

Huron Perth Public Health COVID-19 Disease Report March 2020 – March 2022



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Vision, Mission & Values

Vision

Optimized health and well-being for all.

Mission

HPPH takes action to protect and promote population health and prevent disease, strengthening quality of life and well-being for all.

Values

Equity, Diversity and Inclusion

We value all community members. We are responsive to the communities we serve and commit to finding ways for people to feel safe and welcome.

Evidence-informed Practices

We will use the best available information and public health best practices in our work.

Partnership and Collaboration

We value our relationships and commit to authentic engagement in our work in order to meet the public health needs of our communities.



People

We acknowledge that HPPH staff are the greatest asset to achieving our vision and mission, and commit to creating a healthy workplace together.

Innovation

We embrace new ways to respond to the public health needs of our populations and will use bold and creative approaches as needed.

Accountability

We focus on our public health mandate and are committed to transparent accountability for the use of our resources.

Leadership

All staff are valued as HPPH ambassadors who continually show leadership by using public health knowledge, skills and expertise to improve population health.

Introduction

COVID-19 emerged globally in early 2020 as a novel (new) disease. This meant the virus was capable of infecting every single person on the planet, and as a result – even if most people would experience mild disease – uncontrolled transmission could overwhelm healthcare systems and disrupt society through simultaneous, widespread illness and deaths.

The goal of pandemic response locally, provincially, and across Canada was to minimize serious illness and overall deaths and minimize the impact to the healthcare system, while using the least restrictive public health measures possible. Initially, the response was a containment strategy, i.e., trying to identify every case and break all chains of transmission. With time, because of higher levels of immunity due to vaccinations and infections, the risk of infection changed at both an individual and population level. The strategy shifted to a suppression strategy (where public health measures are intended to cause cases to decline), a mitigation strategy (where public health measures are intended to control the pandemic enough to prevent the healthcare system from being overwhelmed) to a targeted high-risk strategy (where public health measures are primarily aimed to protect those populations/places at highest risk of adverse outcomes), which aligns with our typical response to respiratory illness (such as influenza).

There is no easy path out of the pandemic. Without the collective efforts of everyone in our community to reduce COVID-19 transmission – by following public health measures, as well as building a strong wall of population immunity through vaccination – there would have been much more societal disruption, and an even higher number of infections and deaths due to the virus. Your efforts made a difference and worked to save as many lives as possible.

At the same time, there were unavoidable impacts (such as increased social isolation for some people and delayed healthcare for other conditions) from measures, including lockdowns, school closures, stay-at-home orders, and capacity limits in indoor settings. Leaders and public health experts made difficult decisions to balance the disruption of public health measures with the disruption and death that would be caused by uncontrolled COVID-19 spread. People who were already living in challenging social and economic conditions often were disproportionately impacted by the pandemic, and by the public health measures taken to control the pandemic. It is important to identify these inequities and to identify ways to avoid such inequities moving forward.

This is the first of three reports describing Huron Perth Public Health's (HPPH) response to the COVID-19 pandemic. It provides a high level overview of COVID-19 disease in Huron Perth, and of HPPH's actions to prevent and control virus transmission from March 2020, when a global pandemic was declared, to March 2022 (considered the acute pandemic phase). The other two reports will cover:

- 1. the rollout of COVID-19 vaccines in Huron Perth
- 2. non-COVID public health programs and services during the pandemic.

An additional challenge faced by Huron Perth Public Health was the fact that HPPH had only come into existence several weeks before the pandemic began. Supported by the newly formed HPPH Board of Health, staff from the former Perth District Health Unit and Huron County Health Unit provided an unprecedented local public health response to a global pandemic unlike anything seen in our lifetimes.

HPPH is an organization that is committed to listening to and meeting the public health needs in our communities. Thank you for taking the time to read this report.

Miriam Klassen Medical Officer of Health and CEO Huron Perth Public Health



Why did COVID-19 require a significant response?

The speed of COVID-19 spread, and therefore the urgent need for a COVID-19 response, surprised many people. The last similar global pandemic was the 1918 influenza pandemic, caused by an H1N1 influenza virus².

Although there are seasonal coronaviruses that cause respiratory illness, COVID-19 was a novel (new) coronavirus strain. Therefore it was capable of infecting every single person on the planet. No one had immunity.

Although most people who contracted the original form of COVID-19 experienced mild disease, a small but significant proportion of people fell severely ill and some died. This was alarming to political leaders and public health experts, since even a small proportion of a large number can quickly disrupt a society through illness, death and healthcare collapse (as it did to several countries at the start of the pandemic).

In 2020, COVID-19 was the third leading cause of death in Canada after cancer and heart disease³. From March 2020 to February 2022, there were 7.4% more deaths in Canada than would have been expected if there were no COVID-19 pandemic, after accounting for changes in population, such as aging. This calculation includes excess deaths directly due to COVID-19 infection and may include excess deaths indirectly caused by consequences of the pandemic (such as overdose-related deaths that showed a substantial increase since the beginning of the COVID-19 outbreak)⁴.

COVID-19 brought about many complex challenges. The virus spread quickly and affected many sectors at once; this meant that supplies of essential emergency resources such as testing supplies and personal protective equipment (PPE) were quickly depleted locally, nationally and around the globe.

Typically in emergency response, one valuable strategy is mutual aid — helping a neighbouring jurisdiction in need, or requesting help from a neighbouring jurisdiction. However, because COVID-19 affected the entire planet and disrupted the supply chain, mutual aid was difficult to provide and access.

Some groups were

disproportionately impacted by both the health outcomes of the pandemic and the response measures, including older adults, essential workers, children and youth, racialized populations, Indigenous Peoples, people living with disabilities, women, members of 2SLGBTQI+ communities, people who use drugs, people living on low incomes, newcomers to Canada, and people who are experiencing homelessness and/or are under-housed¹.

The ability of a disease to cause such devastation through a pandemic is why emergency management is one of the core components of public health in Ontario. Emergency management is part of the Ontario Public Health Standards. Effective emergency management ensures that public health units have the capacity to respond to new and emerging events, and are able to cope with and recover from a range of disruptions to public health programs and services.



International

Because COVID-19 was a global public health emergency, there was an international pandemic response led by the World Health Organization (WHO). The WHO declared COVID-19 a global pandemic in March 2020. The WHO's work included:

- gathering information on the number of COVID-19 cases around the globe
- gathering and distributing information on:
 - O how to test for COVID-19
 - how people could protect themselves and others against COVID-19
 - O how to medically treat COVID-19 patients
- sending equipment and supplies to countries in need

Although the WHO provides advice and recommendations, the WHO does not direct national or provincial response or measures.



Canada

In Canada, the federal government led the national response to the pandemic, supporting the provinces and territories. The federal cabinet made final decisions on:

- putting in public health measures for federal areas such as border control and international travel into Canada.
- providing financial support to people and businesses affected by the pandemic.

The Public Health Agency of Canada and the Chief Public Health Officer led the public health response, including:

- gathering information on the number of COVID-19 cases across the country
- gathering and distributing information on:
 - O how to test for COVID-19
 - how people could protect themselves and others from COVID-19
 - O how to medically treat COVID-19 patients
- locating and supplying resources such as personal protective equipment
- sharing information with the public to increase awareness and understanding of COVID-19,
- making recommendations to the federal cabinet on international border and travel health measures
- authorizing vaccines and medical treatments for COVID-19

In Canada, each province and territory manages their own health system.



Ontario

The provincial government led the pandemic response in Ontario. The provincial cabinet made final decisions on:

- provincial legislation for public health measures (such as setting or lifting stay-at-home orders)
- providing financial support to people and businesses affected by the pandemic.

The Office of the Chief Medical Officer of Health (OCMOH) and the Ministry of Health led the public health response, including:

- gathering and distributing information on:
 - O how to test for COVID-19
 - how people could protect themselves and others from COVID-19
 - O how to medically treat COVID-19 patients

The OCMOH also:

- set guidelines around case definitions, screening, testing, and reporting as well as public health measures
- developed and shared resources for the health sector and other partners
- put in place directives for sectors such as hospitals, long-term care homes and EMS
- gave direction to local public health units regarding additional public health actions, as needed, to augment the local response to COVID-19.

Ontario's public health system gives provincial direction but also recognizes that each health unit knows their communities very well and works to give their communities the right public health services for the community's needs.



Huron-Perth

Local public health units, including HPPH, were and continue to be responsible for:

- providing general COVID-19 information as well as information specific to their jurisdiction
- providing case and contact management (follow up with individuals who test positive for COVID-19, to provide isolation guidance and reduce further virus spread)
- investigating and supporting the management of outbreaks
- setting and enforcing (with assistance from law enforcement) local public health measures (e.g. via Section 22 Class Orders, Letters of Instruction, Letters of Recommendation)
- providing information and advice to, and working/liaising with local partners and stakeholders
- responding to citizen inquiries
- leading the rollout of the COVID-19 mass vaccination program (the largest in the history of Huron Perth)

Because HPPH is a local public health unit, we know and work with local partners such as doctors and nurse practitioners, hospitals, municipalities and school boards.

Our partners were very important to help stop the spread and impact of COVID-19.

What are public health practices and measures?

Every public health unit in Ontario is responsible for the control of infectious diseases and diseases of public health significance* in their geographic area. These responsibilities are outlined in the *Health Protection and Promotion Act.*

Even before the pandemic, public health would work with settings such as long-term care and hospitals to prevent and control outbreaks through public health measures. Public health also uses several practices to prevent and control the spread of certain serious diseases such as measles, tuberculosis and certain sexually transmitted infections.

*A disease of public health significance is a disease that can have serious impact on the population if it spreads.

Before COVID-19, many people in Huron-Perth would not have had first-hand experience with these practices. However, the spread and impact of COVID-19 meant that public health units, including HPPH, had to increase the use of the following practices:

- Infection prevention and control (IPAC)
- Surveillance/case and contact management
- Quarantine/isolation
- Screening
- Physical distancing
- Capacity limits and/or closures
- Masks/face coverings
- Vaccination



Public health practices and measures used during COVID-19 response⁵

Infection Prevention and Control (IPAC)

Infection prevention and control are a series of actions in a setting that help prevent the spread of disease-causing organisms. Typical IPAC practices include washing hands frequently, cleaning surfaces that many people touch and using personal protective equipment (PPE).

Surveillance/Case and Contact Management

Disease **surveillance** is when public health staff collect information such as who is getting sick, what their symptoms are, how quickly people are getting sick and how severe their symptoms are. This information is used to select ways to slow or stop the spread of a disease.

Case investigation and contact tracing (**case and contact management**) is when a public health nurse or inspector talks to someone with a suspected or confirmed case of a specific disease. Public health investigates the disease, (whether it's causing harm and whether it's spreading), **not the person**. The purposes of a case investigation are to:

- Make sure the individual (case) has support (ensuring they know when to seek medical help, whether they need to isolate and for how long, that they have enough supplies to stay isolated).
- Find out from the individual who they had been in close contact with during the time they were possibly contagious (known as the period of communicability).
- Let the contacts of the individual know that they may have been exposed to

- the disease, and advise the contacts on what to do next (watch for symptoms, and/or isolate, and/or get tested).
- When investigators talk to contacts, they do not reveal the identity of the case.
- Looking at the results of all case investigations helps public health know if, how, and where a disease may be spreading. This information helps public health take action to prevent more people from contracting a disease.

Case and contact management is a basic public health measure that has been used by public health for many decades for serious contagious diseases.

During COVID-19, a health unit would begin case and contact management after they were notified by the provincial lab of a COVID-19 positive PCR test. They would call the person who had tested positive and begin a case investigation.

Public health practices and measures used during COVID-19 response⁵

Quarantine/isolation

While the terms quarantine and isolation were both used during the COVID-19 pandemic, they mean different things. In terms of COVID-19:

- Quarantine is required when an individual has no symptoms **and** they have had an exposure (close contact with an individual for a cumulative total of 15 minutes or more) to someone who has been diagnosed with, or may have, COVID-19⁶.
- Isolation is required when an individual has been diagnosed with COVID-19 infection (generally with a lab-based PCR test or a Rapid Antigen Test (RAT)). A person diagnosed with COVID-19 may or may not have symptoms⁶.

Both quarantine and isolation require a person to stay in their home and avoid close contact with others. This limits further spread of the disease.

The virus changed several times during the pandemic (when variants appeared), as did the ability of most of the population to fight off the virus (before vaccination the population had little protection, after vaccination many people had protection). This meant that the length of time a person had to remain in quarantine or isolation also changed over the course of the pandemic.

Screening

Screening is a way of checking to see if a person is healthy or sick, or is at higher risk of having a disease. During the first two years of the COVID-19 pandemic, screening was used to keep individuals with COVID-19, or individuals who may have been exposed to COVID-19, from entering certain places and possibly spreading the virus to other people.

There are two types of screening:

Passive screening is when a person reviews screening questions on their own and decides for themselves what to do (such as going to their workplace, or entering a business). A sign outside a building that asks people not to enter if they have certain symptoms, or have recently travelled, is an example of passive screening.

Active screening is when someone else confirms that an individual has answered the screening questions, and that the person is allowed to enter the building. A staff member at a dentist's office asking a patient at the door whether they have any symptoms, or have recently travelled, is an example of active screening.

Public health practices and measures used during COVID-19 response⁵

COVID-19 spreads from an infected person to others through respiratory droplets and aerosols that can vary in size. These respiratory droplets and aerosols are created when an infected person breathes, talks, sings, shouts, coughs, or sneezes.

Because COVID-19 spread so fast and was new to humans, the government and public health had to bring in additional measures to limit disease by reducing the chances of droplets spreading between people. Measures ranged from individual level (e.g. physical distancing) to population level (e.g. mask mandates and capacity limits in indoor settings). Some of these measures hadn't been used on a population-wide level since the 1918 influenza pandemic². Most of the public health and workplace measures to prevent COVID-19 transmission were imposed by provincial regulations.

Physical distancing

Physical distancing is when people keep distance between themselves and others to reduce the chances of respiratory droplets and aerosols spreading. Research on COVID-19 showed that droplets typically travel no more than two metres (six feet) after leaving a person's nose or mouth. And while aerosols can travel further, the risk of transmission decreases as the distance from the source increases.

Many public indoor settings required people to physically distance by using signs, one-way only aisles, and separate doors for entering or exiting a building.



Capacity limits and/or closures

Indoor, enclosed, and crowded spaces, as well as poor ventilation, increase the risk of exposure to viruses as the risk of exposure to droplets and aerosols are increased in such settings. Reducing or restricting the number of people (whether they are infected or uninfected with the virus) in a specific space or room decreases the risk of a virus spreading between people.

During the pandemic, there have been closures and/ or capacity limits in many indoor settings such as retail outlets, food premises, sport and recreation facilities, and places of worship. At-home learning and working from home (where possible) were also used to reduce the number of people gathered in indoor spaces. During times when the virus was spreading very rapidly, stay-at-home orders and restrictions on social and public gatherings and events were also implemented.

Public health practices and measures used during COVID-19 response⁵

Masks/Face coverings

Wearing a mask or face covering can do two things to prevent virus spread, depending on the mask:

- **Source protection** is when the mask prevents the wearer's respiratory droplets from spreading to others around them (I wear a mask to protect you; you wear a mask to protect me).
- **Personal protection** is when the mask protects the wearer from breathing in other people's respiratory droplets and aerosols⁷.

For many years, health care staff have used masks as part of personal protective equipment (PPE) in certain circumstances to prevent disease spread. Research over the last two years has shown that masks lower the chances of people spreading COVID-19 to the people around them (when people use them as **source protection**). This means that masks have been an important layer of prevention during the pandemic. As we learned more about COVID-19, and as the pandemic progressed, advice on what type of mask to use and when to wear a mask changed as well.

A person was also at risk of getting COVID-19 if droplets got into their eyes. Getting droplets into someone's eyes was more likely if the person was in close contact with another person, especially if the other person was not wearing a mask. To provide more **personal protection**, people in some workplaces and settings used eye protection (such as a face shield or goggles) in combination with a PPEquality mask. Eye protection and masks have been used by staff in several settings, including schools and school transportation, licensed childcare, and longterm care and retirement homes.



In July 2020, HPPH issued a Letter of Instruction to employers in Huron and Perth counties requiring the use of masks/face coverings in indoor commercial and public spaces. In October 2020, the Ontario government made mask use a requirement province-wide⁸.

Public health practices and measures used during COVID-19 response⁵

Vaccination

Immunity is your body's ability to fight off an illness. It can be gained from an infection or from a vaccine. Once you have immunity to a disease, you are less likely to get sick again from that disease because of your previous exposure to vaccine or disease.



Above: A public health nurse draws up COVID-19 vaccine at a mass vaccination clinic. With some viruses, after infection or a vaccine series, your immunity can be lifelong – this is what happens with measles, hepatitis B and chicken pox. However, with other viruses, your immunity can wane or become weaker with time. This means you can be infected with the virus again. It is also why, for some vaccine-preventable diseases, booster doses are needed. Common seasonal coronaviruses, such as those that cause the common cold, are an example of viruses for which immunity wanes. Immunity to these coronaviruses has been found to wane between six and 12 months after infection.

Research shows that immunity from both natural infection with COVID-19, and from COVID-19 vaccines can also wane over time. However, when you gain immunity through vaccination you get the benefits of immunity with far less risk of severe illness. You may also lower your chances of experiencing post-acute COVID syndrome (also called long COVID) if you do get infected.

Finally, although immunity against acquiring symptomatic infection wanes with time, COVID-19 vaccine induced protection against the severe outcomes of illness such as hospitalization, admission to intensive care, and death persists. The combination of vaccination and other public health measures such as screening, masking, and physical distancing, have successfully reduced the number of cases of COVID-19 and associated serious illness and deaths in Ontario. You can find more information about HPPH's vaccine rollout in the HPPH COVID-19 vaccine report.

Public health practices and measures used during COVID-19 response⁵



Therapeutics

Several prophylactic and treatment medications targeting COVID-19 infections became available in 2021 and 2022, including the antiviral drugs Paxlovid and Remdesivir, and others. The antiviral medications, primarily intended for individuals who are at higher risk of serious illness from COVID-19 infection, reduce the chances of severe outcomes such as hospitalization and death9. While supply was limited initially, therapeutics have become more widely available as an additional tool in the toolbox to manage the COVID-19 pandemic⁹.



In addition to public health measures and vaccines, HPPH continued to share information about the importance of basic personal measures for preventing illness, such as:

- washing hands often
- cleaning and disinfecting surfaces that were frequently touched
- staying home and away from others when sick

The personal actions and public health measures not only helped to prevent the spread of COVID-19 but also other illnesses such as the common cold, influenza viruses, and noroviruses.

Why did guidance and direction change over the two years?

About Waves and Variants

In the beginning of the pandemic, little was known about the virus. Over the last two years guidance and direction regarding COVID-19 has changed, partly because the COVID-19 virus has changed and partly because our available tools increased. This meant that the risk assessment constantly changed and guidance changed in response.

When COVID-19 spreads from person to person, the virus can change its genetic information, causing mutations. This is how variants such as Delta or Omicron appeared. A more familiar example to many people is influenza; influenza viruses are constantly changing.

The COVID-19 variants have had differing abilities to spread (transmissibility), to evade immunity developed from previous infections and/or vaccinations, and to cause illness and death (severity). The Delta and Omicron variants that circulated in 2021 and 2022 were not the same as the original (wild type) COVID-19 virus first identified in early 2020.

This meant that individuals, public health experts and governments had to adjust their approach in reducing the spread of a particular variant.

About Waves and Variants

Over the pandemic, the terms waves and variants have become familiar to many.

Waves, also known as **surges**, are when new COVID-19 cases increase or decrease over a period of time.

As explained, a **variant** is a new form of a virus. As the virus spreads from person to person, the genetic information of the virus can change or mutate in order to better survive its environment. When the virus spreads quickly and infects many people, there is more opportunity for the virus to mutate and create this new form or "variant". There may also be surges in infection when public health measures are discontinued.

The following figures from Public Health Ontario and HPPH illustrate the waves of COVID-19 infection in the province and in Huron-Perth.

Why did guidance and direction change over the two years?

New Confirmed Cases

About Waves and Variants

Figure: Confirmed cases of COVID-19 by public health unit reported date: Ontario, January 15, 2020 to June 14, 2022¹⁰. Note: Changes in testing eligibility went into effect on December 31, 2021, limiting access to testing and resulting in a change in the population being tested.



Confirmed Cases of COVID-19 by Public Health Unit

Reported date





Figure: New confirmed cases by reported date: Huron Perth, March 13, 2020 to March 31, 2022

Why did guidance and direction change over the two years?

About Waves and Variants

While these charts give you an idea of case surges, they are not exact information. The very high number of Omicron variant cases in Ontario during December 2021 meant that the provincial testing system was becoming overwhelmed. The province especially wanted to know if the virus was spreading among people who were at higher risk of being hospitalized or dying from COVID-19, and people who work in high-risk settings such as hospitals and long-term care facilities. So on December 31, 2021, the province made only those two groups of people eligible for PCR tests.

Around the same time, rapid antigen tests (RATs) became widely available. Rapid test results are not reported to public health.

What does this mean?

Not everyone was eligible for PCR tests, and even some of the people who could get a PCR test chose to use RATs instead. This means that the number of people in Ontario and in Huron Perth who actually had COVID-19 is much higher than reported.



Waves of COVID-19 & accompanying events in Huron-Perth and Ontario¹

WAVE 1 (March–June 2020): "Wild type" (original) COVID-19 Humans have no COVID-19 immunity

• MAR WHO a COVID charac a panc	11 assess -19 co cterize demic	es that ould be ed as	• MAR 15 Provinces of childcare pr to close	rders ograms	Ŷ	MAR 18 HPPH closes offices to th public to foo COVID respo	s its e cus on onse	• MAR 29 Province p emergency licensed ch to open	ermits / nildcare
2020		MAR 14 First confirm case in Huro Perth reside	ned on- ent	MAR 17 Ontario de of Emergency and Civil P province-v of non-ess businesses	ecla ncy / <i>Mi</i> rote vide ent	ares State v through anagement ection Act; e-shutdown tial	MAR 20 Schools clos in-person le	sed to earning	
 MAR 30 First COVID-19 related death in Huron-Perth APR 15 & O Province iss and directive care setting care homes 		ONGOING ssues memos ives to health gs, long-term s		JUN 30 HPPH issue of migrant w workers are possible fro	s class order: to vorkers to ensu protected as n m COVID-19	o employers ure migrant nuch as			
		APR 27 Province re <i>A Framewo</i> <i>Opening O</i>	elea ork our l	ases for Province	JUL 14 HPPH issues on use of fa- in indoor co and public s	s instructions ce coverings ommercial spaces			

WAVE 2 (September 2020–January 2021): Wild type

Very few people have COVID-19 immunity, people gathering indoors

C	• AUG 28 HPPH issues Public Health Instructions to private and parochial schools		• OCT 3 Province introduces requirements on use of face coverings in indoor commerical and public spaces, further restrictions		• NOV 3 Province introduces <i>Keeping Ontario</i> <i>Safe and Open Framework</i> of five levels: Green-Prevent, Yellow-Protect, Orange- Restrict, Red-Control, and Lockdown being a measure of last and urgent resort		
	2020	SEPT Schools reopen to in-person learning		OCT 16 First school- COVID expos in Huron-Pe	-related sure reported rth	NOV 29 HPPH issue requiring p been told t quarantine a health ca	es Class Order beople who have to self-isolate or e by public health or are provider to do so.

O DEC-JAN

Multiple outbreaks in long-term care and retirement homes in Huron-Perth. Several of these involve decanting (moving residents out of the facility and into local hospitals) and multiple deaths.

MID-LATE DEC

Long-term care and retirement home healthcare workers start to receive COVID-19 vaccines through London Health Sciences Centre in partnership with Middlesex London Health Unit, Southwestern Public Health and Huron Perth Public Health

DEC 17

Huron Perth Mass Vaccination Advisory Committee (HPMVAC) holds its first meeting to plan for the eventual arrival of COVID-19 vaccine. **DEC 21** Province-wide shutdown announced

WAVE 3 (January–June 2021): Alpha variant

Spreads more easily than wild type



Second-dose eligibility expand

WAVE 4 (July-October 2021): Delta variant

Spreads more easily than Alpha, slightly more severe than wild type, vaccines still provide very good protection against Delta transmission but a little less protection than against Alpha

°	AUG 27 HPPH issues enhanced recommendations for schools • SEPT 7 Schools reo in-person le		open to earning		OCT 6 HPPH issue sports and proof of va with Middl Southwest	es Public Healt recreation faci ccination (join esex London H ern Public Hea	h Instructions for lities requiring t recommendation ealth Unit and lth)	
	2021	SEPT 1 Province introduces COVID-19 vaccination certificates		SEPT 14 HPPH issue Instruction and paroch	es Is fo	or private schools		

WAVE 5 (November 2021-mid-March 2022): Omicron variant

Spreads more easily than Delta, slightly more severe than wild type (but less severe than other variants); vaccination against transmission less effective but protection against severe outcomes remains strong

0	NOV 19 HPPH issue Instructions Places of W	• DEC 9 HPPH issues Recommend social gathe recommend MLHU and S		DEC 13 Province and booster dose eligibility for ation with WPH)		nounces se r those d over		
	2021	NOV 23 HPPH begins offering vaccinations to children ages 5-11		DEC 10 HPPH repo case of Om in Huron-P confirmed)	orts s icro erth	suspected on variant n (later	DEC 17 Province a reduced ca and gather	nnounces apacity limits ring limits

• JAN 5–17 Schools temporarily closed to in person lear	JAN 5–17 Schools cemporarily closed to in- person learning		ccination equired indoor ngs
2022	JAN–FEB Provincial restrictions begin to lift		MAR 21 Masking requirements end in most indoor public settings (not including transit or healthcare settings)

WAVE 6 (mid-March-June 2022): Omicron BA.2 variant

ONGOING

HPPH begins shifting COVID response into regular public health programs and services, also begins planning to resume suspended or reduced non-COVID health programs and services

ONGOING

Good rates of vaccination, as well as widespread infection, result in higher population immunity

Q JUN 11

Provincial mask mandate ends for public transit, hospitals, healthcare, congregate care/ living settings, and shelters; masking still required in longterm care and retirement homes through other mechanisms

2022

ONGOING

HPPH responds to high number of outbreaks in highest-risk facilities

ONGOING

Increased availability of therapeutics including antivirals



How COVID-19 Affected the Health Care System

When COVID-19 was first identified, the health care system had to prepare in several major ways for a surge in infections that would put an increased demand on the healthcare system.

Hospitals needed to ensure:

- they had enough room, equipment and staff members to treat COVID-19 patients
- their staff were protected against COVID-19
- other patients were protected against COVID-19

Generally, hospitals made sure they had enough room, equipment and staff by reducing or stopping the number of elective surgeries and other nonemergency procedures they performed. They protected staff and patients from COVID-19 by putting in infection prevention and control measures, which are a series of actions (screening, enhanced cleaning, wearing personal protective equipment (PPE), changing PPE frequently, limiting who can go into a room with a patient) to lower the chances of transmission. These precautions were important, and also meant more work and time from hospital staff.

Health care providers, such as family doctors, had to:

- make sure they could quickly speak with and treat patients with COVID-19
- make sure they and their staff were protected as much as possible against COVID-19

In order to do this, many health care providers had to reduce or stop non-essential services, or changed how they offered services (such as providing video calls/phone calls instead of in-person visits).

Timeline of Health Care System Impacts

March 2020–March 2022¹¹



non-emergency and non urgent

• surgeries paused

Spread of COVID-19 in Huron–Perth

March 2020-end of March 2022

HPPH published a webpage and dashboards to publicly report COVID-19 case and outbreak data, vaccination coverage, and later in the pandemic, wastewater surveillance (how much COVID is detected in local wastewater).

Case and outbreak information changed whenever changes were made to provincial testing guidance (who is eligible to get tested) or case and contact management (how local public health was directed to follow up on cases). HPPH also changed how often we updated results throughout the acute pandemic phase.



6305 Lab-Confirmed COVID-19 Cases



860 Healthcare Worker

Cases Investigated



889

School-Aged (4-18 Years) Cases Investigated



173 Childcare (<4 Years) Cases Investigated



Spread of COVID-19 in Huron-Perth

March 2020-end of March 2022



It is important to note that case counts (as an indicator of the level of disease activity) are not very accurate; case counts undercount the true number of cases, because many people with symptoms were not eligible for PCR testing at various points in the pandemic and/or people chose not to be tested. Wastewater surveillance is another indicator of disease activity which became widely available.

Testing limitations do not affect indicators of disease severity such as hospitalizations, outbreaks and deaths. These indicators illustrate how severely COVID-19 is affecting the population.

Lab-confirmed Cases by Sector

Sector	Cases
Community (including community and workplace outbreaks)	4920
Congregate Living Residents	67
Long-term Care Home Residents	294
Retirement Home Residents	128
Hospital Patients	36
Health Care Workers	860

Lab-confirmed Cases				
Age	Cases			
0-4	219			
5-9	250			
10-14	282			
15-19	407			
20-24	574			
25-29	594			
30-34	535			
35-39	460			
40-44	412			
45-49	412			
50-54	363			
55-59	423			
60-64	359			
65-69	206			
70-74	203			
75-79	157			
80-84	140			
85+	305			

Spread of COVID-19 in Huron-Perth

March 2020–end of March 2022



195 Hospitalized Due to COVID-19



Huron-Perth Residents Died Due to COVID-19

Hospitaliza	tions by Age Group	Deaths by A	ge Group
Age	Number of Individuals	Age	Number of Individuals
0-39	22	0-39	2
40-59	41	40-59	7
60-79	79	60-79	38
80+	53	80+	52

Deaths by Sector

Sector	Number of Individuals
Community (including community and workplace outbreaks)	37
Long-term Care Home Residents	35
Retirement Home Residents	23
Hospital Patients	4

COVID-19 Outbreaks by Setting

The definition of a COVID-19 outbreak varied by setting and at different points in the pandemic as epidemiology, testing and the public health approach to the virus changed. In general, the declaration of an outbreak identified COVID-19 spread occurring in that setting and triggered measures intended to stop such spread.

38 Long-term Care Home	15 Retirement Home	8 Hospital	34 Workplace
23 Congregate Living Setting	7 Community	18 School	2 Childcare



HPPH staff investigated many more suspect or possible outbreaks, particularly in long-term care and retirement homes, and in schools. While these possible outbreaks did not end up meeting the outbreak definition, these situations still required much time and work from HPPH and the affected organization.

Outbreak reporting changed during Omicron



As mentioned (see page 17), due to the very high number of Omicron variant cases in Ontario during December 2021, testing requirements became limited to only certain high-risk groups. This means that HPPH did not find out about every COVID case, and so could not always know if there were enough cases in a setting to declare an outbreak. While HPPH continued to declare outbreaks for hospitals, long-term care facilities and retirement homes (since those settings were still eligible for PCR tests), HPPH no longer declared outbreaks in community, workplace, school or childcare settings.

Preventing COVID spread in schools and childcare

The HPPH school and childcare COVID team worked with public, Catholic and private schools to keep the spread of COVID as low as possible. The team undertook the following:

- Infection prevention and control (IPAC) assessments:
 - O Visiting schools and working with administrators to complete an IPAC checklist. The checklist outlined IPAC guiding principles and mitigation strategies to reduce the risk of the introduction and spread of COVID-19 in school settings.
- Case and contact management:
 - Working with schools, licensed childcare programs and student transportation services (e.g. school bus companies) to reach any families whose children tested positive for COVID-19 or who may have been in close contact with someone who had COVID-19.
- Consults:
 - O Explaining and answering questions about provincial guidance and regulations.
- Absenteeism monitoring:
 - Finding out from schools and licensed childcare programs if staff and student absenteeism exceeded baseline levels. If a school or licensed childcare program was experiencing a high rate of absenteeism due to illness, the team would recommend actions to reduce further spread of illness.



126 IPAC Inspections Completed



530 Email and Phone Consults (excluding those related to COVID-19 exposures or outbreaks)

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29 Absenteeism Reports



51 Absenteeism Consults



Letters of Instruction, Recommendation and Section 22 Orders

Under the *Health Protection and Promotion Act* (HPPA), a Medical Officer of Health can issue a Section 22 order to "require a person to take or to refrain from taking any action in respect of a communicable disease." Class orders are orders which are issued to a class (or group) of persons.

Similar to a Section 22 order, under the <u>Reopening</u> <u>Ontario Act</u> (ROA), a Medical Officer of Health could issue instructions to enhance or support the requirements of the ROA and applicable regulations. Requirements within the Letter of Instruction were considered mandatory and legally enforceable under the ROA.



A Letter of Recommendation is a document outlining recommended actions to be taken by the community or population to whom the letter is addressed, but is not legally enforceable.

HPPH issued Section 22 Class Orders, Letters of Instruction (LOI), and Letters of Recommendation (LOR) in order to decrease the health risks to Huron Perth residents posed by COVID-19. The documents were aligned with provincial direction where possible, and rescinded (ended) when possible. Learn more at <u>Section 22 Orders and Instructions</u>.

Letters of Instruction, Recommendation and Section 22 Orders

COVID-19 Section 22 Class Orders and Instructions

Orders/Instructions/Recommendations	Active Date Last Revision	Rescind Date
Class Order Section 22: Cases & Contacts	Nov. 29, 2020 Feb. 14, 2022	Mar. 2, 2022 Currently only cases in high-risk settings are investigated. HPPH able to issue individual Sec. 22 orders if needed.
Class Order Section 22: Employers of Temporary Foreign Workers (TFW)	Jul. 27, 2021	Jul. 1, 2022
Letter of Instruction: Places of Worship	Nov. 19, 2021 Feb. 14, 2022	Feb. 17, 2022 Instruction beyond Provincial direction not needed; Province moving into reopening
Letter of Instruction: Private & Parochial Schools	Sep. 14, 2021 Feb. 1, 2022	Mar. 22, 2022 Provincial guidance for schools updated; private schools to follow Ministry of Education direction
Letter of Instruction: Sports & Recreation Facilities	Oct. 6, 2021 Nov. 17, 2021	Jan. 31, 2022 Requirement for persons age 12+ included in provincial legislation (Dec. 2021)
Letter of Recommendation: Employers, Businesses & Organizations	Oct. 4, 2021	Feb. 24, 2022 Province moving into reopening
Letter of Recommendation: Businesses & Individuals (issued in partnership with Southwestern Public Health & Middlesex-London Health Unit)	Dec. 9, 2021	Jan. 31, 2022 Province moving into reopening

Inspections and Education

The HPPH environmental health team provided education to local businesses on the *Reopening Ontario Act* (ROA), provincial orders, and public health measures throughout the pandemic. This included creating fact sheets, booklets, posters and signs, as well as delivering several educational webinars.

Information webinars

HPPH hosted approximately 25 webinars from March 2020 to March 2022. To hold the webinars, HPPH worked with Economic Development departments, Chambers of Commerce, Business Improvement Associations (BIAs), the Ministry of Labour, Training and Skill Development (MLTSD) and the Ontario Fruit and Vegetable Growers' Association (OFVGA). These webinars shared information with business owners and operators on how to:

- implement COVID-19 prevention measures
- ensure workplace safety against COVID-19
- prevent COVID-19 outbreaks

Complaints and inspections

HPPH's environmental health staff responded to hundreds of business-related inquiries and complaints. Topics included:

- How to follow and put into place COVID-19 workplace safety measures
- Questions about provincial legislation, including understanding Ontario's COVID-19 response framework: keeping Ontario safe and open
- Concerns about businesses who may not have been following workplace safety measures

To better understand how businesses were doing in meeting Reopening Ontario Act requirements, several organizations coordinated two COVID-19 workplace safety campaigns in Huron and Perth counties. Partners in these campaigns were HPPH, Regulatory Compliance Ontario (RCO) and their Ministry partners. The first campaign, in February 2021, saw 149 businesses inspected; 64% of these businesses were considered compliant with Reopening Ontario Act legislation. The second campaign occurred in December 2021, following a loosening of restrictions under the ROA, and focused on a greater variety of premises. These premises included restaurants, gyms, gas stations and convenience stores. A total of 262 premises were inspected at that time, with an overall compliance rate of 33%. In summary, the primary infractions observed during inspections were lack of screening, absence of COVID-19 safety plan, failure to wear personal protective equipment (i.e., eye protection, masks) and failure to comply with mandated capacity limits (first campaign only).

Responding to outbreaks

The team also worked with other HPPH teams to respond to COVID-19 outbreaks in workplaces and congregate living settings. Many of these outbreaks required workplace inspections; these inspections were usually conducted in partnership with the Ministry of Labour, Training and Skills Development.





COVID Intake

Soon after the pandemic was declared, HPPH reception as well as HPPH's Health Line telephone service were quickly overwhelmed by inquiries. In order to respond to the many inquiries from the community, HPPH created a special COVID intake team. The COVID Intake team responded to questions and requests for information from residents, businesses and organizations, schools, places of worship and healthcare providers. As of March 31, 2022, COVID intake had received over 37 000 inquiries by phone and email, an average of 1,547 inquiries per month. March, April and June 2021 saw the highest influx of calls and emails, with over 2000 inquiries in each of those months.



Supporting vulnerable community members

Self-isolation

Being required to isolate due to COVID-19 was a hardship for many families and individuals. Their life circumstances made it difficult to successfully or safely isolate. This was especially true for those living in poverty, experiencing homelessness, living in crowded conditions or social housing; those who are temporary international workers; those with mental health and/or substance misuse challenges; single parents; and those with English as a second language.

HPPH connected these families and individuals to services such as grocery delivery, cleaning supplies, pharmacy deliveries, other essential goods, and transportation or accommodations. More than one hundred parties received grocery supports and several parties were provided accommodations. Where possible, individuals and families were linked to other community services including social services, financial support, food banks and churches.



HPPH worked with Huron and Perth County paramedics and local testing/assessment centres to arrange in-home COVID-19 PCR testing for individuals who faced barriers to getting tested.





Communications

During the pandemic, it was important for HPPH to communicate with both the public and our partners, including health care providers, long-term care and retirement homes, schools, licensed childcare, municipalities, businesses, and organizations.

Staff provided Huron Perth residents, and stakeholders with the timely, trusted, accessible, evidence-informed and current information about COVID-19 that they needed to protect themselves, their families, and their communities.

HPPH relied heavily on electronic communication and ways of connecting virtually. We added many COVID-19 pages to our website, frequently posted and responded to questions on our social media platforms, adopted new software to publicly report COVID-19 data, and created signage and resources for businesses and organizations. HPPH regularly provided print updates to members of our Plain communities, many of whom do not have access to technology.



In addition, HPPH held regular virtual meetings/Zoom calls with several groups of partners, as shown below:

HPPH Virtual Meetings with Community Partners

Stakeholder Group	2020	2021
Long-term Care (alone)	4	-
Healthcare and Long-term Care	38	33
Municipalities	40	36
Places of Worship	1	1
Anabaptist	-	5
School Boards	8	18
Licensed Childcare	15	-
Huron Perth Mass Vaccination	4	42



Communications

Online: www.hpph.ca/COVID

4 826 743

Total Visits

10 015 549

Total Page Views

Most popular webpages

COVID-19 in Huron and Perth | **2 665 369 views** | 45.6% visits Huron Perth Public Health landing page | **1 235 688 views** | 19.9% visits COVID-19 Vaccine: Booking Appointments | **1 215 026 views** | 17.3% visits



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Facebook: @HuronPerthPublicHealth

1091221 Estimated Reach

150 721 Visits

9 187 _{Likes} Facebook: @HuronPerthPublicHealth

1726 Posts

Facebook Live Events **Twitter:** @HPPublicHealth

1938 Posts

5 685 400 Impressions

4 206 Followers Local media played an important role in sharing COVID-19 information with the public.

119 News

News Releases sent (COVID-related)

.45^{Med}

Media Briefings held (COVID-related)

Instagram: @huronperthpublichealth

7 976 Estimated Reach

10 048 _{Visits}

1662 Followers

What the future may hold

The pandemic has impacted every individual, family, and business/organization either directly through illness, or indirectly through the unavoidable effects of public health measures. Some of us have been merely inconvenienced; some people experienced greater losses such as loss of jobs, lack of social connections, lost opportunities to mark special milestones, interruptions in education, delayed/ missed treatment for other health conditions, and illness and deaths.

It is also important to acknowledge that COVID-19 disproportionately affected some populations, such as workers in low-income occupations, and racialized communities. The goal for responding to the COVID-19 pandemic was to minimize serious illness and overall deaths and protect healthcare system capacity while using the least restrictive measures possible while also minimizing the unavoidable impacts of the public health measures as much as possible (ie assisting those required to self isolate)¹.

High vaccination rates and COVID-19 infection has provided good population immunity; this means we are less likely to need restrictive measures such as lockdowns in the future. However, if new variants of concern (VOCs) arise that are more transmissible, severe, and/or able to escape the protection afforded by vaccination and/or previous infection, additional public health measures may once again be necessary. While we know a lot more about COVID-19 and have many tools to effectively control its spread, there is still much uncertainty about how the virus will behave over the longer term. Since the beginning of the COVID-19 pandemic, public health has been at the forefront of the ongoing response. This has been at the expense of nearly all regular programs and services due to resources being redeployed almost exclusively to the pandemic response. Moving forward, the public health sector will focus on recovery while still maintaining capacity to respond to surges in cases and to outbreaks.

In addition to clearing the backlog of work that accumulated over two years, recovery will also involve responding to our communities' needs in the wake of the COVID-19 pandemic's acute phase. The pandemic has been a once-in-a-century event that has challenged us in numerous ways, and created trauma on a population scale. People have made many sacrifices to protect themselves, their loved ones and their fellow community members from illness, death and healthcare system collapse. The broad, unintended mental and physical health consequences and risks that have occurred over the course of the pandemic response must also be addressed as we move forward.

By integrating COVID response and recovery into our regular public health programs, HPPH continues to protect and promote population health and prevent disease, strengthening quality of life and well-being for all.

References

- Federal, Provincial, Territorial Public Health Response Plan for Ongoing Management of COVID-19.
 Government of Canada.
- 2. <u>1918 Pandemic (H1N1 virus).</u> Centers for Disease Control and Prevention.
- Leading causes of death, total population, by age group. Statistics Canada.
- Provisional death counts and excess mortality, January 2020 to March 2022. Statistics Canada.
- 5. <u>Glossary on the COVID-19 pandemic.</u> Government of Canada.
- 6. <u>COVID-19: How to quarantine or isolate at home.</u> Government of Canada.
- <u>COVID-19 mask use: Advice for community</u> <u>settings – why wearing a mask is important.</u> Government of Canada.
- 8. <u>Masks or face coverings.</u> Huron Perth Public Health.
- 9. <u>COVID-19 treatments.</u> Government of Canada.
- 10. <u>COVID-19 in Ontario: January 15, 2020 to June</u> <u>14, 2022 (p. 4), 2022.</u> Public Health Ontario.
- 11. <u>Canadian COVID-19 intervention timeline</u>. Canadian Institute for Health Information.







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