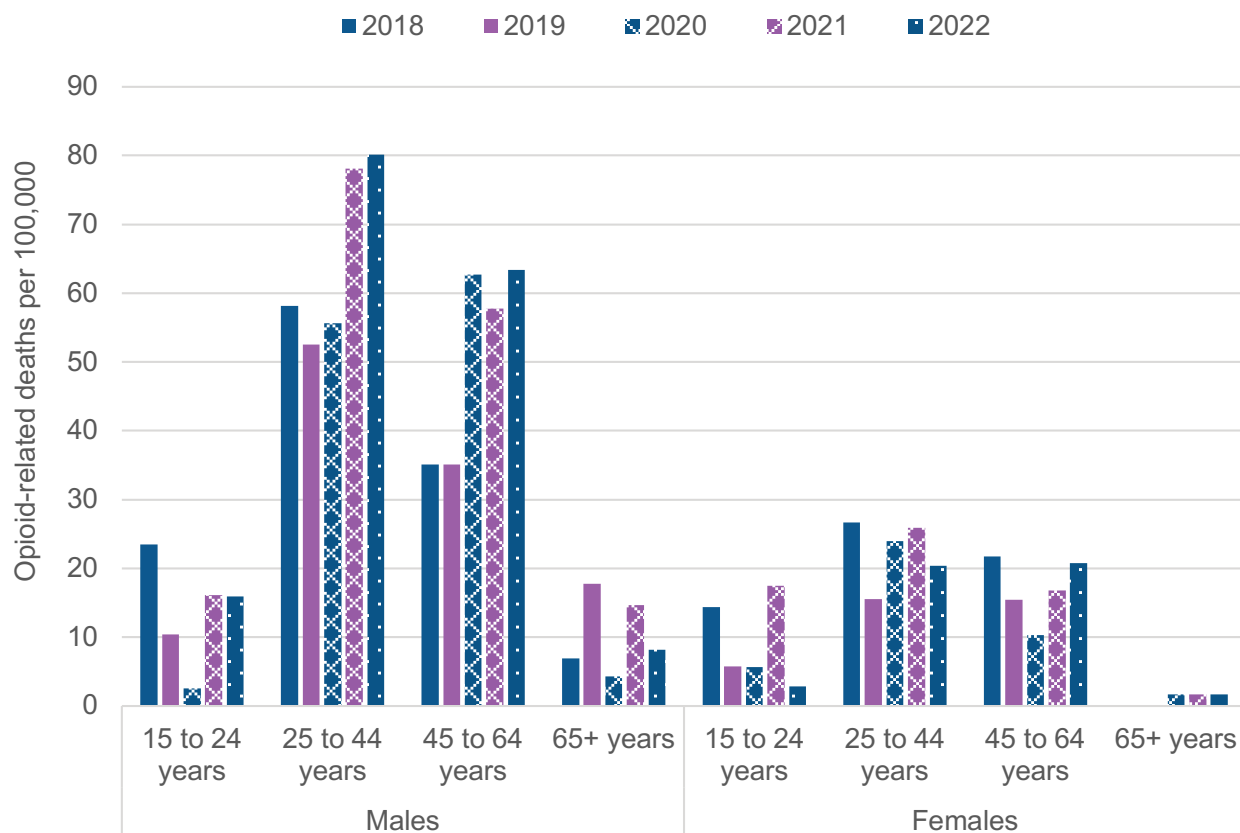
The rate of unintentional opioid-related deaths in Hamilton differed by groupings based on housing status and racial identity (Table 10.3).

There were substantially higher rates among people whose living arrangement was identified as homeless (1,024.9 deaths per

100,000) compared to those identified as residing in a private dwelling (16.1 deaths per 100,000).

The rate of opioid-related deaths was greater among people who identified as white (22.4 deaths per 100,000) and Black (13.4 deaths per 100,000) when compared to people who identified as East or Southeast Asian, South Asian, Latin American or Middle Eastern (4.0 deaths per 100,000). These racial identities were grouped together for privacy considerations, as the number of deaths in each of these populations is low.

Figure 10.13: Opioid-related deaths by age group and sex, Hamilton, 2018-2022



Source: Coroner’s Opioid Investigative Aid, Office of the Chief Coroner for Ontario, extracted November 2, 2023.

Table 10.3: Unintentional opioid-related deaths by different groups, Hamilton, 2018-2022 combined

Grouping	Defined Groups	Number of opioid-related deaths	Opioid-related deaths per 100,000
Housing Status	People whose living arrangement was identified as homeless	53	1,024.9
	People whose living arrangement was identified as residing in a private dwelling	445	16.1
Racial Identity	People who were identified as Black	18	13.4
	People who were identified as white	458	22.4
	People who were identified as East or Southeast Asian, South Asian, Latin American or Middle Eastern	21	4.0

Source: Coroner's Opioid Investigative Aid, Office of the Chief Coroner for Ontario, extracted November 2, 2023 (prepared by Public Health Ontario).

Notes:

- Housing status and racial identity are determined by the Office of the Chief Coroner of Ontario during their investigation. Approximately 80-90% of deaths have this information available.
- These data only include unintentional deaths where there was no evidence of intentional [self-harm](#) (suicide).
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.



CHAPTER 11

INJURY AND VIOLENCE

HIGHLIGHTS

- Falls are a substantial cause of injuries for Hamilton residents, particularly older residents. Rates of fall injuries have remained relatively stable.
- Land transport injuries are decreasing, but distracted driving and injuries remain greater among Hamilton males and those aged 20-44.
- Hamilton has a greater rate of assault-related injuries compared to Ontario, particularly among males aged 20-44. The rate of homicides has increased in recent years.
- There are substantial socioeconomic inequalities related to injuries. Assault-related injuries are one of the most unequal health outcomes in Hamilton.
- Since 2020 there has been a 175% rise in police-reported hate and bias occurrences in Hamilton, primarily targeting Black, Jewish, Muslim and LGBTIQ+ (lesbian, gay, bisexual, transgender, intersex, queer or questioning) populations.

INJURY AND VIOLENCE

LEADING CAUSES OF INJURY

The leading causes of injury-related emergency department (ED) visits and deaths are shown in Table 11.1 for Hamilton residents. Annually, EDs see over 20,000 visits for fall-related injuries, almost as many as for all other injuries combined.

Falls, along with unintentional poisoning, were the top causes of injury-related deaths for Hamilton residents in 2021; collectively, they account for 76.4% of all injury-related deaths.

Unintentional poisoning is primarily driven by opioid overdoses, and is covered in further detail in Chapter 10: Substance Use. This category represented the largest total of [potential years of life lost](#) (PYLL) for Hamilton residents in 2021. Unintentional injuries accounted for 62.8% of all PYLL for all injuries. [Self-harm](#) ranked second, accounting for 20.2% of PYLL for all injuries.

Table 11.1: Leading causes of injury-related emergency department (ED) visits, deaths, and potential years of life lost (PYLL), Hamilton residents, 2021

Injury Type	ED visits	Deaths	PYLL
Assault	1,472	15	566
Self-harm	1,012	47	1,603
Burns	708	3	67
Cut or pierce injury	5,434	0	0
Falls	20,278	140	224
Near-drowning or submersion	22	1	40
Neurotrauma	1,938	0	0
Struck by or against object	7,456	1	12
Land transport-related injuries	3,831	22	445
Unintentional poisoning	1,838	148	4,989
Overexertion	2,239	0	0

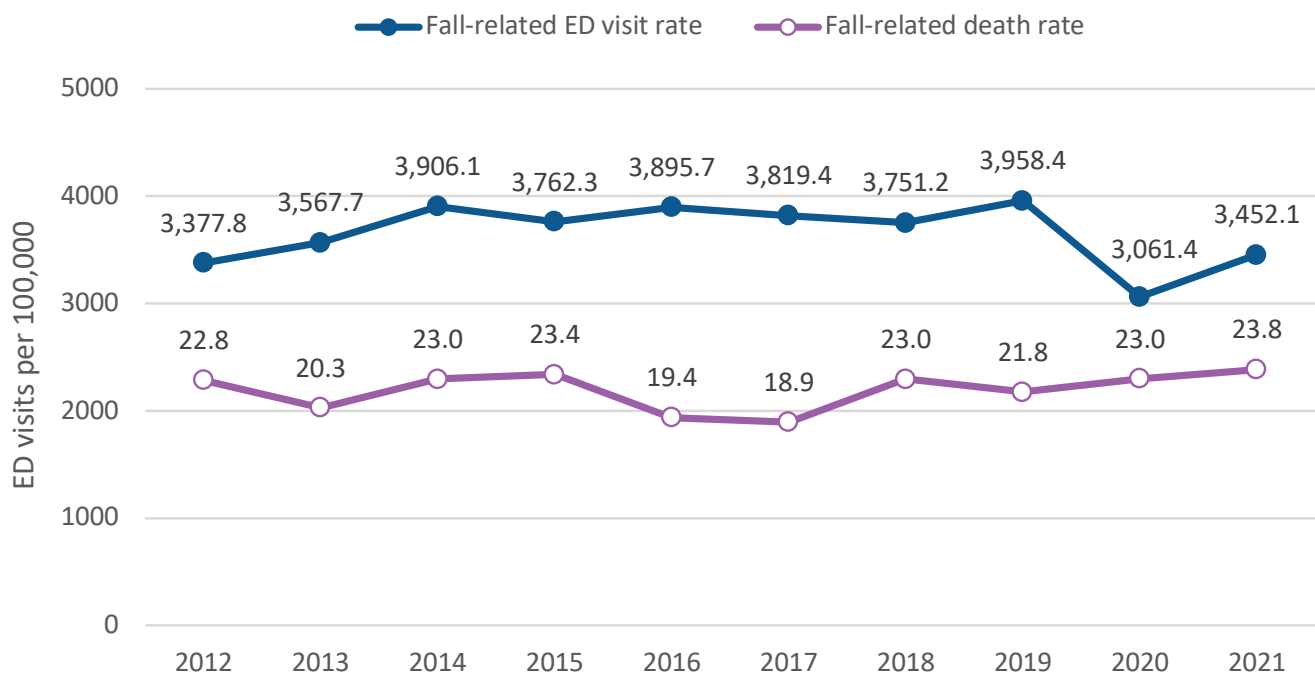
Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO; Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

FALLS

The rate of fall-related ED visits and deaths are shown in Figure 11.1 for Hamilton residents from 2012 to 2021. Both rates have remained relatively stable during this period. The rate of ED visits for fall injuries is greater for Hamilton residents aged 75 and older, particularly females (Figure 11.2).

For 2019-2021, the rate of fall-related ED visits was greater in Hamilton (3,488.2 visits per 100,000) than for Ontario (2,929.3 visits per 100,000). Similarly, the rate of fall-related deaths was greater in Hamilton (22.9 deaths per 100,000) when compared to Ontario (20.4 deaths per 100,000).

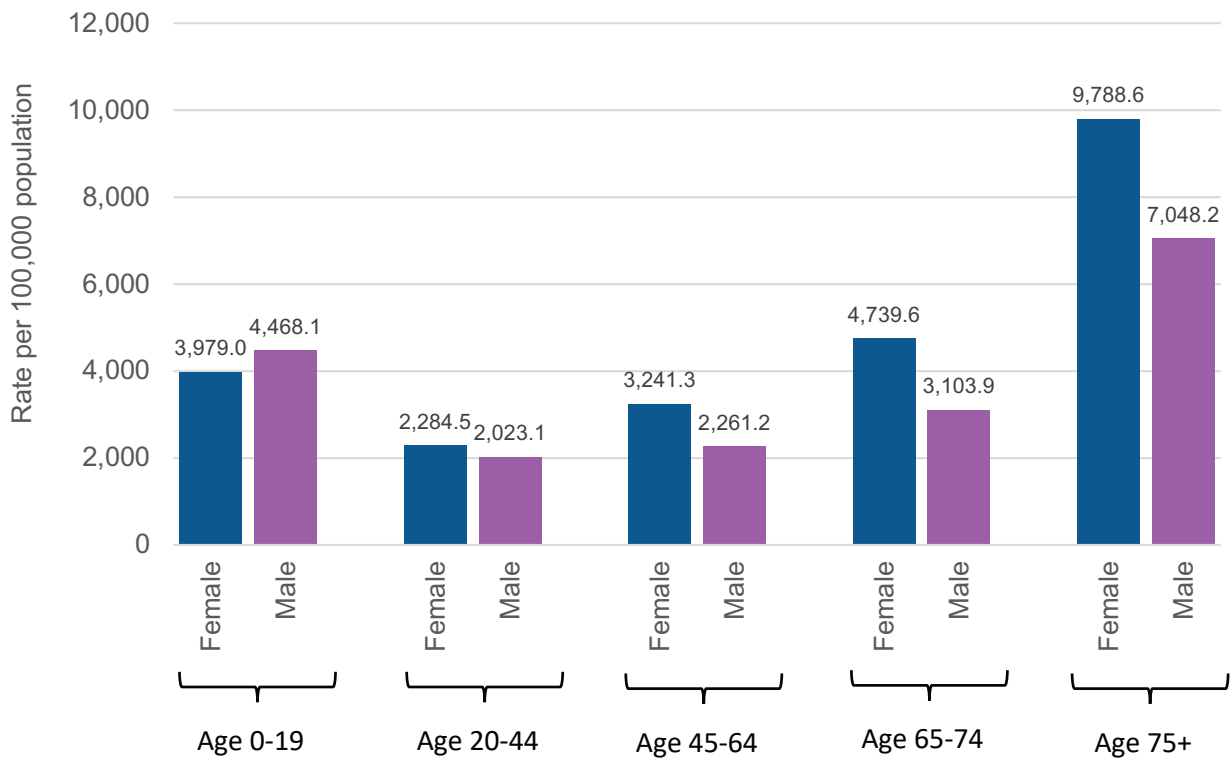
Figure 11.1: Fall-related emergency department visits and deaths, Hamilton residents, 2012-2021



Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO; Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 11.2: Emergency department visits for fall injuries by age group and sex, Hamilton residents, 2021



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

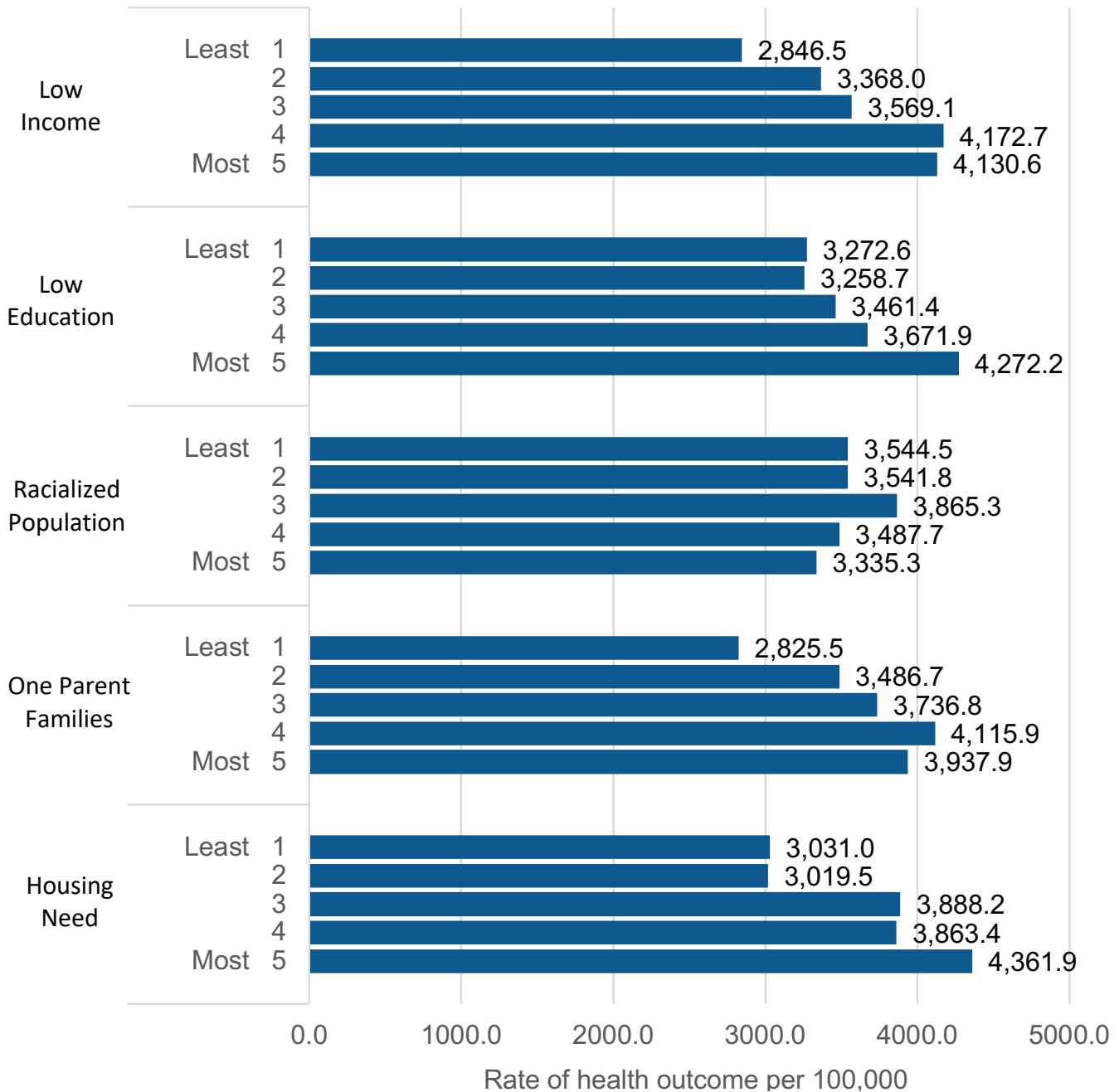
There were 1,228 fall-related deaths among Hamilton residents from 2012 to 2021. In the 56% of cases where a specific cause is noted, the top causes were:

- falls on or from stairs and steps (108 deaths)
- falls involving a bed, chair or other furniture (96 deaths)
- slipping, tripping or stumbling on the same level without snow or ice (69 deaths)

When assessing area-based inequality, there are higher rates of ED visits for fall injuries among Hamilton residents living in (Figure 11.3):

- areas with a greater percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with a greater percentage of families with one-parent
- areas with the greatest percentage of households with a core housing need

Figure 11.3: Emergency department visits for fall injuries by area-based socioeconomic quintiles, crude rate per 100,000 population, Hamilton residents, 2017-2021



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

LAND TRANSPORT INJURIES

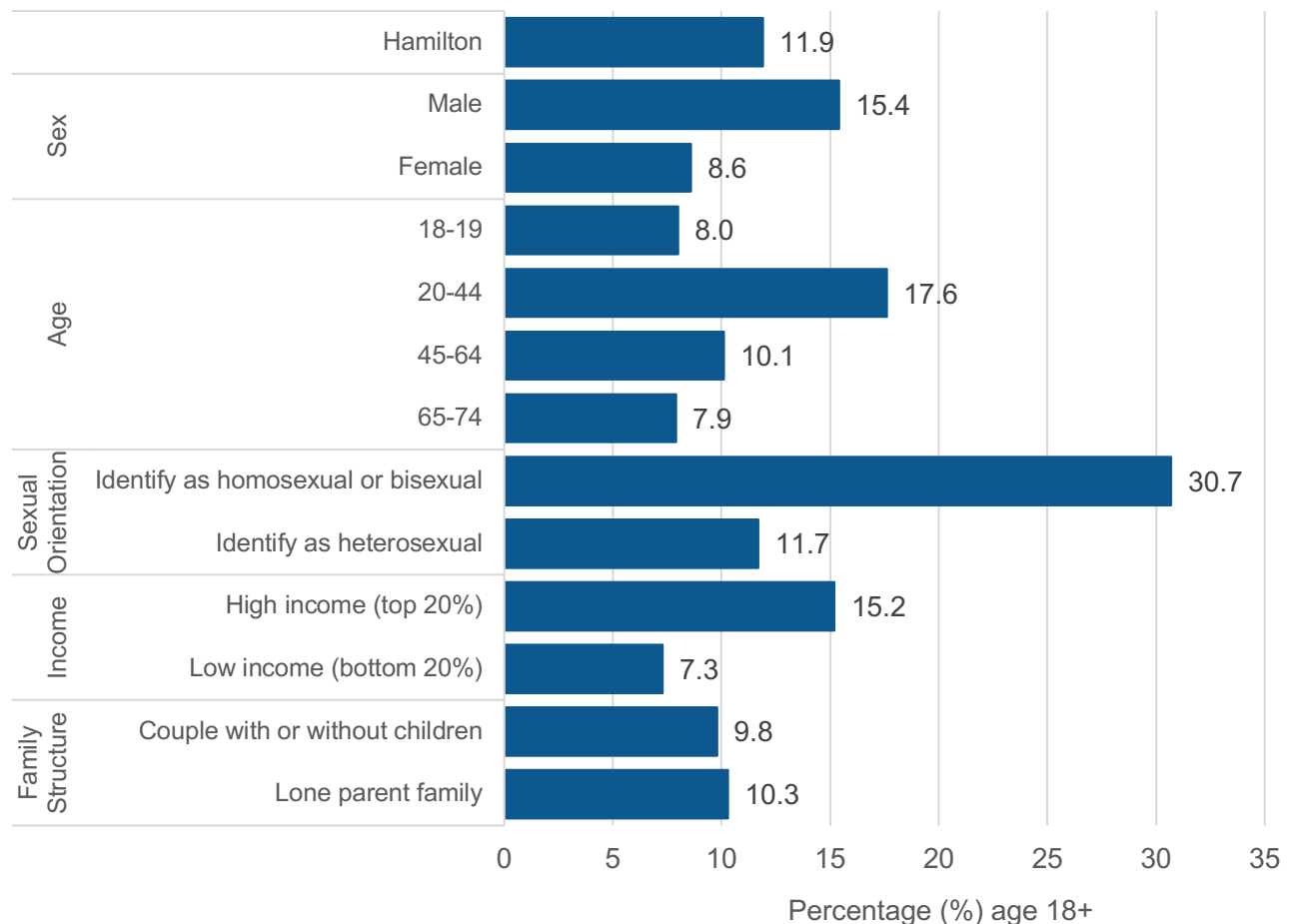
[Land transport injuries](#) can involve cars, trucks, vans, motorcycles, all-terrain vehicles, and pedal cycles. Pedestrians who are injured by a land transport vehicle are also included within this category.

The risk of injury is increased when a land transport vehicle is operated while impaired or distracted. One in nine (11.9%) Hamilton adults report being impaired while driving, or

being in a vehicle with an impaired driver, at least once in the past year (Figure 11.4); this risk was greater for Hamilton adults identifying as lesbian, gay or bisexual.

Nearly 30% of Hamilton drivers (aged 16 and older) report using a cell phone while driving in the past year (excludes hands-free use). This practice was greater among drivers aged 20-44 and male drivers (Figure 11.5). Measures of impaired and distracted driving were similar between Hamilton and Ontario residents.

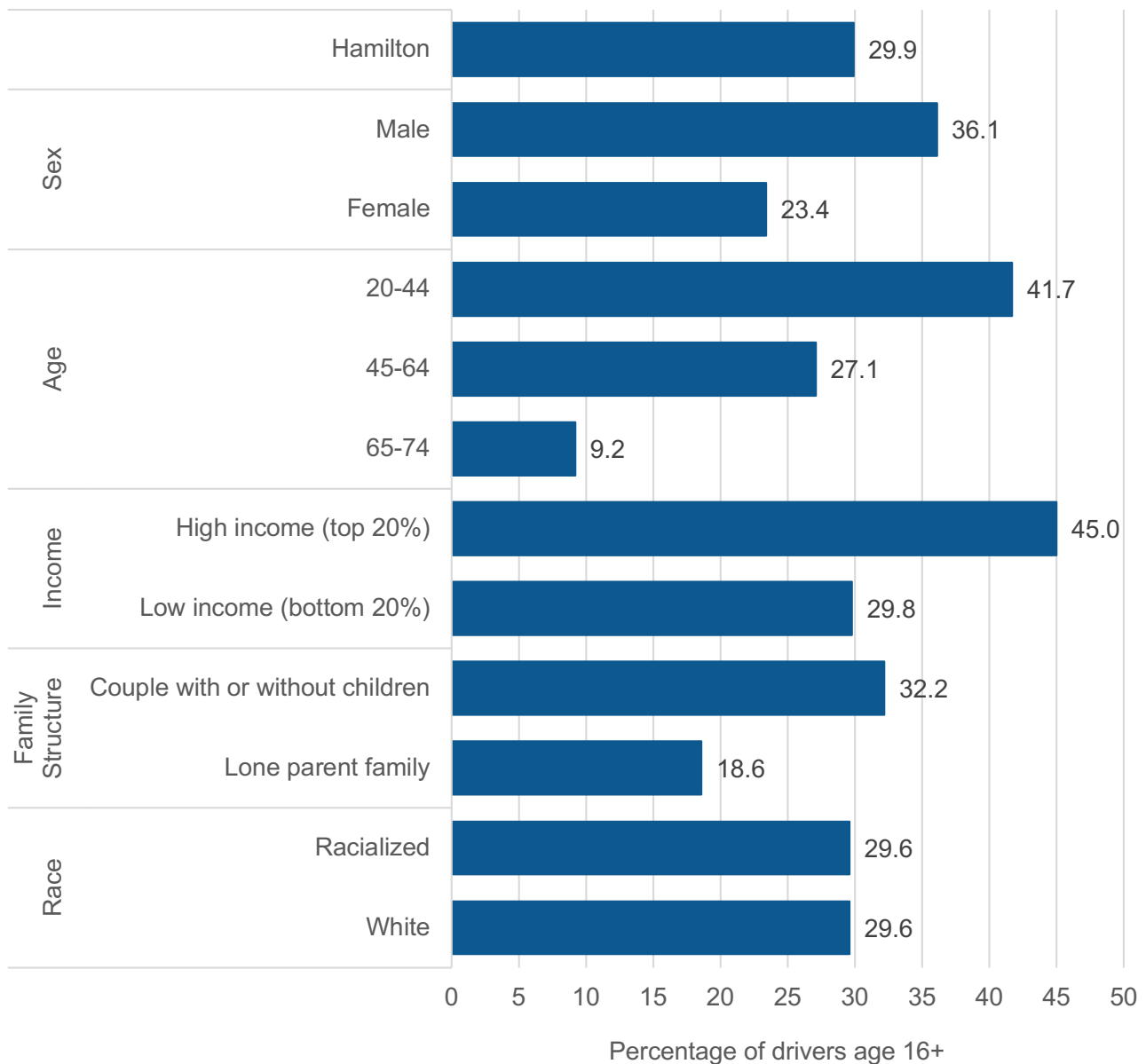
Figure 11.4: Adults who report being impaired while driving or being in a vehicle with an impaired driver in the past year, Hamilton residents aged 18 and older, 2017-2020 combined



Source: Canadian Community Health Survey [2017-2018 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 11.5: Drivers who used a cell phone while driving in the past year (excludes hands-free use), Hamilton drivers aged 16 and older, 2017-2018



Source: Canadian Community Health Survey [2017-2018], Statistics Canada, Share File, Ontario Ministry of Health.

Notes:

- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

For Hamilton residents from 2012 to 2021, Figure 11.6 shows the rate of ED visits and deaths due to land transport injuries. Both rates appear to be trending downwards with some year-to-year fluctuations, but these trends should be monitored closely to determine whether they're sustained.

Over 2019-2021, the rate of ED visits for land transport injuries was greater in Hamilton (714.0 visits per 100,000) compared to Ontario (656.8 visits per 100,000). More Hamilton males made ED visits for land transport injuries across all age groups, particularly those aged 20-44 (Figure 11.7).

The rate of deaths due to land transport injuries in Hamilton (3.7 deaths per 100,000) was similar to Ontario (4.1 deaths in Ontario per 100,000) during 2019-2021. For this period, there were 233 deaths due to land transport injuries among Hamilton residents.

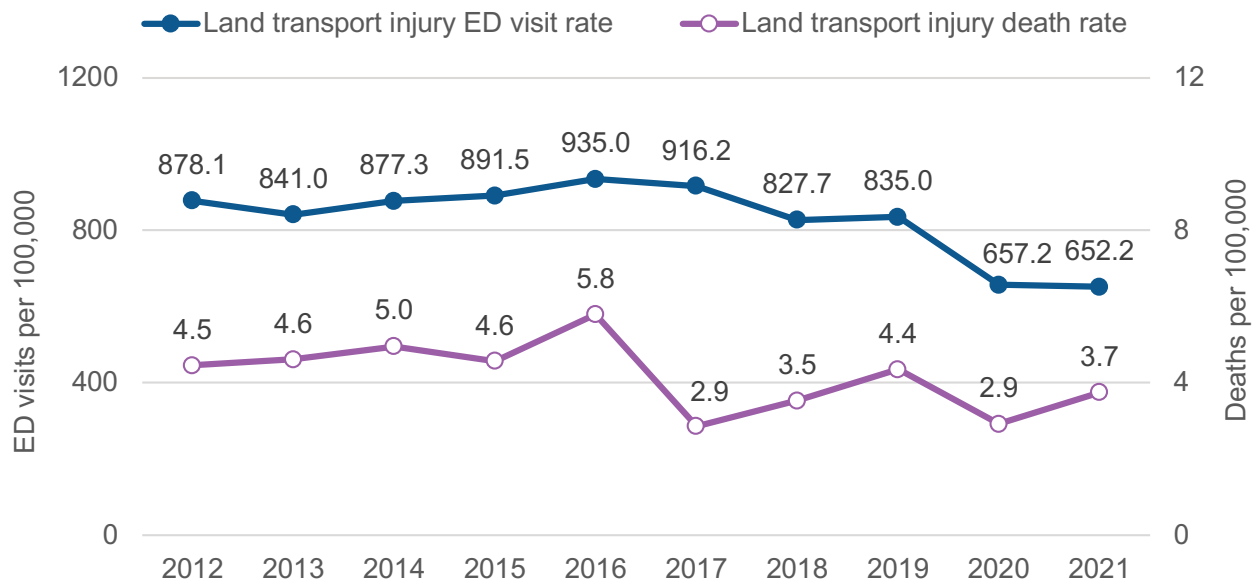
While 27.9% of these deaths have a non-specific cause, the top causes include:

- pedestrian injured in land transport incident (70 deaths)
- car/truck/van occupant injured (43 deaths)
- motorcycle occupant injured (29 deaths)

When assessing area-based inequality, there were higher rates of ED visits for land transport injuries among Hamilton residents living in (Figure 11.8):

- areas with greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of individuals who self-identified as a race other than white or Indigenous
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of households that have a core housing need

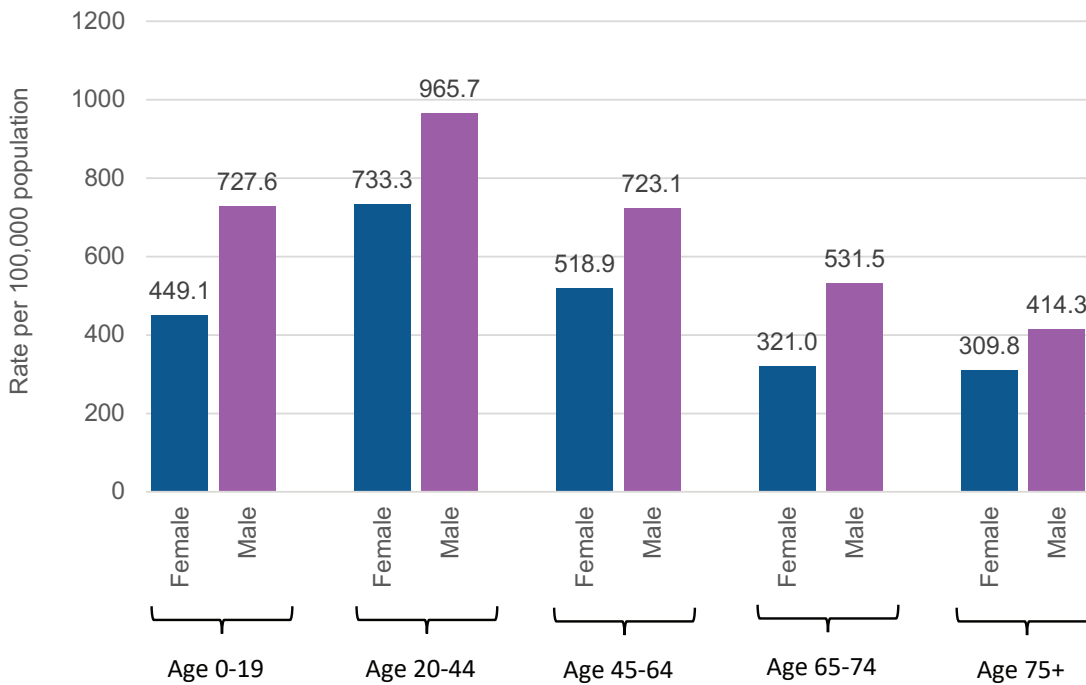
Figure 11.6: Land transport injury-related emergency department visits and deaths Hamilton residents, 2012-2021



Sources: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO; Ontario Mortality Data, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

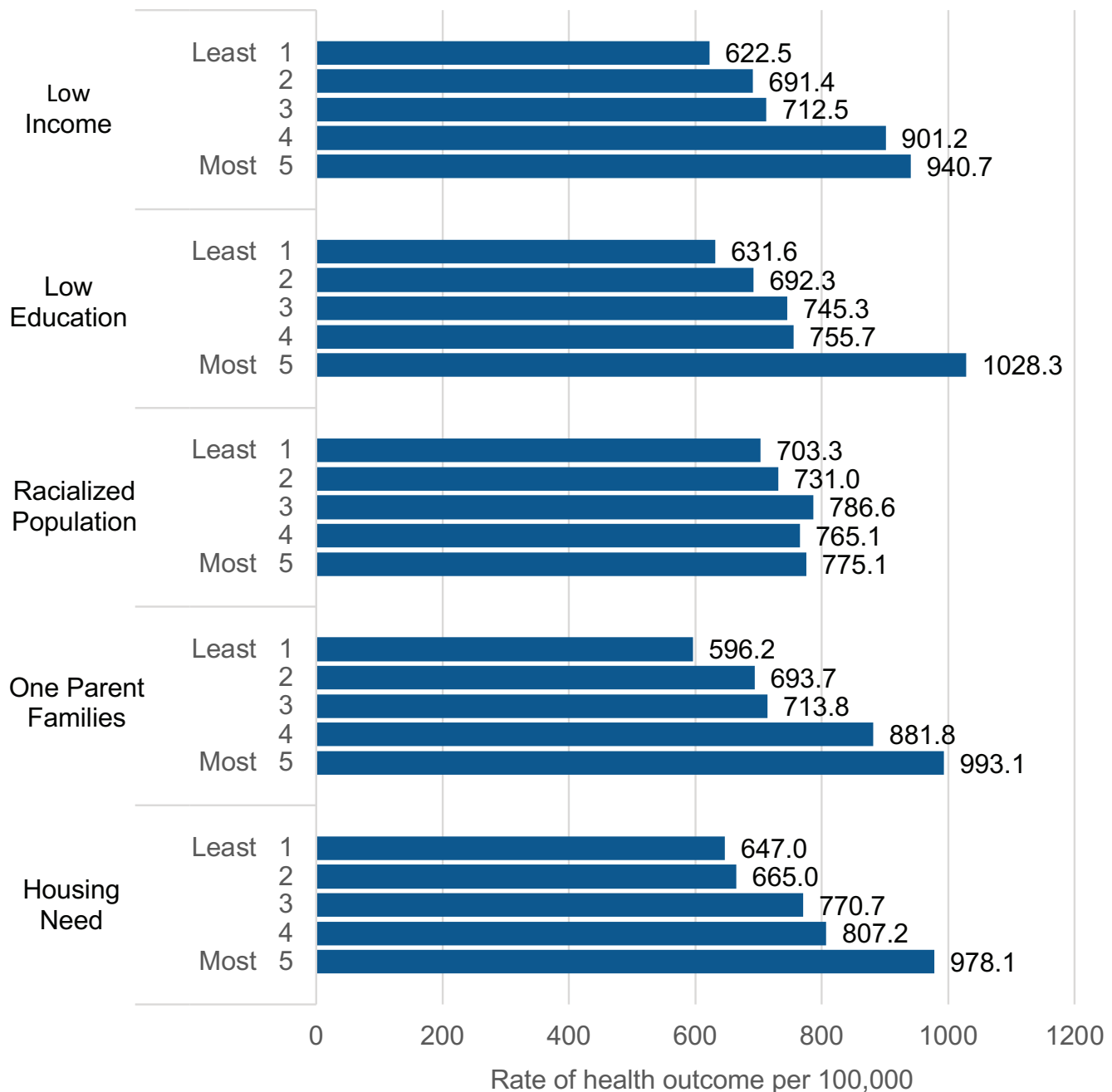
Figure 11.7: Emergency department visits for land transport injuries by age and sex, Hamilton residents, 2021



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 11.8: Emergency department visits for land transport injuries by area-based socioeconomic quintiles, crude rate per 100,000 population, Hamilton residents, 2017-2021 combined



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes:

- For each socioeconomic metric, Hamilton's census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

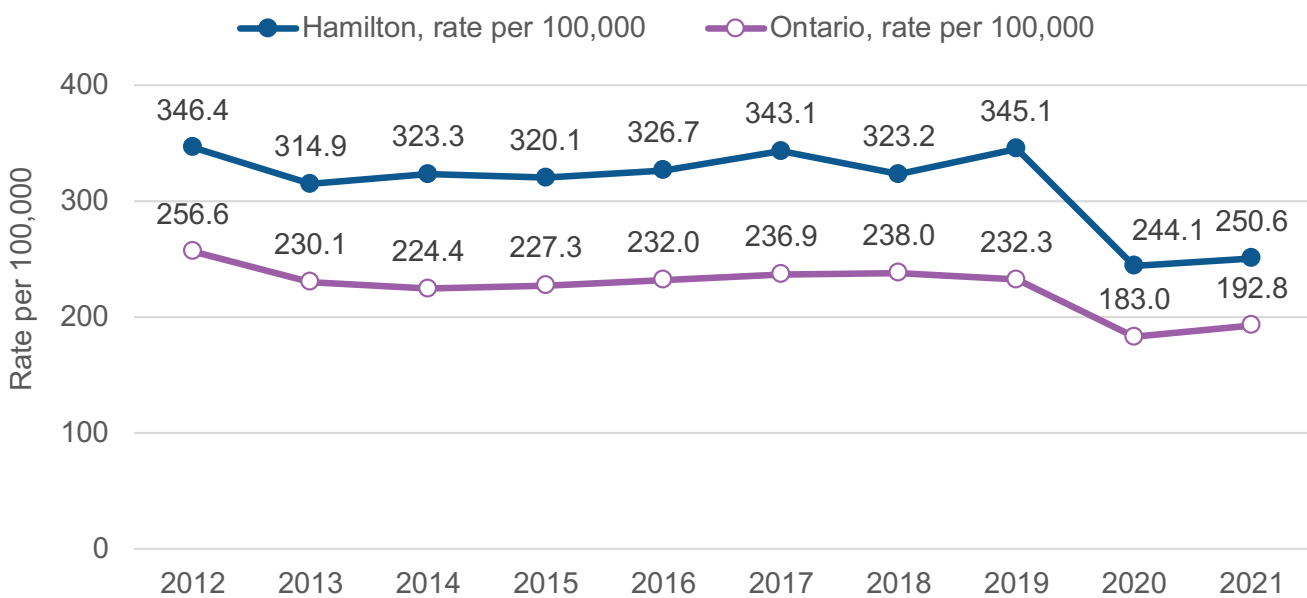
ASSAULTS AND HOMICIDES

Hamilton’s rate of emergency department visits for physical or sexual assaults was consistently greater than the Ontario rate for all years between 2012 and 2021 (Figure 11.9).

Overall, Hamilton males had a greater rate of ED visits for assault injuries compared to Hamilton females. These rates were greatest among those aged 20-44 (Figure 11.10).

In 2018, 1 in 25 Hamilton residents (3.9%) were victims of a self-reported physical or sexual assault. More than 1 in 4 (27%) experienced unwanted sexual behaviour in public.⁶⁷

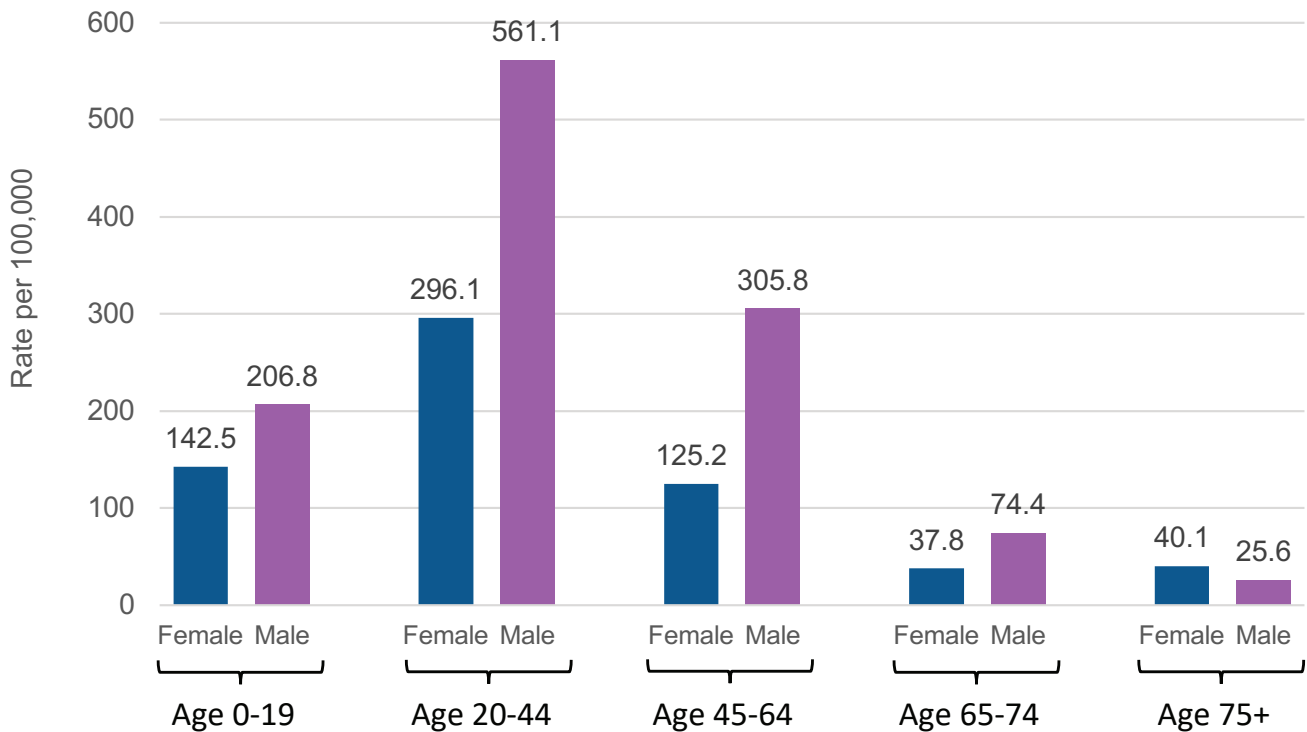
Figure 11.9: Assault-related emergency department visits, Hamilton and Ontario residents, 2012-2021



Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

Figure 11.10: Assault-related emergency department visits by age and sex, Hamilton residents, 2021



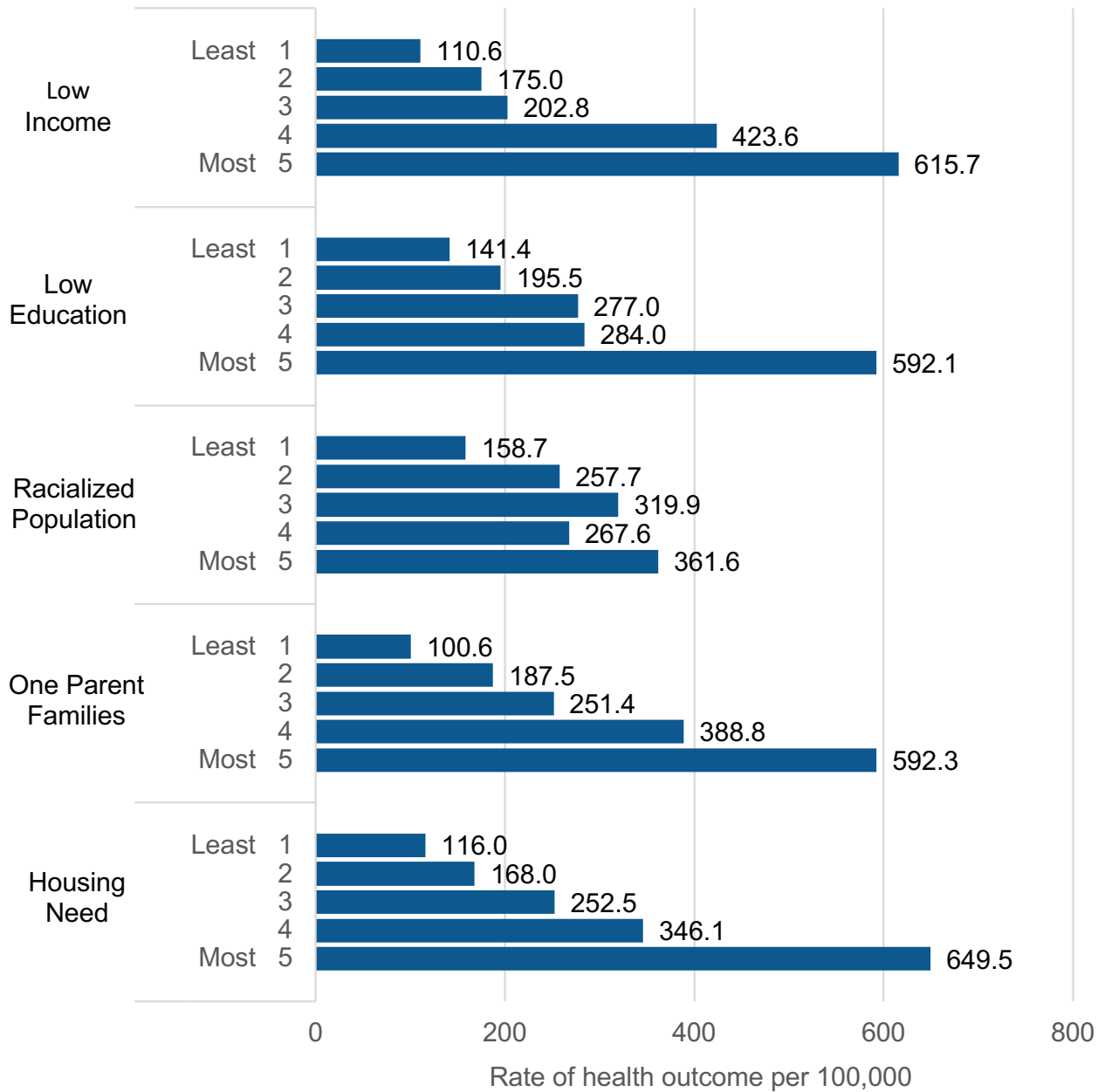
Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

When assessing area-based inequality, there were higher rates of assault-related ED visits among Hamilton residents living in (Figure 11.11):

- areas with greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent
- areas with the greatest percentage of individuals who self-identified as a race other than white or Indigenous
- areas with the greatest percentage of families with one-parent
- areas with the greatest percentage of households that have a core housing need

Figure 11.11: Assault-related emergency department visits by area-based socioeconomic quintiles, crude rate per 100,000 population, Hamilton residents, 2017-2021 combined



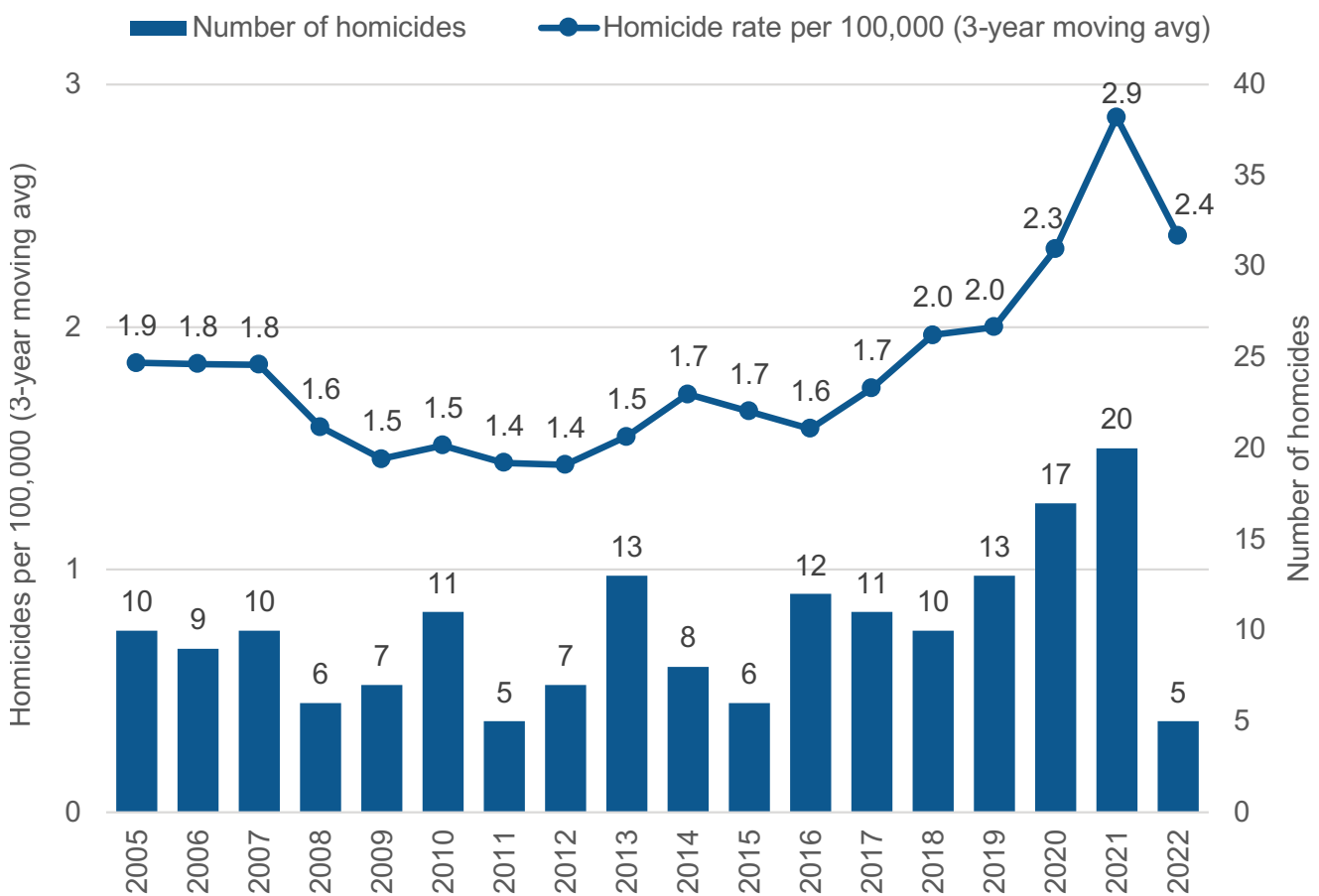
Source: Ambulatory Emergency External Cause, Ontario Ministry of Health and Long-Term Care, IntelliHEALTH ONTARIO.

Notes:

- For each socioeconomic metric, Hamilton’s census neighbourhoods were sorted into five groups (quintiles) and the health outcome was measured in each group to determine inequalities. Refer to [Quintile Graphs](#) in the glossary for a further explanation.
- Different racialized groups have different health experiences. Aggregating all racialized groups into one category masks these differences.
- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.

The number and rate of homicides in Hamilton from 2005-2022 are shown in Figure 11.12. The rate of homicides increased substantially between 2016 and 2021, with an equally substantial decline in 2022. This should be monitored closely due to the rapid emergence and continued evolution of this trend.

Figure 11.12: Homicide rate (3-year moving average) and count in Hamilton, 2005-2022



Source: Hamilton Police Services, January 2023.

HATE AND DISCRIMINATION

Reports of occurrences that are motivated by hate and discrimination are on the rise in Hamilton.

In 2023, there were 220 such occurrences reported to Hamilton Police Services in 2023 (Figure 11.13). That was the greatest number of reported occurrences over the past 10 years, and was up by 175% since 2020 (80 occurrences).

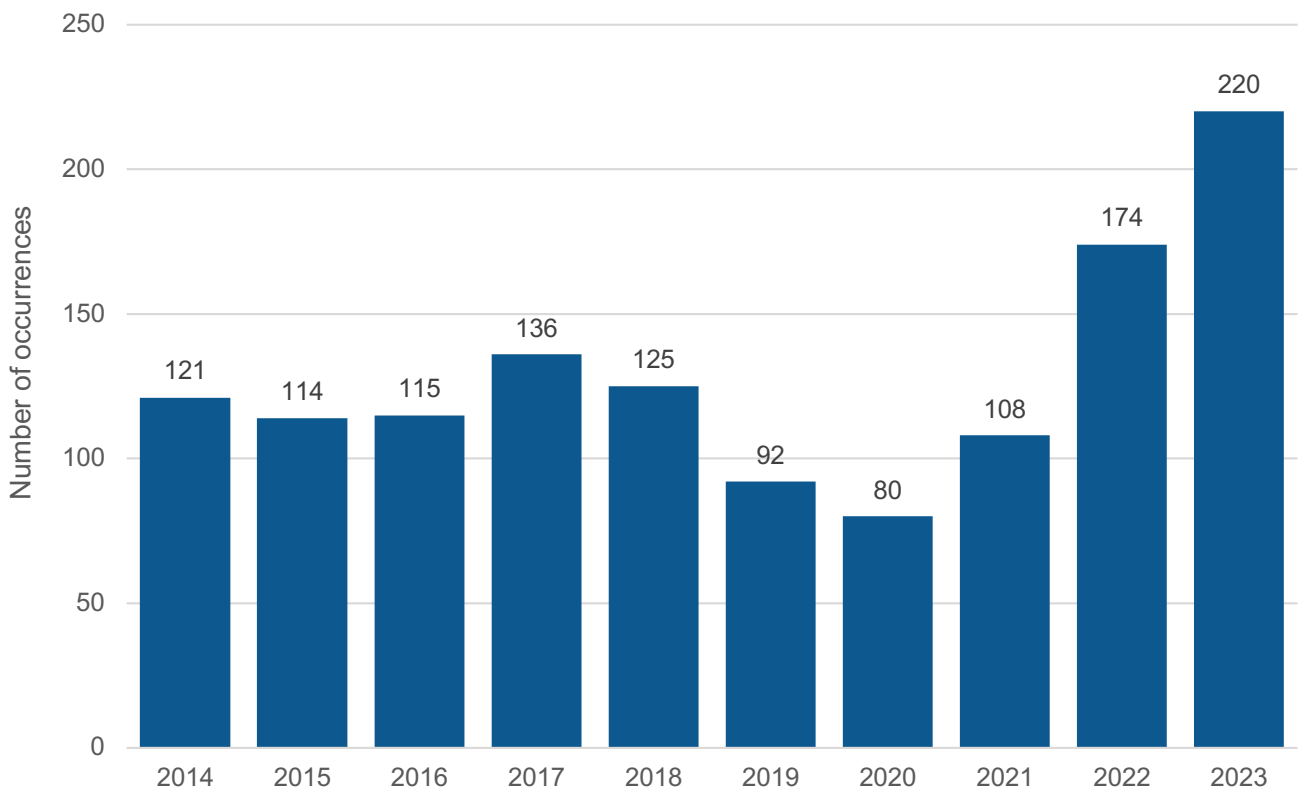
Some of this increase may be attributed to greater awareness or willingness to report hate or bias occurrences to police. But hate

and bias occurrences are likely under-reported due to the mistrust between police and people from Black, LGBTQ+, religious and other communities.⁶⁸

The groups most targeted by occurrences of hate or bias reported to police (Figure 11.14) include:

- the Black community
- the Jewish community
- the Muslim community
- the LGBTQ+ (lesbian, gay, bisexual, transgender, intersex, queer or questioning and other sexually or gender diverse people) community

Figure 11.13: Hate or bias occurrences reported to Hamilton Police Services, City of Hamilton, 2014-2023



Source: Hamilton Police Services.

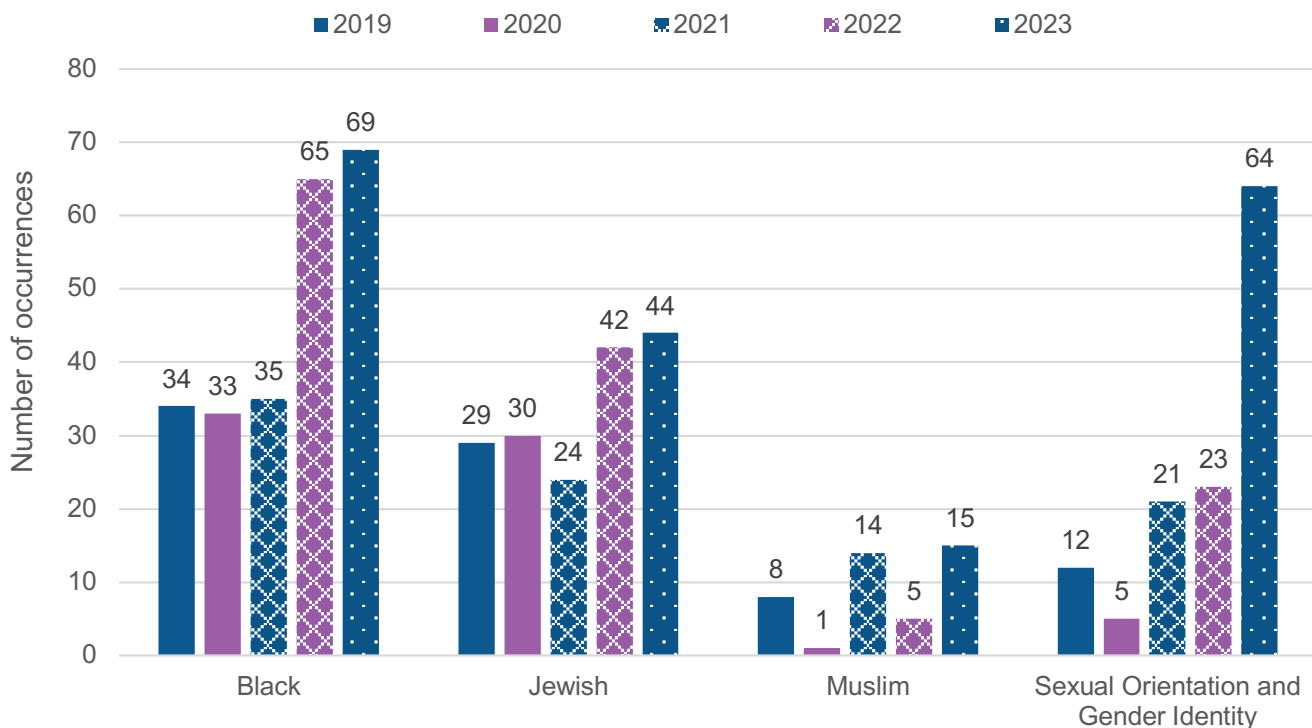
In Hamilton, 96 of the hate or bias occurrences reported were racially motivated; Black people were targeted in 71.8% (69 occurrences) of these occurrences in 2023, an increase of 102.9% since 2019 (34 occurrences). These findings continue to highlight the persistence of anti-Black racism; each year the Black community tops the list with the most incidences.

Fifty-nine hate or bias occurrences were motivated by religion, targeting members of the Jewish (44) and Muslim (15) communities,

experiencing a 51.7% and 87.5% increase respectively, in hate or bias occurrences in 2023 when compared to 2019.

Sexual orientation and gender identity were the focus of 64 hate or bias occurrences in 2023, primarily targeting the Two-Spirit and LGBTIQ+ community. This has increased by 433.3% since 2019 (12 occurrences). As previously stated, some of the increase across these groups may be attributed to greater awareness or willingness to report hate or bias occurrences to police.

Figure 11.14: Hate or bias occurrences reported to Hamilton Police Services by most targeted groups, City of Hamilton, 2019-2023



Source: Hamilton Police Services.

COMMUNITY SAFETY

We can glean feelings about community safety from the 2019 Rapid Risk Factor Surveillance Survey and 2019 Ontario Student Drug Use and Health Survey. These self-reported measures show that:

- 82.8% of Hamilton adults feel very or reasonably safe walking alone in their neighbourhood after dark.
- 87.8% of Hamilton adults think it is very or reasonably safe for children to play outside during the day in their neighbourhood.
- 23.7% of adult residents believed a lot of family violence occurred in the community in 2019, and 42.5% believed family violence has increased over the past five years in Hamilton.
- Bullying in schools is a major traumatic experience: 1 in 5 (19.5%) secondary school students reported being bullied at school since the start of the 2018-2019 school year, similar to the Ontario average.



CHAPTER 12

HEALTHY LIVING

HIGHLIGHTS

- Just over half (51.7%) of Hamilton adults report meeting recommended physical activity levels, but this trend appears to be decreasing. Physical activity levels are lower for females and older age groups.
- Less than one in five (18.5%) Hamilton residents report eating vegetables and fruits five or more times per day. Frequency of vegetable and fruit consumption is low across all sex and age groups in Hamilton.
- Over one in three (35.4%) Hamilton adults were categorized having a body mass index of 30 or over in 2019-2020, which was considerably greater than the Ontario average. Since 2015-2016, females and adults aged 18-44 years in Hamilton appear to have experienced the greatest rise in body mass index.
- Around one in six (15.9%) Hamilton residents report having trouble going to sleep or staying asleep most of the time.
- Over 70% of Hamilton residents report appropriately protecting themselves from the sun during peak hours, but this is lower for males and those under 65 years old.

HEALTHY LIVING

PHYSICAL ACTIVITY

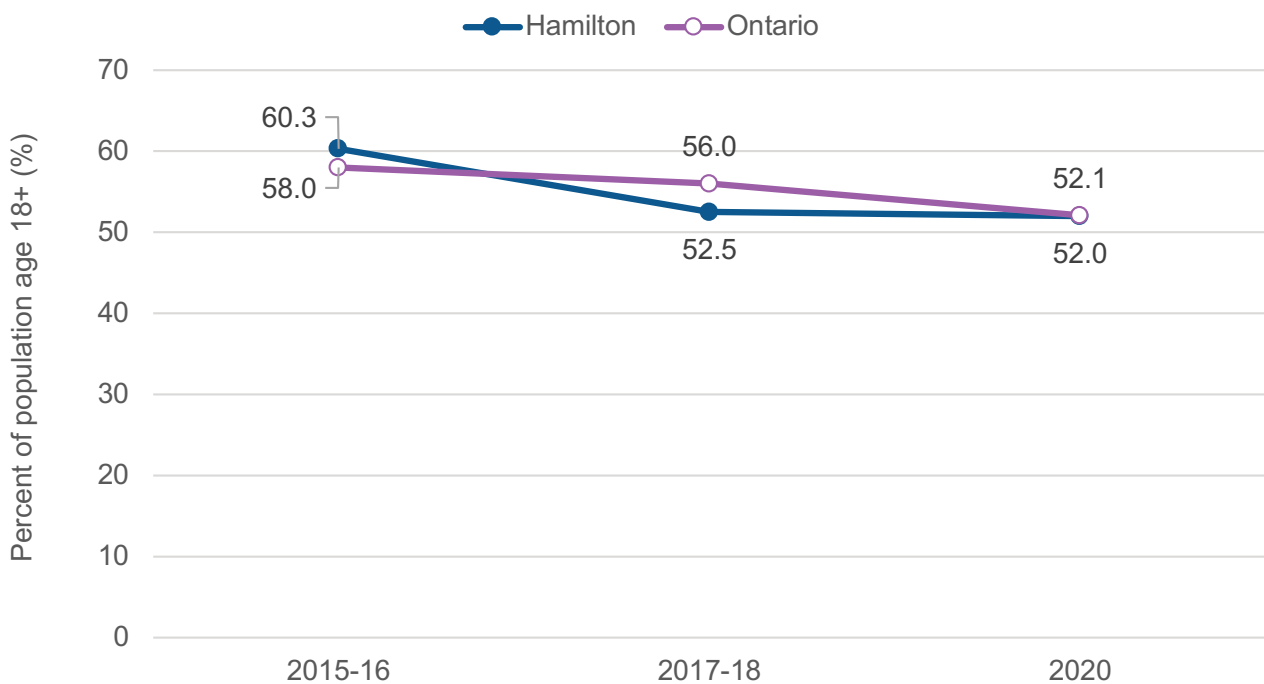
Physical activity is important to overall health. The Canadian Physical Activity Guidelines recommend that adults (age 18+) get at least 150 minutes (2.5 hours) of moderate- to vigorous-intensity aerobic physical activity per week.

Among Hamilton adults, 51.7% reported meeting this recommendation in 2020. When age is taken into consideration, Hamilton's rate appears to be decreasing over time and

was similar to the Ontario average (Figure 12.1).

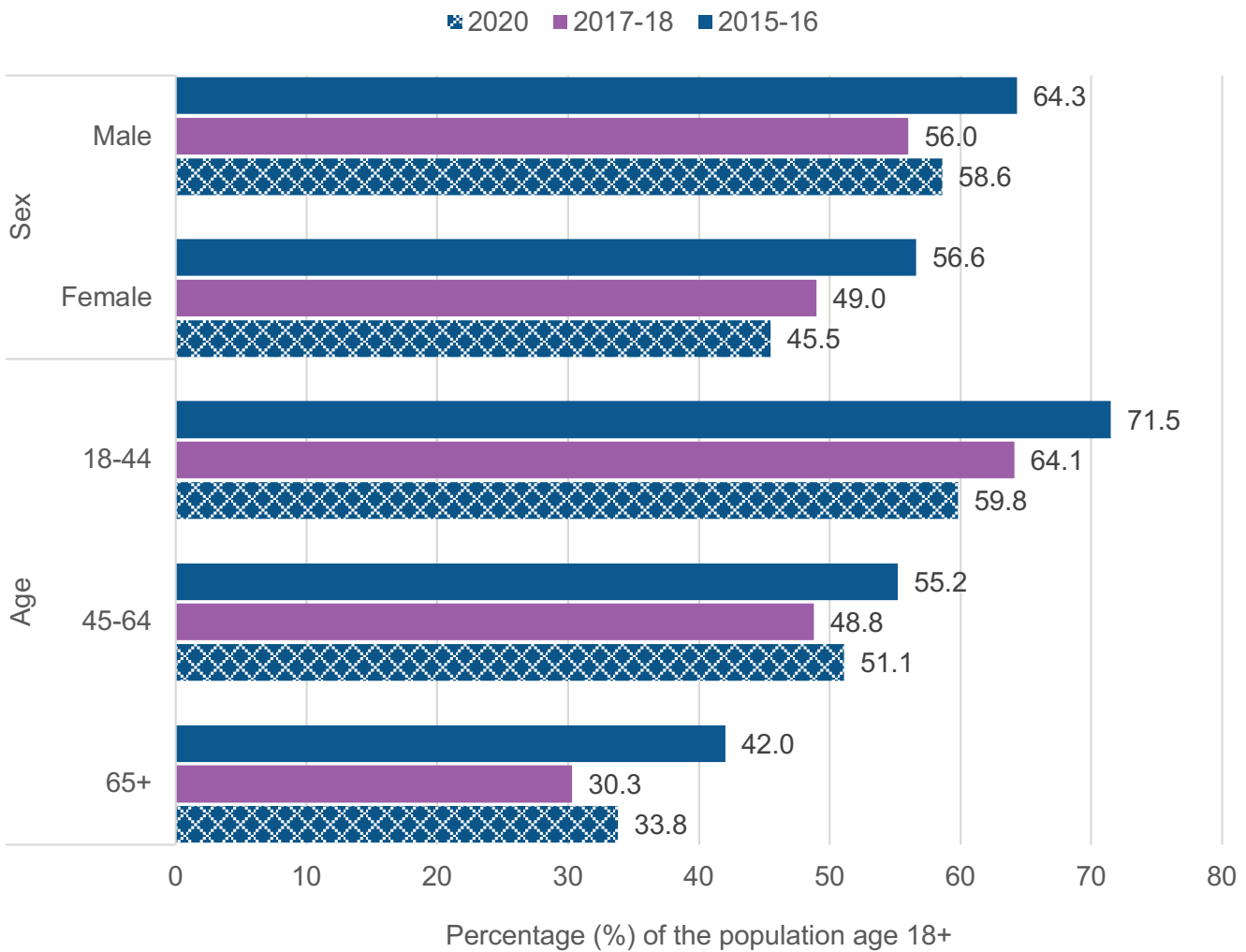
The percent of Hamilton adults who meet the recommended physical activity levels differs by sex and age (Figure 12.2). Females reported lower physical activity levels, and this activity decreased year-over-year from 2015-2020. Physical activity levels are also lower among older age groups. There is notable decline within all age groups from 2015-2020 in Hamilton.

Figure 12.1: Self-reported physical activity at or above recommended level from the Canadian Physical Activity Guidelines, Hamilton and Ontario adults age 18+ (age-standardized), 2015-16 – 2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: physical activity snapshot. Toronto, ON: King's Printer for Ontario.

Figure 12.2: Self-reported physical activity at or above recommended level from the Canadian Physical Activity Guidelines by age and sex, Hamilton adults age 18+ (age-standardized and age-specific), 2015-16 – 2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: physical activity snapshot. Toronto, ON: King's Printer for Ontario.

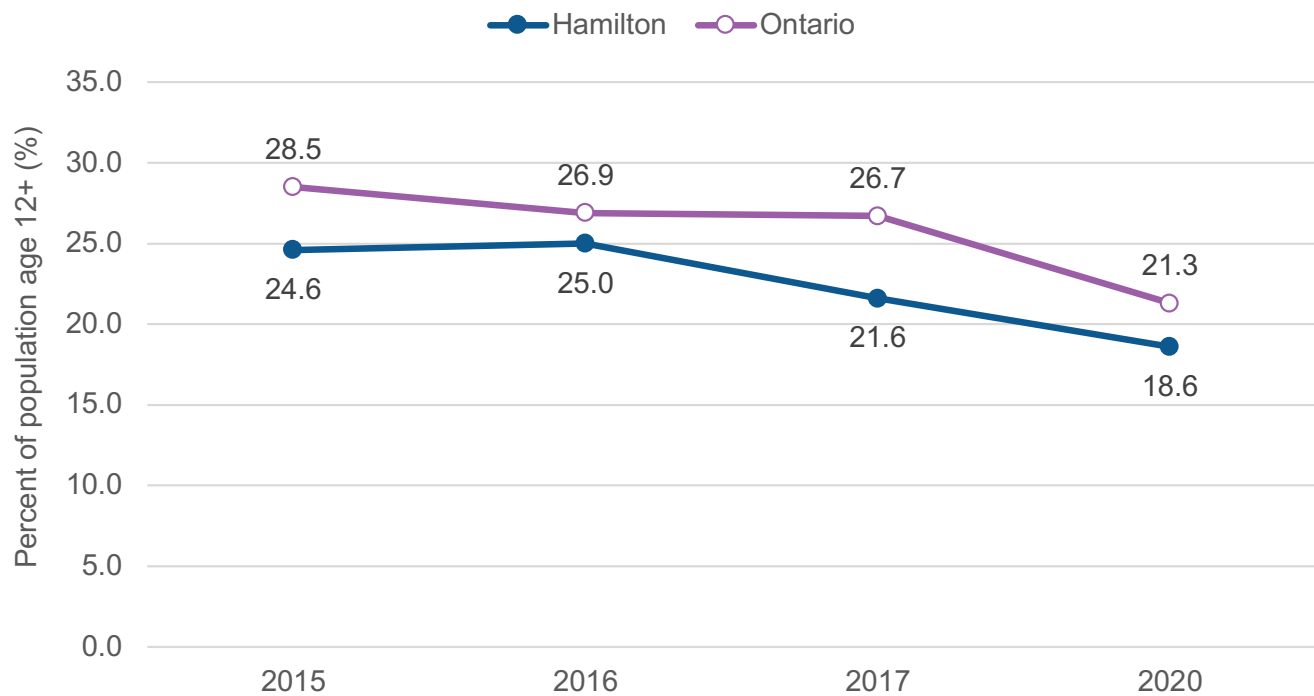
VEGETABLE AND FRUIT CONSUMPTION

Vegetables and fruits are a critical part of a healthy diet but measuring a community’s food intake can be challenging. One simplified way is to survey people about how often they eat vegetables and fruits (see Figure 12.3) instead of the amount (servings) consumed.

Although frequency of vegetable and fruit consumption is linked to overall diet quality, this surveying approach does not provide the fuller picture of nutrient intake in the population. In 2020, about 1 in 5 (18.5%) Hamilton residents reported consuming vegetables and fruits five or more time per day. When age is taken into consideration, Hamilton’s rate was similar to the Ontario rate and the frequency of vegetable and fruit consumption appears to have decreased across both Hamilton and Ontario from 2015-2020.

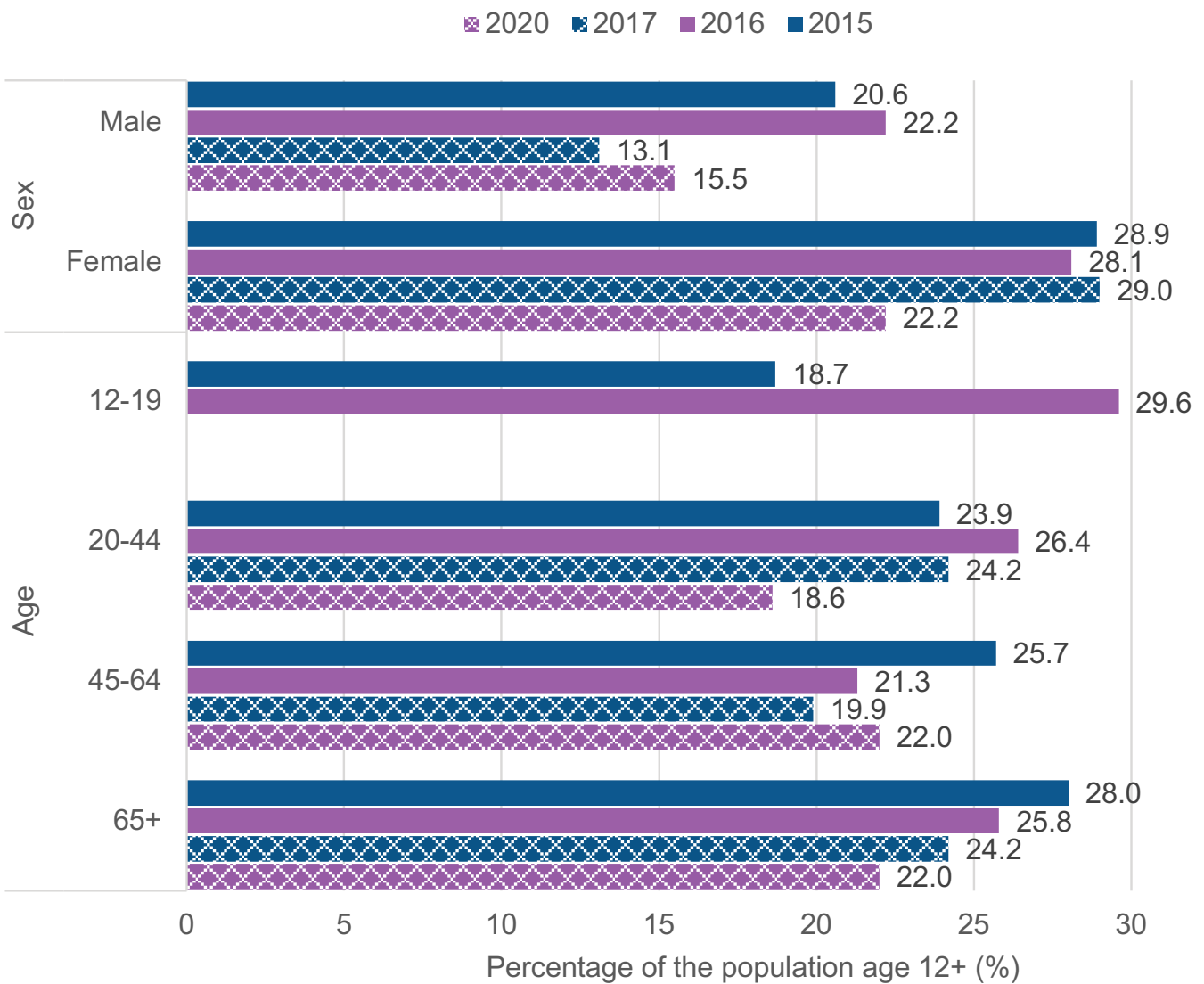
The percent of Hamilton residents who consumed vegetables and fruits five or more time per day was low across all groups, particularly for males (Figure 12.4).

Figure 12.3: Self-reported prevalence of consumption of vegetables and fruits five or more times per day, Hamilton and Ontario residents age 12+ (age-standardized), 2015–2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: nutrition and healthy weights snapshot. Toronto, ON: King’s Printer for Ontario.

Figure 12.4: Self-reported prevalence of consumption of vegetables and fruits five or more times per day by age and sex, Hamilton residents age 12+ (age-standardized and age-specific), 2015–2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: nutrition and healthy weights snapshot. Toronto, ON: King's Printer for Ontario.

Note: Data for age group 12-19 was suppressed for 2017 and 2020 due to data quality issues.

BODY MASS INDEX

Body mass index (BMI) is a measure of a person's weight relative to their height. It is often used as an epidemiological measure to estimate population health risk.⁶⁹ At a population level, high BMI is correlated with body fat, metabolic conditions, disease outcomes and health risk.

BMI has been the preferred indirect measure of excess body fat for population-level surveillance. That is because it is an inexpensive and easy approach, where a person can self-report in a survey. However, the use of BMI has several limitations:

BMI is not a direct measure of body composition, nor does it allow us to distinguish between fat mass and muscle mass.

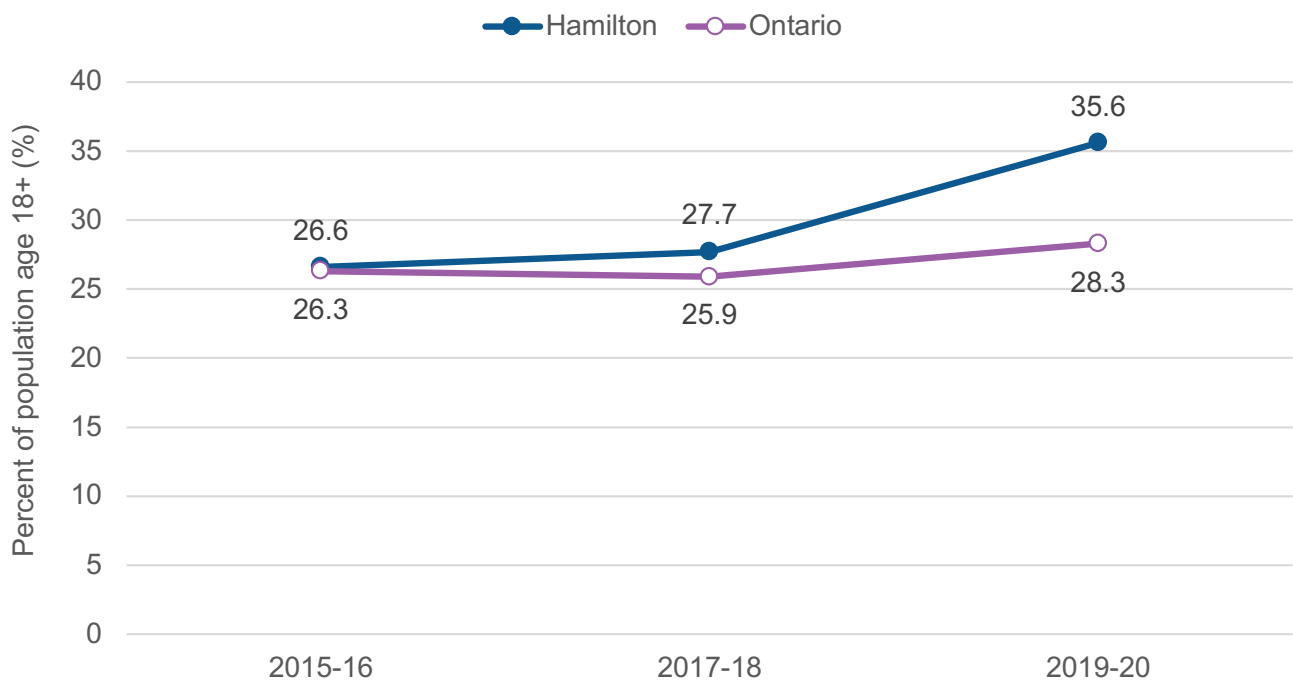
At the individual level, BMI does not conclusively determine a person's body composition or health. That can only happen through more direct measurement and diagnoses by a qualified health professional.

BMI was developed using the anthropometric data of white members of a population, mainly of European and American origin. It may not be suited for all ethnic groups, especially those who have higher risks at a lower BMI.⁷⁰

BMI is reported using the following numerical categories⁷¹:

- BMI less than 18.5
- BMI range of 18.5 to 24.9
- BMI range of 25 to 29.9
- BMI 30 and over

Figure 12.5: Self-reported prevalence of body mass index ≥ 30 , Hamilton and Ontario adults age 18+ (age-standardized), 2015-16 – 2019-20



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: nutrition and healthy weights snapshot. Toronto, ON: King's Printer for Ontario.

Note: These results include an adjustment during analysis to correct for survey respondents who systematically overestimate or underestimate their height and weight.

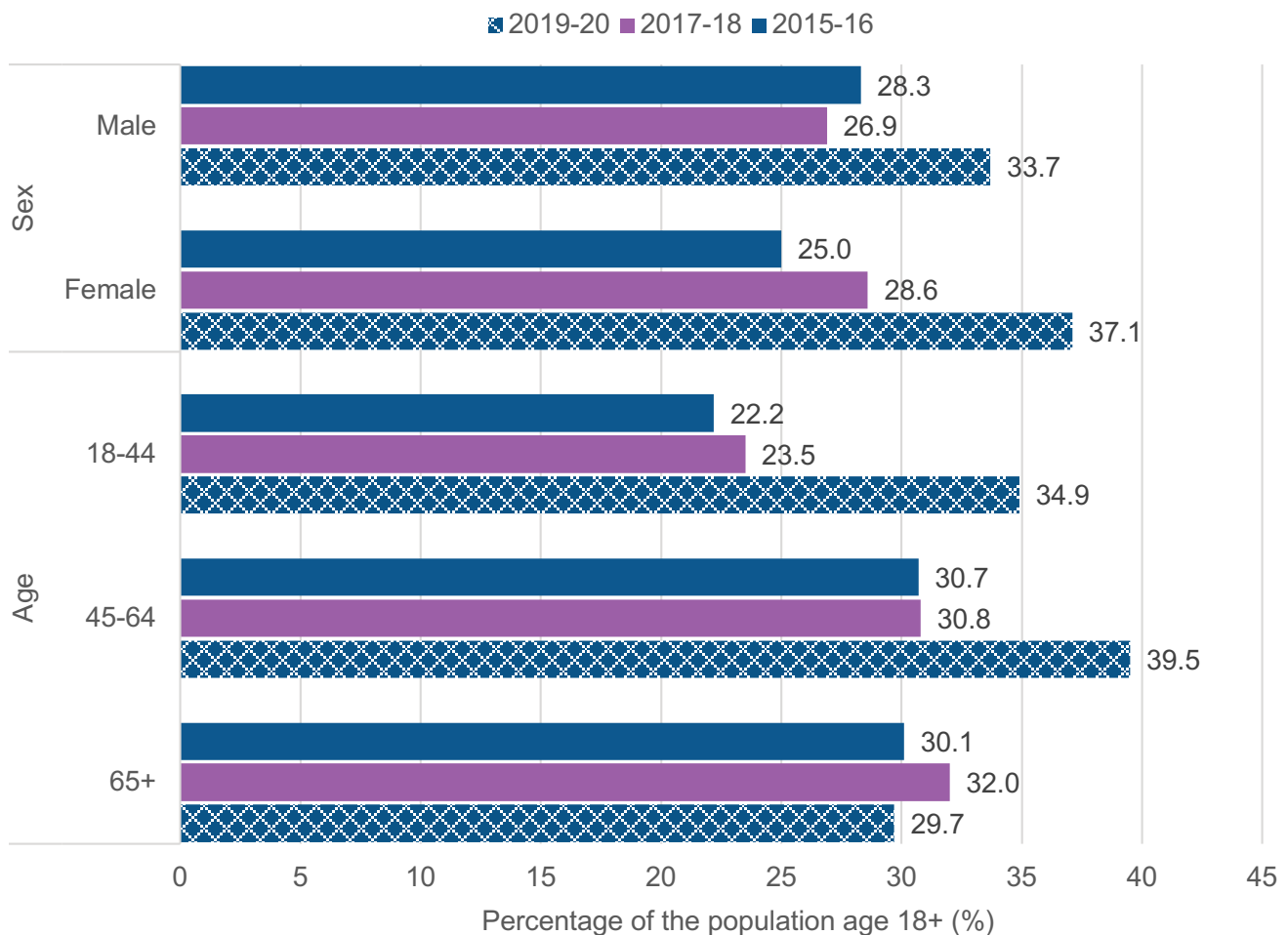
This report focuses on the category of BMI of 30 and over. During analysis, a correction was applied for survey respondents who systematically overestimate or underestimate their height and weight.

Over one in three (35.4%) Hamilton adults were categorized as having a BMI of 30 or greater in 2019-2020. When age is taken into

consideration, Hamilton's rate was greater than the Ontario average (Figure 12.5).

Compared to other large municipal areas in Ontario, Hamilton had one of the highest rates of adults with a BMI of 30 or greater in 2019-2020. The rate of Hamilton adults with a BMI of 30 or greater appears to have increased since 2015-2016.

Figure 12.6: Self-reported prevalence of body mass index ≥ 30 by age and sex, Hamilton adults aged 18 and older (age-standardized and age-specific), 2015-16 – 2019-20



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: nutrition and healthy weights snapshot. Toronto, ON: King's Printer for Ontario.

Note: These results include an adjustment during analysis to correct for survey respondents who systematically overestimate or underestimate their height and weight.

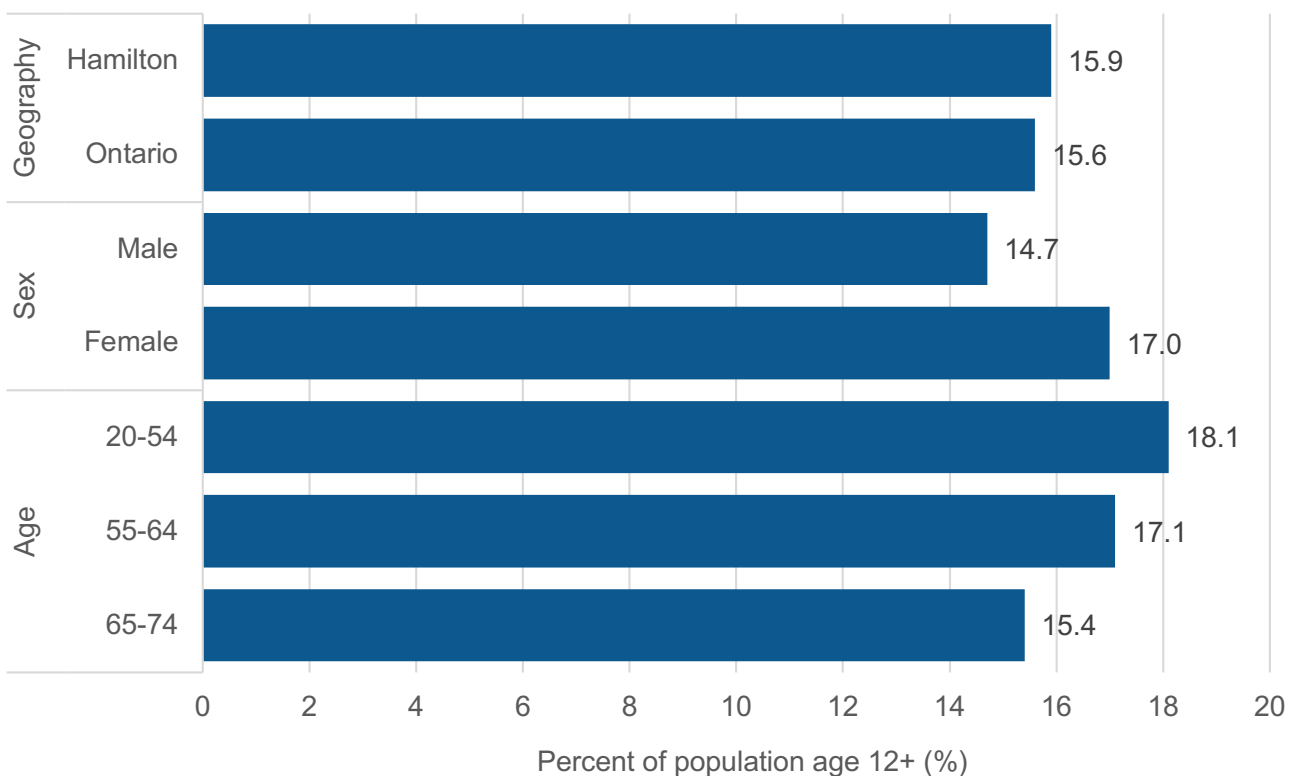
The rates of Hamilton adults with a self-reported BMI of 30 or greater are shown in Figure 12.6 by age and sex groupings. Rates have risen across most groups. However, the greatest increases were observed for Hamilton females and Hamilton residents aged 18-44 years; both of these groups were greater than their Ontario comparators in 2019-2020.

These rates warrant further consideration to better understand the factors that may drive health inequalities. Interpreting BMI data requires consideration of several

complex intersections: weight, biological and environmental factors, weight-based stigma and discrimination, healthcare inequalities, systematic racism, inadequate income and other social determinants of health.

Many negative outcomes that previous research has associated with excess weight (e.g., heart disease, high hemoglobin A1C levels) may be partially attributed to the emotional, psychological, and behavioural effects of weight bias.⁷² Notably, pursuing a healthy lifestyle can happen at all body weights.

Figure 12.7: People who report having trouble going to sleep or staying asleep most of the time, Hamilton and Ontario residents age 12+, 2015-16



Source: Canadian Community Health Survey [2015-2016], Statistics Canada, Share File, Ontario Ministry of Health.

Notes:

- Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.
- Results for those aged 12-19 and aged 75 and older were not released because the estimates do not meet data accuracy standards.

SUN SAFETY

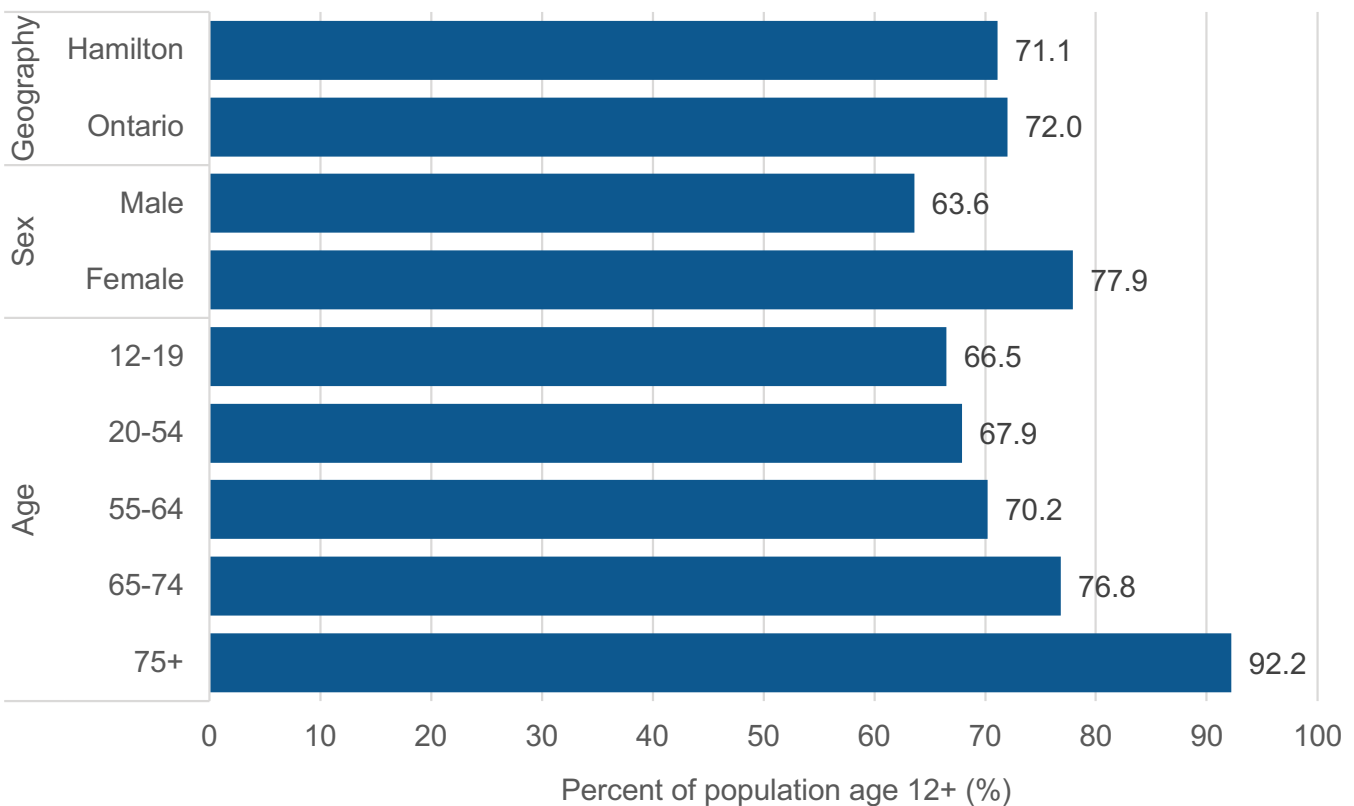
It is recommended to spend fewer than 30 minutes in the sun during peak hours, or to do at least one of the following: seek shade, wear protective clothing and a hat, or wear sunscreen SPF \geq 15 on your face and body.

Over 70% of Hamilton residents report appropriately protecting themselves from the sun during peak hours, as described above (Figure 12.8), similar to the Ontario average (72.0%). Among Hamilton residents, three groups were less likely to protect themselves: those who identified as male, youth aged 12-19 and adults aged 20-64.

SLEEP

Around one in six (15.9%) Hamilton residents report having trouble going to sleep or staying asleep most of the time (Figure 12.7), similar to the Ontario average (15.6%). This measure was relatively similar across age and sex groups in Hamilton.

Figure 12.8: People who report appropriately protecting themselves from the sun during peak hours, Hamilton and Ontario residents age 12+, 2015-16



Source: Canadian Community Health Survey [2015-2016], Statistics Canada, Share File, Ontario Ministry of Health.

Note: Different age groups have different health experiences. These measures do not account for age differences within groups, over time, or compared to Ontario. These results may be due to underlying age structures and not risk or health outcomes.



CHAPTER 13

CHRONIC DISEASE

HIGHLIGHTS

- Chronic diseases represent a considerable preventable health burden on Hamilton residents.
- 129,578 Hamilton residents aged 20 and older had hypertension (high blood pressure) in 2020, a prevalence of 27%, putting them at risk for heart failure and ischemic heart disease.
- 61,954 Hamiltonians aged 20 and older had diabetes in 2020, with a prevalence of 13%, an increase since 2011. The rate of newly diagnosed cases among Hamiltonians in 2020 was higher than the Ontario rate.
- Deaths due to diabetes is nearly three times higher for Hamilton residents living in areas with the lowest income or the greatest core housing need.
- 40,217 Hamiltonians aged 20 and older were living with chronic obstructive pulmonary disease (COPD) in 2020. Incidence rates declined but continue to be higher than for Ontario overall.
- 26,700 Hamiltonians were living with some type of cancer in 2018 – a prevalence of 4.7%.
- Female breast cancer is the most common type of cancer. One out of every 50 female residents in Hamilton were living with breast cancer in 2018. Lung, colorectal and prostate cancer were the other three most common newly diagnosed cancers in 2018.

CHRONIC DISEASE

CHRONIC DISEASE OVERVIEW

Chronic diseases represent a considerable preventable health burden on Hamiltonians.

These are diseases that persist for a long time, generally progress slowly and can be treated but not cured.⁷³ Often, they require ongoing medical attention and may limit activities of daily living.

While there is variation in the use of the term⁷⁴, chronic diseases of public health importance include:

- cancer
- cardiovascular diseases
- diabetes
- intermediate health states such as metabolic syndrome and prediabetes
- hypertension
- respiratory diseases including chronic obstructive pulmonary disease (COPD) and asthma⁷⁵

Dementia, mental illness and addictions are also considered chronic diseases of public health importance and are covered in Chapter 9.

Many factors contribute to chronic diseases. That includes several health behaviours (covered elsewhere in this report), and social circumstances (covered in Chapter 2).

For instance, evidence indicates that systematic discrimination and exclusion – due to colonialism, or an individual’s race, gender, economic situation, sexual orientation or physical ability – affect the development of

chronic diseases within specific groups. Social circumstances can also contribute to these groups’ inequitable treatment within the health system.

Older adults generally have higher rates of preventable chronic diseases. This affects overall health for Hamiltonians and increases pressure on the health system. As Hamilton’s population continues to age, it’s important to maintain efforts in chronic disease prevention.

Among the ways of assessing the preventative portion of diseases: the number of [premature deaths](#) among those under 75 caused by a specific disease; and the total number of [potential years of life lost](#) (PYLL) attributed to those causes.

In 2021, the leading causes of premature death and PYLL among Hamilton residents under age 75 were:

- ischemic heart disease (219 premature deaths, 2,022 PYLL)
- cancer of the colon, rectum and anus (74 premature deaths, 809 PYLL)
- cerebrovascular diseases (56 premature deaths, 652 PYLL)
- diabetes (49 premature deaths, 608 PYLL)

Lung cancer and diabetes have had a reduction in premature deaths, while hypertensive disease showed an increase from 2012-2021 (Chapter 3: General Health, Figure 3.5). The remainder of this chapter outlines specific chronic diseases in order of their burden on Hamilton residents.

HYPERTENSION, HYPERTENSIVE DISEASE, AND ISCHEMIC HEART DISEASE

Hypertension, or high blood pressure, is one of the major risk factors for hypertensive disease. That includes heart failure and ischemic heart disease.

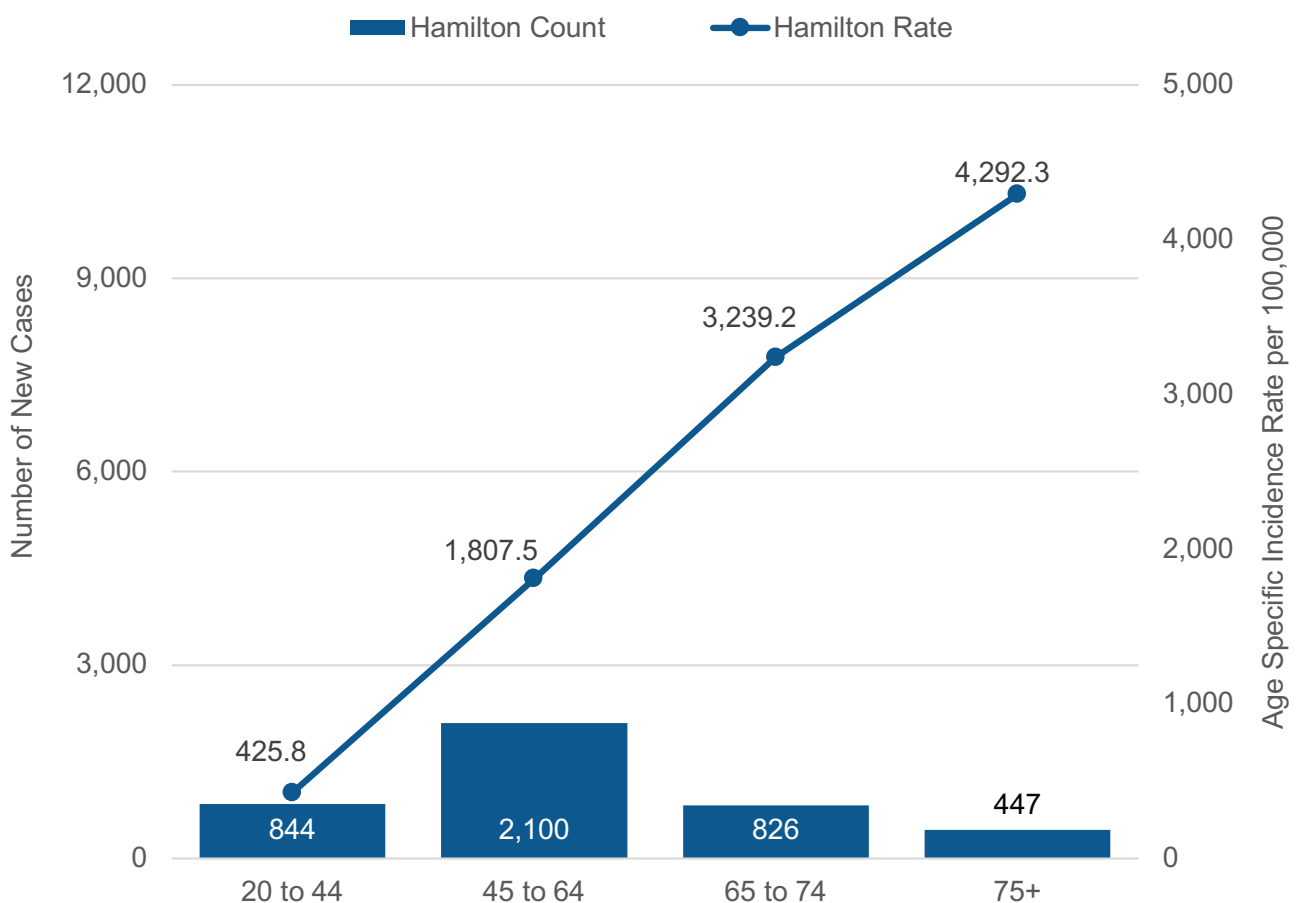
An estimated 129,579 Hamiltonians aged 20 and older were living with hypertension in 2020. That's a [prevalence](#) rate of 27,462.1 per 100,000 Hamiltonians, or approximately 27.5% of residents (Appendix Table 13.1). Prevalence rates were the same in males (27.5%) and females (27.5%).

Prevalence was much higher in older age groups. Over half of those 65-74 were living with hypertension (59.2%), as were 84.4% of those aged 75 and older (Appendix Table 13.1).

When age was taken into consideration, the prevalence rate in 2020 was higher for Hamilton residents (25,439.3 per 100,000), when compared to Ontario overall (25,165.9 per 100,000).

In 2020, there were 4,217 new cases (also known as [incidence](#)) of hypertension among Hamiltonians aged 20 and older, with a rate of 1,203.7 per 100,000 (Appendix Table 13.1). Males had a higher incidence rate (1,304.7 per

Figure 13.1: Hypertension incidence (new cases) by age groups and age-specific rate per 100,000, Hamilton residents, 2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: incidence of hypertension, age specific rates 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16].

Available from: publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidence-prevalence

100,000) than females (1106.1 per 100,000) (Figure 13.1). Nearly half of all new cases were in those aged 45-64 (2,100 new cases). However, the highest rate was in residents aged 75 and older (4,292 per 100,000).

Incidence rates of hypertension declined overall among Hamilton residents aged 20 and older between 2011 (5,530 cases; 2,487.7 per 100,000) and 2020 (4,217 new cases; 1,565.7 per 100,000).

These rates were higher than Ontario overall from 2011-2016, then similar to Ontario from 2017-2020. We should interpret the 2020 results with caution due to changes in the availability of health care and health-seeking behaviour during the COVID-19 pandemic.

When assessing area-based inequality, Hamilton residents had higher rates of deaths due to hypertensive disease in 2018 that lived in (Appendix Table 13.2):

- areas with the greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of households that had a core housing need
- areas with a greater percentage of families with one-parent

Hamiltonians were almost two-and-a-half times more likely to die from hypertensive disease in the lowest-income quintile areas as compared to the highest-income areas.

Similarly, Hamiltonians from the areas with the highest core housing need were more than twice as likely to die from hypertensive disease as compared to the areas with the lowest core housing needs.

There were similar inequalities in deaths due to ischemic heart disease. Hamilton residents from the areas with the highest core housing need were more than twice as likely to die from

this disease compared to those from the areas with the lowest housing needs. And those in the lowest income areas were nearly twice as likely to die from ischemic heart disease. Inequalities also existed for family structure, i.e., being a family with one-parent.

DIABETES

Diabetes is one of the more burdensome health outcomes for Hamiltonians. An estimated 61,954 Hamiltonians aged 20 and older were living with diabetes in 2020, or approximately 13.1% of the population (Appendix Table 13.3).

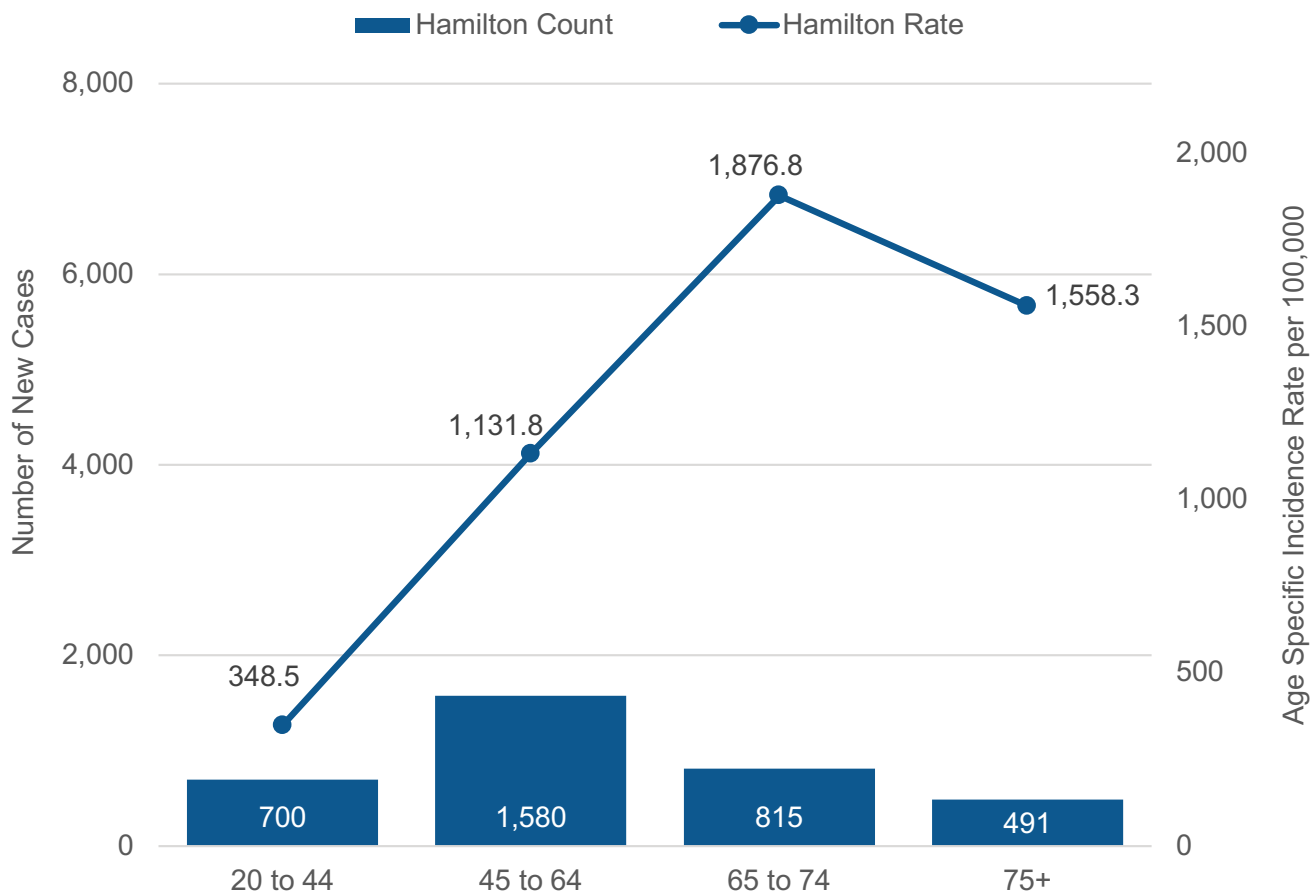
Males have a higher overall prevalence (13.9%) of diabetes than females (12.4%). Prevalence was also higher in older age groups; in Hamilton over one-quarter (28.3%) of those aged 65-75 and over one-third (35.5%) of those 75 and older were living with diabetes.

When age was taken into consideration, the prevalence rate increased in Hamilton and Ontario from 2011-2020. For Hamiltonians it was 10,806.2 per 100,000 in 2011 and 12,295.1 per 100,000) in 2020 (similar to Ontario's prevalence rate of 12,273 per 100,000).

In 2020, there were 3,586 new cases of diabetes among residents in Hamilton. (Appendix Table 13.3). Males had a higher incidence rate in 2020 (916.1 per 100,000) than females (812.9 per 100,000).

There were also differences by age groups. The highest number of new cases of diabetes was among those aged 45-64 (1,580), while the highest incidence rates of diabetes overall was among those aged 65-75 (1,877 per 100,000) and 75 and older (1,558.3 per 100,000) (Figure 13.2).

Figure 13.2: Diabetes incidence (new cases) by age groups and age-specific rate per 100,000, Hamilton residents, 2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: incidence of diabetes, age specific rates 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

When age was taken into consideration, Hamilton residents aged 20 and older had a higher incidence rate of diabetes in 2020 (896.9 per 100,000) compared to the Ontario rate (794.1 per 100,000). That was up from 813.7 per 100,000 population in 2012 for Hamilton residents. Rates were likely influenced during the pandemic due to changes in the availability of health care and health-seeking behaviours.

When assessing area-based inequality for 2018, there were higher rates of deaths due to

diabetes among Hamilton residents who lived in (Appendix Table 13.2):

- areas with the greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of households that had a core housing need
- areas with a greater percentage of families with one-parent
- areas with the greatest percentage of individuals with no high school diploma or equivalent

Hamilton residents were nearly three times more likely to die from diabetes in the lowest-income quintile areas compared to the highest-income quintile areas.

Similarly, people living in the areas of Hamilton with the highest housing need were nearly three times more likely to die from diabetes compared with the areas with the lowest housing need.

This area-level analysis did not find significant differences in deaths due to diabetes for self-identified racialized groups (which did not include Indigenous populations). This analysis is limited in its ability to assess the independent impact of belonging to specific racialized groups when other factors such as age structure or income are controlled. However, compelling research indicates that South Asian, and Black populations, when assessed on an individual level, have higher levels of diabetes⁷⁶⁻⁷⁷.

Analysis of hospitalizations for diabetes from 2019-2021 also indicate that rates among Hamilton residents were higher than for Ontario as a whole. Those in the areas with the lowest-income quintile were also over three times more likely to be hospitalized for diabetes than those in the highest-income quintile areas.

Similarly, those living in the areas with the greatest level of core housing need were over three times more likely to be hospitalized for diabetes than those in areas with the lowest quintile of core housing needs (data not shown).

ASTHMA

An estimated 80,416 or 13.4% of Hamiltonians were living with asthma in 2020 (13,394.2 per 100,000) (Appendix Table 13.4). Females had a higher prevalence rate (13.9%) of asthma than males (12.9%). Prevalence was also higher in those aged 20-44 (16.8%) compared with other age groups (Figure 13.3).

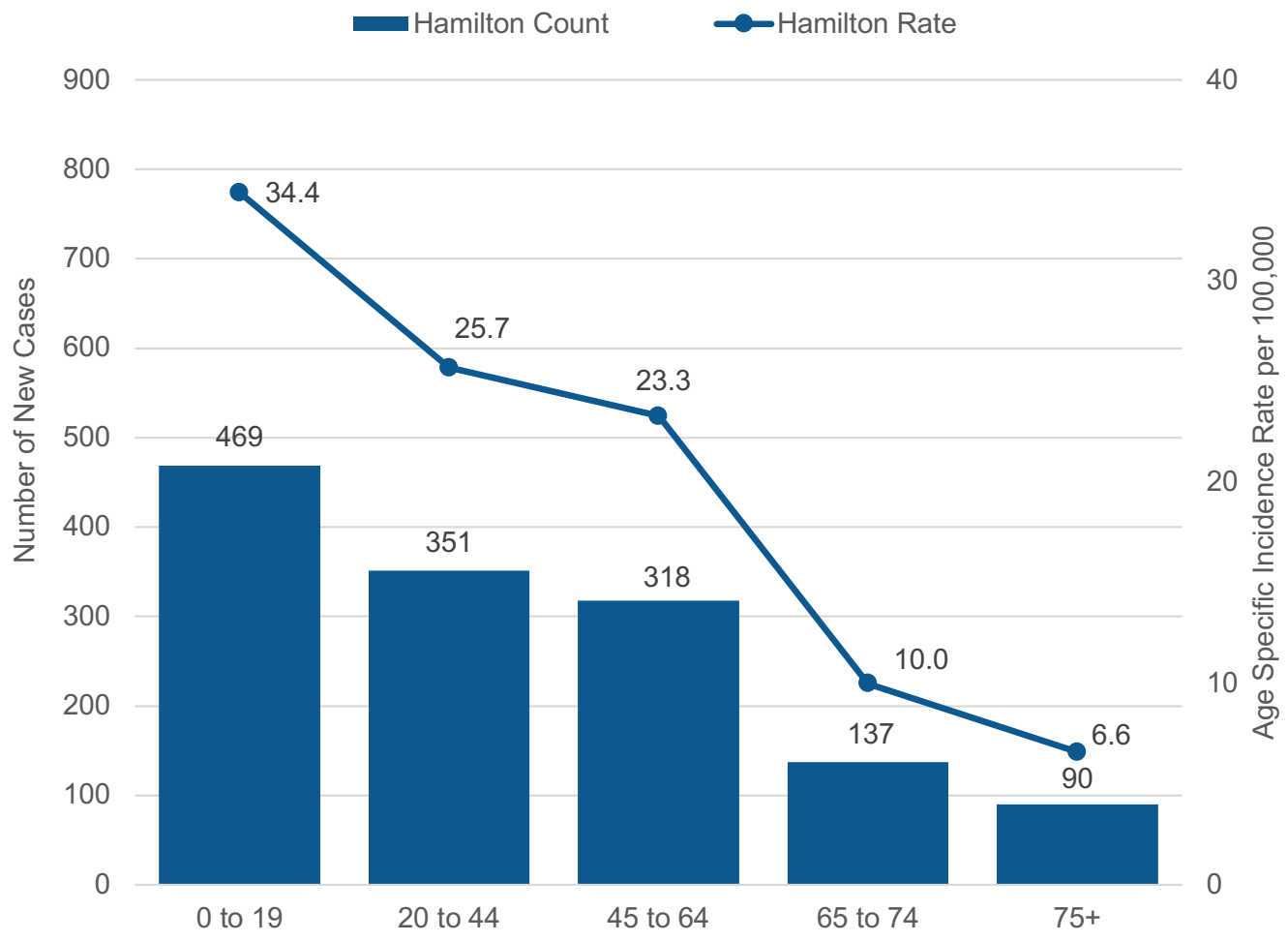
When age was taken into consideration, the prevalence rate for asthma in 2020 was lower for Hamilton residents (13,430.3 per 100,000) compared to Ontario overall (14,975.1 per 100,000 population, not shown).

In 2020, 1,365 new cases of asthma were diagnosed among Hamilton residents. The rate of newly diagnosed cases of asthma was 254.4 per 100,000 (Appendix Table 13.4). Incidence rates were similar for males and females.

From 2011 (2,240 cases; 429.9 per 100,000) to 2020 (1,365 cases; 250.7 per 100,000) the incidence of asthma decreased overall among Hamilton residents when age is taken into consideration.

Each year from 2011-2016, Hamilton residents had lower incidence rates of asthma than Ontario, when age was considered. Then, in 2020, Hamiltonians had a higher rate (250.7 per 100,000) than Ontario (223.1 per 100,000). Interpret the 2020 results with some caution due to changes in the availability of health care and health-seeking behaviour during the COVID-19 pandemic. However, the difference between the rates of newly reported cases in Hamilton residents and Ontario residents had begun to change before the pandemic.

Figure 13.3: Asthma incidence (new cases) by age groups and age-specific rate per 100,000, Hamilton residents, 2020



Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot, incidence of asthma, age specific rates 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

CHRONIC OBSTRUCTIVE PULMONARY DISEASE

An estimated 40,217 Hamilton residents aged 20 and older were living with chronic obstructive pulmonary disease (COPD) in 2020. That's a rate of 8,523.3 per 100,000 Hamiltonians, or approximately 8.5% of the population (Appendix Table 13.5).

Males have a higher prevalence rate of COPD than females. Prevalence was also higher in older age groups. Nearly a quarter of those aged 75 and older were living with COPD in 2020 (23,516.7 per 100,000 Hamilton residents).

When age was taken into consideration, the prevalence rate in 2020 was higher in Hamilton (7,950.4 per 100,000) when compared to Ontario overall (7,453.7 per 100,000 population).

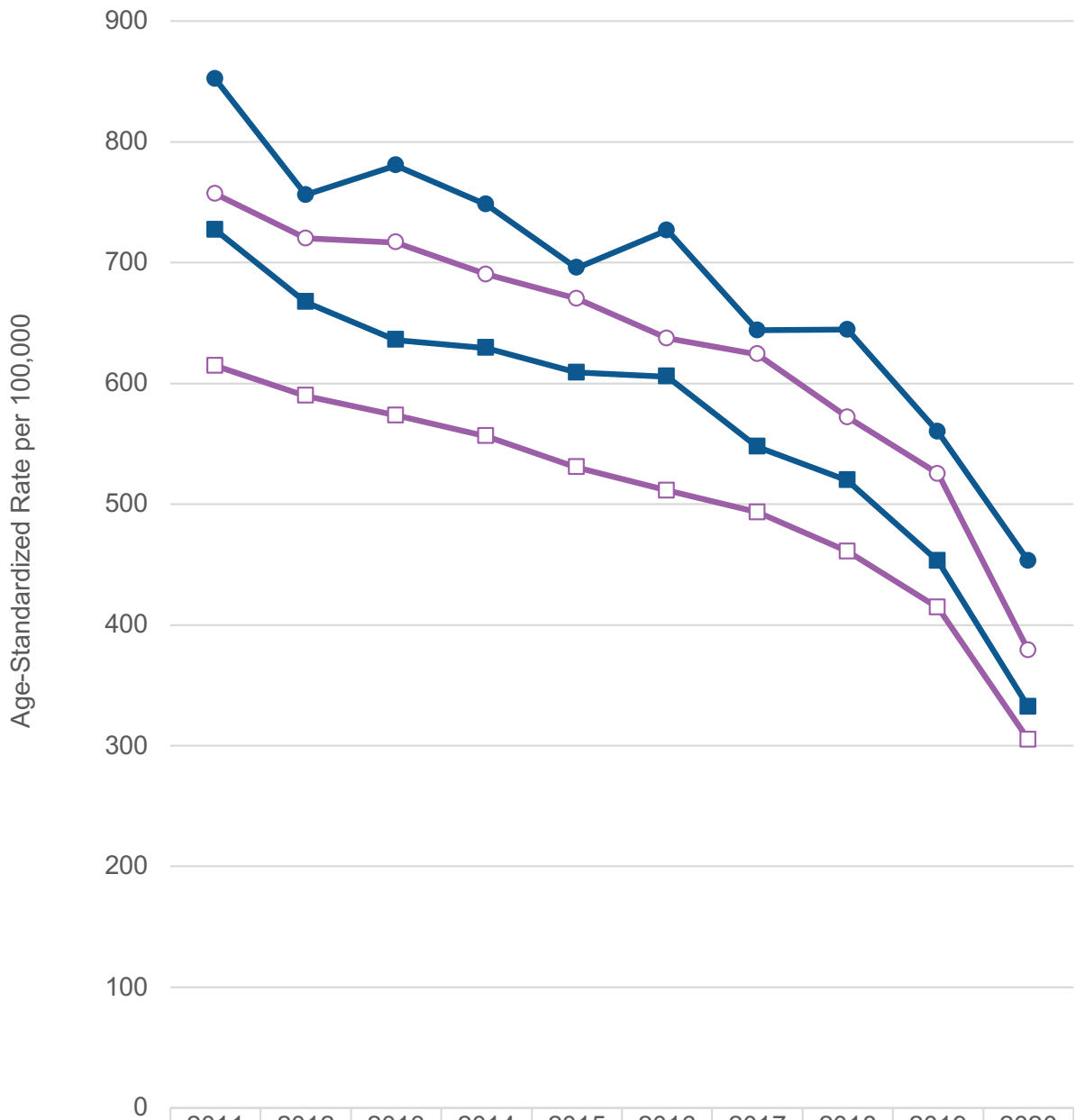
Among residents aged 20 and older in 2020, the number of newly diagnosed cases (incidence of COPD) was 1,671 (Appendix Table 13.5). As with prevalence of COPD, males have a higher incidence rate than females (Figure 13.4).

When age is taken into consideration, incidence rates of COPD declined overall among Hamiltonians aged 20 and older between 2011 (2,930 cases; 752.6 per 100,000) and 2020 (1,671 cases; 384.2 per 100,000) (Appendix Table 13.5).

Interpret the 2020 results with some caution due to changes in the availability of health care and health-seeking behaviour during the COVID-19 pandemic. However, the decline began before the pandemic for both males and females, in Hamilton and for Ontario (Figure 13.4).

Despite these declines, Hamilton residents aged 20 and older continued to have higher incidence rates than Ontario in each year from 2011 to 2020 when age is considered.

Figure 13.4: Chronic obstructive pulmonary disease, new cases by sex, age- standardized rate per 100,000, Hamilton and Ontario Residents aged 20 and older, 2011-2020



Source: ICES Chronic Disease Derived Cohorts, 2011 to 2020, Date received: August 31, 2022. Distributed by Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of COPD—crude and age specific rates (both sexes) 2020 [Internet]. Toronto, ON: King’s Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

CANCER OVERVIEW

Almost 1 in 20 Hamiltonians (4.7%), or approximately 26,700 people, were living with some type of cancer in 2018. This percentage was the same as Ontario overall (4.7%).

The number of people living with cancer is known as cancer prevalence. It includes people who:

- are under active treatment for cancer
- recently completed their primary treatment
- are long-term survivors or “living free” of cancer

Prevalence is estimated on the number of people diagnosed with cancer in the previous 30 years and still alive on January 1, 2019.

Overall, an estimated 3,580 Hamiltonians were newly diagnosed with cancer in 2018.

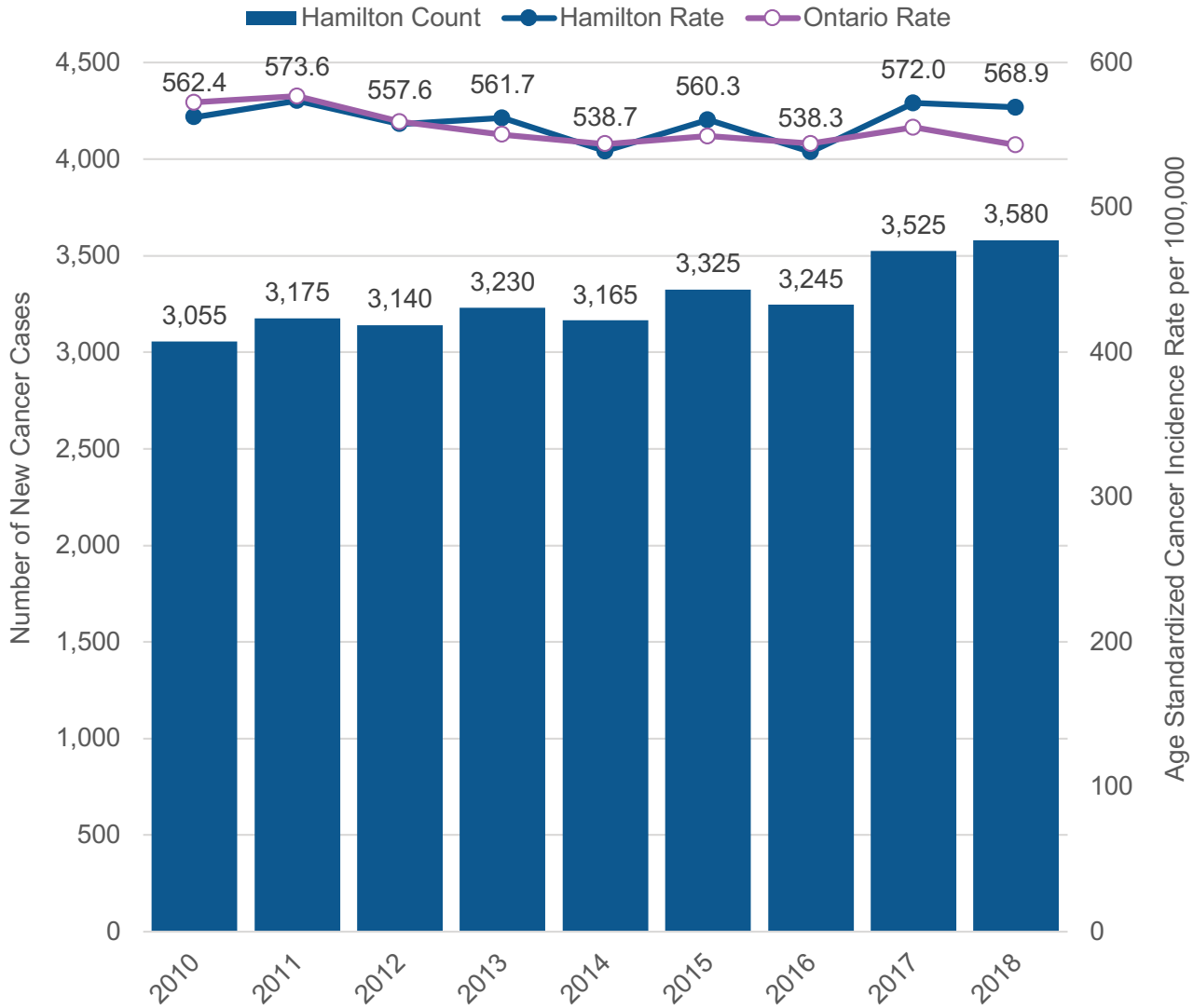
The annual rate of newly diagnosed cases is known as incidence rate. Generally, this rate was similar among Hamilton and Ontario residents between 2010 and 2016 (after underlying age and sex differences in the populations were held constant, so that they could not influence the comparison). However, in 2017 the age- standardized cancer incidence rate among Hamilton residents

was higher than the Ontario rate. It remained elevated in 2018, the most recent year where data is available (Figure 13.5)

Cancer incidence varied by sex. (Male and female counts and rates are based on the sex as provided by Ontario Health the data distributor rather than gender identity which was not available.) Figure 13.6 indicates the incidence rates within age groups for males and females.

- Overall cancer incidence counts were similar for males (1,790) and females (1,785) in 2018.
- There is a greater number of older female than male residents in Hamilton, which affects rates. Accounting for differences in the age structure of males and females in Hamilton, males had a higher age standardized cancer incidence rate (609.9 per 100,000) than females (542.9 per 100,000).
- Males generally have higher rates than females in the older age groups (60 and older).
- Females have higher rates in the younger age groups (40-49 and 50-59) largely due to earlier diagnoses of breast cancer.

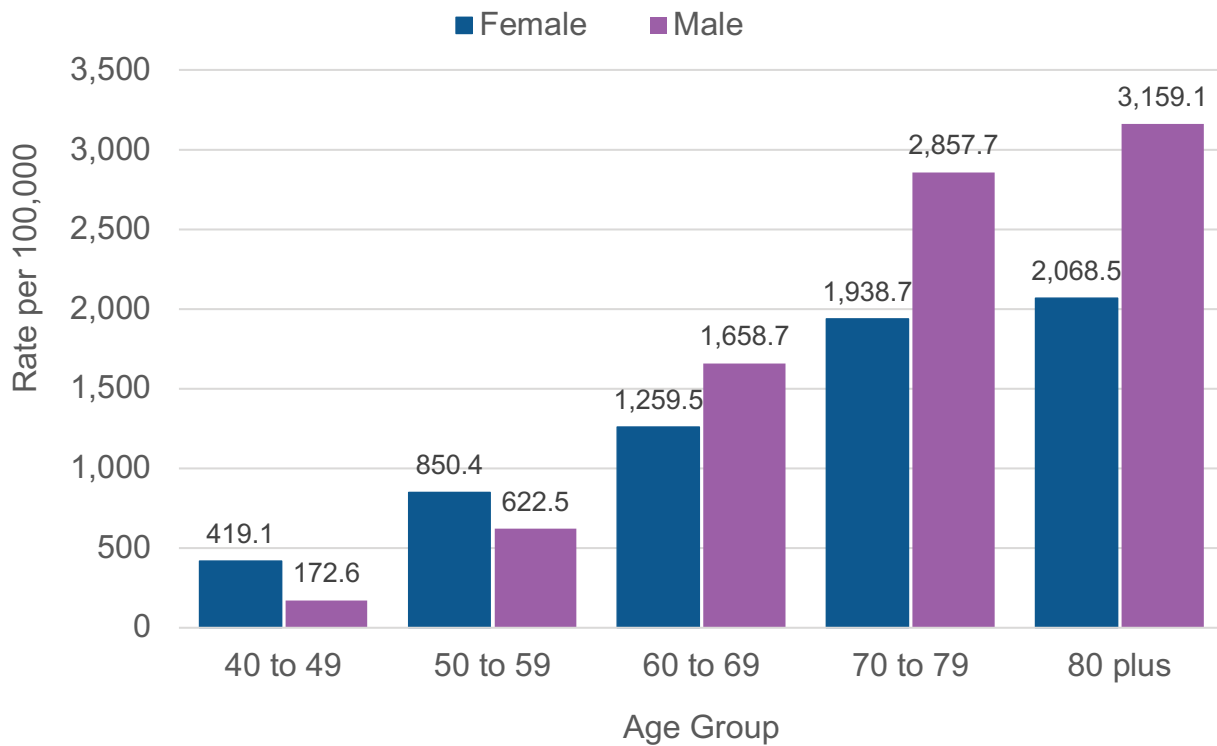
Figure 13.5: Cancer incidence, new cases and age-standardized rate per 100,000, Hamilton and Ontario residents, 2010-2018



Source: Cancer Incidence 2010-2018. Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021) Available from: <https://www.cancercareontario.ca/en/data-research/view-data/cancer-statistics/ontario-cancer-profiles> and Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex [Internet]. Ottawa (CA): Government of Canada; 2020 Sept 29 [cited 2021-01-21]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>

Note: Counts of people newly diagnosed with cancer were randomly rounded at the source to multiples of 5 to protect personal health information. Due to this rounding, subgroup totals may not equal total counts.

Figure 13.6: Cancer incidence, age- and sex-specific rates, Hamilton residents aged 40 and older, 2018



Source: Cancer Incidence 2018. Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021) Available from: <https://www.cancercareontario.ca/en/data-research/view-data/cancer-statistics/ontario-cancer-profiles>

Notes:

Female and male sex terms refer to the sex that is recorded in the Ontario Cancer Registry. Incidence rates in those younger than 40 are not shown due to small counts by age group.

COMMON CANCER TYPES

Table 13.1 provides cancer prevalence by type for Hamiltonians. The greatest number of people were living with the following four cancers in 2018:

- breast cancer
- prostate cancer
- colorectal cancer
- melanoma

Table 13.2 provides the cancer incidence by type for Hamiltonians including comparisons to Ontario taking age structures into

consideration. Among newly diagnosed cancer in 2018, the four most common were:

- breast cancer (475 new cases)
- lung cancer (460 new cases)
- colorectal cancer (375 new cases)
- prostate cancer (365 new cases)

The difference between incidence (newly diagnosed cases) and prevalence (number of people living with cancer) is influenced by cancer survival rates. For example, lung cancer is the second-most common type of cancer newly diagnosed among Hamilton residents. The survival rate is poor, so the

number of people living with lung cancer over time is low. The opposite is true for prostate cancer; survival rates are generally good and therefore prevalence is high.

Figure 13.7 illustrates the rate of new cases for these four cancers among Hamiltonians, considering differences in underlying age structures in 2018 using age standardized

incidence rate.

Over time, breast cancer rates have increased, while lung and prostate cancer have decreased slightly. Prostate cancer decreased from 2010-2014 in conjunction with changes to recommendations for prostate cancer screening, and then increased again from 2015-2018.

Table 13.1: Most prevalent cancers by type, Hamilton residents, 2018

Cancer Type	Count	Population	% of Population (sex specific where indicated)
All cancer	26,700	570,400	4.7
Breast (female)	5,645	288,145	2.0
Prostate	4,655	282,250	1.6
Colorectal	3,140	570,400	0.6
Melanoma	1,820	570,395	0.3
Non-Hodgkin lymphoma	1,465	570,395	0.3
Lung	1,255	570,395	0.2
Thyroid	1,060	570,395	0.2
Kidney	990	570,400	0.2
Bladder	785	570,400	0.1
Leukemia	710	570,400	0.1
Oral cavity and pharynx	615	570,395	0.1
Cervix	395	288,145	0.1

Sources: Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021). Available from: <https://profiles.cancercare.on.ca/prevalence/>
Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex [Internet]. Ottawa (CA): Government of Canada; 2020 Sept 29 [cited 2021-01-21]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>.

Notes:

- Counts were randomly rounded to multiples of 5 to protect personal health information.
- Prevalence describes the number and percentage of people diagnosed with cancer within the past 30 years (between 1989 and 2018) and still alive on the index date of January 1, 2019. People with more than one cancer diagnosis are counted once for the first diagnosis. Only the first cancer of a given type in an individual is counted (for people who have multiple episodes of cancer).
- Table includes only those cancer where more than 350 Hamiltonians were reported to be living with that type in 2018.

Table 13.2: Cancer incidence by type, counts and age-standardized rate, Hamilton residents and Ontario, 2018

Cancer Type	Hamilton		Ontario	
	Count	Annual Age-Standardized Rate	Annual Age-Standardized Rate	Significantly Different than Ontario
All cancer	3,580	568.9	543.0	↑
Breast (female)	475	150.3	147.4	-
Lung	460	70.5	64.1	-
Colorectal	375	58.0	53.5	-
Prostate	365	121.6	128.9	-
Bladder	195	30.0	25.6	-
Melanoma	165	26.2	25.2	-
Non-Hodgkin lymphoma	155	24.8	27.3	-
Kidney	120	19.0	16.9	-
Pancreas	105	15.9	12.8	-
Thyroid	105	18.4	21.4	-
Leukemia	85	13.3	15.6	-
Myeloma	75	11.2	9.2	-
Stomach	75	12.2	10.6	-
Oral cavity and pharynx	70	11.4	12.1	-
Cervix (female)	65*	8.2	8.4	-
Count is for 2016-2018, 3-years combined)				

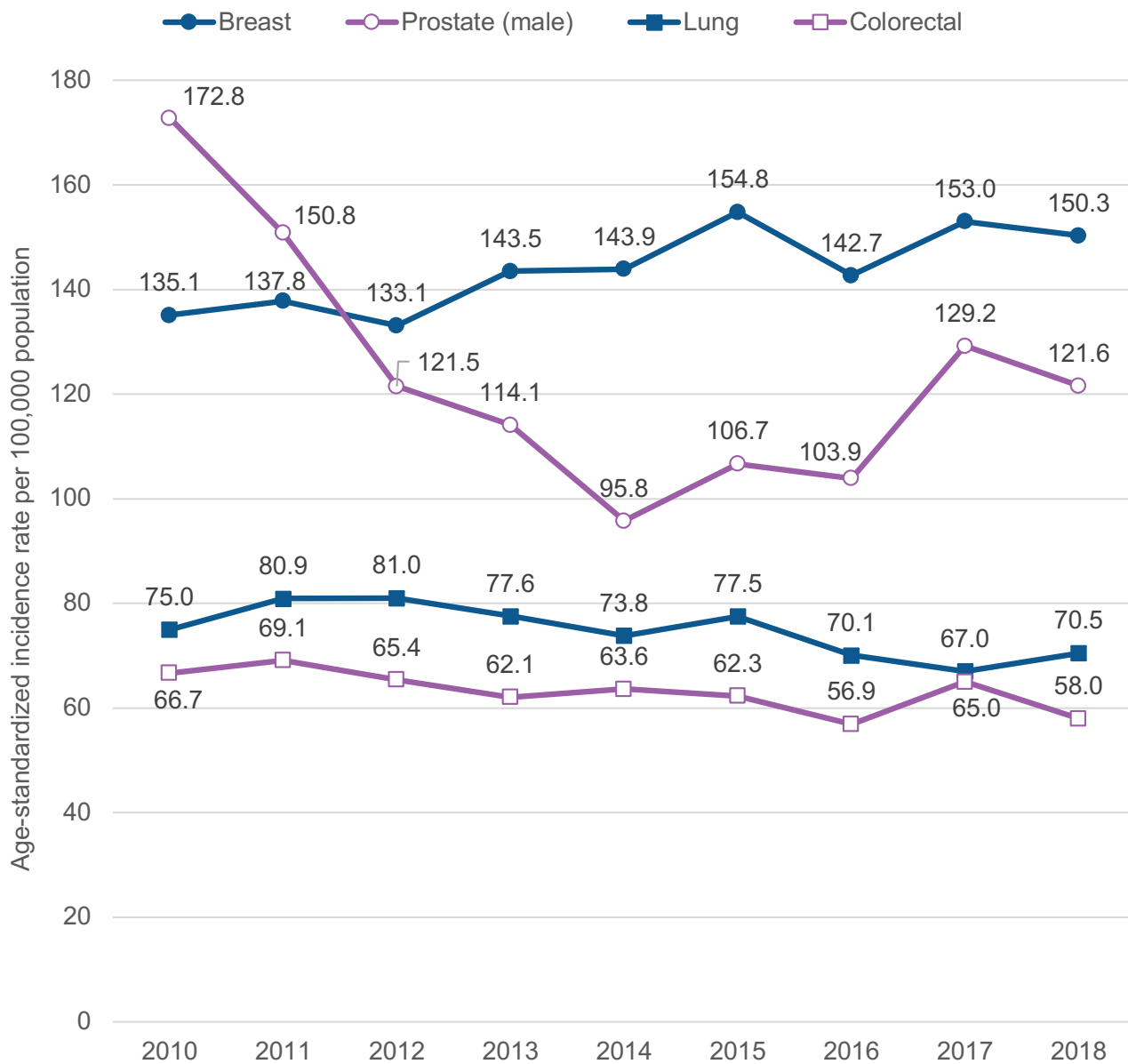
Sources: Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021). Available from: <https://profiles.cancercare.on.ca/Incidence/atlas.html?date=2018>

Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex [Internet]. Ottawa (CA): Government of Canada; 2020 Sept 29 [cited 2021-01-21]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>.

Notes:

- Asterisk * denotes this is an estimate of newly diagnosed cases of cancer of the cervix in females based on a 3-year combined count from 2016-2018 of 65 cases. To compare to the counts in the rest of the table an annual count would be approximately a third of this number, but due to instability is not reported.
- Counts were randomly rounded to multiples of 5 to protect personal health information.
- All cancer types with insufficient counts to display in 2018 (e.g., brain and other nervous systems, larynx, esophagus) are not included in this table, with the exception of cervical cancer which is a cancer of preventive interest to public health and included as an aggregated rate over a three-year period.
- To be comparable with the PHU level statistics, Ontario statistics exclude cancer cases of unknown residence (PHU); therefore, provincial statistics may not match the true counts and rates published elsewhere.
- Age standardized rates are adjusted to the 2011 Canadian standard population.
- This refers to a person's sex as recorded on health records, rather than their gender identity.

Figure 13.7: Cancer incidence for common cancers, age-standardized rate, Hamilton residents, 2010-2018



Source: Cancer Incidence 2010-2018. Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021)
Available from: <https://www.cancercareontario.ca/en/data-research/view-data/cancer-statistics/ontario-cancer-profiles>

Note: Incidence rates include "multiple primaries" where for example the same person may be newly diagnosed with two different cancers in the same year and therefore that person is counted twice in the incidence rates.

BREAST CANCER

Female breast cancer is the most common type of cancer. One in 50 female residents in Hamilton (5,645) were living with breast cancer in 2018.

This 2% is the prevalence of breast cancer among Hamiltonians whose sex is identified as female on their health records, as provided by Ontario Health the data distributor. Their gender identity was not available.

In 2018, female breast cancer was also the most commonly diagnosed cancer for Hamilton residents, with approximately 475 new cases.

Incidence rates were similar for females in Hamilton and Ontario overall. In 2018, the age-standardized incidence rate for Hamilton residents (the rate after age differences were taken into consideration) was 150.3 per 100,000 female residents. This was slightly higher than Ontario's age standardized rate (147.4 per 100,000). Figure 13.7 shows that the age standardized incidence of breast cancer for female residents increased from 2010-2018.

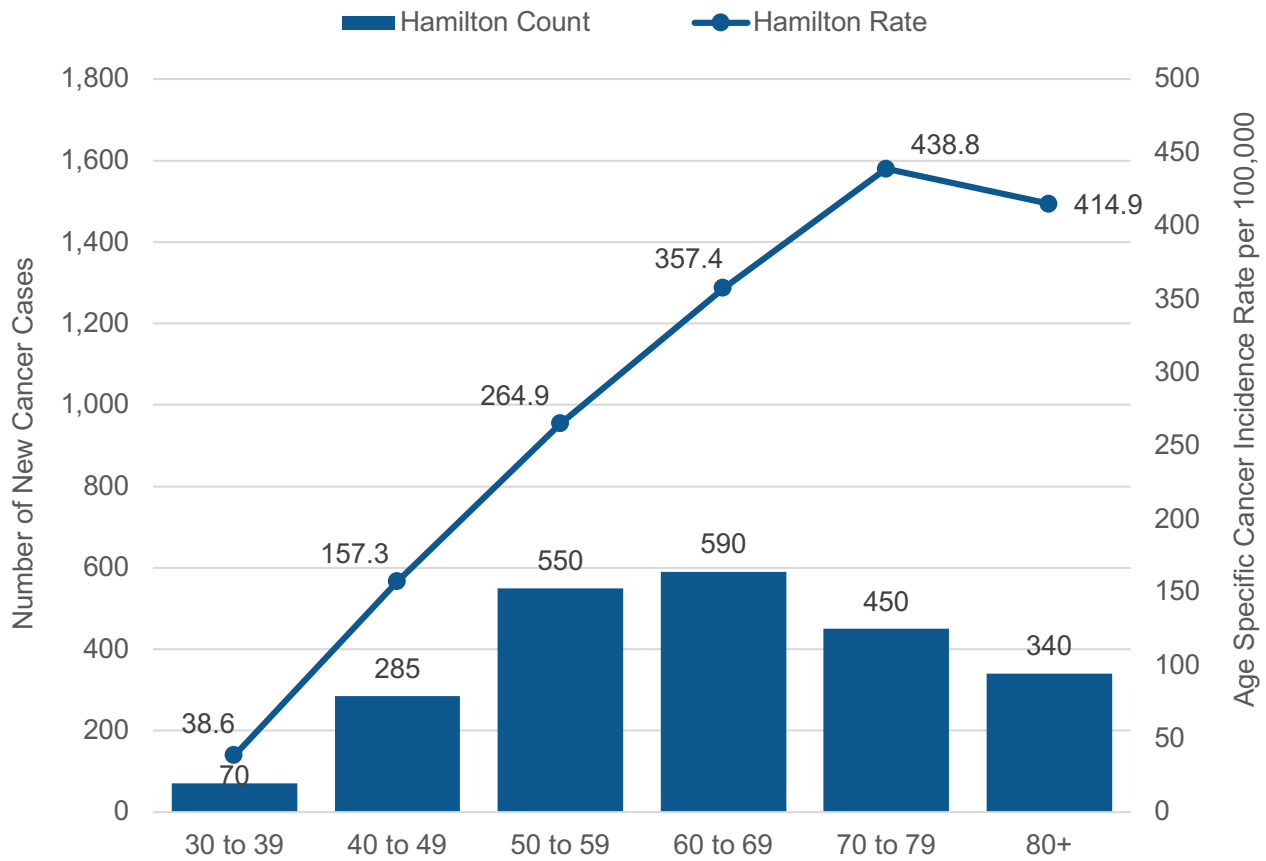
The incidence rate differs by age group (Figure 13.8):

- The greatest number of cases were diagnosed in those aged 60-69 for the combined years between 2014 to 2018.
- Age-specific incidence rates were highest in female residents in Hamilton aged 70-79 (438.8 per 100,000), followed by those aged 80 and older (414.9 per 100,000).
- Rates were incrementally lower for each younger age group: 357.4 per 100,000 for those aged 60-69; 264.9 per 100,000 for those aged 50-59; 157.3 per 100,000 for those aged 40-49; and 38.9 per 100,000 for those aged 30-39.

When assessing area-based inequality for 2009-2018, there were higher rates of deaths due to breast cancer among female residents who lived in (Appendix Table 13.2):

- areas with the greatest percentage of households that had a core housing need
- areas with the greatest percentage of households below the low-income cut-off after tax

Figure 13.8: Breast cancer incidence by age groups, new cases, age-specific rate per 100,000, Hamilton residents, 2014-2018 combined



Source: Ontario Health (Cancer Care Ontario). Ontario Cancer Profiles [Internet]. 2021 [cited April 22, 2024]. Available from <https://cancercareontario.ca/ontariocancerprofiles>

Notes: Younger age groups are not shown to protect personal health information or due to imprecise estimates. This includes breast cancer only in females as defined within the original data.

PROSTATE CANCER

Prostate cancer is the second most common type of cancer among Hamilton residents. Just over 1 in 60 male residents (approximately 4,655) were living with prostate cancer in 2018.

(This 1.6% is the prevalence of prostate cancer among Hamiltonians whose sex is identified as male on their health records, as provided by Ontario Health the data distributor. Their gender identity was not available.)

In 2018, prostate cancer in males was also the fourth-most diagnosed cancer for Hamilton residents with approximately 365 new cases diagnosed in 2018. Incidence rates were similar for male residents in Hamilton (121.6 per 100,000) compared to Ontario (128.9 per 100,000) after taking age structure into consideration (Table 13.2).

The age-standardized incidence rate of prostate cancer for male Hamilton residents decreased from 2010-2014 (Figure 13.7) in conjunction with changes to recommendations for prostate cancer screening. The Canadian Task Force on Preventive Health Care recommended against screening with a

prostate-specific antigen (PSA) test in males younger than 55 years old and stated that those 70 years and older may have little to gain from testing. Incidence increased again from 2015 through to 2018.

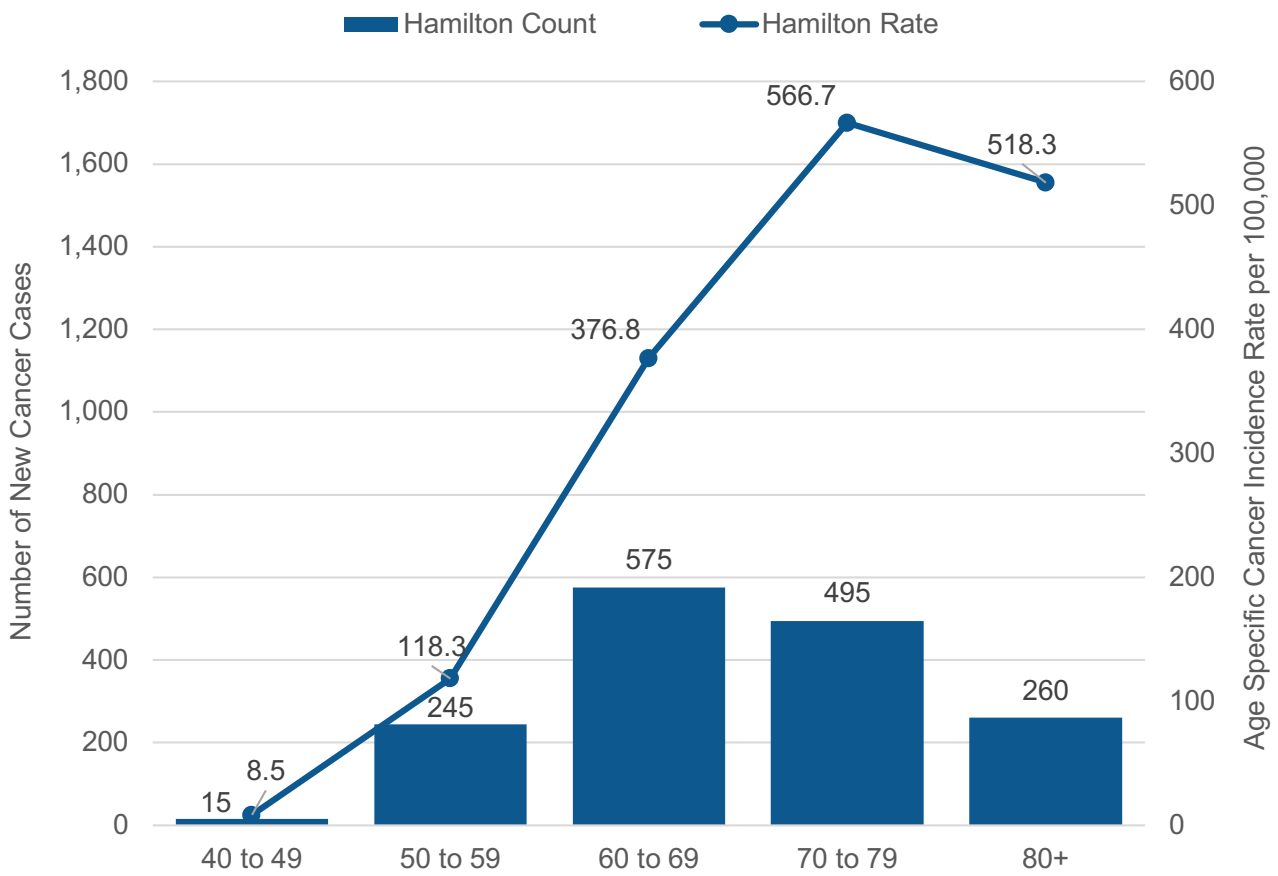
Incidence rates for prostate cancer in males differ by age group (Figure 13.9):

- The greatest number of cases were diagnosed in those aged 60-69 for the combined years from 2014-2018.
- Age-specific incidence rates were highest in male Hamilton residents aged 70-79 (566.7 per 100,000), followed by those aged 80 and older (518.3 per 100,000).
- Rates were incrementally lower for each younger age group: 376.8 per 100,000 for 60-69; 118.3 per 100,000 for 50-59; and 8.5 per 100,000 for 40-49.

When assessing area-based inequality from 2009-2018, there were higher rates of deaths due to prostate cancer among male Hamilton residents who lived in (Appendix Table 13.2):

- areas with the greatest percentage of households that had a core housing need
- areas with the greatest percentage of households below the low-income cut-off after tax

Figure 13.9: Prostate cancer incidence by age groups, new cases, age-specific rate per 100,000, Hamilton residents, 2014-2018 combined



Source: Ontario Health (Cancer Care Ontario). Ontario Cancer Profiles [Internet]. 2021 [cited April 22, 2024]. Available from <https://cancercareontario.ca/ontariocancerprofiles>

Note: Younger age groups are not shown to protect personal health information or due to imprecise estimates

COLORECTAL CANCER

Colorectal cancer is the third-most common type of cancer among Hamilton residents. Approximately 3,140 residents were living with it in 2018.

It was also the third-most diagnosed cancer for Hamilton residents in 2018 (approximately 375 new cases), after female breast cancer and lung cancer.

No difference in incidence rates could be detected in 2018 between Hamilton residents (58.0 per 100,000) and Ontario as a whole (53.5 per 100,000) after taking age structure into consideration. This was likely due to relatively small numbers in that single year (Table 13.2).

However, when the colorectal cancer incidence is combined for 2014-2018, Hamilton residents had a higher age-standardized incident rate (61.1 per 100,000) compared to Ontario (56.6 per 100,000). This was primarily due to the difference between male residents of Hamilton (73.9 per 100,000) and male Ontarians (67.6 per 100,000) overall. Female residents of Hamilton (50.5 per 100,000) had a similar incidence rate to female Ontarians overall (47.1 per 100,000) (not shown).

The age-standardized incidence of colorectal cancer among Hamilton residents generally decreased slightly from 2010 (66.7 per 100,000) to 2018 (58.0 per 100,000) (Figure 13.7)

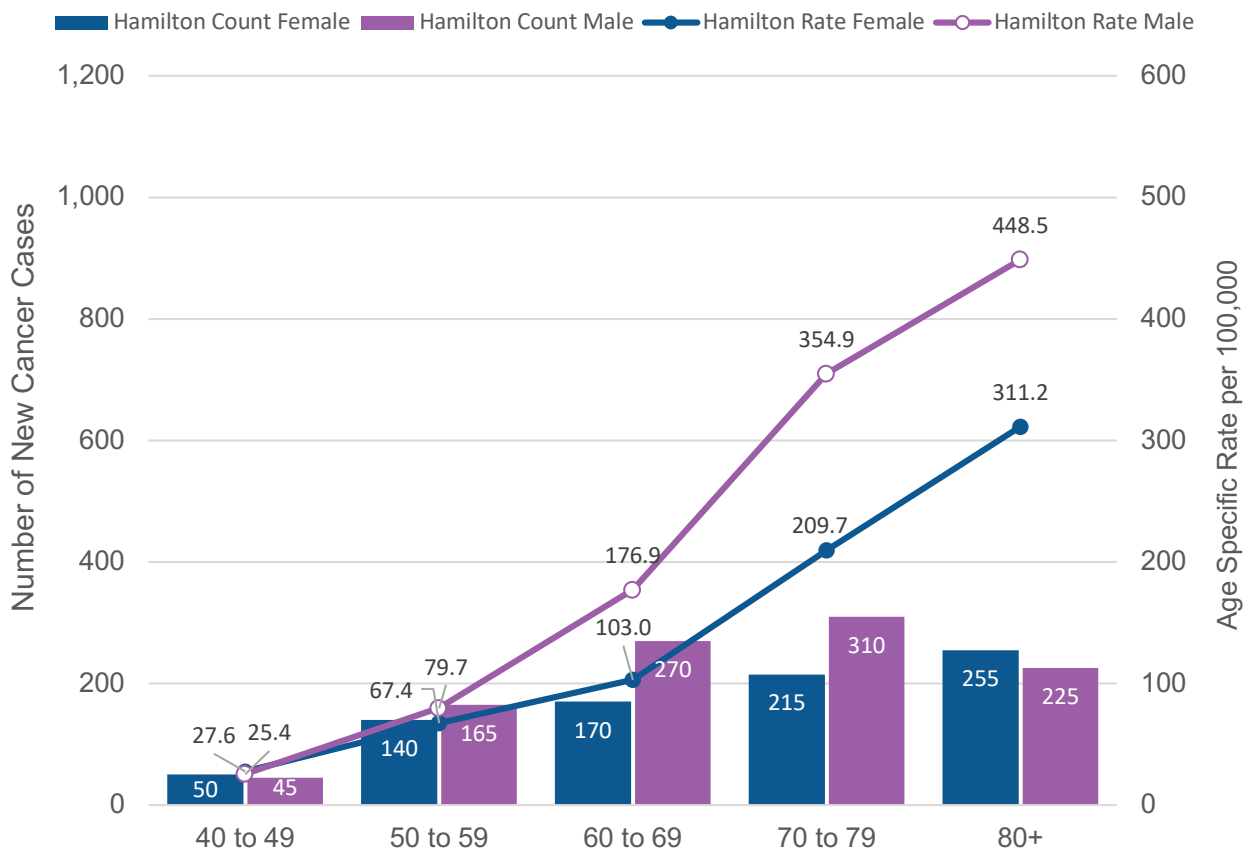
Colorectal cancer incidence rates differ by age group and sex (Figure 13.10):

- The greatest number of cases (310) were diagnosed in male Hamilton residents aged 70-79 for the combined years between from 2014-2018.
- Age-specific incidence rates were highest in male residents aged 80 and older (448.5 per 100,000), followed by males aged 70-79 (354.9 per 100,000).

When assessing area-based inequality for 2009-2018, there were higher rates of deaths due to colorectal cancer among Hamilton residents who lived in (Appendix Table 13.2):

- areas with the greatest percentage of households that had a core housing need
- areas with a greater percentage of families with one-parent
- areas with the greatest percentage of households below the low-income cut-off after tax
- areas with the greatest percentage of individuals with no high school diploma or equivalent

Figure 13.10: Colorectal cancer incidence by sex and age groups, new cases, age-specific rate per 100,000, Hamilton residents, 2014-2018 combined



Source: Ontario Health (Cancer Care Ontario). Ontario Cancer Profiles [Internet]. 2021 [cited April 22, 2024]. Available from <https://cancercareontario.ca/ontariocancerprofiles>

Note: Younger age groups are not shown to protect personal health information or due to imprecise estimates

LUNG CANCER

Lung cancer is the sixth-most common type of cancer in Hamilton residents. Approximately 1,255 residents were living with it in 2018.

That year, lung cancer was the second-most diagnosed cancer for Hamilton residents (approximately 460 new cases) after female breast cancer.

No difference in Incidence rates could be detected between Hamilton residents (70.5 per 100,000) and Ontario overall (64.1 per 100,000) after taking age structure into consideration (Table 13.2).

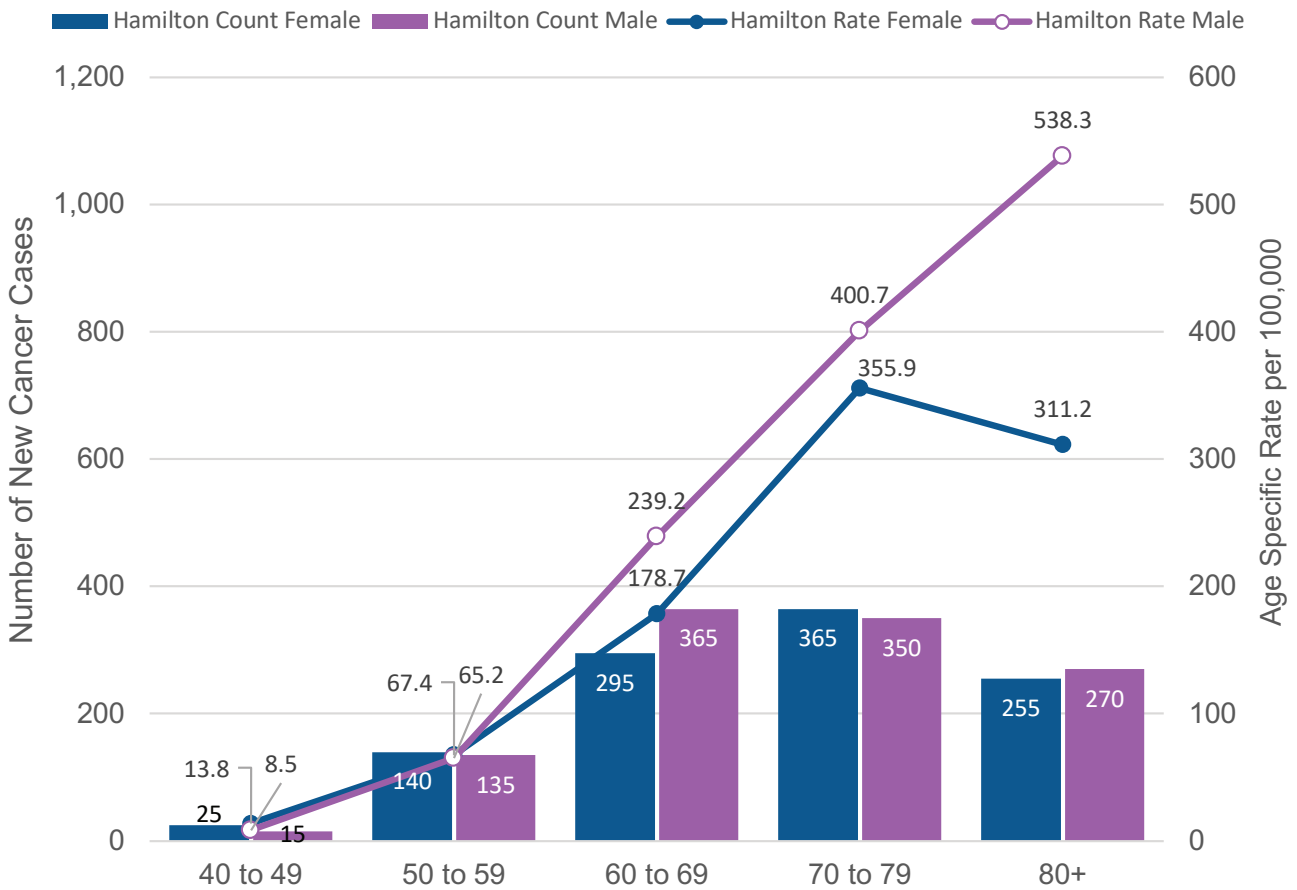
However, when the lung cancer incidence is combined for 2014-2018, Hamilton had a higher age-standardized incident rate (71.7 per 100,000) compared to Ontario (66.2 per 100,000). This was primarily due to the difference between male residents of Hamilton (81.7 per 100,000) and male Ontarians (72.6 per 100,000) overall. Female residents of Hamilton (64.2 per 100,000) had a similar incidence rate to female Ontarians (61.8 per 100,000) (not shown).

Figure 13.7 shows the age-standardized incidence of lung cancer among Hamilton residents generally decreased slightly from 2010 (75.0 per 100,000) to 2018 (70.5 per 100,000).

Lung cancer incidence rates differ by age group and sex (Figure 13.11):

- The greatest number of cases (365) were diagnosed in male residents of Hamilton aged 60-69, and in female residents aged 70-79 for the combined years between 2014-2018.
- Age-specific incidence rates were highest in males aged 80 and older at 538.3 per 100,000, followed by males aged 70-79 (400.7 per 100,000).

Figure 13.11: Lung cancer incidence by sex and age groups, new cases, age-specific rate per 100,000, Hamilton residents, 2014-2018 combined



Source: Ontario Health (Cancer Care Ontario). Ontario Cancer Profiles [Internet]. 2021 [cited April 22, 2024]. Available from <https://cancercareontario.ca/ontariocancerprofiles>

Note: Younger age groups are not shown to protect personal health information or due to imprecise estimates

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Glossary

Adverse childhood experiences are potentially traumatic events that occur during childhood and can have negative, lasting effects on health and well-being. These experiences range from physical, emotional or sexual abuse, to neglect or other household challenges. The likelihood of an adverse childhood experience can be predicted by a combination of individual, relational, community and societal risk factors. These include children with special needs; parental history of abuse; substance use and mental health issues in the family; social isolation; family disorganization; and poor social conditions.

Affordable housing is the proportion of household total income before tax that is spent on shelter costs. Unaffordable housing refers to spending more than 30% of pre-tax household income on shelter. It includes both owner- and renter-households. Farm households and on-reserve households are not included; they cannot be assessed for housing affordability because the concept is not applicable.

Air monitoring station: Hamilton's stations are located in Hamilton Downtown, Hamilton West and Hamilton Mount. The Downtown station at Elgin St./Kelly St. typically has higher levels of air pollutants than the other two other stations, and therefore is the one selected to monitor air quality.

Air Quality Health Index (AQHI) was developed by Health Canada and Environment Canada to measure air quality health risk and is based on hourly data for ozone, fine particulate matter and nitrogen dioxide. The Hamilton Downtown station collects hourly data on the three pollutants (PM_{2.5}, O₃, and NO₂) needed to calculate the AQHI.

Ambient Air Quality Criteria (AAQC) provide a maximum concentration level of a contaminant in air that is protective against adverse effects on health and/or the environment. It assesses protection against chronic effects (annual AAQC) and acute effects (one-hour AAQC).

Any breastfeeding refers to infants who receive human milk with or without formula or other liquids and solids.

Asylum claimant is a temporary resident who requests refugee protection upon or after arrival in Canada. We don't know whether a claimant is a refugee until their case has been decided. Asylum claimant is the term used in Canadian law and is roughly equivalent to "asylum seeker". (Service providers use "asylum seeker" for people who are planning to make a claim but haven't yet.) Asylum claimants may be included in Statistics Canada's "non-permanent resident" category.

Binge drinking is defined as a person having five or more standard alcoholic [drinks](#) on at least one occasion.

Census Family, as defined by Statistics Canada, includes: 1) a married couple; 2) a common-law couple, 3) a one-parent family living with at least one child who does not have their own spouse or child living in the household; or 4) grandchildren living with their grandparent(s) but with no parents present.

Cold warning days are the days when a cold alert has been declared by the City of Hamilton's Medical Officer of Health. A cold alert is issued when the temperature drops or is expected to drop below -15°C or the temperature feels like -20°C with wind chill.

Core housing need refers to whether a private household's housing falls below at least one of the indicator thresholds for housing adequacy, affordability or suitability, and would have to spend 30% or more of its total before-tax income to pay the median rent of alternative local housing that is acceptable (attains all three housing indicator thresholds). Housing indicator thresholds are defined as follows:

- Adequate housing is reported by their residents as not requiring any major repairs.
- **Affordable housing** has shelter costs equal to less than 30% of total before-tax household income.
- Suitable housing has enough bedrooms for the size and composition of resident households according to the National Occupancy Standard (NOS), conceived by the Canada Mortgage and Housing Corporation and provincial and territorial representatives.

Only private, non-farm, non-reserve and owner- or renter-households with incomes greater than zero and shelter-cost-to-income ratios less than 100% are assessed for "core housing need".

Non-family households with at least one maintainer aged 15-29 attending school are considered not to be in "core housing need: regardless of their housing circumstances. Attending school is considered a transitional phase, and low incomes earned by student households are viewed as being a temporary condition.

Dependency ratio: The ratio of people who are generally not in the labour force (the "dependents") to those that are in the workforce. The "dependent" part includes the population under 15 years old and people aged 65 and over. This ratio is an indicator of the potential pressure on those in the workforce by the dependent part of population.

Developmental vulnerability describes children who score below the 10th percentile cut-off of the Ontario baseline population on the Early Development Instrument.

Exclusive breastfeeding refers to infants who receive only human milk and had never received formula or other liquids and solids (excluding vitamins and medicine).

Fertility rate is a measure of pregnancies that result in live births among the population of females aged 15-49.

Fine particulate matter (PM_{2.5}) is an air contaminant that can be harmful to human health. It is 2.5 microns in diameter or less and can get further into the respiratory system than larger particles. The matter is primarily formed from chemical reactions in the atmosphere and burning fuel. In Ontario the particulate is mostly sulphate and nitrate particles, elemental and organic carbon and soil. Major sources include vehicle exhaust, burning wood, gas and other fuels and fires. Particulate pollution can travel long distances from its source, including wildfires from the north or cross-border pollution from the south.

Food insecurity is the inadequate or unstable access to food due to financial constraints. It includes marginal, moderate and severe food insecurity. Marginal food insecurity is defined as worrying about running out of food and/or limited food selection because of lack of money. Moderate food insecurity involves compromising the quality and/or quantity of food due to a lack of money. Severe food insecurity means missing meals, reducing food intake and, at the most extreme, going day(s) without food.

Gender categories used by Statistics Canada of women+ and men+: The 2021 Census marked the first use of the categorizations women+ and men+. For both, it includes individuals whose gender corresponds with sex assigned at birth (i.e., cisgender); whose gender does not correspond with sex assigned at birth (e.g., transgender); and some persons who are [non-binary](#) (e.g., agender, fluid, queer, or Two-Spirit). Data on non-binary persons are distributed randomly between the two other gender categories to protect confidentiality by Statistics Canada for smaller levels of geography (e.g., City of Hamilton). This categorization is carried through to the population projections. See also [Men+](#) and [Women+](#).

General provincial minimum wage in Ontario is the hourly wage paid to most workers aged 18 and older. It does not apply to students under 18, homeworkers or hunting, fishing and wilderness guides. As of October 1, 2023, the general provincial minimum wage in Ontario was \$16.55 per hour.

Gestation is the period between conception and birth when a fetus is developing in the womb.

Heat warning days are the days when a heat event has been declared by the City of Hamilton's Medical Officer of Health. A heat warning is issued when it is anticipated that there will be two or more consecutive days with daytime highs greater than or equal to 31°C and nighttime lows greater than or equal to 20°C, or when there's a Humidex of 40°C or greater.

Heavy drinking is defined as either five or more [standard drinks](#) for a male on at least one occasion per month; or four or more standard drinks for a female on at least one occasion per month.

Homelessness is the number individuals actively homeless in Hamilton (regardless of the length) and includes those who've stayed in a shelter in the previous 90 days. Data is collected by shelters through the Homeless Individuals and Families Information System (HIFIS).

Immigrant status refers to whether a person is a non-immigrant, immigrant or a non-permanent resident.

Immigrants includes persons who are, or who have ever been, landed immigrants or permanent residents. Such persons have been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this category. The 2021 Census includes immigrants who were admitted to Canada on or prior to May 11, 2021.

Incidence is the rate of new cases or events over a specified period for the population at risk for the event.

Infant is a person who is less than 365 days old.

Knowledge of official languages refers to whether the person can conduct a conversation in English only, French only, in both or in neither language. For a child who has not yet learned to speak, this includes languages that the child is learning to speak at home.

Land transport incidents or injuries are any unintentional incidents or injuries involving a device designed or used primarily for conveying persons or goods from one place to another place on land, such as pedal cycles, motorcycles, cars, trucks, vans, heavy transport trucks and all-terrain vehicles.

Life expectancy is the number of years a person would be expected to live. This could be estimated as a person's entire life span (life expectancy at birth) or life expectancy could be estimated as the number of years left to live once a person reaches a certain age (such as life expectancy at age 65).

Live birth rate is a measure of all live births among the total population.

Living wage is the hourly wage a worker needs to earn to cover their basic expenses and participate in their community. A living wage is not the same as the minimum wage, which the provincial government legislates for all employers. The living wage reflects what people need to earn to cover the actual costs of living in their community and draws on community-specific data to determine the expenses.

Low birth weight is when an infant is born alive and weighs less than 2.5kg.

Market Basket Measure (MBM) is Canada's official measure of poverty based on the cost of a basket of goods and services representing a basic standard of living, e.g., food, clothing, shelter, transportation and other necessities. This applies to a reference family of two adults and two children. When the disposable income for the MBM falls below a certain threshold, every member in the family is considered to be in poverty.

Men+ is a Statistics Canada term first used in analysis of the 2021 Census. It includes men and boys whose gender corresponds with sex assigned at birth (i.e., cisgender); men and boys whose gender does not correspond with sex assigned at birth (e.g., transgender); and some persons who are non-binary (e.g., agender, fluid, queer, or Two-Spirit). See also Gender categories used by Statistics Canada.

Mother tongue refers to the first language learned at home in childhood and still understood at the time the data was collected. If the person no longer understands the first language learned, the mother tongue is the second language learned. For a person who learned more than one language in early childhood, the mother tongue is the language they spoke most often at home before starting school. A person has more than one mother tongue only if they learned multiple languages at the same time and still understand them. For a child who has not yet learned to speak, the mother tongue is the language spoken most often to this child at home. A child who has not yet learned to speak has more than one mother tongue only if these languages are spoken to them equally, so that they learn these languages at the same time.

Newcomers includes persons who immigrated from 2016-2021. This is a sub-category of all immigrants residing in Hamilton.

Non-binary is one term used to describe genders that don't fall into one of the two "binary" categories of male and female. Individuals might self-identify with other terms such as agender, fluid, Two-Spirit, and gender-nonconforming.

Non-immigrants includes persons who are Canadian citizens by birth.

Non-permanent residents include persons from another country with a usual place of residence in Canada and who have a work or study permit, or who have claimed refugee status ([asylum claimants](#)). Family members living with work or study permit holders are also included, unless they are already Canadian citizens, landed immigrants or permanent residents.

Outpatient visit for mental health and substance use describes services provided by a psychiatrist, family physician/general practitioner or pediatrician, covered by the Ontario Health Insurance Plan, to a person who is not hospitalized.

Period of immigration (e.g., 2016-2021) refers to the period when the immigrant first obtained landed immigrant or permanent resident status.

Potential years of life lost is a measure of how many years of life a person could have lived if they did not die prematurely (before age 75). The potential years of life lost for each premature death can be summed to provide a population level total and rate.

Potentially avoidable death is a premature death, among people under age 75, that may potentially have been avoided through successful prevention or treatment. The avoidable conditions are those established in 2012 by the Canadian Institute for Health Information.

ppb: parts (of contaminant) per billion (parts of air), by volume.

Pregnancy rate is a measure of all pregnancies including those that result in live births, stillbirths, or abortion among the population of people with uteruses aged 15-49.

Prevalence is the proportion of a population who have a specific characteristic in a given time period.

Premature death is any death before the age of 75. Different regions of the world may use different age thresholds to define premature deaths within the context of those regions.

Preterm birth is when an infant is born alive after less than 37 weeks of [gestation](#).

Quintile graphs were used in this report to display health inequalities. First, we looked at a socioeconomic measure (e.g., housing need) in each of Hamilton's census neighbourhoods. Based on this socioeconomic measure, Hamilton's census neighbourhoods were sorted into five groups, also known as quintiles. The groups are ordered from least to most based on the value of the socioeconomic measure. Quintile 1 includes areas where the socioeconomic characteristic is least common (e.g., areas with the lowest percentage of housing need). Quintile 5 includes areas where the socioeconomic characteristic is most common (e.g., areas with the greatest percentage of housing need). Next, health outcomes are analyzed for each quintile. How often the health outcome occurs in each quintile is reported as a rate per 100,000 people. Rates describe how frequent a particular health outcome is in a consistent way. Using this approach, we can describe the rate of the health outcome (e.g., fall injuries) relative to the area's socioeconomic characteristics (e.g., housing need). This allows comparing how the health outcome differs as the socioeconomic characteristic changes across census neighbourhoods. This provides an area-level overview of health inequalities but does not provide insight to individual experiences of health inequalities. It is important to note that different age groups have different health experiences, and this analysis does not account for age differences across these different groups.

Racialized population replaces the use of the term "visible minority" used prior to the 2021 Census. It refers to whether a person self-identifies as a visible minority, as defined by the *Employment Equity Act*: "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". This population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Arab, Latin American, Southeast Asian, West Asian, Korean and Japanese.

Self-harm includes intentional self-inflicted injury or poisoning which may result in a fatal outcome (attempted or completed suicide).

SHARP PM_{2.5} monitor can detect additional components of PM_{2.5}, especially during cold weather. It provides more accuracy than concentrations measured by the Tapered Element Oscillating MicroBalance (TEOM) method, which was used until 2012 in Ontario.

Special Air Quality Statements (SAQS) are the first of a two-level air quality alert system in Ontario issued in partnership with Environment and Climate Change Canada. SAQS inform the public of the potential for degrading air quality and are issued if an Air Quality Health Index of 7 or greater is expected to last for 1-2 hours. A SAQS is also issued for areas where forest fire smoke is expected to cause deteriorating air quality.

Standard drink is defined as one drink that contains 17.05 millilitres or 13.45 grams of pure alcohol. Examples of one standard drink include: a bottle of beer (341 ml or 12 oz, 5% alcohol), a glass of wine (142 ml or 5 oz, 12% alcohol), and a shot glass of spirits (43 ml or 1.5 oz, 40% alcohol).

Stillbirth is when an infant is born dead after 22 weeks of gestation or weighing >500 grams.

Sulphur dioxide (SO₂) is an air contaminant that can be harmful to human health. It is a colourless gas that smells like burnt matches. It can be oxidized in the atmosphere to form sulphuric acid aerosols. In addition, SO₂ is a precursor to sulphates, one of the main components of airborne secondary PM_{2.5}.

Unintentional poisoning is the accidental ingestion, injection, inhalation, or other exposure to a substance (e.g., drugs, medicine, solvents, vapours, biological substances) that causes harm to the body. Intentional poisoning incidents as a form of self-harm or harm to others is excluded.

Up-to-date vaccination record indicates that the person has received vaccinations according to the publicly funded immunization schedule in the province of Ontario and this vaccination record has either: (a) been reported to Hamilton Public Health Services by the person or parents/guardians of the person, or (b) entered into Panorama by Hamilton Public Health Services for vaccinations administered at its own vaccination clinics.

µg/m³: micrograms (of contaminant) per cubic metre (of air), by weight.

Women+ is a Statistics Canada term first used in analysis of the 2021 Census. It includes: women and girls whose gender corresponds with sex assigned at birth (i.e., cisgender); women and girls whose gender does not correspond with sex assigned at birth (e.g., transgender); and some persons who are non-binary (e.g., agender, fluid, queer, or Two-Spirit). See also **Gender categories used by Statistics Canada**.

Appendix A – Supplementary Data Tables

Appendix Table 1.1: Population distribution for men+ and women+ by age group, counts and percent, Hamilton and Ontario residents, 2021

Gender	City of Hamilton						Ontario
	Women+		Men+		Total		Total
	2021 Census Population	% Population	2021 Census Population	% Population	2021 Census Population	% Population	% Population
0-04	14,180	4.9	14,920	5.3	29,100	5.1	4.8
05-09	14,855	5.1	15,840	5.7	30,695	5.4	5.4
10-14	15,260	5.3	16,190	5.8	31,450	5.5	5.7
15-19	15,265	5.3	16,530	5.9	31,795	5.6	5.6
20-24	17,510	6	18,895	6.8	36,405	6.4	6.3
25-29	20,040	6.9	20,485	7.3	40,525	7.1	6.9
30-34	20,780	7.2	20,550	7.3	41,330	7.3	6.9
35-39	19,720	6.8	19,225	6.9	38,940	6.8	6.7
40-44	17,900	6.2	17,125	6.1	35,025	6.2	6.3
45-49	17,595	6.1	16,560	5.9	34,155	6	6.3
50-54	18,770	6.5	17,900	6.4	36,665	6.4	6.6
55-59	20,775	7.2	20,155	7.2	40,930	7.2	7.3
60-64	19,505	6.7	18,540	6.6	38,045	6.7	6.8
65-69	16,700	5.8	14,935	5.3	31,630	5.6	5.7
70-74	14,305	4.9	12,390	4.4	26,700	4.7	4.9
75-79	9,895	3.4	8,390	3	18,290	3.2	3.3
80-84	7,280	2.5	5,705	2	12,990	2.3	2.3
85-89	5,330	1.8	3,420	1.2	8,750	1.5	1.4
90+	4,040	1.4	1,895	0.7	5,930	1.0	0.9
Total	289,715	100	279,640	100	569,350	100	100

Sources: Statistics Canada. 2023. Census Profile. 2021 Census.

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Notes: Individual age group counts in the Census 2021 were rounded to 0 or 5.

Appendix Table 1.2: Population distribution by age group for men+ and women+, counts and percent, Hamilton residents, Census (2021) and population projections (2046)

Gender	Age Group (years)	2021 Census Population	% Population	2046 Projections	% Population	Age Group Growth Rate
Women+	0-04	14,180	4.9	20,606	5.0	45.3
	5-09	14,855	5.1	20,389	5.0	37.3
	10-14	15,260	5.3	19,732	4.8	29.3
	15-19	15,265	5.3	20,297	5.0	33.0
	20-24	17,510	6.0	24,877	6.1	42.1
	25-29	20,040	6.9	25,513	6.2	27.3
	30-34	20,780	7.2	27,782	6.8	33.7
	35-39	19,720	6.8	29,323	7.2	48.7
	40-44	17,900	6.2	28,845	7.1	61.1
	45-49	17,595	6.1	27,626	6.8	57.0
	50-54	18,770	6.5	26,341	6.4	40.3
	55-59	20,775	7.2	23,815	5.8	14.6
	60-64	19,505	6.7	21,392	5.2	9.7
	65-69	16,700	5.8	19,154	4.7	14.7
	70-74	14,305	4.9	17,649	4.3	23.4
	75-79	9,895	3.4	16,888	4.1	70.7
	80-84	7,280	2.5	16,390	4.0	125.1
	85-89	5,330	1.8	12,370	3.0	132.1
	90+	4,040	1.4	10,005	2.4	147.6
		Total (Women+)	289,715	100.0	408,994	100.0

Appendix Table 1.2: Continued from page 206

Men+	0-04	14,920	5.3	21,617	5.4	44.9
	5-09	15,840	5.7	21,256	5.3	34.2
	10-14	16,190	5.8	20,516	5.1	26.7
	15-19	16,530	5.9	21,169	5.3	28.1
	20-24	18,895	6.8	27,226	6.8	44.1
	25-29	20,485	7.3	26,944	6.7	31.5
	30-34	20,550	7.3	27,989	7.0	36.2
	35-39	19,225	6.9	29,407	7.3	53.0
	40-44	17,125	6.1	28,829	7.2	68.3
	45-49	16,560	5.9	27,843	6.9	68.1
	50-54	17,900	6.4	26,890	6.7	50.2
	55-59	20,155	7.2	23,782	5.9	18.0
	60-64	18,540	6.6	20,278	5.1	9.4
	65-69	14,935	5.3	17,023	4.2	14.0
	70-74	12,390	4.4	15,481	3.9	24.9
	75-79	8,390	3.0	14,924	3.7	77.9
	80-84	5,705	2.0	14,091	3.5	147.0
	85-89	3,420	1.2	9,595	2.4	180.6
	90+	1,895	0.7	5,807	1.4	206.4
	Total (Men+)	279,640	100.0	400,667	100.0	43.3
Total	Total all ages	569,350	100	809,661	100	42.2

Sources: Statistics Canada. 2023. Census Profile. 2021 Census.

Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released February 8 2023; Population Projections. Hamilton. Ontario Ministry of Health, IntelliHEALTH Ontario. Extracted January 18, 2023

Notes: Individual age group counts in the Census 2021 were rounded to the nearest 0 or 5. The category of women+ includes women and girls, as well as some persons who are non-binary persons. The category of men+ includes men and boys, as well as some persons who are non-binary persons.

Appendix Table 1.3: Age group composition of population and dependency ratio, Hamilton residents, 2021 Census and 2046 population projections

	2021 Census		2046 Population Projections	
	Population Counts	Percent of Total (%)	Population Counts	Percent of Total (%)
Age group composition				
0 to 14 years	91,240	16.0	124,116	15.3
15 to 64 years	373,820	65.7	516,168	63.8
65 years and over	104,290	18.3	169,377	20.9
Total	569,350	100	809,661	100
Dependency ratio (dependent age versus working age)				
Dependent population (0 to 14 years and 65+ years)	195,530		293,493	
Working age (15-64 years)	373,820		516,168	
Total dependency ratio	52.3		56.9	

Sources: Statistics Canada. 2023. Census Profile. 2021 Census.

Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released February 8, 2023; Population Projections. Hamilton. Ontario Ministry of Health, IntelliHEALTH ONTARIO. Extracted January 18, 2023.

Notes: Individual age group counts in the Census 2021 were rounded to 0 or 5.

**Appendix Table 2.1: Knowledge of official languages, and mother tongue, 2021,
City of Hamilton and Ontario**

Characteristic	City of Hamilton		Ontario	
	Population Counts	Percent of Total (%)	Population Counts	Percent of Total (%)
Total population excluding institutional residents - 100% data	563,820	100.0	14,099,790	100.0
<u>Knowledge of official languages</u>				
English only	520,350	92.3	12,196,575	86.5
French only	410	0.1	39,310	0.3
English and French	32,630	5.8	1,519,365	10.8
Neither English nor French	10,435	1.9	344,545	2.4
<u>Mother tongue</u>				
Single responses	542,005	96.1	13,430,605	95.3
Official languages	408,935	72.5	9,642,770	68.4
English	402,740	71.4	9,179,655	65.1
French	6,195	1.1	463,120	3.3
Non-official languages	133,065	23.6	3,787,835	26.9
Arabic	12,560	2.2	214,230	1.5
Italian	12,490	2.2	194,125	1.4
Serbo-Croatian	10,350	1.8	77,145	0.5
Spanish	9,930	1.8	217,245	1.5
Portuguese	7,405	1.3	153,750	1.1

Appendix Table 2.1: Continued from page 209

Characteristic	City of Hamilton		Ontario	
	Population Counts	Percent of Total (%)	Population Counts	Percent of Total (%)
Polish	6,665	1.2	106,275	0.8
Punjabi (Panjabi)	6,280	1.1	260,075	1.8
Mandarin	5,215	0.9	327,470	2.3
Urdu	5,150	0.9	170,955	1.2
Tagalog (Pilipino, Filipino)	5,095	0.9	168,845	1.2
Multiple responses	21,815	3.9	669,185	4.7
English and French	2,080	0.4	96,260	0.7
English and non-official language(s)	17,315	3.1	494,610	3.5
French and non-official language(s)	430	0.1	15,710	0.1
English, French and non-official language(s)	370	0.1	16,770	0.1
Multiple non-official languages	1,625	0.3	45,835	0.3

Source: Statistics Canada, 2021 Census of Population. Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023 (accessed August 23, 2023).

Note: This table excludes knowledge of First Nations, Métis and Inuit languages.

Appendix Table 2.2: Racialized populations, 2021, City of Hamilton and Ontario

Characteristic	City of Hamilton		Ontario	
	Population Counts	Percent of Total (%)	Population Counts	Percent of Total (%)
<u>Racialized population</u> (formerly “visible minority”)				
Total – Racialized population for the population in private households - 25% sample data	560,915	100.0	14,031,750	100.0
Total racialized population	140,950	25.1	4,817,360	34.3
South Asian	34,790	6.2	1,515,295	10.8
Black	28,415	5.1	768,740	5.5
Arab	15,490	2.8	284,215	2.0
Filipino	11,730	2.1	363,650	2.6
Latin American	11,145	2.0	249,190	1.8
Chinese	10,945	2.0	820,245	5.8
Southeast Asian	8,445	1.5	167,845	1.2
West Asian	7,365	1.3	212,185	1.5
Korean	2,365	0.4	99,425	0.7
Japanese	1,160	0.2	31,420	0.2
Racialized group, not included elsewhere	3,270	0.6	124,120	0.9
Multiple racialized groups	5,825	1.0	181,025	1.3
Not a racialized group – the rest of the population	419,965	74.9	9,214,395	65.7

Source: Statistics Canada, 2021 Census of Population. Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed August 23, 2023).

Appendix Table 2.3: Immigrant status, 2021, City of Hamilton and Ontario

Characteristic	City of Hamilton			Ontario		
	Population Counts	Percent of Total (%)	Percent of Immigrants (%)	Population Counts	Percent of Total (%)	Percent of Immigrants (%)
Immigrant status and period of immigration						
Total - Immigrant status and period of immigration for the population in private households – 25% sample data	560,920	100.0	-	14,031,755	100.0	-
Non-immigrants	402,725	71.8	-	9,437,320	67.3	-
Immigrants	145,550	25.9	100.0	4,206,585	30.0	100.0
Before 1980 (Multiple years)	40,080	7.1	27.5	860,305	6.1	20.5
1980 to 1990 (11-year period)	17,010	3.0	11.7	506,195	3.6	12.0
1991 to 2000 (10-year period)	25,760	4.6	17.7	852,765	6.1	20.3
2001 to 2010 (10-year period)	28,030	5.0	19.3	941,630	6.7	22.4
2011 to 2021 (10-year period)	34,665	6.2	23.8	1,045,695	7.5	24.9
2016 to 2021 (last 5-year period)	20,145	3.6	13.8	584,680	4.2	13.9
<u>Non-permanent residents</u>	12,640	2.3	8.7	387,850	2.8	9.2

Source: Statistics Canada, 2021 Census of Population. Citation: Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed September 7, 2023).

Appendix Table 2.4: Top 10 places of birth of immigrants, 2021, City of Hamilton and Ontario

Characteristic	City of Hamilton			Ontario		
	Population Counts	Percent of Total (%)	Rank	Population Counts	Percent of Total (%)	Rank
Total immigrant Population	145,550	-	-	4,206,585	-	-
Birthplace of immigrant population						
United Kingdom	12,195	8.4	1	239,485	5.7	4
India	10,935	7.5	2	495,750	11.8	1
Italy	8,905	6.1	3	135,640	3.2	6
Philippines	8,255	5.7	4	268,575	6.4	3
Iraq	5,715	3.9	5	-	-	-
Portugal	5,475	3.8	6	-	-	-
Poland	5,400	3.7	7	-	-	-
Pakistan	5,300	3.6	8	165,530	3.9	5
China	4,100	2.8	9	355,955	8.5	2
United States of America	4,045	2.8	10	111,390	2.6	9
Jamaica	-	-	-	122,770	2.9	7
Sri Lanka	-	-	-	112,730	2.7	8
Hong Kong	-	-	-	108,480	2.6	10
Total recent immigrant population (2016-2021)	20,145	-	-	-	-	-
Birthplace of recent immigrant population						
India	3,205	15.9	1	139,655	23.9	1
Syria	2,640	13.1	2	30,180	5.2	4
Philippines	1,790	8.9	3	45,235	7.7	3
Nigeria	915	4.5	4	16,575	2.8	7

Appendix Table 2.4: Continued from page 213

Characteristic	City of Hamilton			Ontario		
	Population Counts	Percent of Total (%)	Rank	Population Counts	Percent of Total (%)	Rank
Iraq	905	4.5	5	12,940	2.2	9
Pakistan	665	3.3	6	23,970	4.1	5
United States of America	615	3.1	7	17,940	3.1	6
China	580	2.9	8	54,645	9.3	2
Jamaica	525	2.6	9	9,975	1.7	10
United Kingdom	340	1.7	10	-	-	-
Iran	-	-	-	13,215	2.3	8

Source: Statistics Canada, 2021 Census of Population. Statistics Canada. 2022. Focus on Geography Series. 2021 Census. Statistics Canada Catalogue no. 98-404-X2016001. Ottawa, Ontario. Release date: February 9, 2022. Updated on: November 30, 2022. <http://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/index.cfm?Lang=E>

Appendix Table 2.5: Individual poverty rate (market basket measure) for men+ and women+ by age group, counts and percent, Hamilton and Ontario residents, 2020

Gender	City of Hamilton							Ontario	
	Women+		Men+		Total		95% CI	Total	95% CI
	Count	%	Count	%	Count	%		%	
Age Group (Years)	Count	%	Count	%	Count	%	95% CI	%	95% CI
0-17	4,260	8.0	4,575	8.1	8,830	8.0	7.6-8.4	8.7	8.6-8.8
0-5	1,475	8.8	1,710	9.3	3,185	9.1	8.3-9.9	9.5	9.3-9.7
6-17	2,780	7.6	2,865	7.5	5,645	7.5	7.1-8.0	8.3	8.1-8.6
18-24	2,780	11.8	3,345	13.1	6,120	12.5	11.9-13.1	13.7	13.5-13.9
25-54	8,430	7.4	8,425	7.6	16,860	7.5	7.3-7.7	8.3	8.2-8.3
55-64	3,430	8.5	3,920	10.3	7,350	9.4	9.0-9.8	8.9	8.8-9.0
65+	2,370	4.4	1,795	4.0	4,160	4.2	4.0-4.5	4.8	4.7-4.8
Total	21,265	7.5	22,060	8.0	43,325	7.7	7.5-7.9	8.3	8.3-8.3

Source: Statistics Canada. Table 98-10-0113-01, Individual Market Basket Measure poverty status by economic family characteristics of persons: Canada, provinces and territories, census divisions and census subdivisions. Accessed November 24, 2023, from: <http://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=981001130>

Appendix Table 2.6: Individual poverty rate (market basket measure) by selected groups of Hamilton residents and compared to Ontario, counts and percent, 2020

Characteristic	City of Hamilton		
	Count	Total of Sub-Population	Percent of Total (%)
Individual poverty rate (Market Basket Measure)			
Hamilton	43,325	560,915	7.7
Ontario	1,158,845	13,977,130	8.3
Men+	22,060	275,900	8.0
Women+	21,265	285,020	7.5
0-5	3,185	35,095	9.1
6-17	5,645	74,875	7.5
18-24	6,120	48,960	12.5
25-54	16,860	225,165	7.5
55-64	7,350	78,240	9.4
65+	4,160	98,570	4.2
Bachelor's degree or higher	5,365	31,520	5.7
Postsecondary below bachelor level	6,850	103,130	6.6
High school diploma or equivalency certificate	6,905	74,815	9.2
No degree (less than high school)	5,080	31,520	16.1
Living with family	22,760	461,625	4.9
Living alone or with others not in immediate family	20,565	99,290	20.7
Not immigrant	26,670	402,730	6.6
Immigrant (including recent immigrants)	11,085	145,545	7.6
Recent immigrant (2016-2021)	2,990	20,150	14.8
Not racialized (white)	26,735	419,965	6.4
Racialized	16,590	140,950	11.8

Sources: Age group and gender subgroup estimates: Statistics Canada. Table 98-10-0113-01 Individual Market Basket Measure poverty status by economic family characteristics of persons: Canada, provinces and territories, census divisions and census subdivisions; Other subgroups: Numerator: Target group profile of the low-income population (Market Basket Measure), Census, 2021. Community Data Program - Custom data order from Statistics Canada. Denominator: Statistics Canada, 2021 Census of Population.

Appendix Table 2.7: Housing tenure, affordable housing and core housing need for households, counts and percents, City of Hamilton and Ontario

Characteristic	City of Hamilton		Ontario	
	Household Counts	Percent of Total (%)	Household Counts	Percent of Total (%)
Housing tenure (owner/renter)				
Total - Private households by tenure - 25% sample data	222,805	100	5,491,200	100
Owner	146,410	65.7	3,755,720	68.4
Renter	76,400	34.3	1,724,970	31.4
Affordable housing				
Total - Owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio - 25% sample data	221,115	100.0	5,415,420	100.0
Spending less than 30% of income on shelter costs	169,815	76.8	4,103,320	75.8
Spending 30% or more of income on shelter costs	51,305	23.2	1,312,095	24.2
Core housing need				
Total - Owner and tenant households with household total income greater than zero and shelter-cost-to-income ratio less than 100%, in non-farm, non-reserve private dwellings - 25% sample data	216,390	100.0	5,272,360	100.0
In core need	28,055	13.0	639,805	12.1
Not in core need	188,335	87.0	4,632,550	87.9

Source: Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023.

<https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed September 13, 2023).

Appendix Table 2.8: Time trends in core housing need for households, 2011 to 2021, City of Hamilton

Year	Total Households	Percent of Households in Core Housing Need (%)
2011	Not available	13.1
2016	30,760	15.4
2021	28,055	13.0

Source: Statistics Canada. Census Profiles, 2011, 2016 and 2021

Appendix Table 2.9: Household food insecurity, Hamilton households, 2019-2020 and 2021-2022

	Hamilton		Ontario	
	Percent (%)	Percent 95% CI (%)	Percent (%)	Percent 95% CI (%)
Food insecurity (household level)				
2019-2020	19.1	15.4-22.8	17.1	16.3-17.9
2021-2022	18.0	15.2-20.8	17.4	16.7-18.0

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Household food insecurity estimates from the Canadian Income Survey: Ontario 2019-2022. Toronto, ON: King's Printer for Ontario; 2024. [Modified 2024 Jul 5; cited 2024 Jul12]

Appendix Table 2.10: Highest education level attained for the population aged 25-64, City of Hamilton residents compared to Ontario, counts and percent, 2021

Characteristic	City of Hamilton		Ontario	
	Counts	Percent of Total (%)	Counts	Percent of Total (%)
Highest educational level (age 25-64)				
Total – Highest certificate, diploma or degree for the population aged 25-64 years in private households – 25% sample data	303,405	100.0	7,584,645	100.0
No certificate, diploma or degree	31,520	10.4	667,665	8.8
High (secondary) school diploma or equivalency certificate	74,815	24.7	1,770,810	23.3
Postsecondary certificate, diploma or degree	197,070	65.0	5,146,170	67.8
Postsecondary certificate or diploma below bachelor level (including apprenticeship or trades certificate)	103,130	34.0	2,356,375	31.1
Apprenticeship or trades certificate or diploma	16,895	5.6	384,770	5.1
College, CEGEP or other non-university certificate or diploma	79,495	26.2	1,787,580	23.6
University certificate or diploma below bachelor level	6,740	2.2	184,030	2.4
Bachelor's degree or higher	93,940	31.0	2,789,795	36.8
Bachelor's degree	61,395	20.2	1,798,010	23.7
University certificate or diploma above bachelor level	5,690	1.9	173,205	2.3
Degree in medicine, dentistry, veterinary medicine or optometry	2,970	1.0	71,055	0.9
Master's degree	20,065	6.6	658,060	8.7
Earned doctorate (excluding honorary doctorates)	3,820	1.3	89,470	1.2

Source: Statistics Canada. 2023. (table). Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released March 29, 2023. <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed September 13, 2023).

Appendix Table 2.11: Bachelor's degree or higher, population aged 25-64 by selected groups of City of Hamilton residents and compared to Ontario, 2021

Characteristic	City of Hamilton		
	Counts	Percent (%)	95% CI
Bachelor's degree or higher (age 25-64)			
Total – Highest certificate, diploma or degree for the population aged 25-64 in private households – 25% sample data	303,405	-	-
Hamilton	93,940	31.0	30.6-31.3
Ontario	3,528,600	36.8	36.7-36.9
Women+	52,980	34.3	33.8-34.8
Male+	40,965	27.5	27.1-28.0
25-34 years	32,800	40.3	39.5-41.1
35-44 years	24,675	33.6	32.9-34.3
45-54 years	20,295	28.9	28.0-29.7
55-64 years	16,175	20.7	20.1-21.3
Racialized (formerly visible minority)	31,950	42.8	42.0-43.6
South Asian	11,455	59.6	58.2-61.1
Chinese	3,325	59.3	56.2-62.3
Arab	3,115	42.3	39.4-45.1
Black	4,175	30.6	29.0-32.3
Not racialized (white)	61,990	27.1	26.7-27.5
Immigrant	31,415	35.9	35.3-36.6
Non-permanent residents	4,245	62.5	59.8-65.1
Not Immigrant	58,280	27.9	27.5-28.3

Sources: Statistics Canada. Table 98-10-0432-01. Highest level of education by visible minority and immigrant status: Canada, provinces and territories, census divisions and census subdivisions with a population 5,000 or more, DOI: <https://doi.org/10.25318/9810043201-eng> (accessed December 12, 2023)

Appendix Table 2.12: Family structure, census family type, individual resident family type, City of Hamilton and Ontario

Characteristic	City of Hamilton		Ontario	
	Counts	Percent (%)	Counts	Percent (%)
Census family type				
Total number of census families in private households - 100% data	157,120	100.0	3,969,670	100.0
Total couple families	126,990	80.8	3,291,560	82.9
Married couples	104,915	66.8	2,776,165	69.9
With children (any age)	60,470	38.5	1,571,480	39.6
Without children	44,440	28.3	1,204,680	30.3
Common-law couples	22,070	14.0	515,395	13.0
With children (any age)	8,305	5.3	189,835	4.8
Without children	13,770	8.8	325,560	8.2
Total one-parent families	30,135	19.2	678,110	17.1
in which the parent is a woman+	23,985	15.3	538,450	13.6
in which the parent is a man+	6,150	3.9	139,660	3.5
Individual's family type				
Total - Persons in private households - 100% data	560,915	100.0	14,031,750	100.0
Total - Persons in census families	461,625	82.3	11,601,460	82.7
Married spouses or common-law partners	253,975	45.3	6,583,120	46.9
Parents in one-parent families	30,135	5.4	678,110	4.8
Children (any age)	177,510	31.6	4,340,235	30.9
In a two-parent family	130,110	23.2	3,281,460	23.4
In a one-parent family	47,405	8.5	1,058,775	7.5
Total - Persons not in census families in private households - 100% data	99,290	17.7	2,430,295	17.3
Living alone	62,110	11.1	1,452,540	10.4
Living with other relatives (including foster children)	14,895	2.7	388,780	2.8
Living with non-relatives only	22,285	4.0	588,970	4.2
Household type				
Total - Household type - 100% data	222,810	100.0	5,491,200	100.0
One-census-family households without additional persons	134,420	60.3	3,347,195	61.0
Couple-family households	111,410	50.0	2,841,660	51.7
With children (all ages)	60,525	27.2	1,517,365	27.6
Without children	50,880	22.8	1,324,295	24.1
One-parent-family households	23,015	10.3	505,535	9.2
Multigenerational households	8,140	3.7	221,120	4.0
Multiple-census-family households	1,570	0.7	45,215	0.8
One-census-family households with additional persons	7,030	3.2	184,430	3.4
Two-or-more-person non-census-family households	9,535	4.3	240,700	4.4
One-person households	62,110	27.9	1,452,540	26.5

Source: Statistics Canada, 2021 Census of Population. Census Profile. 2021 Census of Population. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released November 15, 2023.

<https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E> (accessed December 12, 2023).

Appendix Table 2.13: Community belonging, percent (%) of Hamilton residents aged 12 and older by selected groups of City of Hamilton residents and compared to Ontario, 2015-2020 (combined)

Percent of people who have a somewhat strong or very strong sense of belonging to their community ¹		Hamilton		Ontario	
		%	95% CI	%	95% CI
		71.2	(68.9, 73.4)	70.9	(70.3-71.5)
Sex	Male	70.0	(66.6, 73.3)		
	Female	72.3	(69.4, 75.0)		
Age	12-19	83.2	(76.7, 88.2)		
	20-44	63.6	(58.5, 68.5)		
	45-64	72.1	(67.8, 76.0)		
	65-74	82.2	(77.9, 85.8)		
	75+	74.7	(67.2, 81.0)		
Income	High income (top 20%)	67.6	(62.4, 72.4)		
	Low income (bottom 20%)	73.1	(67.3, 78.3)		

Source: Canadian Community Health Survey [2015-2016 to 2019-2020], Statistics Canada, Share File, Ontario Ministry of Health

Appendix Table 2.14: Disability prevalence by sex and age group Hamiltonian residents aged 15 and over, 2017

		Hamilton				Ontario	
		Count	Count 95% CI	% Total	Percent 95% CI (%)	% Total	Percent 95% CI (%)
Disability prevalence							
Total prevalence of disability		125,700	(97,387- 153,963)	29.1	(24.3-34.4)	24.1	(23.4-24.8)
Sex	Male	58,450	-	27.6	(21.3-34.9)	22	(21.2-23.0)
	Female	67,250	-	30.7	(23.9-38.4)	26	(25.1-27.0)
Age group	15-64	93,600	-	25.9	(20.9-31.7)	19.8	(19.1-20.5)
	65 and over ^E	32,100	-	45.4	(34.3-57.1)	43.1	(41.4-44.8)
Males by age group	15-64 ^E	45,000	-	25.1	(18.5-33.2)	18.1	(17.2-19.1)
	65 and over ^E	13,450	-	40.8	(25.2-58.5)	40.4	(37.8-43.0)
Females by age group	15-64 ^E	48,600	-	26.8	(19.5-35.5)	21.3	(20.3-22.4)
	65 and over ^E	18,650	-	49.5	(34.9-64.1)	45.4	(43.1-47.7)

Source: Canadian Survey on Disability, 2017, Community Data Program - Custom data order from Statistics Canada

Notes:

- These data were acquired as a custom order from Statistics Canada. The data are not typically available at the geographic levels provided here, as the CSD is designed to report on Canada, the provinces and the territories. Much of the data are suppressed or should be used with caution (rating = E).
- E denotes the estimate has high sampling variability for Hamilton residents and should be interpreted with caution. The data predate Statistics Canada's improved collection of gender identity information in 2021.

Appendix Table 8.1: Annual Air Quality Health Index (AQHI) risk levels at Hamilton Downtown monitoring station, percent of valid hours, 2015-2021

2015		Year						
		2016	2017	2018	2019	2020	2021	
Number of annual valid hours		8733	8713	8667	8627	8585	8737	8571
Risk Level		Percent of Valid Hours						
Low risk	AQHI = 1	3.3	2.4	2.2	3.8	2.8	3.6	5.2
	AQHI = 2	34.1	36.3	37.8	38.8	38.3	46.2	43.0
	AQHI = 3	42.3	45.4	45.7	40.7	44.3	40.5	37.5
Moderate risk	AQHI = 4	16.1	13.2	12.2	13.5	11.9	8.5	11.0
	AQHI = 5	3.2	2.6	1.8	2.6	2.5	1.0	2.8
	AQHI = 6	0.9	0.3	0.1	0.6	0.2	0.3	0.4
High risk	AQHI = 7	0.1	0	0.1	0.1	0	0	0.2
	AQHI = 8	0	0	0	0	0	0	0
	AQHI = 9	0	0	0	0	0	0	0
	AQHI = 10	0	0	0	0	0	0	0
Very high risk	AQHI = 10+	NA	NA	NA	0	0	0	0
Percent of valid hours at moderate risk or above		20.3	16.0	14.2	16.7	14.6	9.8	14.5
Number of days at least 1 hour is high risk or more >6		4	0	1	2	0	0	2

Source: Air Quality Ontario. Air Quality in Ontario Reports 2015-2021.

Available from: www.airqualityontario.com/press/publications.php and www.ontario.ca/document/air-quality-ontario-2021-report

Appendix Table 8.2: Annual air contaminants at Hamilton Downtown monitoring station, 2012-2021

Contaminant	Year									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nitric oxide (NO) (Annual mean (ppb))	4.6	4.3	3.9	1.3	4.2	3.9	3.9	4.0	2.9	3.5
Nitrogen dioxide (NO ₂) (Annual mean (ppb))	11.9	12.4	12.4	12.2	11.9	11.9	11.6	12.5	9.9	10.2
Nitrogen oxides (NO _x) (Annual mean (ppb))	16.6	16.8	16.3	7.7	16.1	15.8	15.5	16.5	12.8	13.7
Fine particulate matter (PM _{2.5}) (Annual mean µg/m³) AAQC=8.8µg/m³	10.2	10.1	10.8	10.2	8.2	8.5	9.2	8.8	8.1	8.9
Ground-level ozone (O ₃) 1h maximum 1h Maximum (ppb)O ₃ 1h AAQC: 80 ppb	88.0	86.0	74.0	74.0	78.0	73.0	77.0	65.0	77.0	80
Ground-level ozone (O ₃) (Annual mean (ppb))	25.7	25	25.3	25.9	26.7	25.6	25.6	24.4	26.3	26.4
Ground-level ozone (O ₃) summer means (May - September) (Summer mean (ppb))	32.4	28.4	27.5	29.5	30.6	27.8	29.7	26.1	29.4	30.1
Ground-level ozone (O ₃) winter means (January- April, October-December) (Winter mean (ppb))	20.9	22.5	23.7	23.3	23.9	24.2	22.6	23.2	24.1	23.8
Sulphur dioxide (SO ₂) (Annual mean (ppb)) SO₂ 1y AAQC: 4 ppb	4.8	4.8	5.1	4.3	3.2	3.5	5.0	4.8	3.7	3.8
Carbon monoxide (CO) (1h maximum (ppm)) CO 1h AAQC: 30 ppm	1.7	2.0	2.9	1.3	1.4	2.1	1.7	1.9	1.2	1.5
Benzene (Annual mean (µg/m ³)) Benzene 1y AAQC: 0.45 µg/m³	INS	0.977	INS	0.899	1.092	0.675	0.569	0.639	0.568	0.613
Toluene (Annual mean (µg/m ³))	INS	2.067	INS	2.229	2.249	1.642	1.296	0.862	0.817	1.314
Ethylbenzene (Annual mean (µg/m ³))	INS	0.193	INS	0.192	0.21	0.186	0.187	0.129	0.126	0.172
m- and p-xylene (Annual mean (µg/m ³))	INS	0.603	INS	0.594	0.621	0.518	0.532	0.359	0.398	0.486
o-xylene (Annual mean (µg/m ³))	INS	0.195	INS	0.206	0.216	0.189	0.198	0.131	0.145	0.183
1,3-butadiene (Annual mean (µg/m ³))	INS	0.046	INS	0.032	0.037	0.025	0.039	0.028	0.028	0.036

Source: Air Quality in Ontario 2021 Report & Appendices, Available from: <https://www.ontario.ca/document/air-quality-ontario-2021-report/appendix#section-6>

Notes:

- INS indicates there was insufficient data to calculate a valid annual mean.
- The annual mean for 2018 for Hamilton Downtown is derived from data from March to June, August, and October to December in 2018 for the following contaminants: benzene, toluene, ethylbenzene, m- and p-xylene, o-xylene, 1,3-butadiene.

Appendix Table 8.3: Estimated deaths attributed to risk factors based on Global Burden of Disease Study, 2019, residents of Hamilton, 2012 and 2018

Risk Factor Category (Level 2 Risks)	2012	2018
Metabolic risks (Body Mass Index (BMI), blood pressure, cholesterol)	984	1050
Tobacco	553	518
Dietary risks	590	427
Extreme temperature (hot and cold)	N/A	196
Occupational risks (injuries, carcinogens)	154	113
Alcohol and drug use	52	74
Low physical activity	103	71
Air pollution	90	55
Other environmental risks (including radon)	8	20
Child and maternal malnutrition	19	15
Unsafe sex	19	7
Violence and sexual abuse	1	6
Unsafe water, sanitation and handwashing	2	1

Note: Estimates are calculated based on Population Attributable Fractions, Canada, Global Burden of Disease Study 2019 using deaths to Hamiltonians in 2018; deaths sourced through Ministry of Health, IntelliHEALTH ONTARIO.

Appendix Table 8.4: Annual heat and cold warning events and days, City of Hamilton 2011-2023

Year	Heat Warnings		Cold Warnings	
	# Events	# Days	# Events	# Days
2011	3	10	9	25
2012	8	9	3	5
2013	2	9	7	31
2014	3	3	10	52
2015	4	13	8	42
2016	7	17	8	16
2017	2	4	4	20
2018	6	19	4	5
2019	3	7	4	15
2020	7	24	1	2
2021	5	17	4	4
2022	4	11	11	16
2023	4	11	3	6

Sources: City of Hamilton Public Health Services, Summary of Heat Warnings 2011 – present. Accessed October 25, 2023, and Summary of Cold Warnings 2011 – present. Accessed January 22, 2024

Appendix Table 13.1: Hypertensive disease, prevalence and annual incidence, by sex and age group, Hamilton residents aged 20 and older, 2020

Hypertensive Disease		Count		Crude Rate	
Prevalence		Count	% Total Count	Percent (%)	95% Confidence Interval
Total (Age 20+)		129,579	100	27.5	27.3-27.6
Sex	Male	63,641	49.1	27.5	27.3-27.6
	Female	65,938	50.9	27.5	27.2-27.7
Age group*	20-44	8,626	6.7	4.2	4.1-4.3
	45-64	47,119	36.4	29.3	29.0-29.6
	65-74	34,867	26.9	59.2	58.6-59.8
	75+	38,967	30.1	84.4	83.6-85.3
Incidence		Count	% Total Count	Rate per 100,000	95% Confidence Interval
Total (Age 20+)		4,217	100	1203.7	1,167.4-1,240.1
Sex*	Male	2,247	53.3	1304.7	1,250.7-1,358.6
	Female	1,970	46.7	1106.1	1,057.2-1,154.9
Age group*	20-44	844	20.0	425.8	397.0-454.5
	45-64	2,100	49.8	1807.5	1,730.2-1,884.8
	65-74	826	19.6	3239.2	3,018.3-3,460.1
	75+	447	10.6	4292.3	3,894.4-4,690.2

Data Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of hypertensive disease crude and age-specific rates (both sexes) 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

Note: Asterisk (*) denotes significant difference within group

Appendix Table 13.2: Selected chronic diseases in order of relative inequalities (rate ratios) of deaths by equity sub-populations, Hamilton residents, 2009-2018

Chronic Disease (In order of highest inequalities)	Equity Sub-population (In order of highest inequalities)	Relative Rate Difference	95% Confidence Interval	Equity Assessment ↑↓ Indicates significant differences between highest to lowest quintile
Diabetes (ICD-10 Codes E10-14 includes both Type 1 and Type 2)	Income	2.90	2.44-3.44	↑
	Core Housing Need	2.84	2.42-3.33	↑
	Family Structure (One-Parent)	2.09	1.75-2.49	↑
	Education	1.49	1.26-1.75	↑
	Racialization	1.08	0.09-1.29	-
Hypertensive disease (ICD-10 codes I10-I15)	Income	2.42	1.85-3.18	↑
	Core Housing Need	2.13	1.65-2.76	↑
	Family Structure (One-Parent)	1.48	1.12-1.95	↑
	Education	0.93	0.73-1.19	-
	Racialization	0.57	0.43-0.76	↓
Ischemic heart disease (ICD-10 codes I20-I25)	Core Housing Need	2.13	1.98-2.30	↑
	Income	1.92	1.77-2.08	↑
	Family Structure (One-Parent)	1.45	1.34-1.58	↑
	Education	1.19	1.11-1.29	↑
	Racialization	0.73	0.67-0.79	↓
Cerebrovascular disease (ICD-10 codes I60-I69)	Core Housing Need	1.52	1.33-1.73	↑
	Income	1.50	1.72-1.31	↑
	Family Structure (One-Parent)	1.11	0.97-1.28	-
	Education	0.92	1.04-0.81	↑
	Racialization	0.72	0.63-0.83	↓
Colorectal cancer (ICD-10 codes C18-C20, C26.0)	Core Housing Need	1.59	1.35-1.87	↑
	Family Structure (One-Parent)	1.44	1.22-1.70	↑
	Income	1.43	1.20-1.70	↑
	Education	1.18	1.00-1.39	↑
	Racialization	0.65	0.55-0.77	↓
Prostate cancer (ICD-10 codes C61)	Core Housing Need	1.75	1.37-2.23	↑
	Income	1.48	1.15-1.91	↑
	Family Structure (One-Parent)	1.27	0.98-1.64	-
	Education	0.82	0.64-1.05	-
	Racialization	0.61	0.47-0.79	↓
Breast cancer (ICD-10 codes C50 (female only))	Core Housing Need	1.40	1.15-1.70	↑
	Income	1.37	1.11-1.69	↑
	Family Structure (One-Parent)	1.11	0.90-1.36	-
	Education	0.93	0.76-1.13	-
	Racialization	0.54	0.44-0.67	↓

Appendix Table 13.2: Continued from page 228

Chronic Disease (In order of highest inequities)	Equity Sub-population (In order of highest inequities)	Relative Rate Difference	95% Confidence Interval	Equity Assessment ↓↑ Indicates significant differences between highest to lowest quintile
Malignant melanoma (ICD-10 codes C43)	Core Housing Need	1.02	0.66-1.02	-
	Income	0.77	0.49-1.20	-
	Education	0.72	0.46-1.11	-
	Family Structure (One-Parent)	0.83	0.54-1.27	-
	Racialization	0.45	0.28-0.73	↓

Data Source: Ministry of Health, IntelliHealth, Vital Statistics, 2009-2018

Appendix Table 13.3: Diabetes, prevalence and annual incidence, by sex and age group, Hamilton residents aged 20 and older, 2020

Diabetes		Count		Crude Rate	
Prevalence		Count	% Total Count	Percent (%)	95% Confidence Interval
Total (age 20+)		61,954	100	13.1	13.0-13.2
Sex*	Male	32,181	51.9	13.9	13.7-14.0
	Female	29,773	48.1	12.4	12.3-12.5
Age group*	20-44	5,827	9.4	2.8	2.8-2.9
	45-64	23,030	37.2	14.3	14.1-14.5
	65-74	16,704	27.0	28.3	28.0-28.8
	75+	16,393	26.5	35.5	35.0-36.0
Incidence		Count	% Total Count	Rate per 100,000	95% Confidence Interval
Total (age 20+)		61,954	100	863.2	835.0-891.5
Sex*	Male	1,855	51.7	916.1	874.4-957.8
	Female	1,731	48.3	812.9	774.6-851.2
Age group*	20-44	700	19.5	348.5	322.6-374.3
	45-64	1,580	44.1	1,131.8	1,076.0-1,187.6
	65-74	815	22.7	1,876.8	1,747.9-2,005.6
	75+	491	13.7	1,558.3	1,420.5-1,696.2

Data Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of diabetes crude and age- specific rates (both sexes) 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

Note: Asterisk (*) denotes significant difference within group

Appendix Table 13.4: Asthma, prevalence and annual incidence, by sex and age group, Hamilton residents, all ages, 2020

Hypertensive Disease		Count		Crude Rate	
Prevalence		Count	% Total Count	Percent (%)	95% Confidence Interval
Total (all ages)		80,416	100.0	13.4	13.3-13.5
Sex	Male	38,324	47.7	12.9	12.7-13.0
	Female	42,092	52.3	13.9	13.8-14.0
Age group*	0-19	14,831	18.4	11.5	11.4-11.7
	20-44	34,559	43.0	16.8	16.6-17.0
	45-64	18,034	22.4	11.2	11.1-11.4
	65-74	6,875	8.5	11.7	11.4-11.9
	75+	6,117	7.6	13.3	12.9-13.6
Incidence		Count	% Total Count	Rate per 100,000	95% Confidence Interval
Total (all ages)		1,365	100.0	254.4	240.9-267.9
Sex*	Male	640	46.9	237.9	219.5-256.4
	Female	725	53.1	271.1	251.3-290.8
Age group*	0-19	469	34.4	364.9	331.9-397.9
	20-44	351	25.7	204.3	182.9-225.7
	45-64	318	23.3	222.1	197.6-246.5
	65-74	137	10.0	261.9	218.0-305.7
	75+	90	6.6	221.7	175.9-267.6

Data Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of asthma crude and age- specific rates (both sexes) 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

Note: Asterisk (*) denotes significant difference within group

Appendix Table 13.5: Chronic obstructive pulmonary disease, prevalence and annual incidence, by sex and age group, counts and annual crude rate, Hamilton residents aged 20 and older, 2020

COPD		Count		Crude Rate	
Prevalence		Count	% Total Count	Rate per 100,000	95% Confidence Interval
Total (age 20+)		40,217	100	8,523.3	8,440.0-8,606.6
Sex	Male	19,832	49.3	8,558.0	8,438.9-8,677.1
	Female	20,385	50.7	8,489.9	8,373.3-8606.4
Age group*	20-44	1,636	4.1	794.2	755.7-832.7
	45-64	16,884	42.0	10,501.0	10,342.6-10,659.4
	65-74	10,845	27.0	18,405.7	18,059.3-18,752.1
	75+	10,852	27.0	23,516.7	23,074.2-23,959.1
Incidence		Count	% Total Count	Rate per 100,000	95% Confidence Interval
Total (age 20+)		1,671	100	384.2	365.8-402.6
Sex*	Male	925	55.4	432.9	405.0-460.8
	Female	746	44.6	337.2	313.0-361.3
Age group*	20-44	244	14.6	119.3	104.3-134.2
	45-64	710	42.5	490.1	454.1-526.2
	65-74	386	23.1	790.9	712.0-869.8
	75+	331	19.8	902.5	805.3-999.7

Data Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of COPD—crude and age- specific rates (both sexes) 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

Note: Asterisk (*) denotes significant difference within group

Appendix Table 13.6: Chronic obstructive pulmonary disease, incidence counts and age standardized rate Hamilton and Ontario, residents aged 20 and older, 2011-2020

Year	Hamiltonians			Ontario		Significantly Different
	# New Cases	Age-Standardized Incidence Rate		Age-Standardized Incidence Rate		
		Rate	95% CI	Rate	95% CI	Hamilton compared to Ontario
2011	2,930	778.7	750.4-806.9	677.9	672.5-683.2	Higher
2012	2,694	705.9	679.2-732.6	648.5	643.4-653.7	Higher
2013	2,716	700.2	673.9-726.6	639.2	634.2-644.3	Higher
2014	2,677	680.8	654.9-706.6	617.3	612.4-622.2	Higher
2015	2,579	647.1	622.1-672.1	593.8	588.9-598.6	Higher
2016	2,674	659.7	634.6-684.7	568.8	564.1-573.4	Higher
2017	2,436	591.8	568.3-615.4	553.2	548.7-557.8	Higher
2018	2,428	578.7	555.6-601.8	512.2	507.9-516.5	Higher
2019	2,165	504.3	482.9-525.7	465.8	461.7-469.8	Higher
2020	1,671	390.6	371.7-409.4	339.1	335.7-342.6	Higher

Data Source: ICES Chronic Disease Derived Cohorts, 2011 to 2020, Date received: August 31, 2022. Distributed by Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: chronic disease incidence and prevalence Snapshot: prevalence/incidence of COPD—crude and age-specific rates (both sexes) 2020 [Internet]. Toronto, ON: King's Printer for Ontario; c2022 [2022 Dec 15; cited 2022 Dec 16]. Available from: www.publichealthontario.ca/en/data-and-analysis/chronic-disease/chronic-disease-incidenceprevalence

Appendix Table 13.7: Cancer prevalence by type, Hamilton residents, 2018

Cancer Type	Count	Population	% of Population (or sex specific where indicated)
All cancer	26,700	570,400	4.7
Breast (female)	5,645	288,145	2.0
Prostate (males)	4,655	282,250	1.6
Colorectal	3,140	570,400	0.6
Melanoma	1,820	570,395	0.3
Non-Hodgkin lymphoma	1,465	570,395	0.3
Lung	1,255	570,395	0.2
Thyroid	1,060	570,395	0.2
Kidney	990	570,400	0.2
Bladder	785	570,400	0.1
Leukemia	710	570,400	0.1
Oral cavity and pharynx	615	570,395	0.1
Cervix	395	288,145	0.1
Hodgkin lymphoma	330	570,395	0.06
Brain and other nervous system	305	570,395	0.05
Myeloma	290	570,400	0.05
Stomach	280	570,395	0.05
Larynx	170	570,395	0.03
Liver	160	570,400	0.03
Pancreas	155	570,400	0.02
Esophagus	105	570,400	0.02

Source Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021). Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex [Internet]. Ottawa (CA): Government of Canada; 2020 Sept 29 [cited 2021-01-21]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>."

Notes:

- Counts were randomly rounded to multiples of 5 to protect personal health information.
- Prevalence describes the number and percentage of people diagnosed with cancer within the past 30 years and still alive on the index date of January 1, 2019 (i.e., diagnosed between 1989 and 2018). People with more than one cancer diagnosis are counted once for the first diagnosis.
- Only the first cancer of a given type in an individual is counted (for people who have multiple episodes of cancer).

Appendix Table 13.8: Cancer incidence by type, counts and age standardized rate, Hamilton residents and Ontario, 2018

Cancer Type	Hamilton			Ontario		Different than Ontario
	Count	Age-Standardized Rate	95% CI	Age-Standardized Rate	95% CI	
All cancer	3,580	568.9	550.3-588.0	543.0	539.3-546.7	↑
Breast (female)	475	150.3	136.8-164.7	147.4	144.7-150.1	-
Lung	460	70.5	64.1-77.3	64.1	62.8-65.3	-
Colorectal	375	58.0	52.2-64.3	53.5	52.3-54.6	-
Prostate	365	121.6	109.3-134.8	128.9	126.4-131.5	-
Bladder	195	30.0	25.9-34.5	25.6	24.8-26.4	-
Melanoma	165	26.2	22.3-30.6	25.2	24.4-26.0	-
Non-Hodgkin lymphoma	155	24.8	21.1-29.1	27.3	26.5-28.2	-
Kidney	120	19.0	15.7-22.8	16.9	16.3-17.6	-
Pancreas	105	15.9	12.9-19.4	12.8	12.3-13.4	-
Thyroid	105	18.4	15.0-22.3	21.4	20.6-22.1	-
Leukemia	85	13.3	10.6-16.5	15.6	15.0-16.2	-
Myeloma	75	11.2	8.7-14.1	9.2	8.8-9.7	-
Stomach	75	12.2	9.6-15.3	10.6	10.1-11.1	-
Oral cavity and pharynx	70	11.4	8.9-14.5	12.1	11.6-12.7	-
Cervix 2016-2018 3-years combined)	65	8.2	6.3-10.4	8.4	8.0-8.8	-

Sources: Ontario Cancer Registry SEER*Stat Package - Release 12 - OCR (March 2021).

Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and sex [Internet]. Ottawa (CA): Government of Canada; 2020 Sept 29 [cited 2021-01-21]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>.

Notes:

- Cancer of the cervix rate is provided for 3 years combined to permit reporting due to privacy and stability concerns.
- Counts were randomly rounded to multiples of 5 to protect personal health information.
- All cancer types with insufficient counts to display in 2018 (with the exception of cervix) (e.g., brain & other nervous systems, larynx, esophagus) are not included in this table.
- To be comparable with the PHU level statistics, Ontario statistics exclude cancer cases of unknown residence (PHU); therefore, provincial statistics may not match the true counts and rates published elsewhere. 95% Confidence Interval is an estimate of the potentially lower and higher value of the rate.
- 95% Confidence Interval is an estimate of the potentially lower and higher value of the rate.
- Age standardized rates are adjusted to the 2011 Canadian standard population.
- This refers to a person's sex as recorded on health records, rather than their gender identity.
- Incidence describes the number of new cases.





City of Hamilton Report for Information

To: Chair and Members
Public Health Sub-Committee

Date: February 24, 2025

Report No: BOH25003

Subject/Title: Public Health Services Opioid Update – February 2025

Ward(s) Affected: (City Wide)

Recommendations

- 1) That Report BOH25003 respecting Public Health Services Opioid Update – February 2025 **BE RECEIVED** for information.

Key Facts

- The purpose of this report is to provide an update on the current situation related to opioids including recent legislative changes and Public Health Services' response to the opioid crisis in Hamilton;
- Recent legislative changes, the Chief Medical Officer of Health 2023 Annual Report, and the Ontario Public Health Standards provide the provincial context informing Public Health Services' response to the opioid situation;
- Available data and substance use trends in Hamilton provide information about the local context and informs Public Health Services' response to substance use in Hamilton; and,
- Updates related to the Hamilton Drug Strategy Opioid Working Group, Public Health Services' response to safe consumption site closures, and the status of decriminalization of illegal substances in Hamilton provide further information on the status of the local response to Opioids.

Financial Considerations

Not Applicable.

Background

Public Health Services provides regular updates to the Public Health Sub-Committee and Council as the Board of Health on the opioid crisis, relevant work going on through Public Health Services, and updates from the Hamilton Drug Strategy, including the Hamilton Opioid Action Plan, and the provincial and federal levels as appropriate. This report is intended to provide contextual information and support future strategic decision making.

Analysis

This report provides information on Hamilton Public Health Services' response to the ongoing opioid crisis, including provincial and local context influencing this response. Relevant provincial context includes guidance from the Chief Medical Officer of Health 2023 Annual Report addressing substance use and harms, recent legislative changes impacting people who use drugs, and the Ontario Public Health Standards. The local context provides insights into recent trends in opioid health outcomes and the local opioid response update including the transition of the Hamilton Opioid Action Table to an Opioid Working Group of the Hamilton Drug Strategy, Public Health Services' response and a status update on the decriminalization of illegal substances.

Provincial Context

- **Chief Medical Officer of Health Annual Report**

The Chief Medical Officer of Health is required to produce an annual report on the state of public health in Ontario and deliver it to the Speaker of the Legislative Assembly, in fulfilment of role requirements indicated in Section 81.(4) of the *Health Protection and Promotion Act*. In April 2024, the Chief Medical Officer of Health released the Chief Medical Officer of Health 2023 Annual Report titled "Balancing Act: An All-of-Society Approach to Substance Use and Harms".¹

The Chief Medical Officer of Health 2023 Annual Report promotes a comprehensive, health-centred approach involving all sectors of society to mitigate the harms of substance use. It calls on community stakeholders to collaborate and implement a variety of strategies to address the upstream and downstream factors impacting substance use and health. It also emphasizes that an effective public health approach requires interventions throughout the entire spectrum of substance use, from prevention to harm reduction to treatment.

¹ Chief Medical Officer of Health of Ontario. (2023). Balancing act: An all-of-society approach to substance use and harms. King's Printer for Ontario.
(<https://www.ontario.ca/page/chief-medical-officer-health-2023-annual-report>)

Additionally, the Chief Medical Officer of Health 2023 Annual Report outlines current trends and health risks associated with tobacco and vaping, cannabis, alcohol, and opioids, offering evidence-based and substance-specific strategies to combat these risks. This includes opioid-specific recommendations addressing health promotion, regulatory measures, harm reduction, treatment, services for families, and monitoring and reporting. The Chief Medical Officer of Health 2023 Annual Report concludes that the public health sector cannot address substance use harms without support from communities, governments and social services, and people with lived and/or living experience of substance use.

The Chief Medical Officer of Health 2023 Annual Report provides valuable guidance for the public health sector in implementing evidence-based, collaborative strategies to address the harms associated with substance use and the toxic drug crisis. This report serves as one key resource for Public Health Services in adapting and implementing interventions to support individuals and communities affected by these ongoing challenges.

- **Recent Provincial Legislation**

In December 2024, Bill 223 or the *Community Care and Recovery Act* was passed, which bans the operation of supervised consumption sites, including Consumption and Treatment Services, within 200 metres of certain schools, childcare centres, and EarlyON child services. As a result, any site that does not meet the 200 metre distance is required to close by March 31, 2025. This is expected to lead to the closure of the only two supervised consumption sites in Hamilton and at least nine other sites across the province.

The *Community Care and Recovery Act* restricts municipalities from seeking to decriminalize the personal possession of illicit substances under the federal *Controlled Drugs and Substances Act*, unless they receive explicit approval from the Province. It also restricts municipalities from applying for funding or exemptions under the *Controlled Drugs and Substances Act* to establish new supervised consumption sites. Additionally, municipalities are limited in their ability to apply for or support applications for safer supply programs funded through Health Canada. Safer supply programs provide prescribed alternatives to unregulated drugs, along with additional health and social supports, to individuals at high risk of drug poisoning or related harm. Importantly, this legislation does not affect the availability of medication-assisted treatment for opioid use disorder.

In December 2024, the Province also introduced the *Safer Municipalities Act*, which would have prohibited the use of illegal substances in public spaces, with limited exemptions. It would also have allowed police officers and other provincial offences officers, if prescribed, to direct individuals to stop using illegal drugs or to leave the public space, with non-compliance charges resulting in up to six months of incarceration and/or a fine of up to \$10,000. With the dissolution of the legislature in advance of the provincial election, the legislative process for this bill came to an end. While the bill was not passed, its contents provide insight into

the current provincial government's approach towards addressing illegal substances. This bill could be reintroduced after provincial parliament resumes following the election to restart the legislative process.

- **Homelessness and Addiction Recovery Treatment Hubs**

With the announcement of Bill 223, the province also announced its' intention to invest \$375 M to support the creation of 19 Homelessness and Addiction Recovery Treatment Hubs across Ontario. Homelessness and Addiction Recovery Treatment Hubs are intended to provide low-barrier access to a range of supports, tailored to each community, to meet the needs of individuals experiencing complex health and social issues. Some services that may be offered through a Hub include primary care, addiction treatment, social services, and/or connection to supportive housing or treatment beds.

Community agencies in Ontario were able to apply for Homelessness and Addiction Recovery Treatment Hub funding through a Call for Proposals, where they outlined a proposed Hub model and intended community partners. In January 2025, the Ministry of Health announced that nine of the Consumption and Treatment Services sites scheduled for closure in March 2025 will be converted into Homelessness and Addiction Recovery Treatment Hub services, including the site in Hamilton operated by Hamilton Urban Core Community Health Centre. An additional 26 Homelessness and Addiction Recovery Treatment Hub services will be established across the province, under three streams. This includes mainstream hubs, Indigenous-led hubs, and hubs that will transition from Consumption and Treatment Services locations.

- **Ontario Public Health Standards**

Public Health Services is mandated through the Ontario Public Health Standards and associated guidance to prevent and address harms associated with substance use in the community. As a result, the Mental Well-Being and Substance Use program provides key projects and services, including harm reduction supply distribution, needle disposal, naloxone distribution, community education on substance use and risk mitigation, surveillance and monitoring, and secretariat support for the Hamilton Drug Strategy.

Through ongoing changes in the policy landscape, Public Health Services remains committed to working closely with local stakeholders to continue providing evidence-driven services for those who use drugs as well as those affected by related health and social challenges within the community.

Local Context

Hamilton has experienced a significant public health burden related to the ongoing toxic and unpredictable drug supply. To measure and monitor opioid-related health harms in Hamilton, Public Health Services uses data collected by other organizations, often for alternate purposes. Data sources include opioid-related death investigations from the Office of the Chief Coroner of Ontario, and emergency department visits and hospitalizations recorded in hospital administrative databases. At times, proxy

measures such as opioid-related paramedic calls are used as a limited real-time indicator of opioid-related activity in the Hamilton community. While these opioid-related health harm indicators often trend in similar directions, there are also times when no clear pattern emerges. It is important to consider that relationships between indicators can be influenced by differences in what they measure, inherent data variability, and the broader community context.

The number of opioid-related deaths in Hamilton decreased in 2023 and 2024 after reaching a high of 166 deaths in 2022, and remains significantly higher than the numbers seen each year before 2017. Trends over time for the rates of opioid-related deaths in Hamilton are similar to Ontario although rates are consistently higher than the province. Rates provide a way to look at trends in death over time while considering Hamilton's growing population and allows for comparison to Ontario overall.

Between Q2 2022 and Q2 2024, 95% of opioid toxicity-related deaths in Hamilton involved multiple substances, with a median of four substances identified per case. Stimulants were present in 79% of toxicology reports, and benzodiazepines were present in 41% of toxicology reports. Fentanyl was the most frequently detected substance. The data reflects an increase in polysubstance use, which can contribute to drug poisoning risk. Of note, some polysubstance use can occur unknowingly when individuals consume an expected substance, usually an opioid like fentanyl, with an undesired or unexpected substance present (e.g., xylazine, benzodiazepine, etc.)

Encounters with the health system for opioid-related harms such as emergency department visits and hospitalizations have fluctuated in recent years, however, the numbers have remained below peaks observed in 2021. Calls to Hamilton Paramedic Services for opioid-related incidents increased significantly since 2017, reaching a peak of 982 calls in 2023, before declining to 770 calls in 2024.

Public Health Services continues to inform our operations by using many sources of evidence, including data, to better understand health inequities in Hamilton. Data sources may not consistently include sociodemographic information or enough data to conduct robust equity analysis. For example, housing status and racial identity may be determined post-mortem by the investigating coroner and this information is not complete for all deaths. Most opioid-related deaths are occurring among males aged 25 to 64 years. Similarly, since 2017, 75% of paramedic calls for opioid-related incidents involved males, with an average age of 38 years. As reported in Hamilton's Community Health Status Report 2024, there were substantially higher rates of opioid-related deaths among people whose living arrangement was identified as homeless (1,024.9 deaths per 100,000) compared to those identified as residing in a private dwelling (16.1 deaths per 100,000). The rate of opioid-related deaths was greater among people who identified as white (22.4 deaths per 100,000) and Black (13.4 deaths per 100,000) when compared to people who identified as East or Southeast Asian, South Asian, Latin American or Middle Eastern (4.0 deaths per 100,000). These racial identities were grouped together for privacy considerations, as the number of deaths in each of these populations is low.

Opioid Response Updates

- **Hamilton Opioid Action Plan Update**

The Hamilton Opioid Action Plan (Public Health Committee Report BOH23021) was established in Spring 2023 in response to the ongoing crisis of harmful opioid use and the toxic, unpredictable drug supply affecting the Hamilton community. This plan was created by subcontractor MASS LBP through consultation with the Hamilton Drug Strategy Steering Committee, community members, persons with lived and/or living experience, equity-deserving groups, and health and social services leaders. This plan included immediate, medium and long-term actions to impact the opioid situation in Hamilton and was approved by Council on June 21, 2023. Public Health Services' role in the Hamilton Opioid Action Plan includes secretariat and evaluation support, in addition to leading specified actions within the plan. A detailed update on the progress of the plan was provided at the June 3, 2024 Public Health Committee Meeting (Report BOH24015). Since this time, there are relevant updates on select actions, provided below:

- **Immediate and Medium-Term Action Update:**

- The Embedded Harm Reduction Pilot in Men's Emergency Shelters was initiated in October 2024 to expand dedicated harm reduction resources (staff) within the men's emergency shelter system in Hamilton. This program is a one-year pilot in partnership with Mission Services, The Good Shepherd and Salvation Army. Evaluation conducted by Public Health Services is currently underway and will be shared in Q4 2025;
- Funding to support the YWCA Hamilton's Safer Use Space is being provided for the continuation of existing services until March 31, 2025. It is anticipated that this site will close after March 31, 2025, as a result of the legislation outlined in the Community Care and Recovery Act. Evaluation conducted by Public Health Services is currently underway and will be shared in Q4 2025;
- The Peer Support Workers Initiative is set to begin, implemented by Housing Services in the first quarter of 2025. Evaluation conducted by Public Health Services will begin once the program is initiated;
- The Drug Checking Test Strip Distribution Pilot commenced in May 2024. Public Health Services currently provides drug test strip kits for distribution through five agency partners. Additionally, kits are available through several Public Health programs including The Van, Sexual Health Clinics, Street Health Clinics, and the Mental Health and Street Outreach Team. As of December 2, 2024, 429 fentanyl test strip kits and 440 xylazine test strips kits have been distributed through public health programs and by community partners. Evaluation of this pilot project is currently underway. To

- date, in one situation, test strips were used to inform a community drug alert;
- Public Health Services has been working with local and external partners to explore expanded drug checking models. Drug checking is a harm reduction service that analyses unregulated drugs to identify their contents. Drug checking services can help to reduce risk of overdose and can support monitoring of the unregulated drug market. Staff are actively participating in the provincial Drug Checking Community of Practice to stay informed on the latest evidence and best practices in drug checking services; and,
 - To increase access and support to shelters and drop ins, Mission Services staff participated in Community Walk Abouts to learn more about local resources by visiting other shelters, food banks, Consumption and Treatment Services, and the Hamilton Public Library.
- **Long-Term Action Update:**
Following recent provincial legislative changes and the announcement of the new Homelessness and Addiction Recovery Treatment Hubs, the ability to implement the long-term actions has been impacted, specifically regarding safer supply and Supervised Consumption Sites. Actions related to the availability of stabilization services and access to rapid detox and residential treatment programs are on hold while the new provincial treatment model rolls out and promised funding streams become available.
 - **Transition to the Opioid Working Group:**
The Hamilton Opioid Action Table initiated the transition to an Opioid Working Group of the Hamilton Drug Strategy in the fall of 2024 based on two main considerations: (1) the Government of Ontario's announcement of the *Community Care and Recovery Act* which would impact the ability of the Action Table to initiate the long-term actions within the Hamilton Opioid Action Plan, and (2) a desire from table members to be able to address new and emerging issues beyond the scope of the Hamilton Opioid Action Plan.

An important step in the transition to an Opioid Working Group included the opening of membership to a broader audience of local health and social services agencies to enhance the capacity of the group to address opioid-related harms. The newly expanded working group is in the process of developing a community response plan for the upcoming changes impacting people who use drugs. This is a collaborative effort on behalf of the Opioid Working Group members (see Appendix "A" to Report BOH25003). This response will prioritize actions that will support equity deserving populations and those that will be disproportionately impacted

by the upcoming changes. This response will be grounded by the Chief Medical Officer of Health 2023 Annual Report which emphasizes the need to support the entire spectrum of substance use, and the notion that this work requires deep support and widespread collaboration to impact opioid-related harms. The Opioid Working Group has identified the following risks associated with the Safe Consumption Site closures:

- Increase in drug poisoning deaths;
- Increased substance-use related infections;
- Reduced access to general health and wound care;
- Reduced referrals and connection to other services;
- Lost relationships, community, and trust;
- Reduced access to care outside of “regular” business hours;
- Increase burden on emergency services and hospitals;
- Increased demand on harm reduction supply distributors;
- Increased trauma for frontline workers;
- Increased needle debris in community;
- Reduced understanding of what is circulating in the current drug supply;
- Loss of low-barrier spaces where all services can be received;
- Increase fear among people who use drugs; and,
- Disproportionate impacts to vulnerable populations: those who access Supervised Consumption Sites, pregnant women, gender diverse folks, indigenous community, and those experiencing homelessness.

○ **Public Health Services Response**

Public Health Services plays an ongoing role in supporting the community in the face of the opioid crisis by executing both mandated and discretionary programming that supports people who use drugs. Public Health services fulfils its Ontario Public Health Standards mandate for Harm Reduction and Substance Use through collaboration with agencies to assist in expansion of harm reduction policies and programs in Hamilton, and through collaboration with health and social services partners and community leaders on the Hamilton Drug Strategy and associated working groups, including the Opioid Working Group.

In addition to providing secretariat support and facilitating the development of the Opioid Working Group’s community response plan, Public Health Services is actively developing a response to the upcoming Safe Consumption Site closures and potential increased repercussions for people found using drugs in public settings. Specific to Public Health Services’ role, the Mental Wellbeing and Substance Use program’s response includes a range of enhancements and expedited timelines to current programming, as well as exploring new opportunities prioritized for the first quarter of 2025. This includes:

- Implementing improvements to the Early-Warning Drug Alert System;
- Increasing distribution of drug test strips through the Drug Test Strip Distribution Pilot;
- Exploring increased naloxone distribution through the Ontario Naloxone Program;
- Development of the Mass Drug Poisoning Response Plan.
- Exploring the expansion of drug checking services available in Hamilton;
- Revamped campaigns promoting safety and harm reduction messaging;
- Exploring innovative approaches that aim to enhance the community's ability to respond to drug poisonings where they are most commonly and/or likely to happen; and,
- Supporting Hamilton Urban Core with implementation of the new Homelessness and Addiction Recovery Treatment Hub.

Though not mandated or funded within the Ontario Public Health Standards, this response extends to the Alcohol, Drug & Gambling Services and Mental Health and Street Outreach programs. This includes:

- Improving access to harm reduction information, supplies and programming through outreach services and clinic site;
- Ensuring program staff are well positioned to provide information and harm reduction referrals to individuals accessing services; and,
- Connect within existing community partnerships to understand needs individuals are presenting with and collaborate on direct service provision and participate in targeted planning to ensure program activities and interventions are coordinated with the broader system response.

○ **Decriminalization of Illegal Substances**

In August 2022, the City of Hamilton's Board of Health directed the Medical Officer of Health to request that the Federal Government include Hamilton in the Health Canada pilot project, granting an exemption under subsection 56(1) of the *Controlled Drugs and Substance Use Act* to remove criminal penalties for people who possess a small amount of certain illegal substances for personal use. Since then, Public Health Services has engaged in discussion with other municipalities and the federal government to inform the approach, explored different models of decriminalization, and consulted local partners to assess the impact of recent federal legislative changes related to the criminalization of illegal substances. To ensure Hamilton's approach to alternatives to criminalization is evidenced-based, Public Health Services has also been monitoring the experiences and outcomes of the three-year decriminalization pilot project in British Columbia and Toronto Public Health's exemption request to allow for the possession of drugs for

personal use in Toronto.

However, the new provincial legislation under the *Community Care and Recovery Act*, limits municipalities and local boards from applying to Health Canada for an exemption under subsection 56(1) *Controlled Drugs and Substance Use Act* for the purpose of decriminalizing the personal possession of an illegal substance, without approval from the province. As a result, Public Health Services will no longer be pursuing an exemption request from Health Canada.

Alternatives

Not Applicable.

Relationship to Council Strategic Priorities

The recommendations in this report support the following 2022-2026 Council Priorities, Outcomes, and Measures of Success:

2. Safe & Thriving Neighbourhoods
 - 2.1. Increase the supply of affordable and supportive housing and reduce chronic homelessness
3. Responsiveness & Transparency
 - 3.2. Get more people involved in decision making and problem solving

The opioid crisis disproportionately impacts individuals experiencing homelessness. This information report provides context on the opioid situation, the Opioid Working Group, and Public Health Services' role and capacity to support those who will be impacted by the closure of Safe Consumption Sites and other legislative changes impacting people who use drugs, including those experiencing homelessness.

Previous Reports Submitted

- [BOH23021](#) – Hamilton Opioid Action Plan
Report in response to February 2023 Council direction to engage with a diverse group of community partners to create an evidence-based harm reduction plan, in alignment with the Hamilton Drug Strategy.
- [BOH24015](#) – Update on the Hamilton Opioid Action Plan – June 2024
Public Health Committee update on the Hamilton Opioid Action Plan
- [BOH24024](#) – Hamilton Community Health Status Report 2024
Public Health Services' 2024 report providing meaningful health status information, including social determinants of health and health inequities to guide health planning and service delivery.

Consultation

Not Applicable.

Appendices and Schedules Attached

Appendix A: Hamilton Drug Strategy Opioid Working Group – Membership by Agency

Prepared by: Sarah Anthony, Health Strategy Specialist
Public Health Services, Epidemiology & Wellness Division,
Mental Well Being and Substance Use

Submitted and recommended by: Julie Prieto, Director
Public Health Services, Epidemiology & Wellness Division

Hamilton Drug Strategy Opioid Working Group – Membership by Agency

Alternatives for Youth

Hamilton Housing Services

Hamilton Paramedic Services

Hamilton Police Services

Hamilton Public Health Services

Hamilton Regional Indian Centre

Hamilton Urban Core Community Health Centre

HAMSMaRT

Keeping Six

Mission Services of Hamilton

Salvation Army

St. Joseph's Healthcare Hamilton

The Aids Network

The Aboriginal Health Centre Community Health Centre

The Hamilton Hub

Wayside House of Hamilton



Hamilton

Historical Overview of Relevant Mental Health Policy and its Impact for the City of Hamilton

February 24, 2025

MOTION (M. Wilson/Hwang):

Historical Overview of Relevant Mental Health Policy and its Implications for the City of Hamilton

THEREFORE, BE IT RESOLVED: That staff be requested to report back to the Public Health Committee by Q2 2025 with an overview of relevant mental health institutions, policy and implications for the City in its efforts to address the declared homelessness, mental health and substance use crises; specifically:

- (a) An account of those mental health, addiction, and rehabilitation institutions in Hamilton working with the city and in what capacity in responding to the intersection of homelessness and mental health;
- (b) A historic overview of the deinstitutionalization process in Ontario and any specific impacts on Hamilton;
- (c) The *Mental Health Act of Ontario*; and
- (d) The roles responsibilities and purview of authorities as set out in the *Mental Health Act of Ontario*.

Current Context

- In April 2023, Hamilton declared a **state of emergency** due to the escalating crises of homelessness, mental health, and substance use.
- These issues are deeply **interconnected** and **mutually reinforcing**, with estimates that three-quarters of individuals who are homeless have a mental health or substance use disorder.
- A voluntary survey of 545 individuals experiencing homelessness in Hamilton found **that 60% reported facing mental health challenges**, while **59% reported issues with substance use**.
- Mental health and substance use disorders not **only increase the likelihood of becoming homeless** but also make it **harder to escape homelessness**.
- Individuals with mental health and substance use comorbidities have **higher rates of chronic homelessness (49%)** compared to those **without these conditions (42%)**.
- **Chronic homelessness is a key indicator of systemic failures**.



Current Context

- Homelessness can in turn **worsen both mental health and substance use**.
- **Past experiences of trauma**, especially **early in life**, serve as **significant risk** factors for homelessness, mental health disorders, and substance use disorders.
- Research has shown that **90% of adults experiencing homelessness** have been exposed to at least **one adverse childhood experience**, with over **half being exposed to four or more** adverse childhood experiences.
- Trauma isn't limited to childhood; it can also result from **later life events**, such as intimate partner violence, divorce, job loss, or eviction.
- Certain groups are more vulnerable to trauma, including those from marginalized communities, such as **Indigenous people, racialized people, 2SLGBTQ+ individuals, newcomers, and women**.
- **Homelessness** can result in **more trauma**, with individuals who experience homelessness often subject to **unsafe and degraded conditions**.

The History of Institutionalization & Deinstitutionalization

- Institutionalization emerged in the **late 19th and early 20th centuries** as a means of managing individuals with **mental health conditions, developmental disabilities,** and others thought to be **unable to integrate into society.**
- Many residents experienced **inadequate care, neglect, and dehumanizing conditions.**
- In response to these human rights concerns among factors, **deinstitutionalization began in the 1960's,** with a gradual shift away from **institutional care to community-based care.**
- The **Hamilton Psychiatric Hospital** was once one of the largest in the province. As deinstitutionalization began, the number of **inpatients decreased,** and new programs like **outpatient clinics, day programs, and community outreach** were developed to support **reintegration** into the community.



The History of Institutionalization & Deinstitutionalization

- While deinstitutionalization led to **positive outcomes**, there were challenges with the **overall implementation**.
- To support better integration into the community, the process of de-institutionalization was intended to be paired with an **increase in support in the community**. The de-institutionalization process received criticism for **not being accompanied by adequate funding** for such community-based services.
- This under-resourcing of community-based services led to “**trans-institutionalization**”, where former residents of large institutions were relocated to **smaller institutional settings** such as boarding houses, group homes, long-term care homes, or jails.
- The shortage of **affordable housing** intensified the issue, resulting in **homelessness** for many former residents.



Mental Health and Substance Use Services in Ontario

- The **insufficient investment in community-based services** during the deinstitutionalization process has had a lasting impact on Ontario's mental health and substance use system.
- In the Provincial government's Roadmap to Wellness, the Province recognizes that the current system is **fragmented, disconnected**, and has **significant barriers to care**.

Complicated system that is difficult to navigate

High demand, especially for intensive, specialized care

Limited coordination between different services and settings

Long waitlist for services

Overreliance on emergency services

Need for substance use treatment to respond to increasingly toxic drug supply

Mental Health and Substance Use Services in Ontario

- In Ontario, mental health and substance use services are provided across a **range of settings**, each playing a **distinct yet complementary role**.
- These settings are intended to work together to ensure a holistic approach, addressing the **diverse needs of individuals at every stage**— from prevention and mental health promotion to treatment, stabilization and recovery.
- The Province’s Roadmap to Wellness outlines a vision for a **more integrated, accessible, and patient-centred system**.
- To support the vision in the Roadmap to Wellness, the province has developed the **Mental Health and Addictions Centre of Excellence** to oversee the delivery and quality of the entire system.



Community Settings



Acute Settings

Mental Health and Substance Use Services in Ontario

Community Settings

Primary Care

This setting is often the **first point of contact** for individuals seeking help, primary care plays a crucial role in **early identification and management** of mental health and substance use issues. It provides ongoing support and helps individuals navigate the system.



Community Settings

Community-Based Services

This setting offers **comprehensive, specialized** mental health and substance services that are **tailored to the needs of individuals** and the community. They aim to reduce barriers to treatment, build trust, and offer flexible ongoing support.

Supportive Housing

This setting provides **stable, long-term housing** with **integrated supports** for individuals with chronic mental health or substance use conditions.

Mental Health and Substance Use Services in Ontario

Acute Settings

Out-Patient Services

This setting provides **structured, intensive care without the need for full hospitalization**. It allows individuals to manage their mental health and substance use disorders, receive ongoing treatment, and maintain their daily routines and responsibilities.

In-Patient Services

This setting offers **24-hour supervision** and care for individuals in **acute crisis**. These services are designed for those who pose a risk to themselves or others and cannot manage their condition in the community.

Bed-Based Treatment

This setting provide **intensive, short-term care** for individuals seeking **substance use treatment**. This setting offers structured, **24-hour care** with a focus on stabilization and recovery.



Acute Settings

Mental Health Act

- The **Mental Health Act**, introduced in 1967, was created to **protect** individuals with mental health disorders by establishing a legal framework for their treatment and care. It aims to ensure that people with receive appropriate treatment, while also safeguarding their rights and autonomy.
- It outlines the criteria for **involuntary psychiatric care**, allowing it when someone is at **risk of harming themselves or others**, or **unable to care for themselves** due to a mental health disorder.
- **Forms** completed by **physicians and Justices of the Peace** authorize involuntary care, starting with a **72-hour assessment periods** that can extended if **criteria is met**.
- If needed, police can **detain an individual** after the **appropriate form has been completed** to **safely transport** the individual to **the hospital or specialized mental health centers** for assessment.
- Under **Section 17** of the *Mental Health Act*, police have the authority to detain a **person without the completion** of a form if they have reasonable grounds to believe the person is acting in a disorderly manner due to a mental health disorder and poses an immediate danger to themselves or others.



Mental Health Act

- In response to the escalating mental health and substance use crises and concerns for public safety, there have been increasing discussions around **expanding involuntary care**.
- Under the *Mental Health Act*, involuntary care is specifically permitted for individuals with mental health disorders, **not for those with substance use disorders**.
- There are **concerns** about expanding the *Mental Health Act* to **include substance use disorders** due to the lack of evidence to **either support or refute involuntary treatment** for individuals with substance use disorders.
- Involuntary care for substance use disorders has **not been shown to decrease substance use or relapse rates**. Instead, there are concerns related to **potential harms**, such as a higher risk of **drug poisoning following treatment discharge due to reduced tolerance**.
- Involuntary treatment for mental health disorders **has led to short-term benefits**, such as short-term benefits like symptom stabilization, and reduced immediate harm; however, **long-term outcomes**, like sustained mental health improvements, risk of suicide, enhanced social integration are **less consistent**.

Conclusion

The Role of the Municipality

- The mental health, addictions, and homelessness crises in Hamilton **are complex and deeply interconnected.**
- Addressing these issues effectively means **moving beyond siloed approaches** that address only a single aspect of the issue.
- The City of Hamilton can play a continued role in this work, this includes:
 - **Supporting the coordination** of mental health and substance use services;
 - **Advocating for consistent, sustained funding** across the spectrum of services;
 - **Applying the principles of the Housing First approach** to address the interrelated issues of homelessness, mental health, and substance use; and
 - **Adopting short-term and long-term** solutions to housing and homelessness crisis, including **emergency shelters** and **supportive housing.**



City of Hamilton Report for Information

To: Chair and Members
Public Health Sub-Committee

Date: February 24, 2025

Report No: BOH25004

Subject/Title: Overview of Mental Health Institutions, Policy, and Implications for Hamilton's Homelessness, Mental Health, and Substance Use Crises (Outstanding Business List Item)

Ward(s) Affected: (City Wide)

Recommendations

- 1) That Report BOH25004 respecting the Overview of Mental Health Institutions, Policy, and Implications for Hamilton's Homelessness, Mental Health, and Substance Use Crises **BE RECEIVED** for information.

Key Facts

- This report was developed in response to a motion at the September 30, 2024 Public Health Committee Meeting;
- Homelessness, mental health, and substance use are deeply interconnected issues that require a comprehensive, integrated approach that bridges health and social services, rather than addressing each issue in isolation;
- Ontario's mental health and substance use system provides a range of services, from prevention to intensive care, across settings like community-based and acute care environments;
- The current mental health and substance use system is fragmented and disconnected, with significant barriers to care, largely due to a lack of investment during the deinstitutionalization process, which shifted from institutional care to community-based support; and,
- The City of Hamilton can address these interconnected crises by continuing to invest in and advocate for sustainable funding focused on prevention through

crisis response, enhancing service coordination, and implementing the Housing First model principles.

Financial Considerations

Not Applicable.

Background

At the September 30, 2024 Public Health Committee Meeting, staff were provided the following direction via motion:

Historical Overview of Relevant Mental Health Policy and its Implications for the City of Hamilton (Item 11.1)

- (a) That staff be requested to report back to the Public Health Committee by Q2 2025 with an overview of relevant mental health institutions, policy and implications for the City in its efforts to address the declared homelessness, mental health and substance use crises; specifically:
 - (i) An account of those mental health, addiction, and rehabilitation institutions in Hamilton working with the city and in what capacity in responding to the intersection of homelessness and mental health;
 - (ii) A historic overview of the deinstitutionalization process in Ontario and any specific impacts on Hamilton;
 - (iii) The *Mental Health Act of Ontario*; and,
 - (iv) The roles responsibilities and purview of authorities as set out in the *Mental Health Act of Ontario*.

Although mental health and substance use disorders impact a wide range of individuals, this report will focus on populations experiencing homelessness based on the request from the Public Health Committee.

Analysis

The Intersections of Homelessness, Mental Health, and Substance Use

In April 2023, the City of Hamilton declared a state of emergency to address the escalating crises of homelessness, mental health, and substance use - issues that are deeply interconnected and mutually reinforcing. Individuals experiencing homelessness experience mental health and substance use disorders at disproportionately high rates. A voluntary Point in Time Connection survey of 545 individuals experiencing homelessness in Hamilton conducted in November 2021, found that 60% reported

facing mental health challenges, while 59% reported issues with substance use.¹ In addition to higher rates, the complexity of mental health and substance use disorders is also greater among individuals experiencing homelessness.² At a national level, the Point in Time Connection survey found that 47% of respondents reported concurrent mental health and substance use disorders.³ Mental health and substance use disorders can both be a cause and a consequence of homelessness.

Several factors increase the risk of homelessness for those with mental health and substance use disorders, including:

- Income and employment insecurity: Mental health and substance use issues can make it harder to secure and maintain stable employment, increasing their financial vulnerability;⁴
- Lack of support systems: Mental health and substance use issues can lead to withdrawal and estrangement from family, friends, and other support systems, reducing available resources and safety net;² and,
- Impaired cognition and decision-making: Mental health and substance use issues can impair judgment and decision-making, which may impact financial management, missed rent or bill payments, and failure to comply with housing agreements, all of which can result in eviction or housing loss.²

Mental health and substance use disorders not only increase the likelihood of becoming homeless but also make it harder to escape homelessness. Among the homeless population, 49% of those with mental health and substance use comorbidities experience chronic homelessness, defined as being homeless for six or more months in the past year, compared to 42% of those without these challenges.³ Chronic homelessness is a key indicator of systemic failure, depicting a lack of affordable and suitable housing solutions.⁵ For individuals living with mental health and substance use

¹ City of Hamilton, Housing Services Division. (2022). Point in Time Connection Results 2021. https://www.hamilton.ca/sites/default/files/2022-10/PIT-2021-City-of_hamilton-Results.pdf

² Canadian Observatory on Homelessness. (2021). About homelessness. <https://www.homelesshub.ca/about-homelessness/topics/mental-health>

³ Government of Canada. (2024). Homelessness Data Snapshot: Mental health, Substance Use, and Homelessness in Canada. <https://housing-infrastructure.canada.ca/homelessness-sans-abri/reports-rapports/mental-health-substance-use-sante-mentale-consom-substances-eng.html>

⁴ Canadian Institute for Substance Use Research. (2021) Homeless, Mental Health and Substance Use: Understanding the Connections. <https://www.heretohelp.bc.ca/sites/default/files/homelessness-mental-health-and-substance-use.pdf>

⁵ Association of Municipalities of Ontario. (2025). Municipalities Under Pressure: The Human Financial Cost of Ontario's Homelessness Crisis. <https://www.amo.on.ca/sites/default/files/assets/DOCUMENTS/Reports/2025/2025-01-08-EndingChronicHomelessnessinOntario.pdf>

disorders, this often means a lack of supportive housing, which offers long-term housing while providing integrated support needed for stabilization, recovery, and long-term independence. There is a particular need for supportive housing that meets the complex, high acuity needs of individuals with severe mental health and substance use conditions.⁵

This situation creates a cyclical problem, where mental health and substance use challenges make it harder to escape homelessness, while homelessness itself exacerbates these challenges. The stress of experiencing homelessness can exacerbate existing mental illness and addiction, triggering or intensifying anxiety, fear, depression, sleeplessness, and further substance use, ultimately deepening the cycle of homelessness and instability.⁴

When exploring the interconnected nature of these issues and their root causes, it is important to consider the profound impact of trauma. Past experiences of trauma, whether physical, emotional, or psychological, serve as significant risk factors for a range of complex challenges, including homelessness, mental health disorders, and substance use disorders.⁴ Trauma, particularly in early life, can shape an individual's mental health, emotional wellbeing, and future stability. Adverse childhood experiences are potentially traumatic events that occur before the age of 18 years of age that can have a lasting impact on an individual's health and wellbeing.⁶ Adverse childhood experiences include physical, emotional, or sexual abuse; physical and emotional neglect; witnessing domestic violence; growing up in a household with substance abuse, mental illness, or criminal behaviour; and experiencing parental separation or divorce.⁶ The more adverse childhood experiences an individual faces, the greater the risk for negative outcomes in adulthood.

Research has shown that 90% of adults experiencing homelessness have been exposed to at least one adverse childhood experience, with over half being exposed to four or more adverse childhood experiences.⁶ Adverse childhood experiences are also associated with a higher prevalence of mental health and substance use disorders.⁶ Trauma isn't limited to childhood; it can also result from later life events, such as intimate partner violence, divorce, job loss, or eviction. Certain groups are more vulnerable to trauma, including those from marginalized communities, such as Indigenous people, racialized people, 2SLGBTQ+ individuals, newcomers, and women.^{4,7} These groups often face systemic violence and discrimination, which can cause lasting emotional and psychological harm.⁴ A critical approach to addressing the root causes of trauma and its long-term effects lies in focusing on prevention and building protective factors that can help mitigate its impact.

⁶ The Lancet. (2021) Adverse Childhood Experiences and Related Outcomes Among Adults Experiencing Homelessness: A Systematic Review and Meta-Analysis. [https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(21\)00189-4/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00189-4/fulltext)

⁷ City of Hamilton. (2014). Housing Services Homelessness Prevention Review <https://www.hamilton.ca/sites/default/files/2022-08/homelessness-prevention-research.pdf>

Furthermore, trauma often occurs during homelessness. Individuals who experience homelessness are often subjected to unsafe and degrading conditions, including lack of privacy, exposure to violence, theft, exploitation, and discrimination.^{4,8} These factors can contribute to worsened mental health and increased substance use as a way to cope.⁴

These challenges are further exacerbated by the current state of income and housing insecurity. The systemic issues and the complex relationships between homelessness, mental health, and substance use highlight the urgent need for an integrated, comprehensive approach that addresses all factors simultaneously. A spectrum of coordinated high-quality services that address diverse needs can promote long-term stability, recovery, and improved wellbeing for individuals in this cycle.

The History of Institutionalization and Deinstitutionalization

To better understand the current mental health and substance use system, it is essential to examine the historical models of care that shaped it, including institutionalization and deinstitutionalization. In Canada, institutionalization emerged in the late 19th and early 20th centuries as a means of managing individuals with mental health conditions, developmental disabilities, and others thought to be unable to integrate into society.⁸ While these large state-run facilities were intended to provide care, treatment, and supervision for individuals, many residents experienced inadequate care, neglect, and dehumanizing conditions.⁸ Life within these institutions was often characterized by isolation, a lack of autonomy, and systemic abuse.⁸ Over time, the institutional model was criticized for perpetuating harm and deepening the marginalization of groups disproportionately represented in these settings, including Indigenous people, Black people, immigrants, women, and those experiencing poverty or homelessness.⁸ The overrepresentation of these groups can be traced back to a long history of oppression, including colonialism and racism, which have shaped the structures of these institutions.⁸ Although distinct, these institutions share parallels to Canada's history of institutionalizing Indigenous people with underlying roots of control, segregation, and systemic discrimination.⁸

Criticisms of this model, among other factors, led to a gradual shift toward deinstitutionalization and the development of community-based care models. Deinstitutionalization refers to the process of closing large state-run facilities and transitioning individuals with mental illnesses, developmental disabilities, and other conditions into community-based care settings.^{9,10} The process began in the 1960s and

⁸ Inclusion Canada et al.. (n.d.). Truths of Institutionalization: Past and Present.

<https://truthsofinstitutionalization.ca/>

⁹ Healthcare Quarterly. (2014). Improving First-Line Mental Health Services in Canada: Addressing Two Challenges Caused by the Deinstitutionalization Movement.

<https://www.longwoods.com/content/24116/healthcare-quarterly/improving-first-line-mental-health-services-in-canada-addressing-two-challenges-caused-by-the-deins>

¹⁰ Canadian Journal of Psychiatry. (2004). Forty Years of Deinstitutionalization of Psychiatric Services in Canada: An Empirical Assessment.

<https://journals.sagepub.com/doi/pdf/10.1177/070674370404900405>

accelerated through the 1970s and 1980s.^{9,10} Several key drivers influenced the move toward deinstitutionalization, including:

- Human rights and social reform: There was a growing recognition that institutional care often led to neglect, abuse, and isolation and that people with mental illnesses and developmental disabilities had the right to live in the community with appropriate support;^{9,11}
- Economic considerations: Institutions were expensive to operate, and consumed a significant portion of the healthcare budget, whereas community-based care was seen as a more cost-effective solution;^{9,11} and,
- Advancements in medicine and therapy: New psychiatric medications and therapies improved the ability to manage mental health conditions outside institutional settings.^{9,11}

While deinstitutionalization led to positive outcomes, such as greater autonomy, improved quality of life, and better integration into the community for many individuals, uncoordinated and under-resourced implementation of the process resulted in significant challenges. With the transfer of care to community settings, deinstitutionalization was intended to be coupled with a significant increase in funding for community-based services to support better integration into the community.^{9,10,11} The transition received criticism for not being accompanied by adequate funding for community-based services, leading to gaps in support.^{9,11} The possible supports for full integration extended beyond mental health services to broader social policy initiatives, including group homes, supported living arrangements, and life skills and vocational training programs. From the late 1980s to the late 1990s, funding patterns revealed a clear disparity, with institutional expenditures decreasing by \$157 M, while funding for community-based psychiatric services only increased by \$104 M.¹⁰ This financial shortfall was exacerbated by the longstanding trend of underfunding social policy compared to health care funding. Overall health care funding during this time increased rapidly, while social spending remained relatively flat.¹² Consequently, the development of a comprehensive, integrated system was limited, resulting in fragmented and reactive service provision.

This under-resourcing of community-based services led to "trans-institutionalization".^{10,11,13} Instead of achieving full community integration, many former residents of large institutions were relocated to smaller institutional settings such as boarding houses, group homes, foster homes, nursing homes, long-term care homes,

¹¹ American Medical Association. (2013). Deinstitutionalization of People with Mental Illness: Causes and Consequences. <https://journalofethics.ama-assn.org/article/deinstitutionalization-people-mental-illness-causes-and-consequences/2013-10>

¹² Canadian Medical Journal. (2018). Effect of Provincial Spending on Social Services and Health Care on Health Outcomes in Canada: An Observational Longitudinal Study. <https://pmc.ncbi.nlm.nih.gov/articles/PMC5780265/>

¹³ Madness Canada. (2022). The Last Asylums Exhibit. <https://madnesscanada.com/after-the-asylum/policy-and-practice/the-last-asylums/>

or jails.^{11,13} These settings often lack the resources and support systems necessary to meet the unique needs of individuals with mental health disorders. Moreover, the shortage of affordable housing further intensified the issue, significantly increasing the risk of homelessness for many former institutional residents.^{11,14} The gap in community-based services led to the development of housing options such as supportive housing, residential care facilities, and shelters to meet the growing demand for alternative housing supports. These options struggled to keep up with the demand created by de-institutionalization and often lacked the capacity to fully address the scale of the problem.

Hamilton has a deep-rooted history of psychiatric care, beginning with the establishment of the Hamilton Asylum in 1875, which grew over time to become one of the largest in the province.^{13,15} Initially, the facility primarily offered custodial care, where individuals were supported with the daily tasks of living; however, as new treatments began to evolve in the 1950s, the care offered at the institution began to change.¹³ Treatment expanded to include drug therapies, electroconvulsive therapies, and psychotherapy. The facility was renamed the Hamilton Psychiatric Hospital in 1966, which coincided with the start of deinstitutionalization.^{13,15} This led to a slow decline in the number of inpatients at the site in the subsequent decades and a new philosophy of care to treat patients and help them reintegrate into the community.¹³ This resulted in the development of outpatient clinics, day programs, and community outreach.¹³ At this time, other community-based mental health organizations began increasing services such as case management and housing assistance to respond to this transition of care.¹³ The facility closed in 2001, with fewer than 200 inpatients remaining at that time.¹³ The site has since been redeveloped into St. Joseph's West 5th Campus, which continues to offer a wide range of mental health services, including both outpatient and inpatient care.

The Mental Health and Substance Use System in Ontario

The insufficient investment in community-based services during the deinstitutionalization process has had a lasting impact on Ontario's mental health and substance use system. Without adequate resources, these services were developed in a reactive and fragmented way, rather than being built as a comprehensive, integrated network of care.⁹

In the Provincial government's Roadmap to Wellness: A Plan to Build Ontario's Mental Health and Addictions System ("Roadmap"), the Province recognizes that the current

¹⁴ Ontario Human Rights Commission. (2024). The Rental Housing Landscape in Ontario. <https://www3.ohrc.on.ca/en/human-rights-and-rental-housing-ontario-background-paper/rental-housing-landscape-ontario>

¹⁵ Government of Ontario. Record: Hamilton Psychiatric Hospital. https://aims.archives.gov.on.ca/scripts/mwimain.dll/144/ORGANIZATION_VAL_SYN/WEB_ORG_DET_OPAC?SESSIONSEARCH&exp=ORG_ID%20O500

system is fragmented, disconnected, and has significant barriers to care.¹⁶ Many individuals seeking help face difficulties navigating a complex and often overwhelming system, which is further complicated by long waitlists for essential services.¹⁶ As a result, many individuals do not seek care or turn to emergency departments, even when more appropriate care is available in community-based settings.¹⁶ This overreliance on emergency services not only places added pressure on hospitals but also denies individuals the continuous, coordinated care needed to effectively address their mental health or addiction challenges.

In Ontario, mental health and substance use services are provided across a range of settings, each playing a distinct yet complementary role. These settings are intended to work together to ensure a holistic approach, addressing the diverse needs of individuals at every stage— from prevention and mental health promotion to treatment, stabilization and recovery. This collaborative framework aims to ensure that individuals receive the most appropriate care at each point in their journey. Given the chronic and fluctuating nature of these conditions, individuals may access different levels of care as the severity of their needs change. Below is an overview of these key settings and the services they offer.

- **Primary Care:** These settings are often the first point of contact for individuals seeking help, primary care plays a crucial role in early identification and management of mental health and substance use issues. It provides ongoing support and helps individuals navigate the system. Types of supports in this setting include: screening; medication management; and referrals to other services;
- **Community-Based Services:** These settings offer comprehensive, specialized mental health and addiction services that are tailored to the needs of individuals and the community. They aim to reduce barriers to treatment, build trust, and offer flexible ongoing support. Types of supports in this setting include: psychotherapy, peer support; case management; outreach services; and substance use treatment programs;
- **Out-Patient Services:** This setting provides structured, intensive care without the need for full hospitalization. It allows individuals to manage their mental health and substance use disorders, receive ongoing treatment, and maintain their daily routines and responsibilities. Types of supports in this setting include peer support; case management; substance use treatment programs; and day programs;
- **Supportive Housing:** This setting provides stable, long-term housing with integrated support services for individuals with chronic mental health or substance use conditions. Although not traditionally seen as part of the health care system, supportive housing plays a critical role in reducing the demand for health services by stabilizing patients and addressing underlying social needs. By providing a safe space that promotes recovery and long-term well-being,

¹⁶ Ministry of Health. (2020). Roadmap to Wellness: A Plan to Build Ontario's Mental Health and Addictions System. <https://www.ontario.ca/page/roadmap-wellness-plan-build-ontarios-mental-health-and-addictions-system>

supportive housing eases pressure on hospitals, shelters, emergency services, and the justice system.¹⁷ Types of supports in this setting include medication support; case management; life skill training; and social activities.

- **Bed-Based Treatment:** These facilities provide intensive, short-term care for individuals seeking substance use treatment. This setting offers structured, 24-hour care with a focus on stabilization and recovery. Types of supports in this setting include psychotherapy; peer support; withdrawal management; and substance use treatment programs; and,
- **In-Patient Services:** This setting offers 24-hour supervision and care for individuals in acute crisis. These services are designed for those who pose a risk to themselves or others and cannot manage their condition in the community. Types of supports in this setting include assessments; medication management; crisis intervention; and discharge planning.

Public health is rooted in community-based services, with a focus on prevention, early intervention, and the promotion of mental wellbeing. At Public Health Services, this includes mental health promotion in schools, educational campaigns to increase the knowledge and awareness of substance use, and mental health counselling and evidence-based therapies for children, youth, and their families. Additionally, Public Health Services offers various interventions and supports to young families and parents that promote positive parent-child relationships and enhance social and emotional development to prevent adverse childhood experiences and contribute to long-term mental well-being. Beyond these efforts, Public Health Services also provides interventions focused on treatment. This includes alcohol, drug, and gambling support for adults, street outreach for individuals experiencing homelessness, intensive case management for adults with serious mental health conditions, and harm reduction services, such as distribution of naloxone and harm reduction supplies, opioid surveillance and monitoring, and sexually transmitted infection (STI) testing.

For more information about the organizations involved in providing these services across these settings in Hamilton, see Appendix "A" to Report BOH25004.

The Roadmap outlines a vision for a more integrated, accessible, and patient-centred system.¹⁶ It aims to create a system that is easier to navigate, where individuals can access the appropriate level of care based on their needs.¹⁶ In addition to improving service integration across different settings, the roadmap prioritizes investment in community-based services to enhance access to care.¹⁶ This includes early interventions to ensure individuals receive timely and effective care, ultimately reducing unnecessary emergency department visits and the inappropriate use of acute services for those whose needs do not require this level of care.¹⁶

To support the work highlighted in the Roadmap, Ontario is investing \$3.8 B over 10 years to expand existing programs and fill gaps in care with innovative solutions and services. Despite the Province's investment, Ontario's system is estimated to be

¹⁷ City of Hamilton. (2024). Housing Sustainability and Investment Roadmap. <https://www.hamilton.ca/sites/default/files/2023-12/housing-sustainability-investment-roadmap-nov23-update.pdf>

underfunded by approximately \$1.5 B.¹⁸ This continues to put strain on the services, where the demand for mental health and substance use supports far exceeds the available capacity, resulting in long wait times for services. For instance, in Ontario, the average wait time for children and youth to access counselling is 67 days, and 92 days for more intensive treatment.¹⁹ Hamilton has the fifth highest wait times for child and youth mental health services across Ontario, with waitlists extending up to 710 days.¹⁹

In addition to the growing demand on the current system, there are concerns about its ability to adapt to the changing landscape of substance use. With the rise of toxic drug supplies and increasing poly-substance use, the potency and unpredictability of these drugs elevate the risks of overdose, poisoning, and severe withdrawal symptoms. Unfortunately, the substance use treatment system is not adequately equipped to manage the intensity of withdrawal associated with these highly potent substances. Many facilities lack the necessary resources or specialized care to handle complex, high-risk withdrawals, resulting in a significant gap in care.

Mental Health and Substance Use Disorder Services in Hamilton

In addition to the services above, it is important to understand the mental and substance use services specifically tailored to support individuals experiencing homelessness and the unique barriers to care they experience. For individuals experiencing homelessness, challenges include a lack of stable living conditions or means of communication, difficulties navigating the healthcare system, and negative experiences such as stigma and discrimination that have led to the mistrust of the healthcare system. Acknowledging these challenges, the Roadmap focuses on funding for targeted initiatives that break down these barriers, such as specialized outreach teams, mobile crisis intervention units, and supportive housing programs tailored for individuals experiencing homelessness.¹⁶

In early 2024, the Greater Hamilton Health Network conducted a scan of the mobile and outreach services available to those living in encampments.²⁰ The scan identified 16 unique organizations and programs offering mobile services to encampments within Hamilton.²⁰ These included municipal programs like the Hamilton Police Service's Social Navigator Program and the Rapid Intervention and Support Team, Hamilton Public Health Services' Harm Reduction and Mental Health and Street Outreach Programs, and Hamilton Housing Services Divisions' Housing-Focused Street Outreach Workers.²⁰ Of the 16 programs, seven offered mental health support and counselling,

¹⁸ Centre for Addiction and Mental Health. According Equitable Funding for Mental Health Care. <https://www.camh.ca/en/camh-news-and-stories/according-equitable-funding-for-mental-healthcare>

¹⁹ Children's Mental Health Ontario. (2020). Kids Can't Wait. <https://cmho.org/wp-content/uploads/CMHO-Report-WaitTimes-2020.pdf>

²⁰ Greater Hamilton Health Network. (2024). Mobile and Outreach Service Mapping: A Current State Analysis of the Greater Hamilton Health Network Service Areas. <https://greaterhamiltonhealthnetwork.ca/wp-content/uploads/2024/08/GHHN-Mobile-and-Outreach-Worker-Final-Report.pdf>

eight provided substance use treatment, 13 distributed harm reduction supplies, and eight facilitated referrals for wraparound mental health services.²⁰ The report recommended enhanced service integration and coordination across mobile and outreach services, ensuring that these models include effective mechanisms for referrals and shared care plans.²⁰ For an adapted version of the Greater Hamilton Health Network scan of mobile and outreach services, see Appendix "B" to Report BOH25004.

This recommendation of increased integration and coordination underscores the importance of a systems-level approach to delivering effective and efficient mental health and substance use services. It should be noted that there is no designated lead that has a mandate to work with community organizations to build a cohesive spectrum of services in alignment with local needs and provincial strategies. Organizations deliver independent programs and services, and are accountable to multiple funders, including various provincial and federal ministries, as well as foundations and private donors. Locally, the Greater Hamilton Health Network's Mental Health and Addictions Secretariat is leading the effort to coordinate and connect health system partners. The City of Hamilton actively contributes to the work of the Mental Health and Addiction Secretariat, with representation from Children's and Community Services, Paramedic Services, and Public Health Services at the Secretariat. For a full list of community partners involved in the Mental Health and Addictions Secretariat, refer to Appendix "C" to Report BOH25004.

The Greater Hamilton Health Network's Mental Health and Addictions Secretariat's efforts to enhance integration and coordination within the sector were highlighted in the November 21, 2024 report on Hamilton's mental health crisis response to the Emergency and Community Services Committee (Report HSC24040). The Emergency and Community Services Committee subsequently approved the report recommendations to support efforts to improve coordination of services, advocate for sustained funding, explore alternative crisis response approaches tailored to Hamilton, and also referred a commitment to resources to support this work to the 2025 budget process. These measures signify the City's commitment to addressing existing service gaps, fostering a coordinated care continuum, and improving our collective response to the escalating crises of homelessness, mental health, and substance use in Hamilton.

The Mental Health Act

To support the deinstitutionalization movement in Ontario, the *Mental Health Act* was introduced in 1967. The *Mental Health Act* aims to protect individuals' rights while

ensuring people with serious mental health issues receive the care they need.^{21,22} It outlines the criteria for involuntary psychiatric assessment, treatment, and admission to a hospital or psychiatric facility, as well as patients' rights to be informed about their treatment, refuse treatment, and appeal decisions regarding their care.^{21,22} The *Mental Health Act* seeks to strike a balance between respecting individual autonomy and ensuring public safety through appropriate mental health care.²¹

Within the *Mental Health Act*, involuntary care refers to situations where a person is admitted to a hospital or psychiatric facility for assessment or treatment under the order of someone else because they are deemed a significant risk to themselves or others.^{21,23} Under the *Mental Health Act*, an individual may be placed under involuntary care if they are likely to seriously harm themselves or others due to a mental health condition, or if they are unable to care for themselves, which may lead to serious physical impairment or deterioration.^{21,22,23} The *Mental Health Act* defines clear timeframes for involuntary detention, starting with an initial 72-hour assessment period, which can be extended to longer periods—up to two weeks and then renewable for up to one month—if the criteria for involuntary care continue to be met.^{21,23} These time limits are in place to ensure regular reassessment of the individual's condition and the necessity of ongoing detention.^{21,23}

Recent reforms to the *Mental Health Act* introduced Community Treatment Orders as a less restrictive alternative to hospitalization.²¹ Community Treatment Orders allow individuals with severe mental health conditions to live in the community under specific conditions, such as adhering to structured outpatient treatment plans, attending regular appointments, and taking prescribed medications.²¹ These provisions balance individual autonomy with the need for ongoing care and public safety.

In situations where an individual does not meet requirements for involuntary care under the *Mental Health Act*, meaning they are not posing a significant risk to themselves or others, the individual must consent to care. Under the *Health Care Consent Act*, individuals have the right to make decisions about their own healthcare, provided they are capable of doing so.²⁴ To provide informed consent, a patient must be able to understand the relevant information about the proposed treatment and comprehend the consequences of their decision.²³

²¹ Ontario Hospital Association. (2023). A Practical Guide to Mental Health and the Law in Ontario.

<https://www.oha.com/Legislative%20and%20Legal%20Issues%20Documents1/A%20Practical%20Guide%20to%20Mental%20Health%20and%20the%20Law%2C%20Fourth%20Edition%2C%202023.pdf>

²² Your Support Services Network. (2024). Understand Involuntary Admission to a Psychiatric Facility. <https://yssen.ca/understanding-involuntary-admissions-to-a-psychiatric-facility/>

²³ Province of Ontario, (2015). Mental Health Act, R.S.O. 1990. <https://www.ontario.ca/laws/statute/90m07#BK11>

²⁴ Wise Health Law. (2018). Ontario's Health Care Consent Act in Action.

<https://wisehealthlaw.ca/blogs/blog/ontarios-health-care-consent-act-in-action>

For definitions of the terms used in the *Mental Health Act* and *Health Care Consent Act*, see Appendix "D" to Report BOH25004.

Under the *Mental Health Act*, involuntary care is specifically permitted for individuals with mental health disorders and does not extend to those with substance use disorders.²⁰ While individuals with substance use disorders can be involuntarily admitted to a hospital or psychiatric facility if they have a concurrent mental health disorder, involuntary care for substance use alone is not authorized under the *Mental Health Act*.²⁰ This distinction emphasizes the legal boundaries and differing clinical approaches to addressing mental health and substance use disorders.

With the system's limited capacity and the escalating crisis, there have been increasing discussions around expanding involuntary care. Citing concerns for public safety, in 2024, British Columbia's Premier David Eby announced the intention to establish facilities that offer involuntary care to individuals with severe mental health issues, addiction, and brain injuries.^{25,26} Similarly, Ontario's Big City Mayors have called on the Provincial government to review the relevant mental health laws and explore whether involuntary care should be strengthened.²⁷ As of yet, the Ontario government has not taken a public stance on the issue.

In response, critics have expressed concerns about the overall effectiveness of involuntary care. Research shows mixed results on involuntary treatment. Studies suggest that involuntary treatment can lead to short-term benefits, such as symptom stabilization, and reduced immediate harm; however, long-term outcomes, like sustained mental health improvements, risk of suicide, enhanced social integration, or voluntary engagement with the health system, are less consistent.^{28,29,30} Supporters of

²⁵ BC Government News. (2024). Province Launches Secure Care for People with Brain Injury, Mental Illness, Severe Addiction.

<https://news.gov.bc.ca/releases/2024PREM0043-001532>

²⁶ CBC. (2024). B.C. to expand involuntary care for those with addiction issues.

<https://www.cbc.ca/news/canada/british-columbia/bc-involuntary-care-addiction-1.7324079>

²⁷ Guelph Today. (2024). Mayors Call on Ontario to Review Whether Involuntary Treatment Needs to be 'Strengthened'. <https://www.guelphtoday.com/local-news/big-city-mayors-call-on-province-to-review-whether-involuntary-treatment-needs-to-be-strengthened-9679982>

²⁸ Canadian Mental Health Association British Columbia. (2024). Involuntary Care Already Exists in BC, But Is It Working? <https://bc.cmha.ca/news/involuntary-care-in-bc/>

²⁹ Psychiatry, Psychology and Law. (2024). The Benefits and Harms of Inpatient Involuntary Psychiatric Treatment: A Scoping Review.

<https://www.tandfonline.com/doi/full/10.1080/13218719.2024.2346734#d1e232>

³⁰ European Psychiatry (2018). Interventions for Involuntary Psychiatric Inpatients: A Systematic Review.

https://web.archive.org/web/20220521090450id_/https://www.cambridge.org/core/services/aop-cambridge-core/content/view/D228246E12304917ECE5561EA193FE19/S0924933800008725a.pdf

involuntary care argue that it can be a crucial intervention for individuals who may not recognize their need for treatment and are unable to make decisions about their care due to the severity of their mental health disorder. Due to the inconsistent long-term outcomes, involuntary care is thought to contribute to the "revolving door phenomenon", where individuals are frequently re-hospitalized for psychiatric care, often without improvements to their mental wellbeing.³¹ This can be highly resource-intensive, requiring the repeated involvement of paramedics, police, and healthcare workers. This puts further strain on already overburdened systems, and diverts resources away from more sustainable, long-term solutions, such as voluntary care and preventive mental health and substance use strategies. Advocates have also specifically highlighted the lack of evidence to either support or refute involuntary treatment for individuals with substance use disorders.^{32,33} Involuntary care has not been shown to decrease substance use or relapse rates.³³ Instead, concerns have been raised about potential harms, such as a higher risk of drug poisoning following treatment discharge due to reduced tolerance.^{28,32}

The Application of the *Mental Health Act*

When an individual is deemed at risk of harming themselves or others due to a mental health disorder, the *Mental Health Act* uses specific legal forms to authorize involuntary care.²¹ These forms, which can be completed by Physicians or Justices of the Peace, ensure that actions taken during mental health crises comply with the law, protecting patient rights while enabling necessary interventions.^{21,23} The forms guide processes like involuntary psychiatric assessment and ongoing treatment, community treatment plans, and law enforcement involvement when needed for safety. For information on relevant forms under the *Mental Health Act*, including who has authority to complete, eligibility criteria, and the purpose and duration of the involuntary care, see Appendix "E" to Report BOH25004.

Under Ontario's *Mental Health Act*, police play a key role in ensuring that individuals experiencing mental health crises receive timely care. If needed, police can detain an individual after the appropriate form has been completed by a physician or Justice of the Peace to safely transport them to the hospital or psychiatric facility for assessment.^{21,33} Under Section 17 of the *Mental Health Act*, police officers have the authority to

[/div-class-title-interventions-for-involuntary-psychiatric-inpatients-a-systematic-review-div.pdf](#)

³¹ Psychiatry Research. (2021). Searching for Factors Associated with the "Revolving Door Phenomenon" in the Psychiatric Inpatient Unit: A 5-year Retrospective Cohort Study. <https://www.sciencedirect.com/science/article/abs/pii/S0165178121003772>

³² Canadian Journal of Addiction. (2023). Effectiveness of Involuntary Treatment for Individuals With Substance Use Disorders: A Systematic Review. https://www.researchgate.net/publication/376978918_Effectiveness_of_Involuntary_Treatment_for_Individuals_With_Substance_Use_Disorders_A_Systematic_Review

³³ Centre for Addictions and Mental Health et al. (2004). Not Just Another Call...Police Response to People with Mental Illnesses in Ontario. https://www.forcescience.org/wp-content/uploads/2011/11/Not_Just_Another_Call.pdf

apprehend a person without the completion of a form by a physician or Justice of the Peace if they have reasonable grounds to believe the person is acting or has acted in a disorderly manner due to a mental health disorder and poses an immediate danger to themselves or others, or is at risk of serious physical impairment.^{21,33} This is used in situations where there are immediate concerns, and it would be “dangerous” to wait for a form to be completed by a Physician or Justice of the Peace. The police officer must assess the situation based on the information available to them and decide whether it is appropriate to detain an individual under Section 17.^{21,33} For more details about the roles of the police under the *Mental Health Act*, see Appendix “E” to Report BOH25004.

Hamilton Police Services has implemented various programs to better support individuals experiencing mental health crises, particularly among vulnerable populations such as those experiencing homelessness. These initiatives focus on de-escalating situations and connecting individuals to appropriate community resources, helping to prevent arrests, reducing involvement in the criminal justice system, and minimizing emergency department visits.³⁴ For more information on these approaches, see Appendix “F” to Report BOH25004.

Paramedics are not specifically mentioned in the *Mental Health Act*, however, they play an important role in responding to mental health and addiction crises under the guidance of the *Ambulance Act*. Hamilton Paramedic Services are often the first responders to individuals in crisis, involved in assessing and stabilizing individuals, and addressing any physical health concerns. When necessary, paramedics transport individuals to hospitals or psychiatric facilities for further assessment and treatment, including when a form has been completed by a physician in the community or a Justice of the Peace.

The response to mental health and addiction crises demonstrates a collaborative approach between paramedics, police, and healthcare professionals, where alternate care pathways are explored that allow emergency services to take individuals directly to mental health facilities or community-based services, rather than emergency departments, to better meet their needs.

Conclusion

The mental health, addictions, and homelessness crises in Hamilton are complex and deeply interconnected. It demands a comprehensive, integrated response that bridges health and social services. Addressing these issues effectively means moving beyond siloed approaches that address only a single aspect of the issue. A holistic response must prioritize high-quality services across the entire spectrum of care, from prevention and early intervention to intensive, long-term support. The spectrum of services must be well-coordinated across organizations, settings, and sectors to ensure efficiency and seamless transitions, promoting continuity of care. The *Mental Health Act* provides a

³⁴ Hamilton Police Services. (2022). Crisis Response Branch 2021 Annual Report. <https://www.hamiltonpsb.ca/media/kdrhd044/2021-year-end-report-crisis-response-branch.pdf>

critical framework for this response, supporting individuals in crisis while balancing personal autonomy, individual rights, and public safety.

The City of Hamilton can play a continued role in this work, with certain responsibilities being tied to mandates or funding from senior levels of government. This includes supporting efforts to:

- Enhance the coordination of mental health and substance use services;
- Continue investing in mental health and substance use services provided by the City of Hamilton, including Public Health Services' Child and Adolescent Services, Alcohol, Drug and Gambling Services, as well as Paramedic Services, to ensure comprehensive support from prevention to crisis response;
- Advocate for consistent, sustained funding across the mental health, substance use and housing systems;
- Apply the principles of the Housing First approach to address the interrelated issues of homelessness, mental health, and substance use; and,
- Adopt a balanced approach to the housing and homelessness crisis, addressing immediate needs through emergency shelters while investing in long-term solutions like supportive housing.

Extensive consultations were conducted to inform Report BOH25004 and enhance the local context. The information provided above reflects the discussions had with City of Hamilton and external partners.

Alternatives

Not Applicable.

Relationship to Council Strategic Priorities

The recommendations in this report support the following 2022-2026 Council Priorities, Outcomes, and Measures of Success:

2. Safe & Thriving Neighbourhoods
 - 2.1. Increase the supply of affordable and supportive housing and reduce chronic homelessness

This report examines the root causes of the homelessness, mental health and substance use crisis in Hamilton and highlights strategies to address these interrelated issues in a comprehensive, integrated response. By implementing these strategies, the community could see long-term reductions in homelessness and prevent future occurrences.

Previous Reports Submitted

- [HSC24040](#) - Community Safety and Well-Being: Toronto Community Crisis Centre and Hamilton's Mental Health Crisis Response
This report to the Emergency and Community Services Committee addressed a

motion requesting an analysis of the feasibility of implementing a similar model to Toronto's Community Crisis Service in Hamilton.

Consultation

City of Hamilton, Housing Services Department

- Al Fletcher, Acting Director, Housing Service Division, Healthy and Safe Communities Department
- Shannon Honsberger, Manager of Homelessness Policy and Program, Housing Services Division, Healthy and Safe Communities Department

City of Hamilton, Hamilton Paramedic Services

- Michael Sanderson, Chief, Hamilton Paramedic Services, Healthy and Safe Communities Department

City of Hamilton, Children's & Community Services

- Brenda Bax, Director, Children's & Community Services, Healthy and Safe Communities Department
- Rachelle Ihekwoaba, Manager of Community Strategies, Children's & Community Services, Healthy and Safe Communities Department

City of Hamilton, Hamilton Police Service

- Lisa Gajewicz, Coordinator of Social Navigator Program, Hamilton Police Services
- David Mackenzie, Staff Sergeant, Hamilton Police Services
- Alexis Petrovic, Sergeant, Hamilton Police Services

Healthcare Partners

- Sue Phipps, Chief Executive Officer, Canadian Mental Health and Addictions, Hamilton Branch
- Ryan Janssen, Project Manager of Health Equity, Haldimand, and Mental Health and Addictions, Greater Hamilton Health Network
- Dr. Haider Saeed, Family Physician, Shelter Health Network
- Michelle Lawford, General Council, St. Joseph's Healthcare Hamilton
- Dr. Maxine Lewis, City-Wide Chief of Psychiatry, St. Joseph's Healthcare Hamilton and Hamilton Health Sciences
- Dr. Randi McCabe, Clinical Head of Psychiatry, St. Joseph's Healthcare Hamilton
- Regan Anderson, Chief Executive Officer, Wayside House of Hamilton

Housing and Other Social Service Partners

- Emily Dakers, Director of the Barrett Centre, Good Shephard
- Jess Brand, Regional Director of Hamilton and Peel Region, Indwell
- Steven Rolfe, Director of Health Partnerships, Indwell
- Chelsea Kirkby, Vice President of Strategic Initiatives and Program Development, YWCA Hamilton
- Sandra Parker, Director of Child, Youth & Developmental Services, YWCA Hamilton

Appendices and Schedules Attached

- Appendix A: Mental Health and Addictions Support for Individuals Experiencing Homelessness in Hamilton
- Appendix B: Mobile and Outreach Health Services provide to Encampments in Hamilton
- Appendix C: Mental Health and Addictions Secretariat Membership
- Appendix D: Mental Health Act and Health Care Consent Act Terms
- Appendix E: Relevant Forms and Sections under the Mental Health Act
- Appendix F: Hamilton Police Services' Crisis Response

Prepared by: Erin Walters, Health Strategy Specialist
Public Health Services, Healthy Families Division
Planning & Competency Development

Submitted and recommended by: Dr. Elizabeth Richardson, MD, MHSc, FRCPC
Medical Officer of Health
Public Health Services, Office of the Medical Officer of Health

Mental Health and Substance Use Support for Individuals Experiencing Homelessness in Hamilton

There are a variety of public and private mental health and substance use services available in Hamilton. For this report, which focuses on support for individuals experiencing homelessness, only publicly funded services are included. Information about all services can be accessed through ConnexOntario.

Setting	Role	Organization (not a comprehensive list)
Primary Care	<p>Primary care often serves as the initial point of contact for individuals seeking help with mental health and substance use issues. It plays a preventative and early intervention role in identifying problems and offering initial treatment or referrals to specialized care if needed. With extensive waitlist for specialist care, primary care providers frequently offer interim support, helping individuals manage their needs while awaiting access to additional care. The supports offered in this type of setting include:</p> <ul style="list-style-type: none"> • Screening • Brief counselling • Medication management • Referrals to specialized supports • Referrals to non-medical supports (e.g. housing) • Coordination with specialized supports 	<ul style="list-style-type: none"> • Centre de Santé Communautaire Hamilton Niagara • Compass Community Health • De dwa da dehs nye>s Aboriginal Health Access Centre • Hamilton Family Health Team • Hamilton Urban Core Community Health Centre • McMaster Family Health Team • Shelter Health Network

<p>Community-Based Services</p>	<p>Community-based services provide comprehensive, specialized mental health and substance use support that is tailored to the unique needs of individuals and the community. By being embedded within the community, these supports reduce barriers to care, foster trust, and provide ongoing care in a flexible and non-institutional setting. This approach enables ongoing care that is flexible and responsive to individuals' changing needs, providing a continuous support system that adapts to each person's unique journey. The supports offered in this type of setting include:</p> <ul style="list-style-type: none">• Screening• Psychotherapy• Peer support• Health education• Case management• Outreach• Harm reduction• Medication management• Substance use treatment programs• Rehabilitation and recovery program• Crisis intervention	<ul style="list-style-type: none">• Alternatives for Youth• Canadian Mental Health Association Hamilton Branch• Good Shepherd• Hamilton Program for Schizophrenia• Hamilton Paramedic Services• Hamilton Public Health Services• Hamilton Regional Indian Centre• HAMSMaRT• Keeping Six• Lynwood Charlton Centre• Mission Services• Ontario Addiction Treatment Centres – Hamilton Clinic• Positive Health Network• Segue Clinic• St. Joes Healthcare Hamilton• The Hub• True Experience• Wayside House of Hamilton• Wesley• YWCA
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	<ul style="list-style-type: none"> • Mental Health Court Support Services • Referrals to specialized supports • Referrals to non-medical supports (eg. housing) 	
<p>Out-Patient Services</p>	<p>Out-patient services provided by hospitals or mental health centers offer structured support for individuals without requiring full hospitalization. This setting allows patients to receive intensive treatment while living in the community, helping them manage their conditions and continue their daily routines. The supports offered in this type of setting include:</p> <ul style="list-style-type: none"> • Psychiatric assessment • Peer support • Health education • Case Management • Medication management • Substance use treatment programs • Rehabilitation and recovery program • Day programs 	<ul style="list-style-type: none"> • McMaster Children’s Hospital <ul style="list-style-type: none"> ○ Child and Youth Mental Health Outpatient Clinic • St. Joes Healthcare Hamilton <ul style="list-style-type: none"> ○ Anxiety Treatment & Research Clinic ○ Borderline Personality Disorder Service ○ Bridge to Recovery Program ○ Cleghorn Early Intervention Clinic ○ Community Psychiatry Clinic ○ Concurrent Disorders Program ○ Community Psychiatry Clinic ○ Developmental Dual Diagnosis Program ○ Eating Disorders Program ○ General Psychiatry Program ○ Mood Disorders Program ○ Schizophrenia Outpatient Clinic ○ Seniors Mental Health Clinic ○ Women’s Health Concerns Clinic ○ Youth Wellness Centre

<p>Supportive Housing</p>	<p>Supportive housing offers long-term, stable living environments with integrated support services for individuals with chronic mental health or substance use disorders issues who need assistance in maintaining independence. There are various levels of supportive housing, ranging from lower-intensity options that assist with daily living activities to higher-intensity settings that cater to medically complex individuals who need specialized care. The supports offered in this type of setting include:</p> <ul style="list-style-type: none"> • Psychotherapy • Case management • Medication management • Substance use treatment programs • Recreation activities • Life Skills Training • Employment Support 	<ul style="list-style-type: none"> • Canadian Mental Health Association Hamilton Branch <ul style="list-style-type: none"> ○ Baldwin Housing (14 beds) ○ Hess St. Facilities (6 beds) ○ Mental Health and Justice Housing (64 units) • Good Shepherd Non-Profit Homes <ul style="list-style-type: none"> ○ Brennan House (8 beds) ○ Dorothy Day Place (73 beds) ○ Emmaus House (60 beds) ○ Mathias Place (28 beds) ○ McGinty House (10 beds) ○ Welkhome House (10 beds) • Indwell <ul style="list-style-type: none"> ○ Caroline Apartments (40 beds) ○ McQuesten Lofts (50 beds) ○ North End Landing (45 beds) ○ Ottawa Street Apartments (12 beds) ○ Parkdale Landing (57 beds) ○ Perkins (46 beds) ○ Prinzen Flats (42 beds) ○ Rudy Hulst Commons (47 beds) ○ Strathearn Suites (39 beds) ○ The Oaks - Ain-dah-ing (13 beds) ○ The Oaks - Dairy Lofts (43 beds) ○ The Oaks - Heartwood Apartments (52 beds)
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		<ul style="list-style-type: none"> ○ Wentworth Program (25 beds) ● Mission Services <ul style="list-style-type: none"> ○ Addiction Supportive Housing ● Wayside House of Hamilton <ul style="list-style-type: none"> ○ Supportive Housing (27 Beds) ● Wesley <ul style="list-style-type: none"> ○ Dual Diagnosis Program (10 beds) <p>List specific to supportive housing facilities focused on supporting those with mental health and substance use disorders.</p>
<p>Bed-Based Treatment</p>	<p>Bed-based treatment facilities provide intensive, short-term care for individuals seeking substance use treatment. This setting offers structured, 24-hour care with a focus on stabilization and recovery. The supports offered in this type of setting include:</p> <ul style="list-style-type: none"> ● Psychotherapy ● Health education ● Peer support ● Case Management ● Medication management ● Substance use treatment programs ● Withdrawal management ● Rehabilitation and recovery program 	<ul style="list-style-type: none"> ● Lynwood Charlton Centre <ul style="list-style-type: none"> ○ Charlton Hall Program (6 beds) ● St. Joes Healthcare Hamilton <ul style="list-style-type: none"> ○ Men's Addiction Service Hamilton (26 beds) ○ Womankind Addiction Services (26 beds) ● Wayside* <ul style="list-style-type: none"> ○ Live-In Program (26 beds) ● Wesley <ul style="list-style-type: none"> ○ Special Care Unit

<p>In-Patient services</p>	<p>In-patient services, offered through hospitals, provide intensive services for individuals in acute mental health or substance use crises. This setting offers 24-hour supervision and support for those who pose a risk to themselves or others, or are unable to manage their condition in the community. Inpatient care is usually short-term and focused on crisis resolution, after which patients may be referred to outpatient or community-based services. The supports offered in this type of setting include:</p> <ul style="list-style-type: none"> • Psychiatric assessments • Medication management, • Crisis intervention • Substance use treatment • Discharge planning 	<ul style="list-style-type: none"> • St. Joes Healthcare Hamilton • (292 inpatient beds and 118 forensic inpatient beds) • McMaster Children’s Hospital (22 beds)
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* As part of the Provincial Residential Addiction Treatment program, Wayside’s Live-In Program supports clients from across Ontario on a first-come, first-served basis.

	General Health Services	Contraception Family Planning	Wound Care	First Aid	Chronic Disease Management	Mental Health and Counselling	Substance Use Treatment	Preventative Care and Screenings	Maternal and Reproductive	Immunizations	Gender Affirming Care	STI/HIV Testing	STI/HIV Treatment	Harm Reduction Supply Distribution	Linking/Bridging Clinical Services
Hamilton Police Service – Social Navigator Program & Rapid Intervention and Support Team			X	X										X	X
The Hub – Street Outreach Clinics	X					X	X	X		X		X	X	X	
City of Hamilton Public Health Services – Harm Reduction Program		X	X	X		X	X			X		X	X	X	X
City of Hamilton Public Health Services – Mental Health and Street Outreach Program				X		X	X							X	X
Good Shepherd – Mobile and Community-Based Program							X							X	X
YWCA - Mobile Emergency Reproduction Care		X							X			X	X	X	X
Shelter Health Network	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Positive Health Network												X	X	X	X

Mental Health and Addictions Secretariat Membership

- Alternatives for Youth
- Alzheimer Society
- Canadian Mental Health Association Hamilton Branch
- Centre de Santé Communautaire Hamilton Niagara
- City of Hamilton, Children’s and Community Services
- City of Hamilton, Paramedic Services
- City of Hamilton, Public Health Services
- Good Shepherd
- Greater Hamilton Health Network
- Haldimand Family Health Team
- Haldimand War Memorial Hospital
- Hamilton Community Legal Clinic
- Hamilton Family Health Team
- Hamilton Health Science
- Hamilton Urban Core Community Health Centre
- HAMSmART
- Indwell
- McMaster University
- Mission Services
- Ontario Health
- Positive Health Network
- St. Joseph Healthcare Hamilton
- South Coast Wellness
- Thrive Group
- True Experience
- Wayside House of Hamilton
- Wesley
- Young Caregivers Association
- YWCA Hamilton

Mental Health Act and Health Care Consent Act Terms

Involuntary Care: This is when a person is kept in a hospital for mental health treatment without their consent because they are deemed a risk to themselves or others. A person can be placed under involuntary care for the following reasons:

- **Risk of Harm to Self:** If a person is likely to seriously harm themselves due to a mental health condition.
- **Risk of Harm to Others:** If a person is likely to seriously harm others because of their mental health condition.
- **Inability to Care for Self:** If a person is unable to care for themselves and their mental health condition is likely to cause serious physical impairment or deterioration.

Consent: This means agreeing to receive treatment. Consent must be informed (they understand what's being proposed), voluntary (not forced), and capable (the person understands the decision).

Capacity: This refers to a person's ability to understand information relevant to making a decision about their treatment and to appreciate the consequences of that decision. A person is "capable" if they can understand the treatment's purpose, risks, and alternatives and can make a choice based on that information.

Examination: This is an evaluation conducted by a physician to assess a person's mental health. The purpose is to determine if the individual meets specific criteria for involuntary admission or further psychiatric assessment.

Assessment: This is an evaluation by a psychiatrist to determine if a person has a mental health condition that requires treatment. It often involves interviews, questionnaires, and sometimes physical exams. A psychiatric assessment does not guarantee treatment or admission to a hospital or psychiatric facility.

Treatment: This includes any medical care or therapy provided to help manage or cure a mental health condition. It can involve medication, therapy, or other interventions.

Admission: This is the process of being accepted into a hospital for treatment. It can be voluntary, with the person's consent, or involuntary, without their consent, if they are a danger to themselves or others.

Relevant Forms and Sections under the Mental Health Act

The Forms and Sections of the Mental Health Act are used to guide the implementation of involuntary care. This is not a comprehensive list of all Forms and Sections under the Mental Health Act.

Form/Section	Issued by	Reason	Details of Involuntary Admission	Police Involvement
Form 1	Physician who has examined the patient	Belief that an individual is at risk of harming themselves, others, or is unable to care for themselves due to mental health issues.	Authorizes involuntary admission to a hospital for 72 hours for psychiatric assessment. A Form 1 is valid for 7 days.	Police can assist in apprehending the individual and safely transporting them to the hospital/ psychiatric facility for assessment if needed.
Form 2	Justice of the Peace	A concerned individual (e.g., family, friend) has reported that the person is likely a danger to themselves or others or is unable to care for themselves due to mental health issues.	Authorizes involuntary admission to a hospital for psychiatric assessment. A Form 2 is valid for 7 days.	Police can assist in apprehending the individual and safely transporting them to the hospital/ psychiatric facility for assessment if needed.
Form 9	Officer in charge of psychiatric facility	An individual who is involuntarily detained in a hospital/ psychiatric facility leaves the facility without permission.	Authorizes the return to the hospital/ psychiatric facility for involuntary admission. A Form 9 is valid for 30 days.	Allows police to apprehend an involuntarily admitted patient who has left the hospital without permission and return them to the nearest hospital/

				psychiatric facility.
Form 47	Physician who issued the Community Treatment Order	Individual under a Community Treatment Order is non-compliant with their treatment plan.	Authorizes involuntary admission to a hospital for psychiatric treatment or re-assessment after non-compliance with a Community Treatment Order. A Form 47 is valid for 30 days.	Police are authorized to apprehend and return the individual to the hospital/ psychiatric facility for treatment.*
Section 17		A police officer has reasonable grounds to believe the individual is acting disorderly, suffering from a mental disorder, and poses a risk of harm to themselves or others.	Enables immediate apprehension and transport to a hospital for psychiatric assessment.	Police have direct authority to apprehend an individual without the need for a Form 1 or 2, based on their observations of the person's behavior. For more details on grounds for apprehension, see below.

References: ^{1,2}

¹ Ontario Hospital Association. (2023). A Practical Guide to Mental Health and the Law in Ontario.
<https://www.oha.com/Legislative%20and%20Legal%20Issues%20Documents1/A%20Practical%20Guide%20to%20Mental%20Health%20and%20the%20Law%2C%20Fourth%20Edition%2C%202023.pdf>

² Center for Addictions and Mental Health; Ontario Police College; St. Joseph’s Health Care London. (2004).

* Hamilton Police Services leverages officers from the Crisis Response Branch, who have received Crisis Intervention Training and have extensive experience responding to persons in crisis, to respond to Form 47. Officers bring individuals directly to the issuing physician to avoid waiting in the emergency department to be treated.

Mental Health Action, Section 17, Action by police officer

Where a police officer has reasonable and probable grounds to believe that a person is acting or has acted in a disorderly manner and has reasonable cause to believe that the person,

- a) has threatened or attempted or is threatening or attempting to cause bodily harm to himself or herself;
- b) has behaved or is behaving violently towards another person or has caused or is causing another person to fear bodily harm from him or her; or
- c) has shown or is showing a lack of competence to care for himself or herself,
- d) and in addition the police officer is of the opinion that the person is apparently suffering from mental disorder of a nature or quality that likely will result in,
- e) serious bodily harm to the person;
- f) serious bodily harm to another person; or
- g) serious physical impairment of the person,

and that it would be dangerous to proceed under section 16, the police officer may take the person in custody to an appropriate place for examination by a physician. 2000, c. 9, s. 5.³

“Not just another call...police response to people with mental illnesses in Ontario”
https://www.forcescience.org/wp-content/uploads/2011/11/Not_Just_Another_Call.pdf

³ Government of Ontario. (2015). Mental Health Act.
<https://www.ontario.ca/laws/statute/90m07#BK0>

Hamilton Police Services’ Crisis Response

Hamilton Police Services is recognized as a leader in developing innovative responses to mental health crises. They have introduced several programs aimed to better support individuals in crisis, particularly within vulnerable populations like the homeless. These initiatives prioritize de-escalating situations and connecting individuals to appropriate community resources, which helps prevent arrests, reduces criminal justice system involvement, and lowers emergency department visits. This holistic approach ensures individuals receive the right care in the right place and at the right time. For instance, in 2023, the Mobile Crisis Rapid Response Team responded to 3,585 calls, with approximately 84% of those cases being de-escalated and diverted from emergency departments. Key programs that support this work include:

- **Crisis Outreach and Support Team (also known as COAST):** This program pairs specially trained police officers and mental health professionals, such as nurses, social workers, occupational therapists, and crisis triage workers, to support persons who are in crisis and have a mental health concern. They provide outreach visits on a triage basis to assess and refer individuals to health and social services. This is a partnership between St. Joseph’s Healthcare Hamilton, Hamilton Police Service, and Halton Regional Police Service.
- **Mobile Crisis Rapid Response Team:** This program pairs specially trained police officers and mental health professionals to rapidly respond to persons in crisis. This collaborative approach provides immediate on-site support, de-escalates crises, and connects individuals to necessary mental health resources, ensuring timely and appropriate care.
- **Social Navigator Program:** This program pairs paramedics and police officers to assess the needs of individuals and support them with referrals to health and social services. This is achieved through short-term case management and outreach services. This is a partnership between Partnership between the Hamilton Paramedic Service and Hamilton Police Service.
- **Rapid Intervention Support Team:** This program, which serves as an extension of the Social Navigator Program, provides a multi-disciplinary outreach team of experts including a Housing Navigator, Mental Health Navigator, Addictions Navigator, Women’s Navigator, Indigenous Navigator, Youth Navigator, and a Court Liaison Worker. They offer wraparound case management for the most complex and marginalized individuals to provide comprehensive assessments and referrals to health and social services. This is a partnership with St. Joseph’s Healthcare Hamilton, Canadian Mental Health Association, Internal House, YMCA, Wesley, John Howard Society of Hamilton, Hamilton Regional Indian Centre, and Hamilton Police Service.

Another example of a collaborative response to these complex issues is the recent establishment of Zachary’s Legacy, developed through a partnership between St. Joseph’s Healthcare Hamilton, the Hamilton Police Service, and the Hamilton Paramedic Service. This downtown center is focused on mental health outreach and community support, serving as a hub for many of the services mentioned above.



Hamilton

2025 ANNUAL SERVICE PLAN & BUDGET AND PUBLIC HEALTH PRIORITIES

Public Health Sub-Committee Meeting

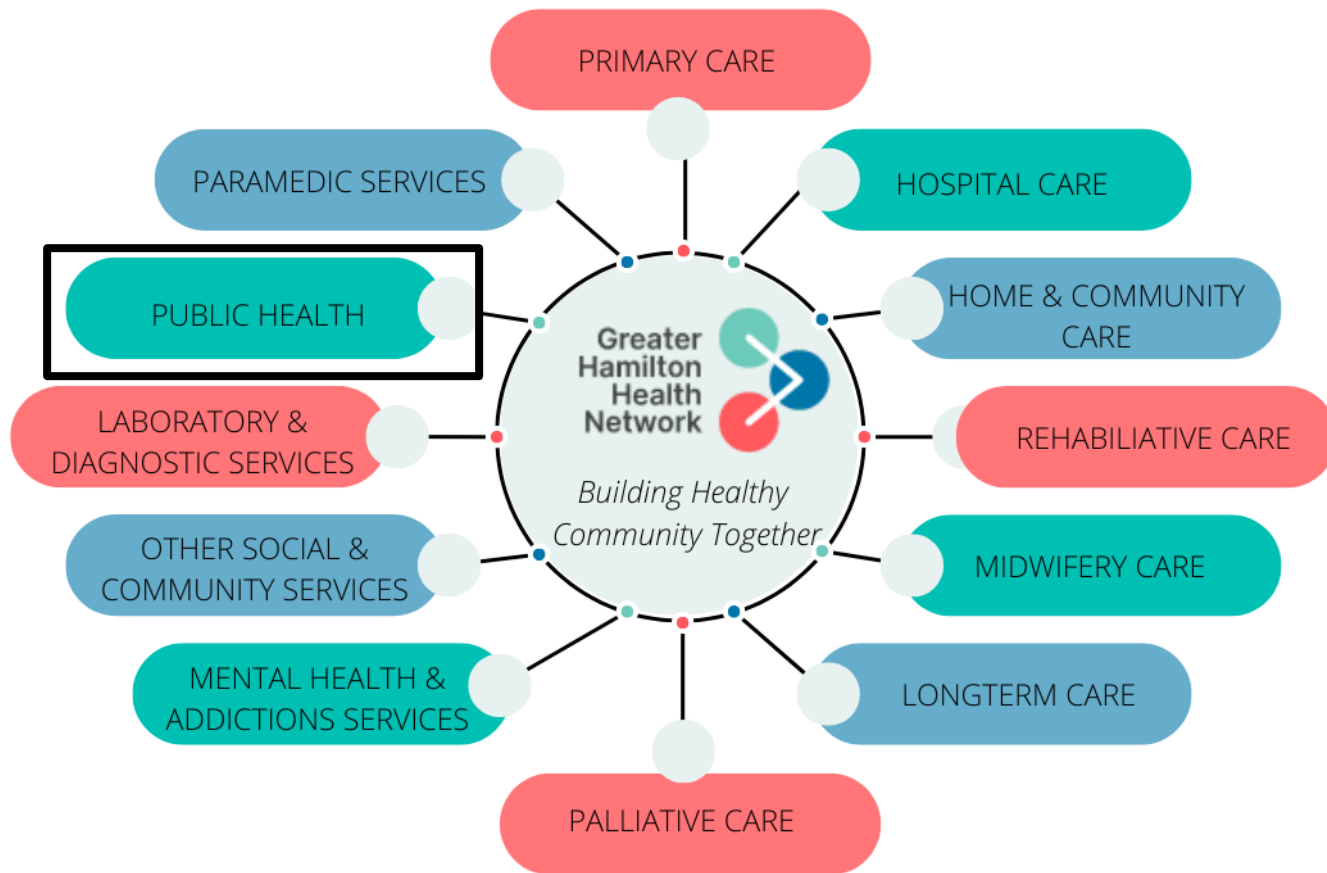
February 24, 2025

Presentation Overview

This presentation provides an overview of the **2025 Annual Service Plan & Budget** submission to the Ministry of Health, including:

- Public Health Services' **renewed priorities** and **action areas** to address population health needs identified from local health status information
- **Budgeted expenditures** for delivering Ministry-funded programs in accordance with the Ontario Public Health Standards

The Public Health Care System



Source: Greater Hamilton Health Network

Overview of the Annual Service Plan & Budget

- Contains detailed **program plans** and **budgeted expenditures** for Ministry-funded programs to meet the **Ontario Public Health Standards**

Program Standards

- Chronic Disease Prevention and Well-Being
- Food Safety
- Healthy Environments
- Healthy Growth & Development
- Immunization
- Infectious and Communicable Diseases Prevention and Control
- Safe Water
- School Health
- Substance Use & Injury Prevention

Foundational Standards

Population Health Assessment

Health Equity

Effective Public Health Practice

Emergency Management

- **Financial planning** components follow the City's budget process
 - Addressed in the Healthy and Safe Communities Department report and budget
- **Programmatic planning components** are shared to the Public Health Sub-Committee

2025 Annual Service Plan & Budget: Planning Principles

To develop the 2025 Annual Service Plan & Budget, we focused on:

Balancing **local population health needs, core public health functions and mandates, Council priorities, and Provincial direction**

Strategically allocating resources to **minimize impacts on service levels and staff**

Strengthening **program efficiency**

Preserving **essential services** and improving **population health outcomes** for **priority populations**

Our Priorities



- For 2025 to 2028, the following four priorities have been identified:



Equity-Driven Public Health and Upholding Indigenous Rights



Substance Use



Child and Youth Healthy Growth and Development



Climate-Related Environmental Health Risks

- To address Public Health Services' multi-year priorities, specific action areas are implemented to adapt and improve existing programs and services
 - Incorporated into the Annual Service Plan & Budget

EQUITY-DRIVEN PUBLIC HEALTH AND UPHOLDING INDIGENOUS RIGHTS



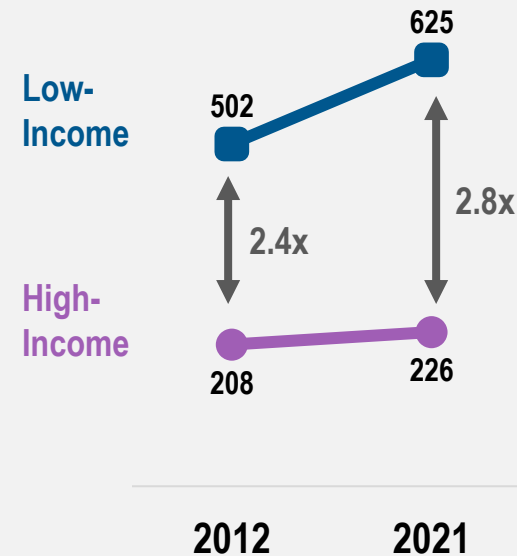
Equity-Driven Public Health and Upholding Indigenous Rights



Health Status Highlights

- **Inequities persist** in our community as a major contributor to poor health.
- Health inequities were observed for almost all health indicators. Some of the **greatest inequities** were found for **substance use, self-harm, assault, and diabetes**.
 - As an example, Hamiltonians living in areas with the lowest household incomes were nearly three-times more likely to die from diabetes, nearly five-times more likely to self-harm, and nearly six-times more likely to be assaulted.
- **Income and housing needs** were strongly associated with the inequities observed for these health outcomes.
- Through a survey completed for Public Health Services' Indigenous Health Strategy, local Indigenous peoples indicated a need for **traditional healing and wellness** as identified by 67% of respondents, followed by **access to housing** (62%) and **access to primary healthcare** (38%).

Premature deaths (per 100,000) in low- and high-income areas, Hamilton (2012 vs 2021)



Source: Hamilton's Community Health Status Report (2024), City of Hamilton.

Equity-Driven Public Health and Upholding Indigenous Rights



Priority Goal: To address health inequities in the community, we:

- Embed principles of health equity, anti-racism, and anti-Indigenous racism into our daily work
- Engage with priority populations to ensure our programs and services are barrier-free, culturally safe, and can be accessed by those who need it the most
- Work in allyship with Indigenous communities to uphold their inherent rights and recognize their wholistic view of health, which includes the mind, body, spirit, and a deep connection to the land

Priority Action Areas for Public Health:

Embed Learning
into Public Health
Practice

Data for Equity

Community
Engagement

SUBSTANCE USE



Substance Use



Health Status Highlights

- Over **1,000 local deaths** attributed to three substances annually (**alcohol, tobacco and opioids**).
- Tobacco** use is declining but over **75,000** Hamilton adults are still current smokers. Meanwhile, **8%** of youth are daily vapers, of which **81%** use vapes with nicotine.
- Alcohol** is the most commonly used substance; **49%** of Hamilton adults exceeded the low risk drinking guidelines in 2019 to 2020.
- Opioids** have emerged as a top cause of premature deaths. Since reaching a high of 167 opioid deaths in 2022, there have been deceases in 2023 and 2024.
- Cannabis** is one of the most common substances used by youth and the local rate of emergency department visits for cannabis-related harms has **doubled** between 2012 to 2021.

Over 1,000 deaths are attributed to three substances each year in Hamilton

783

deaths related to tobacco

208

deaths related to alcohol

149

deaths related to opioids

Source: Hamilton's Community Health Status Report (2024), City of Hamilton.

Substance Use



Priority Goal: Prevent and reduce the burden and harms associated with substance use

Priority Action Areas for Public Health:

Trauma- and
Violence-Informed
Care

Municipal Policies
on Substance Use

Strategies to Reduce
Harms Associated
with Substance Use

Substance Use
Prevention

Systems
Coordination

CHILD AND YOUTH HEALTHY GROWTH AND DEVELOPMENT



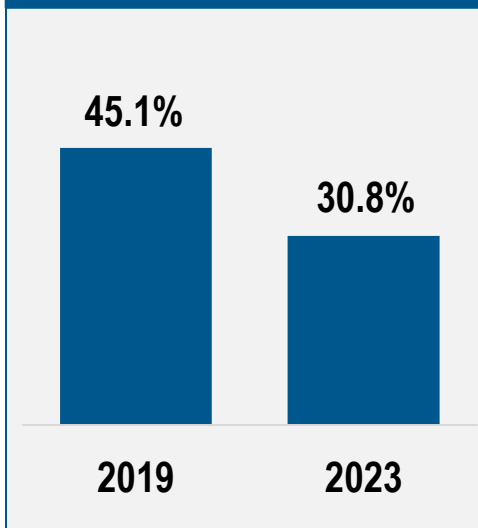
Child and Youth Healthy Growth and Development



Health Status Highlights

- The rate of babies born with **low birth weights** increased since 2018 and the rate of **exclusive breastfeeding declined**.
- **31.2%** of kindergarten students were **vulnerable** in one or more domains of early development in 2023; there was increasing vulnerability in the physical health and well-being domain of development.
- **Over 40%** of students in grades 4-8 had **low well-being** in 2022; well-being **worsened** between 2018 and 2022 for these students.
- **30.8%** of students in grades 9-12 reported **very good or excellent mental and emotional health** in 2023 which is a **decline** from 2019 (45.1%).
- **1 in 8** students (grades 9-12) report seriously contemplating **suicide** and hospital visits for **self-harm** have **increased**, mostly for girls (age 10-18).
- Students with **up-to-date vaccine records** continues to be **lower** than pre-pandemic.

Hamilton high school students who report very good or excellent mental/emotional health



Source: Ontario Student Drug Use and Health Survey (2019 & 2023), Centre for Addiction and Mental Health.

Child and Youth Healthy Growth and Development



Priority Goal: Achieve optimal child and youth growth and development

Priority Action Areas for Public Health:

Reducing the
Impact of Adverse
Childhood Events

School-Aged Child
and Youth Mental
Health

Oral Health

Routine Childhood
Immunizations

Coordinated
Access

CLIMATE-RELATED ENVIRONMENTAL HEALTH RISKS



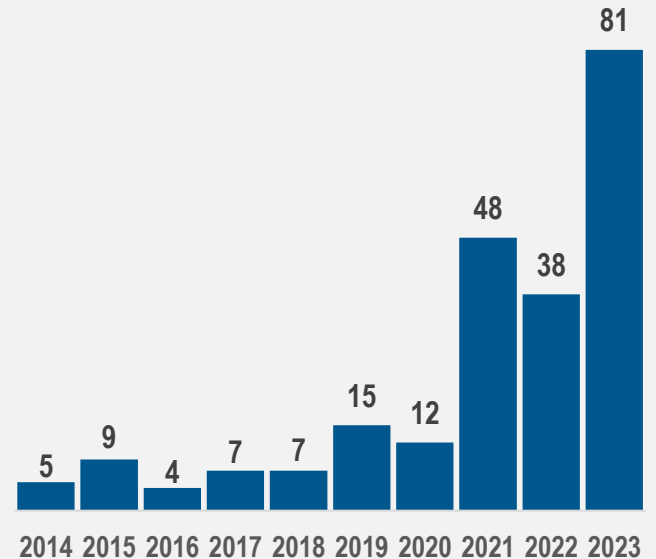
Climate-Related Environmental Health Risks



Health Status Highlights

- **Hamilton's temperature will increase.** The annual average temperature is projected to increase from 8.3°C to 10.4°C in 2050 and 12.5°C in 2080.
- Estimated **1,291** heat-related and **787** cold-related emergency department visits for Hamiltonians from 2012 to 2021.
- Climate change affects ecosystems and the spread of infectious diseases, such as tick-borne **Lyme disease** which **increased** substantially in Hamilton over the past decade.
- Air quality showed improvement, but further improvements needed to lower the risk to population health. Health Canada estimates that **378 premature deaths** in 2016 may be attributed to air pollution in Hamilton.

Cases of Lyme disease among Hamilton residents (2014-2023)



Source: Hamilton's Community Health Status Report (2024), City of Hamilton.

Climate-Related Environmental Health Risks



Priority Goal: Promote healthy built and natural environments that support health and mitigate existing and emerging risks, including the impacts of a changing climate, and to enable consistent and effective management of emergency situations

Priority Action Areas for Public Health:

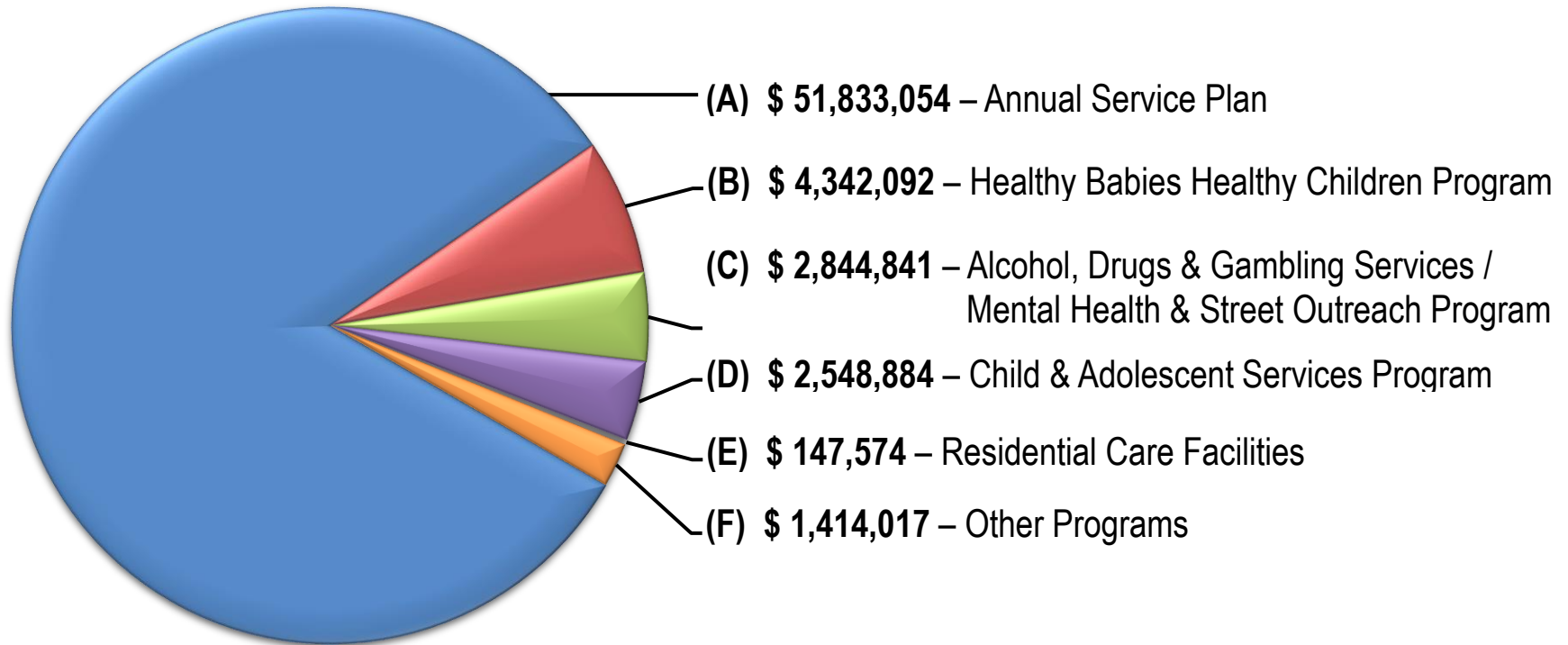


BUDGET



Public Health Services' 2025 Gross Budget by Program

Total: \$63,130,470

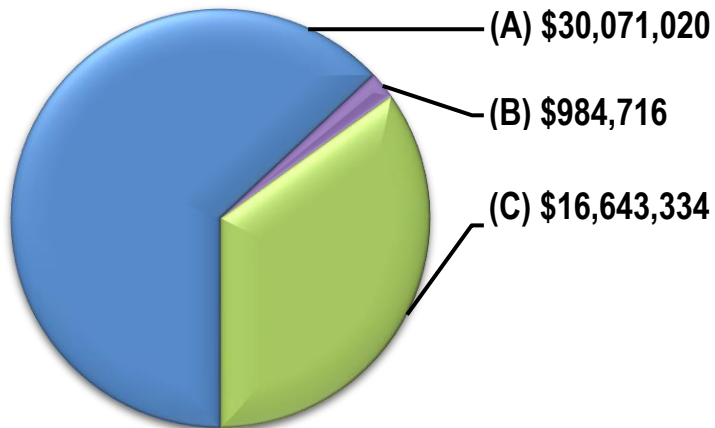


*Anomalies due to rounding

2025 Annual Service Plan Funding Sources

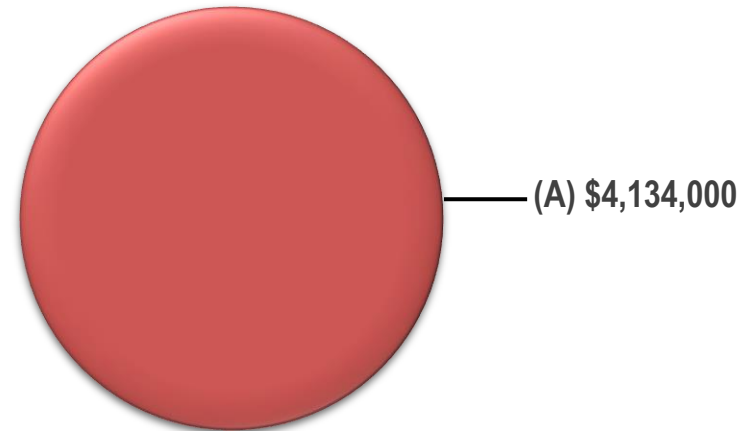
Total: \$51,833,070

2025 Annual Service Plan
Total \$ 47,699,070 (92%)



- (A) Provincial Funding
- (B) Fees & General
- (C) City Levy

2025 Ontario Seniors Dental Care Program
Total \$ 4,134,000 (8%)

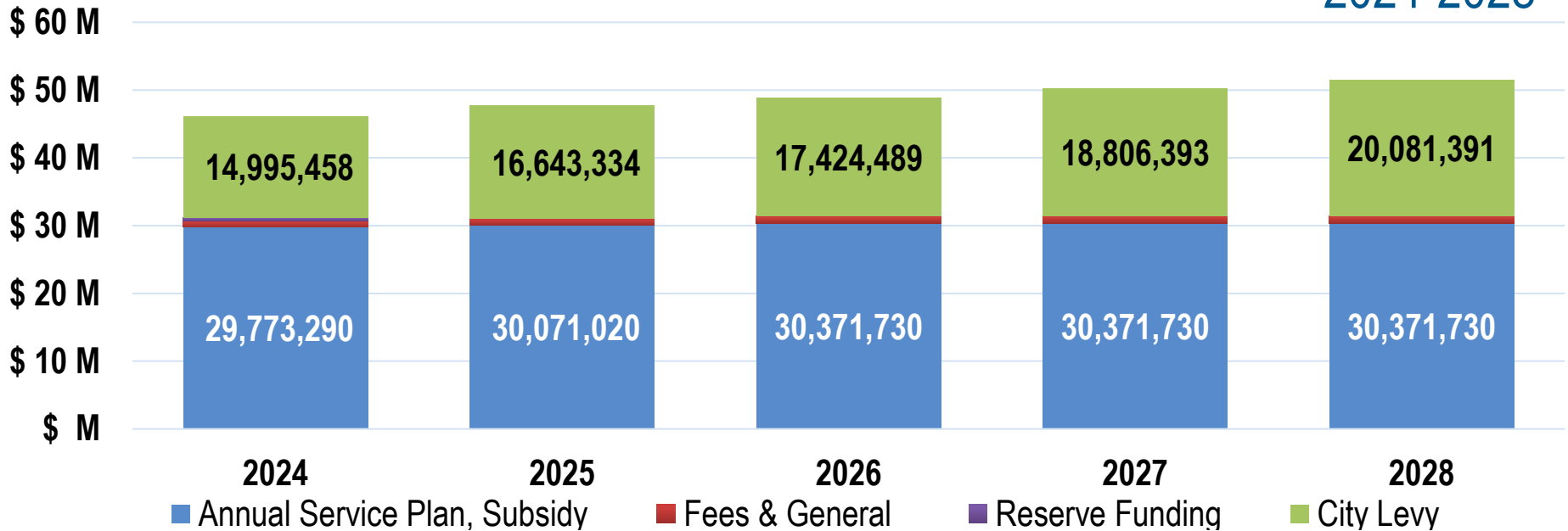


- (A) Provincial Funding

*Anomalies due to rounding

2025 Annual Service Plan Funding Sources

2024-2028



	2024	2025	2026	2027	2028
Annual Service Plan, Provincial Subsidy †	\$29,773,290	\$30,071,020	\$30,371,730	\$30,371,730	\$30,371,730
Fees & General	\$958,250	\$984,716	\$1,020,166	\$1,056,892	\$1,078,030
Reserve Funding	\$451,744	-	-	-	-
City Levy	\$14,995,458	\$16,643,334	\$17,424,489	\$18,806,393	\$20,081,391
Total	\$46,178,742	\$47,699,070	\$48,816,385	\$50,235,015	\$51,531,151
Funding Ratio (City / Province) ‡	33.2%	35.6%	36.5%	38.2%	39.8%

† Excludes the Ontario Seniors Dental Care Program

‡ After Fees & General

*Anomalies due to rounding

Orientation: Next Steps

Session 1

December 2, 2024

- Overview of Public Health Sub-Committee orientation
- Good governance education session (Karima Kanani)
- Public health in Hamilton – Part 1:
 - History & fundamentals
 - 2024 priorities



Session 2

January 13, 2025

- Overview of public health in Ontario (Loretta Ryan & Monika Turner)
- Public health in Hamilton – Part 2: Programs & Services



Session 3

February 24, 2025

- 2025 Annual Service Plan & Budget
 - Community health status
 - Renewed priorities and action plans
 - Financial information



Session 4

May 20, 2025

- Integrating equity, diversity, and inclusion into decision-making processes (Evelyn Myrie)

Notes:

- In addition, the Clerk's Office will arrange an education session with the Integrity Commissioner regarding conflicts of interest
- Following these orientation sessions, relevant ongoing education will be provided as reports are brought forward

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Hamilton

QUESTIONS?



City of Hamilton Report for Consideration

To: Chair and Members
Public Health Sub-Committee

Date: February 24, 2025

Report No: BOH25002

Subject/Title: 2025 Annual Service Plan & Budget and Public Health Priorities

Ward(s) Affected: (City Wide)

Recommendations

- 1) That the Medical Officer of Health, or delegate, **BE AUTHORIZED** and **BE DIRECTED** to submit the 2025 Annual Service Plan & Budget to the Ministry of Health, in keeping with the information that is outlined in Report BOH25002.

Key Facts

- The purpose of this report and its accompanying presentation is to seek approval to submit the 2025 Annual Service Plan & Budget to the Ministry of Health.
- As per the Ontario Public Health Standards, boards of health are required to submit the Annual Service Plan & Budget to the Ministry of Health in order to receive Provincial funding to support the delivery of public health programs and services.
- This report and accompanying presentation also provide a high-level overview on Public Health Services' multi-year priorities, intended to provide contextual information and support strategic decision making.

Financial Considerations

Public Health Services delivers a wide range of programs and services to meet the requirements set out in the Ontario Public Health Standards. Most programs are funded using a Provincial/Municipal cost-shared model, except for the Ontario Seniors Dental Care Program, which are 100% Provincially funded. Public Health Services also provides additional services beyond those required under the Ontario Public Health

Standards to address local needs. These services are either 100% Provincially funded (e.g., Ministry of Children, Community and Social Services, Ontario Health West, etc.) or 100% Municipally funded. If the Board of Health determines that additional public health services are needed, additional funding would need to be sought and approved by Council.

The Annual Service Plan & Budget is comprised of two parts:

1. Programs funded using a Provincial/Municipal cost-shared model (base budget); and,
2. 100% Provincially funded programs (e.g., the Ontario Seniors Dental Care Program, etc.).

The financial components of the 2025 Annual Service Plan & Budget were addressed within the overall Public Health Services budget. This was included in the Healthy and Safe Communities Department report and budget presentation at the General Issues Committee meeting on January 29, 2025. The overall City budget remains under consideration by Council at the time of submission of this report. If there are any changes that impact the 2025 Annual Service Plan & Budget submission, these will be included in the final submission and a memorandum circulated to the Board of Health and committee.

The total 2025 Annual Service Plan & Budget expenditures are \$51.8 M (or 82.1%) of the total \$63.1 M Public Health Services gross budget. This reflects a 3.0% increase in gross Annual Service Plan & Budget expenditures compared to 2024. The anticipated Provincial subsidies and fees for the 2025 Annual Service Plan & Budget total \$35.2 M, which is a \$0.3 M increase over 2024 or 1%. The net City levy contribution is \$16.6 M, a 7.8% increase on the levy over 2024.

The base budget for 2025 is \$46.7 M, which includes gross expenditures of \$47.7 M, offset by \$1.0 M in fees and general revenues. These figures reflect a 3.0% increase in gross base expenditures from 2024. The anticipated Provincial subsidy for these programs is \$30.1 M, with a Municipal contribution of \$16.6 M. It should be noted that staff incorporated eligible Municipal programming, such as the Opioid Action Plan and non-mandatory oral health programs, into the 2025 submission, adhering to Provincial guidance.

The Ontario Seniors Dental Care Program is anticipated to receive \$4.1 M in funding for 2025. An increase to the Ontario Seniors Dental Care Program is essential to cover the rising costs of service delivery.

The Ministry of Health has communicated that they will consider requests for one-time funding for extraordinary costs in 2025. For 2025, Public Health Services plans to request one-time funding at 100% for:

- **The Ontario Seniors Dental Care Program:**
Request \$0.4 M to cover the rising costs of dentures and specialist services required to maintain the service levels provided in 2024.

If the Province does not provide this funding, the ability to refer seniors for these critical services will be impacted. In such a scenario, staff will return to the Public Health Sub-Committee for further direction.

For financial consideration of impacts related to alternatives, it should be noted that boards of health are required to submit a 2025 Annual Service Plan & Budget to the Ministry of Health by March 31, 2025, in order to receive Provincial funding to support the delivery of public health programs and services under the Ontario Public Health Standards.

Overall staffing levels for Public Health Services, including programs within the 2025 Annual Service Plan & Budget, were addressed in the Healthy and Safe Communities Department report and budget presentation at the General Issues Committee meeting on January 29, 2025.

In the 2025 Annual Service Plan & Budget, the total staffing is 339.1 FTE, which represents a decrease of (0.8 FTE) compared to the 339.9 FTE in 2024. This is a result of transferring a position to another City department.

Background

The 2025 Annual Service Plan & Budget has been prepared in accordance with the direction of the Mayor to staff.¹

Analysis

The 2025 Annual Service Plan & Budget outlines Public Health Services' plans for the delivery of programs and services, as well as budgeted expenditures, in accordance with the Ontario Public Health Standards. It includes an assessment of local population health needs in Hamilton, priority areas for action, detailed program plans, budgeted expenditures, and requests for Provincial base and one-time funding.

Ontario Public Health Standards

The Ontario Public Health Standards set the minimum requirements for public health programs and services for boards of health across the Province. The Standards focus on disease prevention, health promotion, health protection, and community health surveillance. In line with the Standards, Public Health Services delivers a wide range of services and supports related to health promotion, health protection, and injury and disease prevention to enhance the health and well-being of the Hamilton population. Services encompass immunization, infectious and communicable diseases prevention and control, education programs, family and child health services, population health assessment, substance use, sexual health services, air quality monitoring, school services, dental services, food and water safety, injury prevention, and public health inspections, as well as foundational programs that underlie and support all programs and services. A dedicated team of public health professionals, including nurses,

¹ Mayor of the City of Hamilton. (2024). Mayoral directive to staff: MDI-2024-03. Hamilton, ON: City of Hamilton.

doctors, public health inspectors, dental staff, nutritionists, social workers, epidemiologists, specialist roles and health promoters, collaborates with community partners to address the health needs of the community.

Ministry of Health's Strategy to Strengthen Public Health

In August 2023, the Ministry of Health announced a Provincial strategy to strengthen public health. This strategy focuses on optimizing capacity, stability, and sustainability, and delivering more equitable health outcomes for Ontarians. One component of this strategy involves reviewing the Ontario Public Health Standards with an aim to refine, refocus, and re-level roles and responsibilities of local public health agencies. In May 2024, the Ministry invited all local public health agencies and several public health professional associations and communities of practice to provide feedback on the draft Standards, which was due on June 20, 2024. The Ministry of Health continues to review the feedback and explore additional opportunities to streamline responsibilities to reduce workload burdens. The revised Standards and incorporated documents will be released by August 2025 and take effect on January 2, 2026. Until then, the current Standards and incorporated protocols and guidelines remain in effect. Staff will provide the Public Health Sub-Committee with an overview of the revised Standards and associated impacts on programs and services once available.

The Provincial strategy to strengthen public health also focuses on providing stable, sustainable funding. This includes restoring previously reduced subsidies in 2024 and implementing an annual 1% base funding increase through 2026. Despite these positive changes, Provincial funding growth remains below increases in wages, benefits, and inflation, alongside rising costs associated with population growth and increasing service demand, resulting in budget pressures. As part of this strategy, the Ministry of Health is also reviewing its longer-term Provincial base funding methodology for public health, with implementation planned for 2026.

Development of the 2025 Annual Service Plan & Budget

Public Health Services has a broad mandate with limited, finite resources, making prioritization essential. Each year, as part of the annual program and budget planning cycle, the Public Health Leadership Team revisits Public Health Services' multi-year priorities. This involves reviewing the current context, including Term of Council priorities, updated local community health status information, and the financial and political landscapes at both the Provincial and local levels. Through this process, the Public Health Leadership Team identifies opportunities for strategic prioritization, resource optimization, and advancing public health goals for Hamilton. This priority setting exercise informs the development of the Annual Service Plan & Budget to:

- Balance core public health functions and mandates, local population health needs, Council priorities, and Provincial direction;
- Strengthen program efficiency;
- Preserve essential services and improve population health outcomes for priority populations; and
- Strategically allocate resources to minimize impacts on service levels and staff.

To address Public Health Services' multi-year priorities, staff worked to identify specific actions to adapt and improve existing programs and services in 2025 and beyond.

In the presentation accompanying Report BOH25002, members will receive the following information that is included in the 2025 Annual Service Plan & Budget:

- A summary of updated local community health status information;
- Details on Public Health Services' multi-year priorities and action areas to address Hamilton's population health needs. These include:
 - Equity-driven public health and upholding Indigenous rights;
 - Substance use;
 - Child and youth healthy growth and development; and,
 - Climate-related environmental health risks.
- Budget information related to delivering Ministry-funded programs in accordance with the Ontario Public Health Standards.

It is important to note that these multi-year priorities are not new; they address enduring, long-standing issues that require sustained resources and multi-sectoral collaboration. Public Health Services is one contributor among many in these efforts. Appendix "A" to Report BOH25002 provides more information about Public Health Services' 2025 multi-year priorities and action areas.

As a next step, in addition to the information shared during orientation, a performance report will be shared in Q2 2025 about Public Health Services' progress made in 2024 in addressing these priorities and their key action areas. This report will also highlight Public Health Services' programmatic and financial performance towards achieving the objectives set in the 2024 Annual Service Plan & Budget, which extend beyond the four priorities.

The Ontario Public Health Standards outline legislated requirements that direct the delivery of mandatory public health programs and services by boards of health pursuant to the *Health Protection and Promotion Act*. Boards of health are accountable for meeting all legislative and operational requirements, including submission of the Annual Service Plan & Budget to the Ministry of Health.

The recommendations in this report conform with existing Corporate Policy and business processes for approving and submitting the Annual Service Plan & Budget to the Ministry of Health.

As noted, Public Health Services operates within a broad mandate and limited resources, making prioritization essential to maximize population health outcomes. This plan outlines focused efforts and resources on key priorities to achieve the greatest impact.

While the priorities in this plan are designed to be adequately resourced, Public Health Services must remain flexible and responsive to urgent public health issues and/or emergencies. This may require Public Health Services to temporarily redirect resources away from planned activities outlined in the Annual Service Plan & Budget. In such cases, any resulting trade-offs or adjustments on planned activities would be communicated to the Public Health Sub-Committee and Council as the Board of Health.

The City of Hamilton's Finance and Administration Team was consulted to provide financial and staffing implications for the 2025 Annual Service Plan & Budget and are supportive of staff recommendations in this report.

Alternatives

As noted above, submission of the 2025 Annual Service Plan & Budget to the Ministry of Health is tied to funding. If the document is not submitted by March 31, 2025, Public Health Services' programs and services, including priority work, would not be resourced appropriately, and may lead to further direction from the Province regarding reporting or programming.

The financial components of the 2025 Annual Service Plan & Budget remain under consideration by Council at the time of submission of this report.

The staffing resource implications were embedded in the financial components of the 2025 Annual Service Plan & Budget, and remain under consideration by Council at the time of submission of this report.

Relationship to Council Strategic Priorities

The recommendations in this report support the following 2022-2026 Council Priorities, Outcomes, and Measures of Success:

1. Sustainable Economic & Ecological Development
 - 1.1. Reduce the burden on residential taxpayers
 - 1.3. Accelerate our response to climate change
3. Responsiveness & Transparency
 - 3.1. Prioritize customer service and proactive communication
 - 3.2. Get more people involved in decision making and problem solving
 - 3.3. Build a high performing public service
 - 3.4. Modernize City systems

The 2025 Annual Service Plan & Budget outlines programs and services that promote long-term population health outcomes, while leveraging Provincial subsidies to reduce the financial burden on residential taxpayers. It includes several climate-related actions to help support the City's response to mitigating the environmental health-risks associated with climate change.

The 2025 Annual Service Plan & Budget also prioritizes accessible, equitable public health services through a customer-focused approach with clear, proactive communication. It emphasizes community engagement and collaboration with partners to ensure services are effective and culturally appropriate. Investments in staff development and fostering partnerships demonstrate a commitment to a high-performing public service. Additionally, ongoing efforts to streamline and modernize

systems and processes improve the efficiency and effectiveness of program delivery, ensuring Public Health Services remains adaptable and responsive to emerging and future needs.

Previous Reports Submitted

- [BOH24025](#) - Public Health Sub-Committee Orientation
This report and its accompanying presentation provides an overview of the orientation and continuing education plan for Public Health Sub-Committee members.
- [BOH24001](#) - 2024 Annual Service Plan & Budget and Public Health Priorities
This report details the previous year's Annual Service Plan & Budget, which was submitted to the Public Health Committee for approval.
- [BOH23038](#) - Strengthening Public Health
This report and its accompanying presentation provides an overview of the Ministry of Health's strategy to strengthen public health.

Consultation

- David Trevisani, Manager – Finance & Administration, Healthy and Safe Communities Department

Appendices and Schedules Attached

Appendix A: Public Health Services' Multi-Year Priorities and Action Areas

Prepared by: Konrad Lisnyj, Senior Project Manager
Public Health Services, Healthy Families Division, Planning
& Competency Development

Submitted and recommended by: Dr. Elizabeth Richardson, MD, MHSc, FRCPC
Medical Officer of Health
Public Health Services, Office of the Medical Officer of Health

Public Health Services’ Multi-Year Priorities and Action Areas

Equity-Driven Public Health and Upholding Indigenous Rights



Priority Goal: To address health inequities in the community, we:

- Embed principles of health equity, anti-racism, and anti-Indigenous racism into our daily work;
- Engage with priority populations to ensure our programs and services are barrier-free, culturally safe, and can be accessed by those who need it the most; and,
- Work in allyship with Indigenous communities to uphold their inherent rights and recognize their wholistic view of health, which includes the mind, body, spirit, and a deep connection to the land.

Priority Action Areas for Public Health Services:

Embed Learning into Public Health Practice

Data for Equity

Community Engagement

Action Area: Apply principles of health equity, anti-racism, and anti-Indigenous racism into our daily work and contribute towards a culture of ownership, sustainability, and continuous learning.

- Through 2026, apply learnings from training in health equity and anti-racism, Indigenous cultural safety, and trauma and violence-informed care to our daily work.

Action Area: Enhance the collection and use of social determinants of health data to share information on health inequities in Hamilton.

- Through 2028:
 - Continue to inform operations by using many sources of evidence, including data, to better understand health inequities in Hamilton and demonstrate impact on reducing them, while engaging and sharing information on health inequities with the community;
 - Expand social determinants of health data collection with a consistent approach across Public Health Services’ programs; and,
 - Take direction from the Indigenous community to determine how data and information about them will be collected, protected, used, or shared in our work (internally and/or externally).

Action Area: Meaningfully engage priority populations to improve public health practice using culturally safe and evidence-based strategies that reflects lived experiences, as well as uphold the inherent rights of Indigenous Peoples to self-determination for better health outcomes.

- Through 2027, meaningfully engage with priority populations and Indigenous communities to deepen our understanding of their lived experiences and the impacts of colonization. Public Health Services is committed to strengthening relationships and building trust, listening to community voices with intention, and collaborating on the co-design, implementation, and evaluation of programs and services.

Child and Youth Healthy Growth and Development



Priority Goal: Achieve optimal child and youth growth and development.

Priority Action Areas for Public Health Services:



Action Area: Support the development of safe, stable, nurturing families to reduce impact of Adverse Childhood Events in children.

- Through 2028:
 - Increase enrollment in prenatal programs for priority populations to improve parental knowledge and referral to services to support safe, stable, nurturing families; and,
 - Increase referral to mental health services for pregnant people and children aged 0 to six in priority populations to support safe, stable, nurturing families.

Action Area: Improve the mental health of school-aged children and youth (aged six to 18) within identified priority populations.

- Through 2027, improve child and youth mental health through early identification and support for mental health vulnerabilities.
- Through 2028, improve child and youth mental health through supporting the creation and maintenance of healthy school environments within identified priority schools.

Action Area: Improve the oral health of children and youth who belong to priority populations.

- Through 2028, increase the number of children and youth accessing preventative dental care services by 10%.

Action Area: Increase vaccine confidence to reduce hesitancy and increase vaccine coverage rates for all *Immunizations of School Pupils Act* and school-based vaccines.

- Through 2028, achieve federal and local targets for routine infant, childhood, and adolescent immunizations.

Action Area: Increase access to services for children and families who belong to priority populations.

- Through 2028, increase opportunities to connect families to programs that contribute to healthy growth and development to reduce barriers to access through use of a consolidated intake tool.

Substance Use



Priority Goal: Prevent and reduce the burden and harms associated with substance use.

Priority Action Areas for Public Health Services:

Trauma- and Violence-
Informed Care

Municipal Policies on
Substance Use

Strategies to Reduce
Harms Associated with
Substance Use

Substance Use
Prevention

Systems Coordination

Action Area: Strengthen Public Health Services’ approach to trauma- and violence-informed care.

- Through 2028:
 - 100% of Public Health Services staff provide emotionally and physically safe environments through the incorporation of trauma- and violence-informed care principles, supported by organizational policies and procedures; and,
 - Promote implementation of trauma- and violence-informed approaches in community organizations and services (interacting with people who use substances).

Action Area: Enhance the Municipal Alcohol Policy to mitigate the harms associated with alcohol use on municipal properties.

- Through 2025, lead and coordinate the revision of the Municipal Alcohol Policy and support the implementation of the revised policy to promote healthy, safe, and enjoyable environments on City properties.

Action Area: Provide a continuum of approaches to address harms associated with alcohol, tobacco, cannabis, and other substances.

- Through 2028, implement programs and services to decrease harms and increase supports for safer substance use among people at high risk of substance-related harms.

Action Area: Promote supportive environments to prevent substance use and related harms.

- Through 2028, develop programs, services, and policies to prevent substance use among youth and young adults.

Action Area: Provide systems coordination to address substance use in Hamilton.

- Through 2025, enhance the response to drug toxicity events and trends in Hamilton.
- Through 2028, facilitate and coordinate the Hamilton Drug Strategy and associated working groups to support a coordinated approach to addressing substance use in Hamilton.

Climate-Related Environmental Health Risks



Priority Goal: Promote healthy built and natural environments that support health and mitigate existing and emerging risks, including the impacts of a changing climate, and to enable consistent and effective management of emergency situations.

Priority Action Areas for Public Health Services:



Action Area: Increase surveillance, public awareness, and detection of climate-sensitive vector-borne diseases to reduce the incidence of vector-borne disease in the Hamilton community.

- Through 2026, increase awareness of tick identification and prevention measures among Hamilton adults aged 18 years and over, including parents.
- Through 2028:
 - Monitor for ticks capable of transmitting Lyme disease;
 - Increase awareness of mosquito borne-illness prevention measures and source reduction strategies;
 - Monitor for mosquito-borne diseases to predict spread to humans so control measures can be taken; and,
 - Monitor and respond to reported cases of potential rabies exposures.

Action Area: Coordinate and implement activities aimed at reducing heat-related impacts in the Hamilton community.

- Through 2028:
 - Oversee, maintain, and evaluate a Community Heat Response Strategy annually;
 - Provide heat-related information, education, and outreach to partners and the public;
 - Issue and communicate heat warnings, extended heat warnings, and stand downs annually as per Environment Canada criteria and implement associated actions;
 - Maintain heat-related population health surveillance during annual extreme heat season; and,
 - Improve relationships with and supports for those at greatest risk of the impacts of heat.

Action Area: Address the public health impacts resulting from poor air quality and enable the public to take precautions through monitoring and communications.

- Through 2028:
 - Communicate Special Air Quality Statements (Air Quality Health Index seven - 10) and Air Quality Alerts (Air Quality Health Index 10+ due to Wildfire smoke) annually as per Ministry of Environment, Conservation and Parks and implement associated actions and available supports;
 - Provide air quality/pollution-related information, education, and response to partners and the public;
 - Enhance population health surveillance related to air quality and wildfire smoke events;

- Develop and/or review policies and standards that seek to improve air quality in the City of Hamilton; and,
- Collaborate and coordinate with community stakeholder groups annually to improve collaboration on air quality initiatives in the community.

Action Area: Increase preparedness and public awareness to respond to threats related to climate change.

- Through 2025, in partnership with the City’s Emergency Management Coordinators, test and validate the City’s response to an extreme heat emergency.