

Indirect Health Impacts of COVID-19

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Summary

The Public Health Agency of Canada released a report in October 2020 that highlighted the direct and indirect impacts of COVID-19 on Canadians.¹ The report focused on the importance of a health equity approach moving forward to protect the population's overall health. Our local data, although not always comparable to the national data presented in the PHAC report, can also tell a story of how COVID-19 has indirectly affected people's health.

Key Findings from Local Data (So Far...)

- This report currently contains baseline data (pre-pandemic) and some limited data for the first year of the pandemic (2020). It will be important to continue to monitor these indicators to see if there were short-term and long-term indirect effects of COVID-19 mitigation measures during and after the pandemic.
- The data clearly shows that the pandemic affected people's employment and livelihood. Prior to COVID-19, the local unemployment rate was around 6% each year, but in 2020 when COVID-19 was prevalent in the community and we were experiencing several provincial lockdowns, the unemployment rate increased to 9%. We also saw an increase in the number of people qualifying for employment insurance and the Canada Emergency Response Benefit (CERB). Businesses were largely affected with an increase in business bankruptcies reported in the first year of the pandemic; however, at the same time, consumer bankruptcies decreased.
- Prior to COVID-19, local indicators showed an increase in opioid poisoning emergency department visits, unplanned emergency department visits for mental health concerns and needle syringe program use in the community. During the beginning of the pandemic (around March-June), there were fewer emergency department visits for all reasons because people were afraid of catching COVID-19 and there were concerns about overloading the hospital system. It was anticipated that this shift in the data will make it appear as though there was a decrease in health concerns, which is likely untrue. This decreasing trend was seen in oral health emergency department visits and Ministry-funded substance use treatment services but was not consistent across all health system indicators. For example, the rates of emergency department visits for mental health and self-harm were similar to pre-pandemic rates. It is unknown whether

there were more mental health concerns in the community than pre-pandemic which muted the decreasing trend as seen in other indicators (i.e., some people were still reluctant to seek help, but more people needing help averaged out the data), or if the pandemic was less likely to stop people from visiting the hospital for mental health concerns compared to other concerns like oral health.

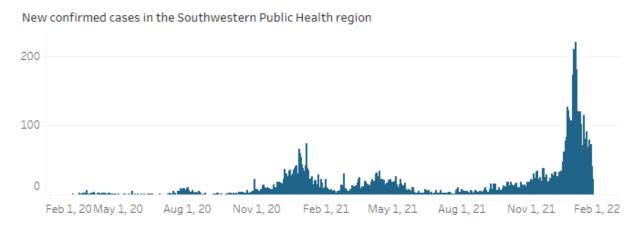
- Outside of the hospital system, some indicators showed that there were more mental health and substance use concerns within the community during the pandemic. Within St. Thomas, the number of police calls for mental health reasons doubled in the first year of the pandemic (from around 1,000 calls per year to 2,000 calls). We also noted an increase in the number of sharps returned to Southwestern Public Health through the needle syringe program in Oxford County. Unlike many of the other hospital-based indicators, there was an increase in emergency department visits for opioid poisoning during the pandemic, particularly among 25–64-year-olds.
- We will continue to monitor these indicators after the pandemic is declared over to obtain a more complete picture of how the health of our residents may have been indirectly impacted by COVID-19 mitigation measures.

Indirect Health Impacts of COVID-19

Background

Timeline

The first case of COVID-19 in Canada was confirmed in Toronto on January 25, 2020, but the first case of COVID-19 in the Southwestern Public Health (SWPH) region was not reported until March 20, 2020. Since then, there have been several waves of COVID-19 with cases increasing then decreasing as new variants of concern (VOCs) became dominant and public health mitigation measures such as masking, non-essential business closures, school closures, and reduced capacity limits in social settings were implemented as a response to control spread.²



Note: the date is based on the episode date, which is an approximation of symptom onset and is not the same as the date the case was reported to Southwestern Public Health.

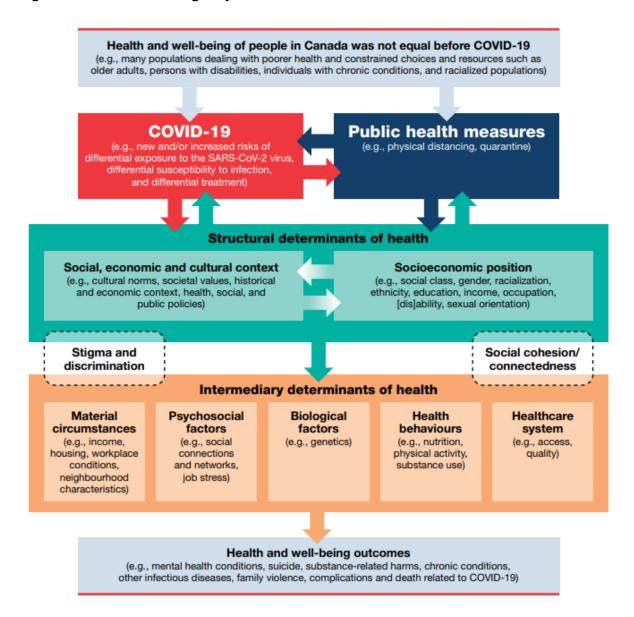
Direct vs. Indirect Health Impacts

The direct health impacts of COVID-19 are measured by how many people got sick and their outcomes (i.e., hospitalizations, deaths). This information was routinely reported by many sources including the Southwestern Public Health COVID-19 cases dashboard.³ Indirect health impacts are the unintended consequences of the pandemic and the mitigation measures implemented to slow down the spread of COVID-19. For example, the closure of businesses and stay-at-home mandates created a loss of income for many people and since income is a social determinant of health, this was predicted to worsen health. The indirect health impacts are complicated by the fact that not everyone had the same level of access to resources or health before the pandemic, and the mitigation measures may have increased the disparity between some groups of people (e.g., working poor and the wealthy). There are many possible indirect health impacts resulting from the pandemic and the pathways describing how these health impacts can occur are complex. There are multiple frameworks that can be used to frame the discussion – these frameworks are described in more detail in the next section.

Frameworks

The Public Health Agency of Canada shared a framework in their report *From Risk to Resilience: An Equity Approach to COVID-19* (Figure 1).¹ This framework highlights that not everyone had equal health before the pandemic and shows how the social determinants of health are interwoven with public health mitigation measures and intermediary determinants of health (i.e., material conditions, psychosocial factors, biological factors, health behaviours, and health care) to influence health and well-being outcomes.

Figure 1. Public Health Agency of Canada Framework



The Center for Global Development created the framework shown in Figure 2 to highlight the complexity of indirect health impacts stemming from COVID-19 with a focus on economic impacts, environmental impacts, health system impacts and social/behavioural impacts. They differentiate between potential short-term impacts and medium to long-term impacts to describe the overall impact. The net health impact is the result of prevented COVID-19 deaths and non-COVID-19 deaths (either an increase or decrease) due to public health mitigation measures.

Short-term Medium- and long-term Overall impact Economic impact Poverty Drop in remittances Poverty Mortality Food insecurity and malnutrition Loss of human capital Morbidity Loss of education Malnutrition/ Unemployment starvation † Mental health needs **Environmental impact** Drop in outdoor pollution · Less automobile and moto traffic · Rise in indoor pollution Health system impact Weaker health systems Services suspended Services displaced Backsliding on hard-fought Services inaccessible health gains Other social/behavioral impact Unwanted pregnancies · Mental health, rise in suicides Mental health, substance abuse · Domestic/child abuse

Indirect lives saved

↓ Road traffic

I Outdoor pollution

mortality Cleaner water

mortality

Figure 2. Center for Global Development Framework

Indirect lives lost

† RMNCH mortality

↑ NCD mortality

† Indoor pollution

† Starvation

† Suicides

mortality

Early Findings

COVID deaths

averted

Total unmitigated

COVID deaths -

COVID deaths with

mitigation strategy

Across the country, the health care system rapidly changed by switching to virtual care where possible and delaying non-urgent procedures such as some planned surgeries. At the same time, people also sought health care differently or may not have sought care at all, even when they needed to. The Canadian Institute for Health Information (CIHI) found that by April 2020, there were about half as many emergency department visits as usual and that fewer people were seeking help for serious concerns like cardiac events and trauma. This change in behaviour and accessibility of services may have caused some health indicators (particularly service use indicators) to appear like they improved during the pandemic; however, this is likely not the case.

Net health impact

Findings from a Statistics Canada survey conducted during the first wave of the pandemic (March 29-April 3, 2020) verified that many people changed their behaviours early on, including their health care service use. They found that 84% of people were anxious about overloading the health care system.⁶ Health care system capacity was a major narrative of the COVID-19 pandemic with public health mitigation measures implemented to preserve hospital capacity to treat emergencies. As the number of cases decreased into the summer of 2020 and restrictions eased, the number of emergency department visits increased to 88% of normal volumes.⁷ Into the summer of 2021, emergency department visits were still lower than pre-pandemic levels.⁷

Not only were people worried about the health care system – over half (54%) of people were worried about the health of a household member, 36% were worried about their own health, and 32% were worried about family stress from confinement. Physical distancing, business and school closures, and isolation requirements created loneliness and a loss of social support for many and was especially concerning for children, young adults, and older adults. Phe Canadian Perspectives Survey Series (CPSS) conducted between March 29-April 3, 2020 found that only 54% of people reported excellent or very good mental health; this was lower than pre-pandemic levels based on the Canadian Community Health Survey (68%). The CPSS also found that women and youth (15-24 years) were less likely to report excellent or very good mental health. Many essential workers, such as front-line health care workers, also experienced more stress in their jobs with increased demands resulting in burnout. A survey from November 24-December 13, 2020 found that only 33% of health care workers reported very good or excellent mental health.

Mental health is often referenced as a major consequence resulting from the pandemic but is not the only aspect of health affected. A rapid review conducted by Public Health Ontario found that mitigation measures had early unintended consequences like decreased immunization coverage, physical inactivity and unhealthy eating, increased screen time and sedentary behaviour, and changes to children's healthy growth and development and mental health. Similarly, Statistics Canada found that behaviours changed early on in the pandemic – people reported spending more time on the Internet, watching TV, playing video games, and consuming alcohol. Of particular concern is the worsening opioid crisis as many provinces

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^a Differences in findings between these two surveys may be partly due to differences in methodology. The CPSS is a new, experimental project undertaken by Statistics Canada using volunteers who agreed to participate over a period of one year. The CCHS is a well-established survey conducted since 2001 using complex sampling frames to reach households.

reported more overdoses and deaths related to increasingly toxic drug supplies, lack of social support, using alone, and reduced health care accessibility.¹

Purpose of this Report

frameworks.

We analyzed several indicators focusing on mental health, substance use, violence, and the economy to determine if and how COVID-19 mitigation measures influenced the health and well-being of people living in the SWPH region. We plan to continue monitoring these indicators for the next several years to see if there are sustained (long-term) indirect health impacts after the implementation of COVID-19 mitigation measures. The Public Health Agency of Canada highlighted that there may be long-term impacts in the following areas:¹

- Economic stability from business closures
 - As of March 2021, one year into the pandemic, economic activity remained below pre-pandemic levels and the number of active business declined across most industrial sectors (e.g., construction, manufacturing, retail, food services).¹³
- Educational gaps from school closures and virtual learning
 - For example, Statistics Canada reported that there is a sustained decrease in new registrations and certifications for skilled trades that may increase pressure on an aging skilled labour workforce.¹³
- Health system impacts from delayed non-essential services
 - For example, Statistics Canada reported that cancer simulation models show an increase in projected cancer cases when screening is re-implemented. A sixmonth delay in screening is predicted to lead to 250 additional breast cancer deaths and 960 additional colorectal cancer deaths across Canada.¹³
- Physical activity levels and sedentary behaviour from gym closures, cancelled sports/recreation, and physical distancing requirements including stay at home orders.
 However, long-term impacts are not limited to these areas, as was demonstrated in the different

This report does not summarize all possible health concerns or social determinants of health that could have been affected by the pandemic, instead we focused on mental health, substance use, violence, and the economy. We examined trends over time (yearly) for different age groups, where possible. Although we cannot directly attribute changes over time to COVID-

19 mitigation measures, the information can provide insight into future considerations when responding to similar pandemics (e.g., those without a vaccine or treatment for a long period of time that require physical distancing to reduce spread). The data in this report can also be used to guide and evaluate the success of recovery strategies.

Health and Social Indicators

Mental Health

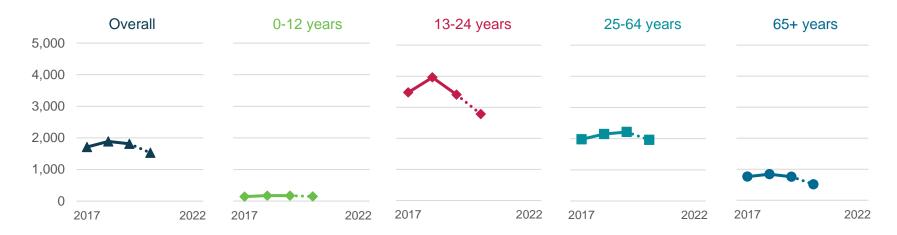
Mental health emergency department visits

- Emergency departments are often the first point of care for people, especially if other services are not available or accessible.
- Before the COVID-19 pandemic, local rates of emergency department visits for mental health concerns such as mood disorders, anxiety disorders and substance use were around 1,800 per 100,000 population each year. Within subgroups of the population, the rates were highest among people aged 13 to 24 years.
- It was anticipated that this extra stress would lead to more mental health services being
 used in the community. However, during the COVID-19 pandemic, we saw a general
 decrease in emergency department visits for all health concerns because many people
 avoided visiting the hospital due to fears of getting sick with COVID-19 or overloading the
 hospital system.
- A study conducted in Kitchener-Waterloo found that there were decreased emergency department visits for substance use and mental health (including mood, situational crisis, and self-harm) during lockdown (March-September 2020) compared to the same time the year before.¹⁴
- In 2020, the local rates of emergency department visits for mental health decreased very slightly from pre-pandemic rates. However, rates in the 13–24-year age group continued to substantially decrease in the first year of the pandemic.

Emergency department visits for mental health continued to decrease in the 13–24-year age group

Rates per 100,000 population

Source: Ambulatory Emergency External Cause & Population Estimates & Population Projections, Ontario Ministry of Health, IntelliHEALTH



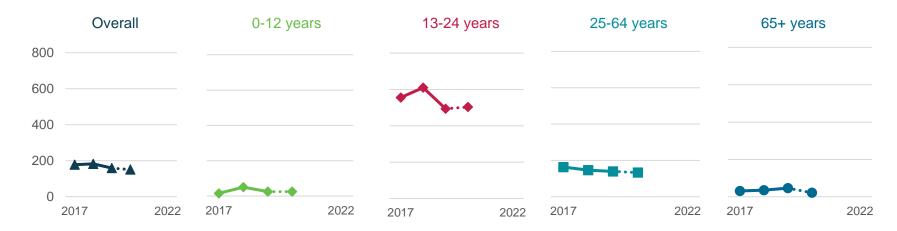
Self-harm emergency department visits

- Before the pandemic, the rates of emergency department visits for self-harm (deliberate self-inflicted injury with or without the intent to die) were around 200 per 100,000 population each year and were consistently higher among people aged 13 to 24 years compared to people of all other ages.
- The Canadian Institute for Health Information found that across the country, there was a 14% decrease in emergency department visits for self-harm between March-September 2020 compared to the same time the year before.¹⁵ The decrease in self-harm visits was smaller than the decrease noted for other types of visits.
- Although emergency department visits for most reasons decreased at the start of the pandemic, there was no decrease in local visits for self-harm specifically. It is unknown whether there were more mental health concerns in the community than pre-pandemic which muted the decreasing trend as seen in other indicators (i.e., some people were still reluctant to seek help, but more people needing help averaged out the data), or if the rates of self-harm remained stable and the pandemic was less likely to stop people from visiting the hospital due to self-harm compared to other reasons.
- Notably, this indicator only includes self-harm occurrences where hospital care was sought and does not represent suicide deaths. Suicide can lag after major events like pandemics and will be important to monitor in the future.¹⁵

Emergency department visits for self-harm remained similar during the COVID-19 pandemic

Rates per 100,000 population

Source: Ambulatory Emergency External Cause & Population Estimates & Population Projections, Ontario Ministry of Health, IntelliHEALTH



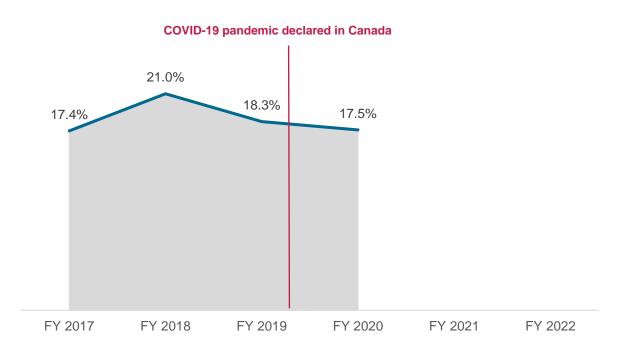
Repeat unplanned emergency department visits for mental health concerns within 30 days within Southwestern Public Health hospitals

- Emergency departments are typically used at times of crisis when no other options are
 available and may be the first point of health care contact for many people. Repeat
 emergency department visits may indicate that people are not being provided follow-up care
 in the community or that there are long wait times to receive such care.
- In the Southwestern Public Health region, there are four hospitals (three in Oxford County and one in Elgin St. Thomas). Before the pandemic, around 20% of people visiting local emergency departments for mental health concerns re-visited an emergency department within 30 days for either mental health or substance use concerns.
- There was no notable change in repeat unplanned emergency department visits for mental health concerns in the first year of the pandemic.

Repeat unplanned emergency department visits for mental health concerns remained similar during the COVID-19 pandemic

The fiscal year in this figure is one month earlier than other Ministry fiscal reporting to account for re-visits within 30 days; it is from March 1 to February 28/29

Source: National Ambulatory Care Reporting System (NACRS), Ministry of Health, IntelliHEALTH ONTARIO



Self-perceived mental health

- The Canadian Perspectives Survey Series found that early in the pandemic (March-April 2020), fewer Canadians reported excellent or very good mental health (54% compared to 68% in 2018 based on the Canadian Community Health Survey). 10
- During the second wave of the pandemic (September-December 2020), it appeared that excellent or very good self-perceived mental health increased slightly (to 60%) but was still lower than in 2019 (67% based on the Canadian Community Health Survey). 16 The Survey on COVID-19 and Mental Health conducted by the Public Health Agency of Canada found that females, people under 65 years, people living in urban areas, and people absent from work due to COVID-19 were less likely to report positive mental health. 16
- Locally, before the pandemic, the per cent of people reporting excellent or very good selfperceived mental health was over 60% in 2017-2018, which was a decrease compared to 2015-2016 (over 70%).

Self-perceived mental health was worsening before the pandemic

Excellent or very good self-perceived mental health

Source: Statistics Canada. Table 13-10-0113-01 Health characteristics, two-year period estimates. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1310011301

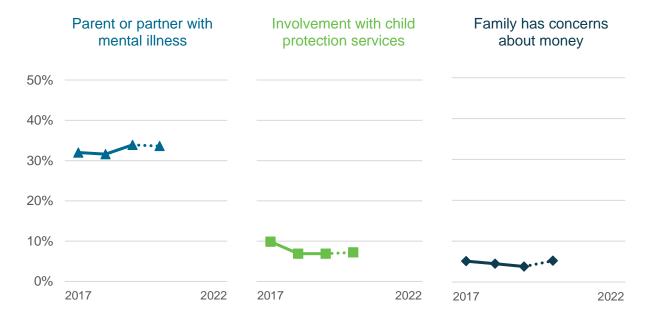


Risk factors for healthy child development

- Before COVID-19, about 30% of families had a parent or partner with mental illness, less than 10% were involved with child protection services and about 5% or less had concerns about money according to Healthy Babies Healthy Children screening results.
- It was expected that parental mental health would be impacted by the pandemic due to increased stressors and similarly it was expected that more people would experience financial concerns due to reduced work and/or job loss from business and school closures.
- There were no notable changes in these indicators in the first year of the pandemic.

Risk factors for healthy child development remained stable in the first year of the COVID-19 pandemic

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Snapshots: Risk factors for healthy child development Snapshot. Toronto, ON: Queen's Printer for Ontario; 2020. Available from: https://www.publichealthontario.ca/en/data-and-analysis/reproductive-and-child-health/healthy-child-development



Wellkin case load

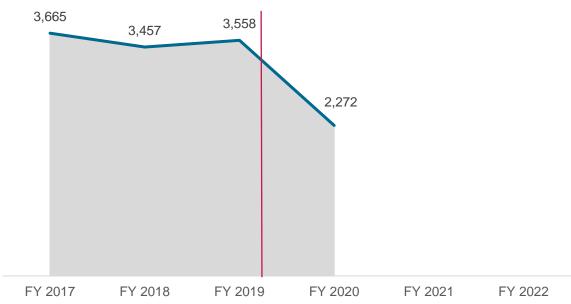
- Wellkin delivers family mental health care with a focus on children and youth. There are many different reasons why people seek services at Wellkin. Some of the most common presenting issues are anxiety, assistance with parenting, separation and divorce, school behaviour issues and self-harm statements or behaviour.
- Wellkin currently has offices in Woodstock, St. Thomas, Tillsonburg, and Ingersoll. Before COVID-19, there were about 3,500 clients each fiscal year and about half were between 8 to 13 years old. The number of clients served by Wellkin decreased in the first year of the pandemic to just over 2,000 people. Although Wellkin remained open during the pandemic, some services may have been modified or limited by public health restrictions.

The number of people receiving mental health care from Wellkin decreased in the first year of the pandemic

The fiscal year in this figure is from April to March

Source: Wellkin





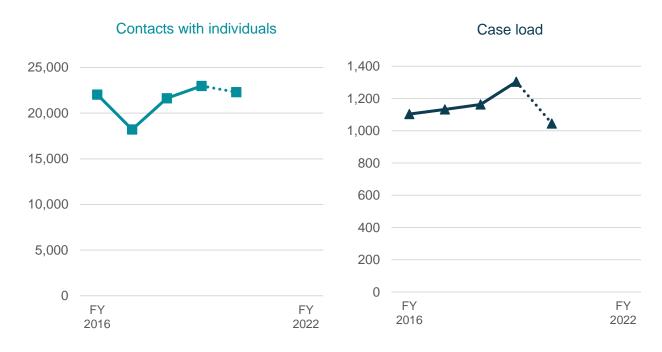
Canadian Mental Health Association - Oxford

- The Canadian Mental Health Association offers crisis and outreach services, dialectical behaviour therapy (reality acceptance skills) resources, community education, support groups, peer support, treatment, counselling, and partners with the Woodstock Police Service and Ontario Provincial Police in their mobile response program.
- Before COVID-19, the Canadian Mental Health Association (CMHA) Oxford location had contact with around 20,000 individuals each year with approximately 1,000 becoming cases.
- During the first year of the pandemic, the number of contacts with individuals remained similar but the overall caseload decreased, especially compared to the previous year.
 Although CMHA Oxford remained open during the pandemic, some services may have been modified or limited by public health restrictions.

The CMHA Oxford caseload decreased in the first year of the pandemic

The fiscal year in this figure is from April to March

Source: Canadian Mental Health Association - Oxford



Substance Use

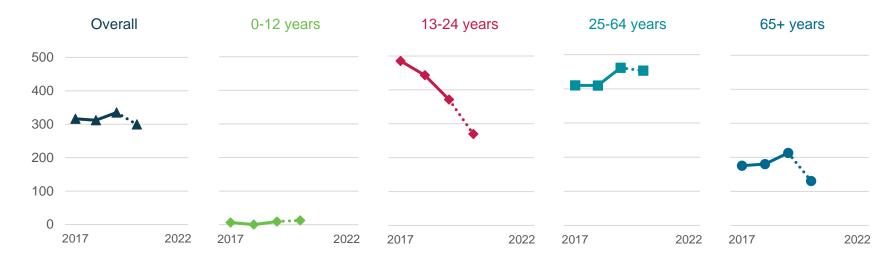
100% alcohol-attributable emergency department visits

- At the start of the pandemic, many businesses (including bars and restaurants) were
 deemed non-essential and closed. However, liquor stores were considered essential and
 remained open throughout the pandemic. Across Ontario, monthly increases in alcohol
 sales were highest at the start of the pandemic (\$462 million in March 2020 compared to
 \$335 million in March 2019), which was a 38% increase.¹⁷
- Zipursky et al. did not find that the increased alcohol sales led to immediate increases in alcohol-attributable emergency department visits.¹⁷ Like many other emergency department visit indicators, they noted a decrease in alcohol-related visits at the start of the pandemic, but the decrease was less substantial than the decreases noted for other reasons.¹⁷
- Locally, before the pandemic, the rates of emergency department visits for conditions
 caused entirely by alcohol use were around 300 per 100,000 population each year and the
 rates were notably decreasing over time in the 13–24-year age group.
- The decreasing trend continued in the 13-24-year age group during the first year of the pandemic. The rate also decreased in the 65+ year age group during the first year of the pandemic, but all other age groups did not substantially change.

Emergency department visits from alcohol use decreased notably in the 65+ year age group during the first year of the COVID-19 pandemic

Rates per 100,000 population

Source: Ambulatory Emergency External Cause & Population Estimates & Population Projections, Ontario Ministry of Health, IntelliHEALTH



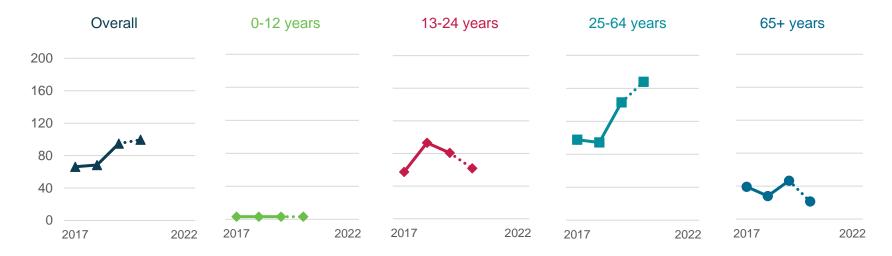
Opioid poisoning emergency department visits

- During the pandemic, we saw a general decrease in emergency department visits for all health concerns. That trend did not hold true for opioid poisonings. Nationally, emergency department visits for opioid poisoning increased by 16% in the first year of the pandemic (March-September 2020) compared with the same time the previous year. The largest increase was seen in September (88% increase compared to the previous year). This increase is attributed to increasingly toxic drug supplies and reduced access to mental health and addiction services, including harm reduction.
- In 2019, before the pandemic, the rate of emergency department visits for opioid poisoning increased to around 90 visits per 100,000 population compared to around 70 visits per 100,000 population in previous years. This increase was largely seen among people aged 25-64 years, which have the highest rates of emergency department visits for opioid poisoning.
- In the first year of the pandemic, there was a very slight increase in emergency department visits for opioid poisoning locally, with decreased visits in the 13-24 year and 65+ year age groups. However, there was an increase in the rate for those 25-64 years.

Emergency department visits for opioid poisoning increased in the first year of the pandemic, primarily in the 25–64-year age group

Rates per 100,000 population

Source: Ambulatory Emergency External Cause & Population Estimates & Population Projections, Ontario Ministry of Health, IntelliHEALTH



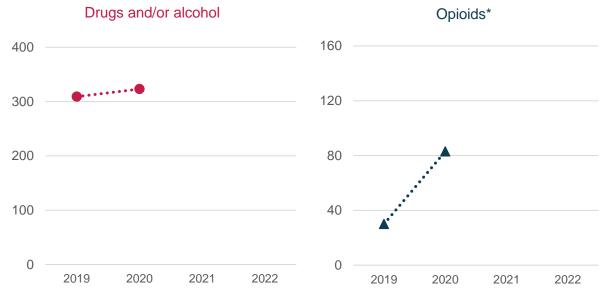
Emergency Medical Services (EMS) calls for opioids and alcohol

- Before COVID-19, there were around 30 calls per year to Oxford County Paramedic Services for opioid overdoses. However, this was the first year that a new code was implemented to track opioid-related calls.
- In the first year of the pandemic, the number of calls for opioids more than doubled but the number of calls for drugs and/or alcohol use remained similar between 2019 and 2020.

The number of emergency services calls for opioid overdoses more than doubled in the first year of the COVID-19 pandemic

Number of calls to Oxford County Paramedic Services

Source: Oxford County Paramedic Services

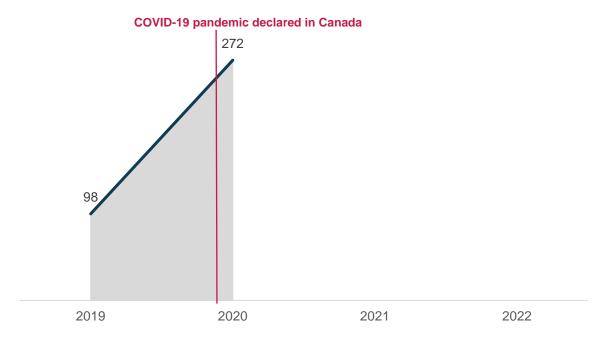


Calls to Southwestern Public Health for mobile outreach

- Southwestern Public Health offers anonymous and confidential harm reduction supplies,
 naloxone training, education, and counselling as a mobile service as required.¹⁹
- The mobile service was first offered in 2019, with 98 calls over the year.
- The number of calls during the pandemic almost tripled with a total of 272 calls in 2020.

The number of calls for mobile outreach more than doubled since it began in 2019 Number of calls to Southwestern Public Health

Source: Regional HIV/AIDS Connection

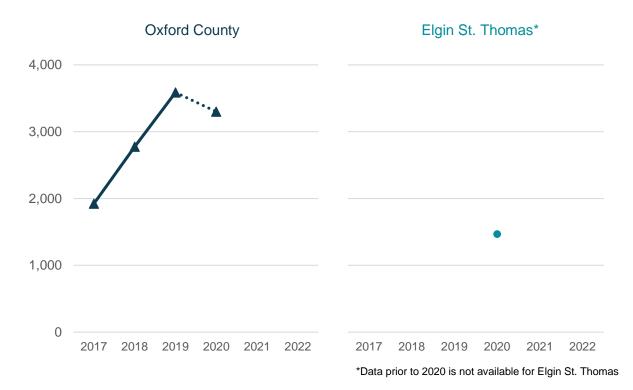


Needle Syringe Program client encounters at Southwestern Public Health

- The Needle Syringe Program provides sterile supplies and services to reduce harm among people who use substances. 19 This program is confidential and free. The program was previously called the Needle Exchange Program but was updated to reflect that people using the service are not required to exchange used equipment for new equipment.
- Before the pandemic, the number of client encounters in the Needle Syringe Program was increasing each year in Oxford County (no data available for Elgin St. Thomas).
- Although the program remained open at both sites during the pandemic with extra precautions in place, the number of client encounters decreased in 2020 in Oxford County.

The number of client interactions in the Needle Syringe Program decreased during the first year of the COVID-19 pandemic in Oxford County

Source: Southwestern Public Health

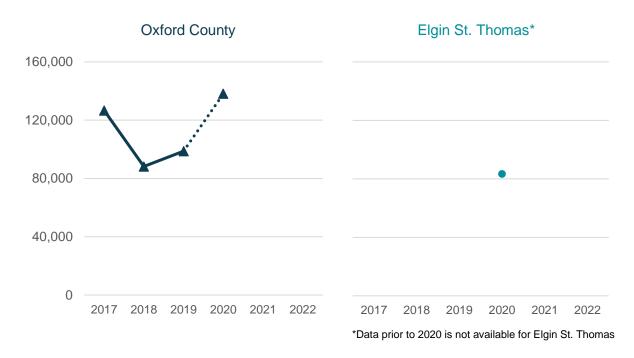


Estimated sharps return rate to Southwestern Public Health

- Although people are not required to exchange used equipment (like sharps) to obtain new equipment as part of the Needle Syringe Program, it is encouraged that people bring in used equipment for safe disposal.¹⁹
- Before the pandemic, around 100,000-120,000 sharps were returned each year through the Needle Syringe Program in Oxford County (no data available for Elgin St. Thomas).
- This program continued at both sites during the pandemic with extra precautions in place. However, before, during and after the pandemic, people could/can dispose of sharps in other ways, for example by using sharps bins in the community.
- During the first year of the pandemic, the number of sharps returned increased in Oxford County to just above levels seen in 2017 and well above levels seen in 2018 and 2019.

The number of sharps returned to Southwestern Public Health increased during the first year of the COVID-19 pandemic in Oxford County

Source: Southwestern Public Health



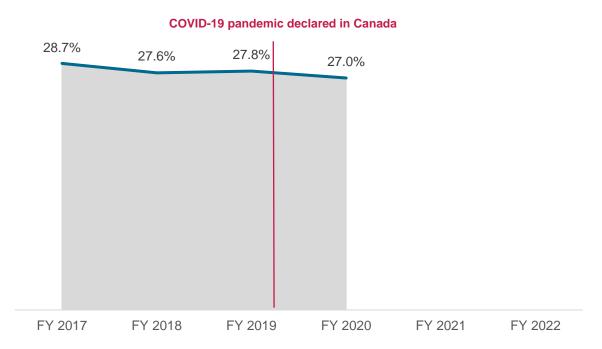
Repeat unplanned emergency department visits for substance use concerns within 30 days within Southwestern Public Health hospitals

- Emergency departments are typically used at times of crisis when no other options are
 available and may be the first point of health care contact for many people. Repeat
 emergency department visits may indicate that people are not being provided follow-up care
 in the community or that there are long wait times to receive such care.
- Before the pandemic, almost 30% of people visiting the emergency department for substance use concerns re-visited an emergency department within 30 days for either mental health or substance use concerns.
- In the first year of the pandemic, there wasn't any change in repeat unplanned emergency department visits for substance use concerns.

Repeat unplanned emergency department visits for substance use concerns remained similar during the COVID-19 pandemic

The fiscal year in this figure is one month earlier than other Ministry fiscal reporting to account for re-visits within 30 days; it is from March 1 to February 28/29

Source: National Ambulatory Care Reporting System (NACRS), Ministry of Health, IntelliHEALTH ONTARIO



Invasive group A streptococcus (iGAS) incidence

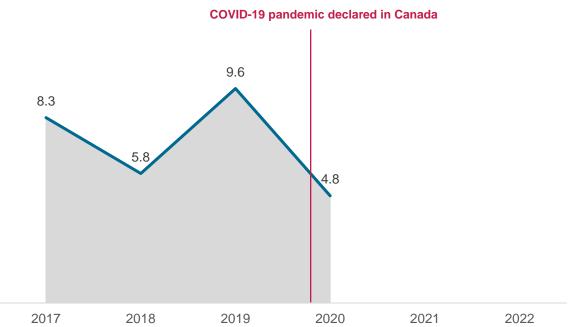
- Group A streptococcal disease often results in mild infections such as strep throat or skin infections, but the bacteria can invade other parts of the body such as the blood or the lining of the brain, which can cause serious infections such as necrotizing fasciitis (flesh eating disease) or complications such as toxic shock syndrome (rapid drop in blood pressure resulting in organ failure). These bacteria can be spread from person to person through direct contact. Injection drug use is a commonly reported behavioural risk factor among people with invasive group A streptococcus (iGAS).
- iGAS is a disease of public health significance with all cases reported to public health.

 Before the pandemic, there were less than 10 new cases of iGAS per 100,000 population each year. Because of the small number of cases each year, the rate is quite unstable, meaning that it is expected to vary a lot from year-to-year.
- In the first year of the pandemic, the rate of new iGAS infections was comparable to the range of pre-pandemic rates.

New invasive group A streptococcus (iGAS) infections varied from year-to-year before and during the first year of the COVID-19 pandemic

Rate per 100,000 population

Source: iPHIS



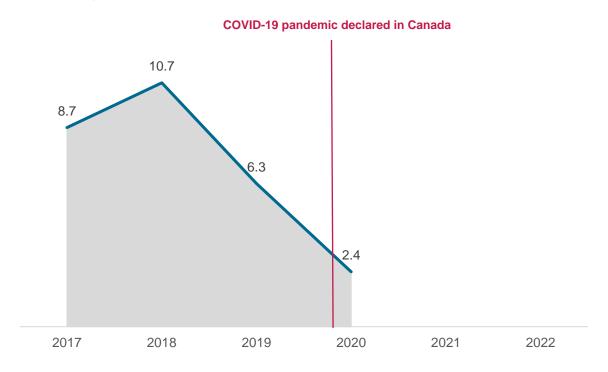
Hospitalizations for endocarditis

- Endocarditis is an infection of the inner lining of the heart. Endocarditis is caused by bacteria
 and fungi from another part of the body that spreads through the bloodstream to the heart.
 People who inject drugs are at high risk of acute endocarditis because needle punctures
 allow bacteria to enter the blood through broken skin. The risk is even higher among people
 who reuse or share needles.
- Before the pandemic, there were between approximately 6-11 hospitalizations per 100,000 population each year for endocarditis, or 13-18 hospitalized people. Because of the small number of hospitalizations each year, the rate is quite unstable, meaning that it is expected to vary a lot from year to year.
- During the first year of the pandemic, there were 5 people hospitalized for endocarditis for a hospitalization rate of 2.4 per 100,000 population. This was the lowest rate since 2017.

Hospitalizations for endocarditis continued to decrease during the first year of the COVID-19 pandemic

Rate per 100,000 population

Source: Discharge Abstract Database (DAD), Ministry of Health, IntelliHEALTH ONTARIO



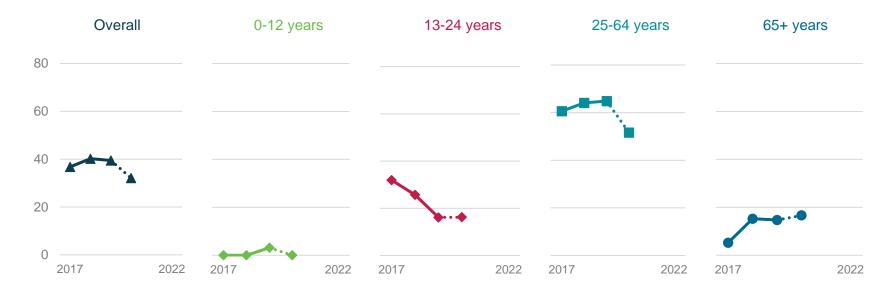
Hepatitis C incidence

- Hepatitis C is a blood-borne infection caused by a virus that causes liver damage. The most common risk factors among people with hepatitis C in the SWPH region are injection drug use, tattoos and piercings, shared drug equipment, and time spent in a correctional facility.
- Before the pandemic, there were around 40 new cases of hepatitis C per 100,000 population each year. Each year, the rates were highest among people aged 25 to 64 years.
- In the first year of the pandemic, the incidence rate of hepatitis C decreased for the overall population, largely because of a decrease in the 25–64-year age group. This decrease may be due to stay-at-home orders and physical distancing that resulted in fewer interactions between people and lockdowns that closed tattoo and piercing shops during the year.

New hepatitis C infections decreased during the first year of the COVID-19 pandemic

Rates per 100,000 population

Source: iPHIS



Substance use treatment

- Before the pandemic, there were over 1,200 unique clients with at least one admission to a Ministry of Health funded substance use service each fiscal year. This could include a variety of types of services, such as initial assessment and treatment planning, case management, community treatment services, residential treatment services and withdrawal management services. The total number of admissions is consistently higher than the number of unique individuals because during the fiscal year, a client could be admitted to a service more than once.
- The number of admissions and unique clients receiving substance use treatment was increasing over time up to the 2019 fiscal year but during the first year of the pandemic, there was a decrease in both admissions and unique clients receiving treatment.

Substance use treatment admissions and unique clients decreased during the first year of the COVID-19 pandemic

The fiscal year is from April to March

Source: Drug and Alcohol Treatment Information System (DATIS), Centre for Addiction and Mental Health (CAMH)



Violence, Crime and Social Disorder

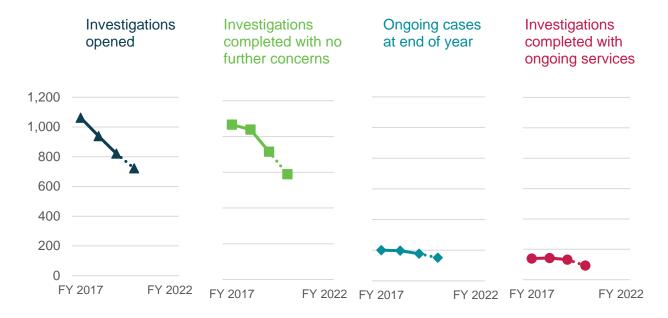
Children's Aid Society case load

- The Oxford County Children's Aid Society (CAS) provided a summary of provincial and regional context which stated that average child protection service volumes have been decreasing across the province over the last few years. A slight decrease was also noted locally, which may be due to a focus on early or preventative help, services that support families to develop networks and collaborative interventions that are tailored to child, youth, and family needs.
- Before the pandemic, the number of investigations opened each fiscal year decreased from 1,062 in the 2017/18 fiscal year to 821 in the 2019/20 fiscal year and the decrease continued into the first year of the pandemic with 722 investigations opened in the 2020/21 fiscal year. Despite the decrease, the most common concerns resulting in a child protection investigation were consistent caregiver(s) with a problem such as mental health or addictions, physical force and/or maltreatment and child exposure to partner violence.

Child protection service volumes were decreasing before the COVID-19 pandemic and that trend continued into the first year of the pandemic

The fiscal is from April to March

Source: Oxford County Children's Aid Society



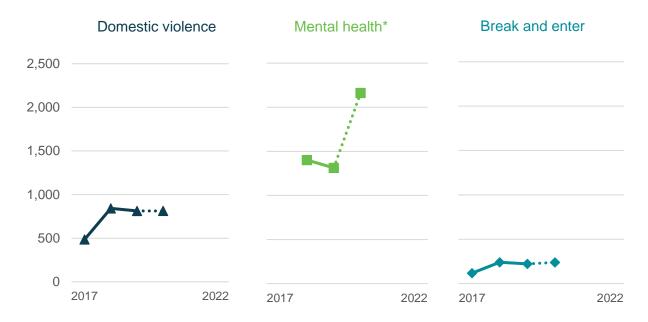
Calls to St. Thomas Police Service

- A study in Kitchener-Waterloo found that early on in the pandemic (March-September 2020), the number of police calls for intoxication, assault, and domestic disputes did not differ from pre-pandemic levels.14
- Locally, before the pandemic, there were over 800 calls for domestic violence, over 1,300 calls for mental health, and over 200 calls for break and enters each year to St. Thomas Police Service.
- In the first year of the pandemic, the number of calls for domestic violence and break and enters were similar to previous years, however; the number of calls for mental health reasons doubled in 2020.

The number of police calls for mental health-related reasons doubled in the first year of the pandemic in St. Thomas

Number of calls to St. Thomas Police Service

Source: St. Thomas Police Service. The number of calls for other reasons can be found in the St. Thomas Police annual reports: http://www.stps.on.ca/services/services-all_documents/



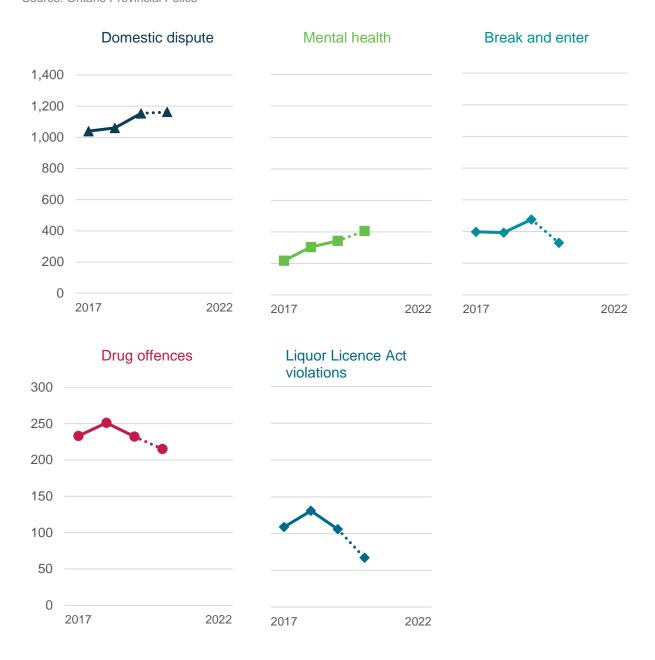
^{*}St. Thomas Police Service did not start tracking mental health-related calls until October 2017 when their first Canadian Mental Health Association clinician began working with them

Calls to Ontario Provincial Police (OPP)

- In the urban areas of St. Thomas and Woodstock, there are separate police services but in the rural areas of the Southwestern Public Health region, the Ontario Provincial Police (OPP) are the police service that typically responds to calls.
- Before the pandemic, there were over 1,000 calls a year to the local OPP for domestic disputes, which was much higher than the number of calls for mental health, break and enters, drug offences, and liquor licence act violations.
- In the first year of the pandemic, the number of calls for domestic disputes initially stayed the same and then decreased the following year. The number of calls for break and enters, drug offences, and liquor licence act violations decreased during the pandemic. However, the number of calls for mental health was increasing prior to the COVID-19 pandemic and that trend continued during the pandemic.

The number of police calls for mental health-related reasons continued to increase during the COVID-19 pandemic

Number of calls to Ontario Provincial Police in Elgin St. Thomas and Oxford County Source: Ontario Provincial Police



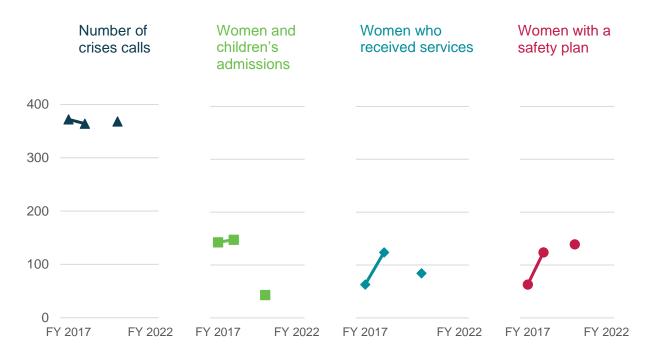
Domestic Abuse Services Oxford (DASO) service use

- Based on experiences from previous pandemics and epidemics, researchers were expecting that the COVID-19 pandemic mitigation measures would lead to more family violence, including domestic violence. More stress, negative coping mechanisms (e.g., substance use), and isolation in precarious homes with less support available (social networks and community services) was expected put people at increased risk.²⁰ There was also concern that school closures and physical distancing from social networks would make it harder to see and report patterns of abuse in children.²⁰
- Before the pandemic, there were twice as many crises calls as women and children admitted to Domestic Abuse Services Oxford (DASO). In the first year of the pandemic, the number of crises calls remained similar, but the number of women and children admitted to DASO decreased substantially. The number of women who received services also decreased in 2020. Although DASO remained open during the pandemic, some services may have been modified or limited by public health restrictions.

The number of women and children's admissions to Domestic Abuse Services Oxford (DASO) decreased in the first year of the COVID-19 pandemic

The fiscal year is from April to March

Source: Domestic Abuse Services Oxford



Data for FY 2019 is currently missing

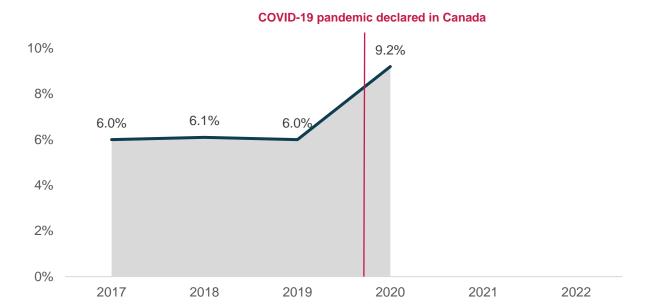
Economy

Unemployment

- When the COVID-19 pandemic was declared in Canada, many businesses were temporarily closed or had reduced services because they were considered non-essential. Many employees were temporarily laid off or had reduced hours of work. The federal government created a support program for these employees called the Canada Emergency Response Benefit (CERB). Post- secondary students unable to find work due to COVID-19 could apply for the Canada Emergency Student Benefit (CESB).
- While some businesses did re-open, other businesses ended up permanently closing due to economic hardship, resulting in job loss. The Public Health Agency of Canada (PHAC) found that early in the pandemic (March-April), workers in lower-wage jobs (particularly workers in the service sector) and women were disproportionately affected because, for the most part, their work could not be done from home and many child care centres were also closed.¹ As businesses re-opened in the summer, PHAC found that lower-wage jobs increased but remained below pre-pandemic levels. Men were more likely to benefit than women (20.5% vs. 5.2%) from the lower-wage job increase.¹ Other groups that were disproportionality affected were racialized, immigrant, and/or Indigenous workers, youth, and post-secondary students.¹
- Before the pandemic, the local unemployment rate was around 6% each year. The unemployment rate in the SWPH region increased to 9% in 2020. In particular, the months of April to June 2020 had exceptionally high unemployment rates (12-17%). This marked the beginning of lockdowns across the region. Since that time, the monthly unemployment rates have decreased gradually but remain slightly higher than pre-pandemic levels.

The local unemployment rate increased after the pandemic, particularly when most lockdowns occurred in 2020

Source: Metro Economics. Monthly data available from: https://www.worktrends.ca/resources/monthly-labour-forcecharacteristics-elgin-middlesex-and-oxford-counties-interactive-tool



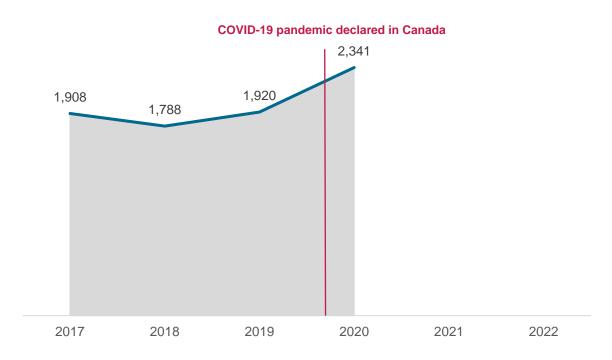
Federal financial support programs during COVID-19

- Due to COVID-19, unemployed Canadians sought financial assistance from the Government of Canada financial support programs, such as the former Canada Emergency Response Benefit (CERB) and Employment Insurance (EI). The CERB program began on March 15, 2020 and came to an end on October 3, 2020, transitioning back to El.
- The CERB and EI data were combined by Statistics Canada to present an overall picture of federal financial support program use. The number of people qualifying for these support programs locally increased in the first year of the pandemic.

The number of people 15+ years that qualified for employment insurance benefits increased in the first year of the COVID-19 pandemic

The monthly data is averaged out over each year

Source: Statistics Canada. Table 14-10-0323-01 Employment insurance beneficiaries by census division, monthly, unadjusted for seasonality. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410032301



Ontario Works recipients

- Ontario Works is a program that helps people pay for essential living costs like food, clothing, and housing and helps people find jobs through workshops, job counselling, training, and education. Ontario Works payments (\$733 per month for basic needs) continued as usual during the pandemic with some additional support offered for travel costs to get a COVID-19 vaccine or other exceptional COVID-19 related costs.
- In Elgin St. Thomas, the number of people receiving Ontario Works and other social
 assistance (temporary care assistance and emergency assistance) has decreased over time
 and that trend continued into 2020 when COVID-19 was prevalent in the community.

Caseload	2017	2018	2019	2020	2021	2022
Ontario Works						
Cases	17,258	16,285	16,359	15,385		
Beneficiaries	30,461	28,993	29,240	27,454		
Temporary Care Assistance Cases Beneficiaries	1,066 1,460	1,119 1,592	1,083 1,570	718 1,037		
Emergency Assistance Cases Beneficiaries	46 71	40 50	41 61	32 39		

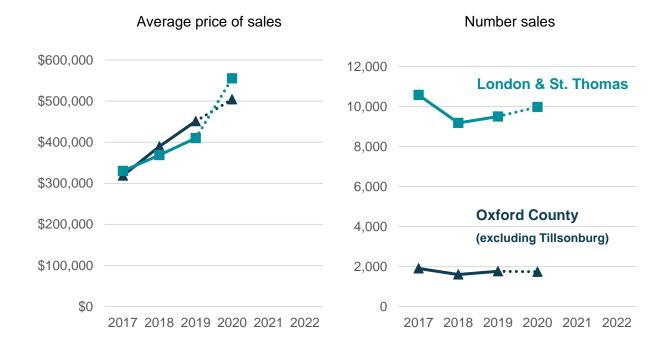
Source: St. Thomas-Elgin Social Services

Real estate prices and sales

- Before the COVID-19 pandemic, the average annual local real estate prices (based on sales) were increasing over time, creating a housing crisis. This trend continued into the first year of the pandemic. The high prices make it very difficult for young adults to enter the housing market in an affordable way.
- In 2020, the Bank of Canada's five-year benchmark mortgage rate decreased from 4.94% in May down to 4.79% in August. Mortgage rates are at their lowest point in recent history. While this lower rate increases housing affordability for some in the short-term, it may also increase homeowners' long-term debt if they do not pay off their debt in a timely manner. This debt could lead to changes in or delaying of retirement plans in the future.
- Although housing prices continued to increase, the number of sales remained steady in Oxford County (excluding Tillsonburg) and increased slightly in London and St. Thomas during the first year of the pandemic.

Before and during the COVID-19 pandemic, housing prices continued to increase Source: Woodstock-Ingersoll & District Real Estate Board (available from: http://www.widreb.ca/stats.php) and

London & St. Thomas Association of Realtors (available from: https://www.lstar.ca/market-updates)



Rental prices and vacancies

- Before the COVID-19 pandemic, the average rent for a one-bedroom apartment in Woodstock and the London Census Metropolitan Area (including St. Thomas) was on an increasing trend. That trend continued into the first year of the pandemic, with an average rent of \$1,147/month in Woodstock compared to \$1,001/month in the London area.
- At the same time, the vacancy rate in each area was on a decreasing trend and was very low (around 2% or less), meaning that there were not many apartments available to rent locally. The decreasing vacancy rate trend continued for Woodstock into the first year of the pandemic. However, the vacancy rate increased to 3.5% in the London area during the first year of the pandemic. The increase in vacancies may suggest that more people were struggling to maintain housing costs locally during the pandemic.

The average rent for a one-bedroom apartment was increasing before the COVID-19 pandemic and that trend continued during the pandemic

Source: Canada Mortgage and Housing Corporation (CMHC). Available from: https://www.cmhc-schl.gc.ca/en/professionals/housing-markets-data-and-research/housing-data/data-tables/rental-market/rental-market-report-data-tables



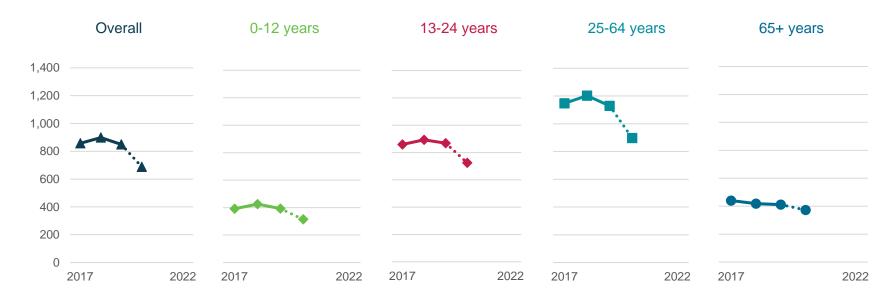
the data is summarized using the month of October.

Oral health emergency department visits

- Emergency departments are typically used at times of crisis when no other options are
 available. People may opt to use emergency departments for oral health concerns if they do
 not have insurance, are unable to afford dental care or cannot access dental care due to
 availability issues.
- At the beginning of the pandemic, dental offices remained open but were not operating at
 full capacity or offering all services due to aerosolization (some procedures can increase
 viral transmission) and a lack of personal protective equipment only urgent and
 emergency care were available in some settings. As of July 2020, restrictions were reduced,
 and services were expanded to include routine preventative appointments once again.
- Before the pandemic, each year there were almost 1,000 emergency department visits for oral health reasons per 100,000 population locally. The rates were considerably higher among people aged 25 to 64 years compared to all other age groups.
- At the beginning of the pandemic, emergency department use decreased for all reasons. It
 appears like this trend also affected oral health emergency department visits as there was a
 decrease in visits during the first year of the pandemic compared to previous years.

Emergency department visits for oral health concerns decreased during the first year of the COVID-19 pandemic Rate per 100,000 population

Source: Ambulatory Emergency External Cause & Population Estimates & Population Projections, Ontario Ministry of Health, IntelliHEALTH ONTARIO



Consumer and business bankruptcies

- Restrictions and closures of non-essential businesses to reduce COVID-19 spread in the community not only had an impact on the workers, but on the businesses themselves.
- In the forward sortation areas overlapping with the SWPH boundary (purple areas) before COVID-19, there were 12 to 15 consumer bankruptcies per year and no business bankruptcies.

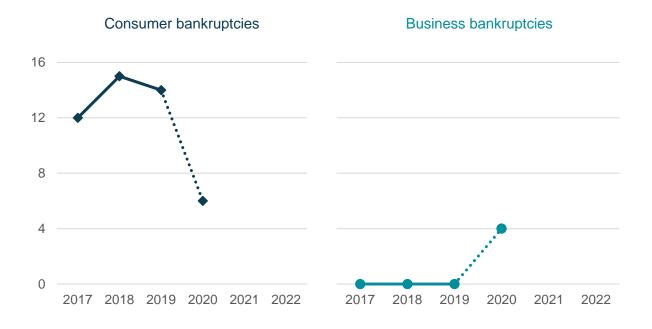


In the first year of the pandemic, there
 were fewer consumer bankruptcies but more business bankruptcies. In 2020, there were 4
 business bankruptcies compared to none the previous three years.

There were fewer consumer bankruptcies but more business bankruptcies during the first year of the COVID-19 pandemic

Number of bankruptcies

Source: Monthly Insolvency Statistics in Canada by Forward Sortation Area (FSA), Innovation, Science and Economic Development Canada. Available from: https://open.canada.ca/data/en/dataset/34e547e9-8e2f-472c-829b-c3c9d2396555



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