

Notice

Public Health Ontario (PHO) provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication.

Guidance provided in this document is superseded by any directives issued by the Chief Medical Officer of Health (CMOH) pursuant to the Health Protection and Promotion Act. PHO does not develop or approve public health policy or directives.

Prevention and Management of COVID-19 in Long-Term Care and Retirement Homes

FUNDAMENTALS

Prevention and Management of COVID-19 in Long-Term Care and Retirement Homes

4th Edition: January 2023

Introduction

This document is an update to *At A Glance: Prevention and Management of COVID-19 in Long-Term Care and Retirement Homes*, June 2022. This revision provides additional evidence, current to November, 2022, concerning prevention and management of COVID-19 in Long Term Care Homes (LTCHs) and Retirement Homes (RHs).

Background

Preventing the spread of COVID-19 in long-term care homes (LTCHs) and retirement homes (RHs) is critical for the health of residents, health care workers and other staff. Given the volume of guidance, infection prevention and control (IPAC) resources and direction that homes have received, this document has been developed to provide a compilation of important resources and information.

The information in this document has been organized similarly to the sections in Public Health Ontario's [COVID-19 IPAC Checklist for Long-Term Care and Retirement Homes](#) in order to provide complementary information and resources that can assist with ensuring implementation of IPAC best practices.¹

This document is to be used in addition to—and does not replace—the advice, guidelines, recommendations, directives or other direction of provincial Ministries and local public health authorities. Homes may also want to review Public Health Ontario's [COVID-19 Long-Term Care Resources](#) for more information.² Please note that with the evolving pandemic, some IPAC measures will be changed so always refer to current information.

Relevant guidance from the government of Ontario for long-term care and retirement homes can be found on the Ministry website: [COVID-19 Guidance for the Health Sector](#).³

As these are revised often, always ensure that the most recent version is viewed.

Contents

Prevention and Management of COVID-19 in Long-Term Care and Retirement Homes.....	0
IPAC Program	3
Key IPAC Program Components	3
IPAC Professional.....	3
IPAC Committee	3
Hierarchy of Controls.....	4
Acknowledging and Preventing Harms.....	5
Entrance and Screening	5
Passive Screening.....	5
Active Screening	5
Visitor Policy.....	6
Universal Masking (Masking for Source Control).....	6
Human Resources.....	6
Vaccination.....	7
Hand Hygiene	7
Consumable Supplies and PPE	8
Physical Distancing	8
Air Quality and Ventilation.....	9
Resident Admissions and Re-Admissions.....	11
Environmental Cleaning.....	11
Cleaning and Disinfection	11
IPAC Auditing.....	12
Occupational Health & Safety	13
Preparedness Assessment and Outbreak Planning	13
Planning and Outbreak Management	14
Surveillance	14
Staff Education	14
Testing Residents, HCWs and other Staff	16
Additional Precautions.....	16
Resident and HCW Cohorting.....	16
Declaring the Outbreak Over	17
Appendix A: Organizational IPAC Risk Assessment	18
The LTCH's/RH's context.....	18
IPAC Program	18

Human Resources.....	19
Communication	19
Identify Risks	19
Analysis of Risk	19
Infrastructure/Design – Provision of Care	20
Environmental Cleaning.....	20
Hand Hygiene	20
Education	21
Surveillance	21
Testing for COVID-19 or Other Respiratory Viruses	21
Personal Protective Equipment (PPE).....	21
Assess the Risk.....	22
Manage Risks.....	22
Evaluation	22
References	23

IPAC Program

In accordance with section 23 of the [Fixing Long-Term Care Act, 2021 \(FLTCA\)](#),⁴ as well as subsection 60(4) of the [Retirement Homes Act, 2010 \(RHA\)](#),⁵ having an IPAC program as a part of LTCH and RH operation is a legal requirement in Ontario.⁶ “Each LTCH must have individual(s) who are responsible for an IPAC program in the home. It is recommended that each RH have individual(s) who are responsible for an IPAC program in the home.”⁶

It is recommended that there be one dedicated full time equivalent Infection Prevention and Control Professional (ICP) per 150-200 occupied beds.⁷

Key IPAC Program Components

An effective and adequately resourced IPAC program is essential to improving resident and health care provider safety by preventing the occurrence or limiting the spread of healthcare acquired infections. The key components of an IPAC program are described in the first resource below. IPAC policies and procedures must be in place that are consistent with relevant legislation and standards and based on sound scientific knowledge. These policies are to be reviewed and updated annually or sooner if needed, and linked to educational programs.

IPAC Professional

The IPAC program must be the responsibility of at least one designated person who has received adequate training in IPAC (such as an IPAC course endorsed by IPAC Canada) and preferably who is certified in IPAC by the [Certification Board of Infection Control and Epidemiology \(CBIC\)](#). Regardless of the size of the facility, the weekly time commitment that is dedicated to infection prevention and control must be clearly stated and protected. The IPAC Professional should have senior leadership support and sufficient resources to carry out the responsibilities of the role.

IPAC Committee

LTCHs should have a formal, multidisciplinary committee to oversee the activities of the IPAC Program. Where this may pose a challenge, IPAC should always be included as a standing agenda item on another formal committee.

Membership could include:

- IPAC professional
- Physician representative
- Occupational Health & Safety (OHS) representative (or member of the Joint Health and Safety Committee (JHSC))
- Public health representative
- Environmental Services representative
- Nursing/clinical representative

This committee could also function as the base of an Outbreak Management Team (OMT) during any outbreak situations. There should be an established communication process between this committee and any Patient/Family Advisory committee or council.

Resources

Public Health Ontario:

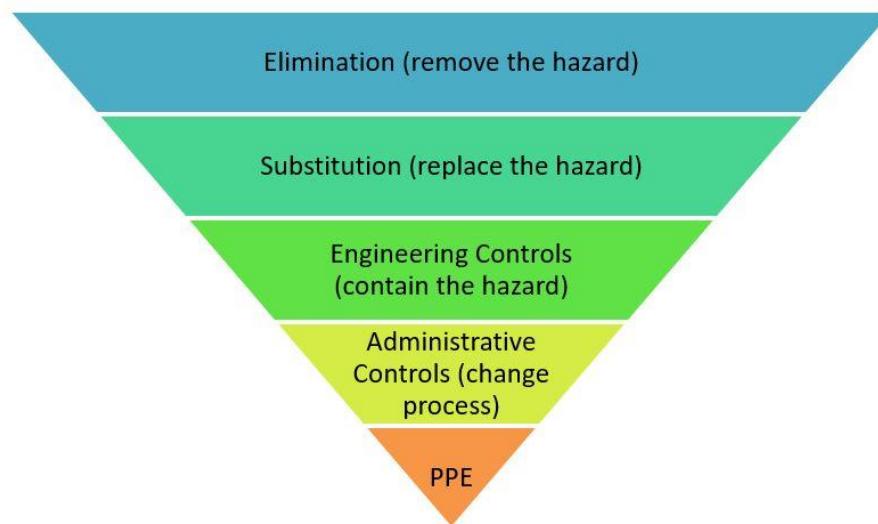
[Best Practices for IPAC Programs in Ontario in All Health Care Settings, 3rd edition](#)⁸

[IPAC for Long-Term Care Homes: Summary of Key Principles and Best Practices](#)⁹

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018](#)¹⁰

Hierarchy of Controls

IPAC and OHS need to liaise on a regular basis and work together collaboratively. According to the United States Centers for Disease Control and Prevention's [National Institute for Occupational Safety and Health \(NIOSH\)](#), a fundamental method in the protection of workers is the application of the hierarchy of hazard controls.¹¹ These control measures need to be considered and applied as part of the IPAC program with the higher tiers being the preferred measures and Personal Protective Equipment (PPE) being the last option. It is recognized that the higher controls are often more difficult to implement and the use of PPE remains an important IPAC control as the last barrier between the hazard and the worker.



Source: National Institute for Occupational Safety and Health (NIOSH).¹¹ Hierarchy of controls [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2022 [cited 2022 Sept 20].

Resources

Public Services Health and Safety Association: [Infectious Disease Threats Risk Assessment Tool for Acute Care](#)¹²

Public Health Ontario: [IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID-19¹³](#)

Acknowledging and Preventing Harms

Many IPAC and public health measures used to prevent the transmission of COVID-19 in homes can have unintended, significant impacts on the quality of life of residents and families. While following these measures, homes should make every effort to minimize the negative impacts on residents and families. Consultation with Public Health Units (PHUs) and other partners/experts such as Public Health Ontario (PHO) or the Ministry of Long-Term Care (MLTC) can identify strategies that can be used for this purpose.

Resources

Canadian Institute for Health Information:

- [Long-term care and COVID-19: The first 6 months¹⁴](#)
- [COVID-19's impact on long-term care¹⁵](#)

Entrance and Screening

Passive Screening

There is signage at the entrance prompting health care workers (HCWs), and visitors to self-assess and self-identify if they have signs and/or symptoms of COVID-19 or another infectious disease. The signage reminds those entering the facility to perform hand hygiene as they enter the home, follow respiratory etiquette while in the home and follow universal masking/source control when recommended. Ensure there is alcohol based hand rub (ABHR) with 70%-90% alcohol concentration, masks, tissues and a hands-free garbage bin at the entrance.

Active Screening

Active screening is a process to identify individuals who may be infectious (e.g., noting any new or worsening symptoms such as vomiting diarrhea, fever, or cough) and should be conducted prior to entry into the home.

All visitors should be actively screened prior to each entry. HCWs should at a minimum self-screen and not present for work if they fail their self- screen.

Screening can be performed by a screener, by a paper questionnaire or by using a screening app or another method of attestation. Homes are to have a process to ensure that all visitors entering the home are actively screened and visits are logged at all times. When the screener is in-person, the screener should be behind a physical barrier, such as a polycarbonate sheet or keep a distance of two metres (6 feet). If this is not possible, the screener is required to wear personal protective equipment (PPE) per their personal risk assessment. Note that emergency first responders have their own screening protocol and are exempt from screening prior to entry into the home under current Ministry of Health/Ministry of Long-Term Care screening criteria.¹⁶

Provide education on hand hygiene and masking to all visitors. Staff or visitors who fail screening should not be permitted entry into the home and instructed to either get tested, if eligible, or speak with their

supervisor (for staff). All residents should be actively screened upon returning from an absence for signs and/or symptoms of COVID-19.

Resources:

Ministry of Health: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units](#)⁶

Ministry of Health, Ministry of Long-Term Care: [Emergency Health Services: COVID-19 Screening Tool for Paramedics](#)¹⁶

Visitor Policy

Follow the most current Ministry /local public health guidance related to visitors. Have a visitor policy and ensure policies/procedures are communicated to staff and all types of visitors.

Resources

Ministry of Health: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units](#)⁶

Public Health Ontario:

- [Hand Hygiene for Health Care Settings Fact Sheet](#)¹⁷
- [How to Self-Monitor](#)¹⁸

Universal Masking (Masking for Source Control)



Universal masking is used to protect others from the wearer by containing respiratory particles at the source (source control). When everyone wears a mask, everyone is protected. Staff residents and visitors should follow current guidance related to universal masking. Scenarios on how and when to apply masks are provided below.

Resources

Public Health Ontario:

- [Universal Mask Use in Health Care](#)¹⁹
- [Universal Mask Use in Health Care Settings and Retirement Homes](#)²⁰

Human Resources

Review staffing schedules, HCWs who work in other locations, availability of alternate staff and emergency contact numbers for staff. Long-term care home employers may be required to limit workplace locations, in accordance with legislation.

Resource

Government of Ontario: [ONTARIO MATCHING PORTAL²¹](#)

Vaccination

Vaccination is one of the strongest layers of prevention. Homes should strongly encourage residents, staff and visitors to get vaccinated including all recommended COVID-19 boosters. Homes should have a vaccination policy in place that reflects current guidance and recommendations. Vaccination rates and status (e.g. for COVID-19 and influenza vaccines) must be documented and maintained for all residents and staff. PHUs will support local homes with their immunization programs.

Resources

Public Health Ontario:

- [How to Protect Yourself from COVID-19²²](#)
- [COVID-19 Vaccines²³](#)

Hand Hygiene



Hand hygiene is a key practice for health care workers (HCWs), other staff, residents and visitors to prevent transmission and spread of COVID-19 and other infections. HCWs, other staff and essential visitors receive education and training on how and when to perform hand hygiene. Hand hygiene products, such as ABHR, in a concentration of 70-90% alcohol, are to be located in multiple areas, such as the entrance, point of care and resident common areas. Hand care is also important to prevent damage to hands that can occur with frequent hand washing.

Resources

Public Health Ontario:

- [Hand Hygiene for Health Care Settings Fact Sheet¹⁷](#)
- [Best Practices for Hand Hygiene in All Health Care Settings, 4th edition²⁴](#)
- [Hand Hygiene²⁵](#)
- [Placement Tool for Hand Hygiene Products²⁶](#)
- [Infection Prevention and Control Practices for Occupational Contact Dermatitis²⁷](#)

Consumable Supplies and PPE



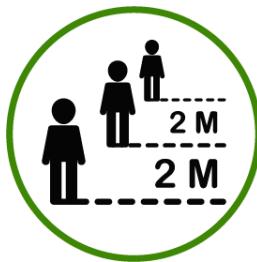
Ensure your facility has sufficient PPE and swabs/kits for testing. PPE includes gloves, gowns, medical (surgical/procedure) masks and protective eyewear, as well as fit-tested N95 respirators. Fit testing for N95 respirators must be performed at least every 2 years. Consider securing your PPE stock in a central location and developing a way to track supplies and usage. If supplies are running short, such as the facility only has a few days of stock left or the home needs to start extending the use of PPE, contact your Ontario Health representative.

Resources

Public Health Ontario: [IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID-19¹³](#)

The Centers for Disease Control and Prevention: [PPE Burn Rate Calculator²⁸](#)

Physical Distancing



Physical distancing is considered one of the most effective preventative strategies by the [World Health Organization \(WHO\)](#).²⁹ Maintaining physical distancing (maintaining a minimum 2 metres (2m) distance apart, as much as possible) between all HCWs, and essential visitors, general visitors and residents adds another layer of protection in preventing infection transmission. Principles include avoiding crowded places with many people nearby, avoiding close-contact settings and avoiding confined and enclosed spaces with poor ventilation

HCWs, essential visitors and general visitors are to receive education and training on physical distancing.

Strategies that may be used to support the physical distancing of HCWs and other staff include:

- the use of outdoor spaces as weather permits
- increasing the number of places identified as break/lunchrooms
- limiting the number of tables and chairs in staff common areas
- placing the tables 2 m apart
- placing the chairs at the table such that a 2 metre distance between chairs is maintained between those at the table and adjacent tables
- choose meeting spaces that will allow 2 m distance between attendees and/or holding multiple meetings with smaller number of attendees (e.g., huddles on a resident care unit)

Strategies that may be used to support the physical distancing of residents include:

- educating residents on physical distancing
- moving or removing chairs to ensure there is no cluster seating
- removing or spacing out tables/chairs in dining room(s)
- having multiple sittings in the dining room(s)
- cohorting residents into small groups for activities and maintaining 2 m distancing between cohorts throughout activity
- monitoring elevator waiting spaces to ensure 2 m distancing
- consider placing markers on the floor where residents may queue (e.g., at the elevator)
- ensure the physical layout of resident rooms allows for sufficient space between resident environments (e.g. bed, furniture, fixtures, shared washroom)
- separate resident spaces by partitions or drawn curtains, ensuring not to impede air flow
- plans have been considered in preparation for alternative meal delivery and services should communal dining need to be stopped (e.g., in-room tray service)

In addition, review residents' medication administration schedules to minimize the number of times HCWs need to enter residents' rooms.

Resources

Ministry of Long-Term Care: [COVID-19 Guidance Document for Long-Term Care Homes in Ontario](#)³⁰

Public Health Ontario: [How to Physically Distance in Long-Term Care Home](#)³¹

Air Quality and Ventilation

Indoor Air Quality

A variety of strategies in combination can help to improve indoor air quality such as natural ventilation, local exhaust fans, and centralized mechanical systems (i.e., a heating, ventilation and air conditioning (HVAC) system) which often incorporates filtration.^{32,33}

- Natural ventilation (e.g., windows opened often and for extended periods) can bring outdoor air into a space. Windows may be the only way to ventilate spaces where there is no local exhaust fan or centralized ventilation system, but this may be more difficult in some situations, e.g., during extreme hot/cold weather.^{32,33}
- If available in resident rooms, local exhaust fans (e.g., bathroom fans) can be run longer or more often to exhaust indoor air. They can be upgraded as necessary to facilitate this. Local exhaust may be particularly important in situations where a centralized system is not available.^{32,33}

- HVAC systems usually provide ventilation (supply and distribution of air to/from a space) as well as filtration (particle removal using a filter). They can be optimized to reduce viral particle concentrations in indoor air by increasing fresh air supply and improving filter quality (higher minimum efficiency reporting value or MERV filter ratings). Professional consultation may be needed to assess and improve HVAC systems.

Common areas or spaces shared by multiple people e.g., dining rooms, staff rooms, are particularly important for improving indoor air quality.

Develop a plan to cover maintenance of HVAC systems based on system requirements and manufacturer recommendations, by HVAC professionals if necessary.

Portable air cleaners can also filter indoor air, especially where ventilation options are limited.

Portable air cleaners need to be appropriately selected for the size of the room and optimally placed (e.g., follow manufacturer's instructions, ensure intake and outflow are not obstructed, not a fall hazard).³⁴

If portable units (e.g., air cleaners, fans, air conditioners) are used:

- Directional currents can move air from one occupant's breathing space to another. Portable units should be placed in a manner that avoids person-to-person air currents.
- Develop a plan to cover manufacturer recommended maintenance including filter replacement (if applicable).

Ventilation of indoor spaces can improve overall indoor air quality, however ventilation on its own does not prevent transmission in close contact situations and needs to be implemented as part of a comprehensive and layered prevention strategy against COVID-19.^{22,32,33}

Outdoor Activities

When feasible, to reduce the risk of COVID-19 transmission, outdoor activities are encouraged over indoor activities.

Resources

Public Health Ontario:

- [How to Protect Yourself from COVID-19](#)²²
- [Heating, Ventilation and Air Conditioning \(HVAC\) Systems in Buildings and COVID-19](#)³²
- [Use of Portable Air Cleaners and Transmission of COVID-19](#)³⁴

Public Health Agency of Canada:

- [COVID-19: Guidance on Indoor Ventilation During the Pandemic](#)³³
- [Using Ventilation and Filtration to Reduce Aerosol Transmission of COVID-19 in Long-Term Care Homes](#)³⁵

Ministry of Health: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units](#)⁶

Resident Admissions and Re-Admissions

All admissions or re-admissions are organized according to the most current Ministry guidance. Requirements for residents to be tested and for isolation (i.e., placed on Additional Precautions) on arrival should follow current guidance [Ministry guidance](#).⁶

Resource

Ministry of Health, Ministry of Long-Term Care: [Guidance for the Health Sector](#)³

Environmental Cleaning

Environmental Services staff (especially those who are temporary or redeployed) need training on how to perform environmental cleaning properly. Organize scheduled cleaning for all areas and have cleaning logs available. Perform frequent cleaning and disinfection of high touch surfaces at a minimum of once daily and twice daily if in outbreak as well as when visibly soiled. Continue to use healthcare/hospital disinfectants (e.g., with a Drug Information Number [DIN]) and follow the instructions for correct contact times. More detailed information on practices can be found in the appendices of PIDAC's Best Practices for Environmental Cleaning. Initiate dedicated housekeeping staff for outbreak unit or areas, if possible. Clean and disinfect rooms/areas where residents are not on Additional Precautions before cleaning a room/area where residents are on Additional Precautions.

Cleaning and Disinfection of Care Equipment



Clean and disinfect shared resident care equipment between each resident and according to the manufacturer's instructions and IPAC best practices. Clean and disinfect thermometers for temperature checks after each use and discard single use probe covers.

Resources

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018](#)¹⁰

Public Health Ontario:

- [Environmental Cleaning Toolkit](#)³⁶
- [PHO Environmental Cleaning Resource Page](#)³⁷
- [Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition](#)³⁸

- [Spaulding's Classification of Medical Equipment/Devices and Required Level of Processing/Reprocessing³⁹](#)

IPAC Auditing

Auditing of IPAC practices is a key tool to measure compliance with IPAC best practices and contributes to quality improvement and reduction of infection transmission when used in combination with other IPAC measures. IPAC teams plan and prioritize the use of the audit tools ([PHO's COVID-19: Self-Assessment Audit Tool for Long-Term Care Homes and Retirement Homes](#)⁴⁰ and or [PHO's Checklist COVID-19: Infection Prevention and Control Checklist for Long-Term Care and Retirement](#)¹) based on a review of their program goals and objectives, specific policies, in response to clinical incidents including outbreaks and sector specific ministry guidance /directives.^{3,41} There should be a process to audit or monitor hand hygiene, Routine Practices, Additional Precautions, PPE use (e.g., how to don and doff), and environmental cleaning to assess gaps between policy and practice.⁴²

Resources

Public Health Ontario:

- [Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition](#)³⁸
- [COVID-19: Self-Assessment Audit Tool for Long-term Care Homes and Retirement Homes](#)⁴⁰
- [Just Clean Your Hands – Long-Term Care](#)⁴³
- [Personal Protective Equipment \(PPE\) Auditing](#)⁴⁴
- [Auditing of Personal Protective Equipment \(PPE\) Use](#)⁴⁵
- [Supporting the Use of Personal Protective Equipment \(PPE\) Audit](#)⁴⁶
- [Supporting the Implementation of Personal Protective Equipment Auditing in Health Care Settings](#)⁴⁷

Ministry of Health, Ministry of Long-Term Care: [Guidance for the Health Sector](#)³

Ministry of Long-Term Care: [Minister's Directive: COVID-19 response measures for long-term care homes](#)⁴¹

Occupational Health & Safety

All staff are to self-monitor for symptoms of COVID-19 while at work or at home. HCWs, other staff and essential visitors who become ill or symptomatic or test positive for COVID-19 are to immediately self-isolate, inform their supervisor and if at work, return home (unless on early return to work protocols). They may also contact their primary care provider.

Resources

Ministry of Labour, Training and Skills Development: [COVID-19 and the Occupational Health and Safety Act⁴⁸](#)

Ministry of Long-Term Care: [COVID-19 Guidance Document for Long-Term Care Homes in Ontario³⁰](#)

Public Health Ontario: [How to Self-Monitor¹⁸](#)

Ministry of Health: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units⁶](#)

Preparedness Assessment and Outbreak Planning

LTCH/RH, in preparation for potential outbreaks of infectious diseases (e.g., influenza, respiratory syncytial virus (RSV), norovirus, COVID-19) should review their preparedness, develop an outbreak as well as a pandemic plan, educate their healthcare workers and implement infection prevention and control measures to avoid an outbreak.

Identify a lead and a multidisciplinary outbreak management team. An IPAC Organizational Risk Assessment (ORA) ([Appendix A](#)) can help provide a framework for the IPAC components of an outbreak plan. The risk assessment can help an organization identify internal and external infectious disease risks and help determine the likelihood of facing those risks. Consider the risk of exposure to an infectious disease and potential for transmission to all those who live in or work/volunteer/visit the LTCH/RH and consider the controls already in place and whether these controls would be effective in mitigating the potential transmission and what changes would have to be made to improve the ability to mitigate transmission.

An ORA should be performed on an annual basis and more frequently as needed or as threats evolve. This allows the organization to re-evaluate its action plan and assess the effectiveness of control strategies. Having a current outbreak/pandemic plan is important in being able to manage outbreaks/pandemics quickly and effectively as well as having sufficient resources to support control measures. The outbreak plan should include the performance of annual exercises so that staff are prepared and knowledgeable about the steps to take when an outbreak is suspected.

Resources

Ministry of Health: [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units⁶](#)

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018¹⁰](#)

Planning and Outbreak Management

Ensure your home has identified a person(s) to liaise with the local PHU and that the name and contact information of the PHU contact person(s) is known. There needs to be a process in place to communicate with residents, families, HCWs and staff with respect to an outbreak. Establish and maintain processes for inter-facility transfers that includes notifying both the transport personnel and the receiving facility of the resident's COVID-19 status or any other communicable disease/condition.

Resources

Ministry of Health:

- [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units⁶](#)
- [Public Health Unit Locations⁴⁹](#)

Surveillance

Continue monitoring of all residents, HCWs and essential visitors in the home for new symptoms of COVID-19. Active screening described above is important for ongoing surveillance. Continue to screen for symptoms of all residents in the home. Look for symptoms, including atypical, and keep a low threshold for testing. Maintain and submit line lists for residents and staff to your local PHU using the method it has prescribed to you and following guidance from the resource below.

Follow Ministry requirements for monitoring residents for symptoms of COVID-19 (e.g., at least once daily if not in outbreak and twice daily during an outbreak). Identification of residents, HCW, or essential visitors with new symptoms compatible with COVID-19 may require an outbreak assessment by the local PHU per current outbreak definitions.

Resource

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018¹⁰](#)

Staff Education

Education, both at orientation and on a continuing basis, supports HCWs to consistently implement IPAC practices. Regular audits of IPAC practices, such as staff compliance with hand hygiene, donning and doffing of PPE and equipment/environmental cleaning practices, and helping to identify areas of focus when preparing for staff training and education should be conducted regularly. Ensure all staff have been trained in these areas. The short PPE videos in the Resources section are quick refreshers that can be used.

Resources

Public Health Ontario:

- Comprehensive IPAC online training modules with LTC/RH sector-specific information: [Infection Prevention and Control – Online Learning: IPAC For Health Care Workers⁵⁰](#)

- **Hand Hygiene:** Perform according to 4 moments and as part of PPE donning and removal.
- Videos available on PHO website:
 - [How to Hand Rub](#)⁵¹
 - [How to Hand Wash](#)⁵²
 - [How to Hand Rub Sign](#)⁵³
 - [How to hand Wash Sign](#)⁵⁴

Personal Risk Assessment: Perform prior to each resident interaction to determine what PPE is needed.

- [Performing a Risk Assessment Related to Routine Practices and Additional Precautions](#)⁵⁵
- [Infection Prevention and Control – Online Learning: Personal Risk Assessment in Long-Term Care Online Learning](#)⁵⁰

PPE: Use PPE as determined by a personal risk assessment or clinical syndrome/condition (e.g., droplet/contact precautions for new admission or transfer)

- [Recommended Steps for Putting On and Taking off PPE](#)⁵⁶
- Videos available on PHO website:
 - [Putting on Mask and Eye Protection](#)⁵⁷
 - [Taking off Mask and Eye Protection](#)⁵⁸
 - [Putting on Full Personal Protective Equipment \(facial protection, gowns and gloves\)](#)⁵⁹
 - [Taking off Full Personal Protective Equipment \(facial protection, gowns and gloves\)](#)⁶⁰
 - [Putting on Flatfold N95 Respirator](#)⁶¹
 - [Taking off Flatfold N95 Respirator](#)⁶²
 - [Putting on Cone N95 Respirator](#)⁶³
 - [Taking off Cone N95 Respirator](#)⁶⁴

Environmental Cleaning:

- [Environmental Cleaning Toolkit](#)³⁶
- [Health Care Huddles: IPAC Checkpoints](#)⁶⁵
- [Cleaning and Disinfection of Reusable Eye Protection](#)⁶⁶

Testing Residents, HCWs and other Staff

Testing of residents, HCWs, other staff and essential visitors is performed in accordance with the Ministry's directive and guidance for testing. The local Public Health Unit is responsible for directing testing during an outbreak. Refer to the Public Health Ontario Laboratory website in the Resources section for more details on specimen collection, handling and submission.

Resources

Public Health Ontario: [COVID-19 Laboratory Testing Resources](#)⁶⁷

Ministry of Long-Term Care: [COVID-19 Guidance Document for Long-Term Care Homes in Ontario](#)³⁰

Ministry of Health:

- [COVID-19 Guidance: Long-Term Care Homes, Retirement Homes, and Other Congregate Living Settings for Public Health Units](#)⁶
- [Management of Cases and Contacts of COVID-19 in Ontario](#)⁶⁸

Additional Precautions

Immediately place a symptomatic resident on Additional Precautions, and assess need for Additional Precautions for close contacts. If it is not possible to transfer the ill resident to a private room, then use a privacy curtain and maintain a 2 m (6 feet) spatial separation between adjacent beds. Ensure not to impede air flow. HCWs, or essential visitors that become symptomatic while at the home are to immediately leave the home and self-isolate.

Resources

Public Health Ontario:

- [IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID 19](#)¹³
- [Scenarios for Universal Masking and Other PPE \(gowns and gloves\)](#)²⁰
- PHO Laboratory Services: [Coronavirus Disease 2019 \(COVID-19\) – PCR](#)⁶⁹

Resident and HCW Cohorting

LTCs and RHs are to use HCW and resident cohorting to prevent the spread of COVID-19. Planning space for cohorts in the event of an outbreak should be part of the organizational risk assessment and included in organizational outbreak/pandemic planning. Cohorting can be done by assigning a geographic area, such as a room or a resident care area, to two or more residents. HCWs can be assigned to work with cohorts of residents by resident COVID-19 status (e.g., positive, negative but exposed, recovered) or when not in outbreak to consistent areas. There must be a clear separation and also include the environmental/housekeeping staff and any agency staff where possible. Ideally cohort residents in small consistent groups for dining and social activities.

Resources

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018¹⁰](#)

Public Health Ontario:

- [How to Self-Isolate while Working⁷⁰](#)
- [Cohorting During an Outbreak of COVID-19 in Long-Term Care Homes⁷¹](#)
- [Examples for Resident Cohorting in Long-Term Care Homes⁷²](#)
- [Cohorting in Outbreaks in Congregate Living Settings⁷³](#)

Declaring the Outbreak Over

The Medical Officer of Health or designate (from the local PHU) in collaboration with the home's Outbreak Management Team will determine when to declare an outbreak over, taking into consideration the period of communicability and incubation period of COVID-19, as well as the epidemiology of the outbreak.⁶

Ensure to:

Terminally clean resident environment

Communicate that outbreak is over to stakeholders

Resources

Ministry of Health and Long-Term Care: [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018¹⁰](#)

Ministry of Health: [Management of Cases and Contacts of COVID-19 in Ontario⁶⁸](#)

Public Health Ontario: [De-escalation of COVID-19 Outbreak Control Measures in Long-Term Care and Retirement Homes⁷⁴](#)

Appendix A: Organizational IPAC Risk Assessment

An IPAC organizational risk assessment (ORA) can help provide a framework for the IPAC components of an outbreak plan. The risk assessment can help an organization identify areas of strength, weakness, threat and opportunities (SWOT) for improvement to mitigate risks. The Public Services Health and Safety Association has developed a document [Infectious Disease Threats Risk Assessment Tool for Acute Care](#), which may be used as a reference.¹² Below is a list of IPAC elements to consider when performing an ORA in LTC/RHs. Some resources are embedded in the questions. Additional resources that may assist in performing an organizational risk assessment are listed in the References.

The LTCH's/RH's context

Where is your LTCH/RH? Are you in a large city or a small town?

What services does your LTCH/RH provide?

Do you have a relationship with a regional health centre or other health systems?

What health sector coordination mechanisms do you already have in place to manage emergencies?

What is your resident demographic?

Consider your organization's values, beliefs and strategic plan¹²

Staff safety culture and engagement¹²

Reports of existing illnesses and points of exposure¹²

Ongoing monitoring of infectious disease threats in the community and beyond^{12,75}

IPAC Program

Does the home have an IPAC Program?⁸

What are the IPAC lines of authority within your organization?

Is there a person(s) responsible for IPAC?

Is there a multi-disciplinary team responsible for outbreak management?

Do those responsible for IPAC have support (i.e., resources [e.g., time, funding], senior leadership) to carry out necessary activities?

Do you have established IPAC policies and procedures?

Human Resources

Does the home have sufficient human resources for the provision of care and support services (e.g., environmental cleaning and dietary services)?

Has a contingency plan with respect to human resources been developed that identifies the minimum staffing needs and prioritizes critical and non-essential services based on residents' health status, functional limitations, disabilities and essential facility operations and cohorting of staff?⁷⁶

Would it be possible to re-deploy some human resources in an outbreak?

Communication

Does your home have an outbreak management communication protocol to connect with families and residents, other facilities in your area and/or the media?¹⁰

Does your home have a process for inter-facility transfers that includes notifying transport personnel and receiving facilities about a resident's suspected or confirmed diagnosis (e.g., presence of respiratory symptoms or known COVID-19) prior to transfer?¹⁰

Identify Risks

While the focus of infectious diseases has been on SARS-CoV-2, it is important to consider other potential infectious diseases that could impact your organization. Organisms that frequently cause outbreaks include: influenza A and B, respiratory syncytial virus (RSV), human metapneumovirus, parainfluenza, norovirus, seasonal coronavirus, *Clostridioides difficile*, methicillin resistant *Staphylococcus aureus* (MRSA). Other diseases for consideration include *Mycobacterium tuberculosis*, invasive Group A Streptococcal Disease and emerging pathogens such as *Candida auris*.

Which residents and/or employees could be exposed to these organisms?

Does the type of work performed by the employee increase their risk of exposure?

- Resident Care, Environmental Services and Waste Management, Linen/Laundry, Food Services, Activation, Physiotherapy

What would be the risk to the employee should they incorrectly select, don or doff personal protective equipment?

How could these organisms impact these groups of residents and/or employees?

Analysis of Risk

Think about all the controls that are already in place in your organization – think about them in terms of the hierarchy of controls (elimination/substitution, engineering controls (environmental controls), administrative controls, controls at the worker [PPE]) and in the context of which organisms are most likely to cause an outbreak in your home. What are the internal factors (infrastructure, home IPAC policies and procedures, health care worker education/training policies and procedures, health care worker compliance, vaccination of staff and residents, adequate staffing), and external factors (funding, access to adequate supplies of PPE) that would influence the ability to implement control strategies?

Below are various IPAC strategies that can be considered to mitigate risk. While reviewing the IPAC strategies – think about your organization and how these apply or are implemented there.

Infrastructure/Design – Provision of Care

Does the design/infrastructure of your LTCH/RH facilitate IPAC measures, such as cohorting⁷¹⁰

Is the home primarily single rooms or do you have multiple semi-private or ward rooms?

What is the home's ability to place a single resident on Additional Precautions (e.g., Droplet/Contact precautions) that require a single room?

Does the home have alternative accommodation plans that have been considered to support IPAC measures, such as:

- respite and palliative beds/rooms to provide additional accommodations?
- other rooms to help maintain isolation of affected residents (e.g., community and recreation rooms that have call bells)

Environmental Cleaning

Are there policies and procedures regarding staffing in Environmental Services to allow for surge capacity (e.g., additional staff, supervision, supplies and equipment)?

Have the Environmental Services (ES) staff received education and training on the correct way to clean (e.g., use the correct dilution, correct contact time, clean from clean to contaminated and from top to bottom, and to not double dip)?

Is there a policy and procedure for cleaning rooms of residents who are on Additional Precautions (suspect and confirmed cases)?

Is the home using a health care grade cleaner/disinfectant with a drug identification number (DIN)?

Is equipment that cannot be dedicated to a single resident cleaned and disinfected between residents?

Are high-touch surfaces cleaned frequently? Is there a list of the high-touch surfaces, who is cleaning them and when? Is this information recorded daily?

Hand Hygiene

Is ABHR available at point-of-care and in other resident and common areas?

Are dedicated hand hygiene sinks available in all resident care areas?

Are hand hygiene supplies maintained/replenished when needed (and not 'topped up')?

Are audits of hand hygiene compliance performed?

Education

Are HCWs, staff, students and volunteers educated with respect to IPAC processes and strategies (e.g., hand hygiene, point-of-care risk assessment, Routine Practices, Additional Precautions, donning and doffing of PPE, Healthy Workplace policy, cleaning/disinfection of resident care equipment)?^{8,24,77}

Does this education occur at orientation and on a continuing basis?

Are residents educated with respect to hand hygiene?

Surveillance

Do you have a surveillance program in place (e.g., surveillance for acute respiratory infections (ARI) and gastroenteritis)?^{10, 78} The Ministry of Health and Long-Term Care's [Control of Respiratory Infection Outbreaks in Long-Term Care Homes, 2018](#) can provide guidance on surveillance.¹⁰

Have HCWs received education and training on their role in the surveillance program?

If a resident presents with symptoms of COVID-19, do staff know to immediately implement Droplet/Contact precautions?

Does the organization connect with the local PHU regarding surveillance?⁷⁸

How does your internal IPAC lead/team interact with external bodies and authorities (e.g., Public Health Ontario, local PHU, etc.)?

Who is the organization's PHU liaison? Do you have their contact information?

Who will have input and approve your plans?

Testing for COVID-19 or Other Respiratory Viruses

Does the home have a process in place for ordering tests kits/requisitions?

Does the home have a supply of appropriate test kits?

Is there a policy and procedure on appropriate specimen collection e.g., nasopharyngeal (NP) swab collection, rapid antigen testing (RAT) or PCR testing?^{6,69}

Have HCWs been educated and trained on appropriate specimen collection techniques?

Personal Protective Equipment (PPE)

Is PPE readily accessible to HCWs, including fit-tested N95 respirators?^{11,77}

Are HCWs and staff educated with respect to which PPE should be worn when providing care for a resident on Additional Precautions¹³ including if involved in Aerosol Generating Medical Procedures (AGMPs) and how to safely don and doff the PPE?

Assess the Risk

In this step, the organization assesses how likely it is an event will happen (e.g., SARS CoV-2, influenza A outbreak) and the impact of that event on the residents and staff of the organization. A Risk Assessment Matrix may be helpful in assessing the risk. For more information, see the Risk Assessment Matrix at Public Services Health & Safety Association document's [Infectious Disease Threats Risk Assessment Tool for Acute Care.](#)¹²

Manage Risks

Consider the risks your organization has identified and needs to manage. What standards or criteria will be used to determine if the risk is being managed?¹² Are the strategies for mitigating the impact of that risk being followed/carried out? For example, if there a risk of an MRSA outbreak and failure to use Contact Precautions (i.e., resident placed in single room; dedicated resident care equipment; gloves and gowns worn for direct care; hand hygiene performed as per the Four Moments for Hand Hygiene), an organization could implement the use of audits to assess compliance to resident placement, the management of resident care equipment including the cleaning/disinfecting of equipment between residents, the correct use of PPE, and compliance to hand hygiene.

Evaluation

On a regular basis and as infectious disease threats (IDTs) change, evaluate your ORA¹². Consider which IDTs remain or have changed and if the IPAC strategies in place are preventing transmission in your organization.

References

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19: infection prevention and control checklist for long-term care and retirement homes [Internet]. 2nd ed. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/covid-19-ipack-checklist-ltcrh.pdf?la=en>
2. Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 long-term care resources [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus/long-term-care-resources>
3. Ontario. Ministry of Health; Ontario. Ministry of Long-Term Care. COVID-19: guidance for the health sector [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [modified 2022 Nov 30; cited 2023 Jan 3]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/2019_guidance.aspx
4. *Fixing Long-Term Care Act*, 2021, SO 2021, c 39, Sched 1. Available from: <https://www.ontario.ca/laws/statute/21f39>
5. *Retirement Homes Act*, 2010, SO 2010, c 11. Available from: <https://www.ontario.ca/laws/statute/10r11>
6. Ontario. Ministry of Health. COVID-19 guidance: long-term care homes, retirement homes, and other congregate living settings for public health units [Internet]. Version 8. Toronto, ON: King's Printer for Ontario; 2022 [modified 2022 Oct 6; cited 2023 Jan 3]. Available from: https://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_LTC_homes_retirement_homes_for_PHUs_guidance.pdf
7. Augustin A, Barry C; IPAC Canada. Position statement: infection prevention and control program components for long-term care homes. Can J Infect Control. 2021;125-8. Available from: https://ipac-canada.org/photos/custom/CJIC/CJIC_Fall2021_Augustin.pdf
8. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for infection prevention and control programs in all health care settings [Internet]. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2012/bp-ipac-hc-settings.pdf?la=en>
9. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Infection prevention and control for long-term care homes: summary of key principles and best practices [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2023 Jan 3]. Available from:

<https://www.publichealthontario.ca/-/media/documents/i/2021/ipac-ltch-principles-best-practices.pdf?la=en>

10. Ontario. Ministry of Health and Long-Term Care. Control of respiratory infection outbreaks in long-term care homes, 2018 [Internet]. Toronto, ON: Queen's Printer for Ontario; 2018 [cited 2023 Jan 3]. Available from: https://health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/reference/RESP_Infec_tn_ctrl_guide_LTC_2018_en.pdf
11. National Institute for Occupational Safety and Health (NIOSH). Hierarchy of controls [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2022 [modified 2022 Aug 11; cited 2023 Jan 3]. Available from: <https://www.cdc.gov/niosh/topics/hierarchy/>
12. Public Services Health & Safety Association. Infectious disease threats risk assessment tool for acute care [Internet]. Toronto, ON: Public Services Health & Safety Association; 2020 [cited 2023 Jan 3]. Available from: <https://www.pshsa.ca/resources/infectious-disease-threats-risk-assessment-tool-for-acute-care#home-pshsa-logo>
13. Ontario Agency for Health Protection and Promotion (Public Health Ontario). IPAC recommendations for use of personal protective equipment for care of individuals with suspect or confirmed COVID-19 [Internet]. 2nd ed. Toronto, ON: King's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?sc_lang=en
14. Canadian Institute for Health Information. Long-term care and COVID-19: the first 6 months [Internet]. Ottawa, ON: Canadian Institute for Health Information; 2021 [cited 2023 Jan 3]. Available from: <https://www.cihi.ca/en/long-term-care-and-covid-19-the-first-6-months>
15. Canadian Institute for Health Information. COVID-19's impact on long-term care [Internet]. Ottawa, ON: Canadian Institute for Health Information; 2021 [cited 2023 Jan 3]. Available from: <https://www.cihi.ca/en/covid-19-resources/impact-of-covid-19-on-canadas-health-care-systems/long-term-care>
16. Ontario. Ministry of Health; Ontario. Ministry of Long-Term Care. Emergency health services: COVID-19 screening tool for paramedics [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [modified 2021 Aug 24, cited 2023 Jan 3]. Available from: https://health.gov.on.ca/en/pro/programs/emergency_health/edu/COVID_19_screening.aspx
17. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Hand hygiene for health care settings [Internet]. Toronto, ON: Queen's Printer for Ontario; 2019 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/f/2019/fact-sheet-pidac-ipc-hand-hygiene.pdf?sc_lang=en
18. Ontario Agency of Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19): how to self-monitor [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [cited

- 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/factsheet-covid-19-self-monitor.pdf?la=en>
19. Ontario Agency of Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19): universal mask use in health care [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/faq-covid-19-universal-mask-use-health-care.pdf?la=en>
20. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Universal mask use in health care settings and retirement homes [Internet]. 3rd revision. Toronto, ON: Queen's Printer for Ontario; 2022 [modified 2022 Feb; cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/report-covid-19-universal-mask-use-health-care-settings.pdf?la=en>
21. Ontario Health Workforce. Welcome to the Ontario Matching Portal [Internet]. Toronto, ON: King's Printer for Ontario; c2023 [cited 2023 Jan 3]. Available from: https://healthcloudtrialmaster-15a4d-17117fe91a8.force.com/matchingportal/s/?language=en_US
22. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19): how to protect yourself from COVID-19 [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/Documents/nCoV/Factsheet/2021/06/lp/fact-sheet-covid-19-preventive-layers.pdf?sc_lang=en
23. Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 vaccines [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus/vaccines>
24. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for hand hygiene in all health care settings [Internet]. 4th ed. Toronto, ON: Queen's Printer for Ontario; 2014 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2014/bp-hand-hygiene.pdf?la=en>
25. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Hand hygiene [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/hand-hygiene>
26. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Placement tool for hand hygiene products [Internet]. Toronto, ON: Queen's Printer for Ontario; 2009 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/h/2009/hand-hygiene-poc.pdf?la=en>
27. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Infection prevention and control practices for occupational contact dermatitis [Internet]. Toronto, ON: Queen's Printer

- for Ontario; 2020 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/s/2020/summary-ipac-occupational-dermatitis.pdf?la=en>
28. Centers for Disease Control and Prevention. Personal protective equipment (PPE) burn rate calculator [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2021 [modified 2021 Mar 24; cited 2023 Jan 3]. Available from: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/burn-calculator.html>
29. World Health Organization (WHO). Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages: interim guidance [Internet]. Geneva: WHO; 2020 [cited 2023 Jan 3]. Available from: https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC_PPE_use-2020.3-eng.pdf?sequence=9&isAllowed=y
30. Ontario. Ministry of Long-Term Care. COVID-19 guidance document for long-term care homes in Ontario [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [modified 2022 Dec 23; cited 2023 Jan 3]. Available from: <https://www.ontario.ca/page/covid-19-guidance-document-long-term-care-homes-ontario>
31. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Health care workers: how to physically distance in long-term care / residents: how to physically distance in long-term care [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/lrcrh/2020/10/covid-19-poster-physically-distance-long-term-care.pdf?la=en>
32. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Heating, ventilation and air conditioning (HVAC) systems in buildings and COVID-19 [Internet]. 2nd revision. Toronto, ON: Queen's Printer for Ontario; 2022 [modified 2022 Sep; cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/2020/09/covid-19-hvac-systems-in-buildings.pdf?la=en>
33. Public Health Agency of Canada. COVID-19: guidance on indoor ventilation during the pandemic [Internet]. Ottawa, ON: Government of Canada; 2022 [modified 2022 Jul 5; cited 2023 Jan 3]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/guide-indoor-ventilation-covid-19-pandemic.html>
34. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Use of portable air cleaners and transmission of COVID-19 [Internet]. 1st revision. Toronto, ON: Queen's Printer for Ontario; 2022 [modified 2022 Jul; cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/2021/01/faq-covid-19-portable-air-cleaners.pdf?la=en>
35. Public Health Agency of Canada. Using ventilation and filtration to reduce aerosol transmission of COVID-19 in long-term care homes [Internet]. Ottawa, ON: Government of Canada; 2021 [modified 2021 Apr 12; cited 2023 Jan 3]. Available from: <https://www.canada.ca/en/public->

[health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/guide-ltch-ventilation-covid-19-pandemic.html](https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/environmental-cleaning/environmental-cleaning-toolkit)

36. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Environmental cleaning toolkit [Internet]. Toronto, ON: King's Printer for Ontario; 2019 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/environmental-cleaning/environmental-cleaning-toolkit>
37. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Environmental cleaning [Internet]. Toronto, ON: King's Printer for Ontario; 2019 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/environmental-cleaning>
38. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for environmental cleaning for prevention and control of infections in all health care settings [Internet]. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2018 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2018/bp-environmental-cleaning.pdf?la=en>
39. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Spaulding's classification of medical equipment/devices and required level of processing/reprocessing [Internet]. Toronto, ON: Queen's Printer for Ontario; 2017 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/c/2017/cds-spaulding-table.pdf?la=en>
40. Ontario Agency of Health Protection and Promotion (Public Health Ontario). COVID-19: self-assessment audit tool for long-term care homes and retirement homes [Internet]. 2nd ed. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/ltrh/2021/12/covid-self-assessment-audit-tool-ltc.pdf?sc_lang=en%22
41. Ontario. Ministry of Long-Term Care. Minister's directive: COVID-19 response measures for long-term care homes [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [modified 2022 Aug 30; cited 2023 Jan 3]. Available from: <https://www.ontario.ca/page/ministers-directive-covid-19-response-measures-for-long-term-care-homes>
42. Bialachowski A, Clinker K, LeBlanc M, McDonald S; Chica-Canada Audit Toolkit Working Group. The audit process: Part I. Pre-audit preparation. Can J Infect Control. 2010;25(1):68-70. Available from: <https://ipac-canada.org/photos/custom/OldSite/cjic/vol25no1.pdf>
43. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Just clean your hands – long-term care [Internet]. Toronto, ON: King's Printer for Ontario; 2019 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/hand-hygiene/jcyh-ltch>

44. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Personal protective equipment (PPE) auditing [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/health-topics/infection-prevention-control/ppe-auditing>
45. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Auditing of personal protective equipment (PPE) use [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/Documents/A/2021/auditing-ppe-use-health-care-form.pdf?sc_lang=en
46. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Supporting the use of personal protective equipment (PPE) audit [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/Documents/S/2021/supporting-use-ppe-audit-health-care-form.pdf?sc_lang=en
47. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Supporting the implementation of personal protective equipment auditing in health care settings [Webinar]. Toronto, ON: Queen's Printer for Ontario; 2021 [presented 2021 Oct 22; cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/Documents/S/2021/supporting-implementation-ppe-audit-health-care.pdf?sc_lang=en
48. Ontario. Ministry of Labour, Training and Skills Development. COVID-19 and the Occupational Health and Safety Act [Internet]. Toronto, ON: King's Printer for Ontario; 2020 [modified 2022 Mar 21; cited 2023 Jan 3]. Available from: <https://www.ontario.ca/page/covid-19-occupational-health-safety-act>
49. Ontario. Ministry of Health; Ontario. Ministry of Long-Term Care. Health services in your community: public health units [Internet]. Toronto, ON: king's Printer for Ontario; 2022 [modified 2022 Jun 7; cited 2023 Jan 3]. Available from:
<https://www.health.gov.on.ca/en/common/system/services/phu/locations.aspx>
50. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Infection prevention and control (IPAC) – online learning [Internet]. Toronto, ON: King's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/education-and-events/online-learning/ipac-courses>
51. Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to hand rub [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/I/2020/IPAC-Handrub>
52. Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to hand wash [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 2 min. Available from: <https://www.publichealthontario.ca/en/Videos/I/2021/IPAC-Handwash>
53. Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to handrub [Internet]. Toronto, ON: Queen's Printer for Ontario; 2009 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/j/2009/jcyh-handrub.pdf?sc_lang=en

54. Ontario Agency for Health Protection and Promotion (Public Health Ontario). How to handwash [Internet]. Toronto, ON: Queen's Printer for Ontario; 2009 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/j/2009/jcyh-handwash.pdf?sc_lang=en
55. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Performing a risk assessment related to routine practices and additional precautions [Internet]. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/r/2012/rpap-risk-assessment.pdf?la=en>
56. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Recommended steps: putting on personal protective equipment (PPE) / taking off personal protective equipment (PPE) [Internet]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/ppe-recommended-steps.pdf?la=en>
57. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Putting on mask and eye protection [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-MaskEyes-On>
58. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Taking off mask and eye protection [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-MaskEyes-Off>
59. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Putting on full personal protective equipment [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 2 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-FullPPE-On>
60. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Taking off full personal protective equipment [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-FullPPE-Off>
61. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Putting on flatfold N95 respirator [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-N95Respirator-Flat-On>
62. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Taking off flatfold N95 respirator [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-N95Respirator-Flat-Off>
63. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Putting on cone N95 respirator [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min.

- min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-N95Respirator-Cone-On>
64. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Taking off cone N95 respirator [video recording]. Toronto, ON: Queen's Printer for Ontario; 2016 [cited 2023 Jan 3]. 1 min. Available from: <https://www.publichealthontario.ca/en/Videos/l/2021/IPAC-N95Respirator-Cone-Off>
65. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Health care huddles: IPAC checkpoints [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ltcrh/2021/03/ipac-huddles-checkpoints.pdf?la=en>
66. Ontario Agency for Health Protection and Promotion (Public Health Ontario). A resource for health care workers: cleaning and disinfection of reusable eye protection [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/2021/03/covid-19-infographic-cleaning-eye-protection.pdf?la=en>
67. Ontario Agency for Health Protection and Promotion (Public Health Ontario). COVID-19 laboratory testing resources [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/diseases-and-conditions/infectious-diseases/respiratory-diseases/novel-coronavirus/laboratory-resources>
68. Ontario. Ministry of Health. Management of cases and contacts of COVID-19 in Ontario [Internet]. Version 15.1. Toronto, ON: Queen's Printer for Ontario; 2022 [modified 2022 Nov 30; cited 2023 Jan 3]. Available from: http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_testing_guidance.pdf
69. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19) – PCR [Internet]. Toronto, ON: King's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/en/laboratory-services/test-information-index/covid-19>
70. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19): how to self-isolate while working: recommendations for health care workers [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ipac/ipac-covid-19-work-self-isolation.pdf?la=en>
71. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Coronavirus disease 2019 (COVID-19): cohorting during an outbreak of COVID-19 in long-term care homes [Internet]. Toronto, ON: Queen's Printer for Ontario; 2022 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/ltcrh/2020/11/covid-19-outbreak-cohorting-ltch.pdf?sc_lang=en

72. Ontario Agency of Health Protection and Promotion (Public Health Ontario). Examples for resident cohorting in long-term care homes [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021 [cited 2023 Jan 3]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/ltrch/2021/01/resident-cohorting-ltrch-infographic.pdf?sc_lang=en
73. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Focus on: cohorting in outbreaks in congregate living settings [Internet]. 2nd ed., 2nd revision. Toronto, ON: Queen's Printer for Ontario; 2022 [modified 2022 Mar; cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/cong/2020/06/focus-on-cohorting-outbreaks-congregate-living-settings.pdf?la=en>
74. Ontario Agency for Health Protection and Promotion (Public Health Ontario). De-escalation of COVID-19 outbreak control measures in long-term care and retirement homes [Internet]. 1st revision. Toronto, ON: Queen's Printer for Ontario; 2021 [modified 2021 May 4; cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ltrch/2020/06/covid-19-outbreak-de-escalation-ltrch.pdf?la=en>
75. World Health Organization. A checklist for pandemic influenza risk and impact management: building capacity for pandemic response [Internet]. Geneva: World Health Organization; 2018 [cited 2023 Jan 3]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/259884/9789241513623-eng.pdf?sequence=1>
76. Centers for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19) preparedness checklist for nursing homes and other long-term care settings [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2020 [cited 2023 Jan 3]. Available from: https://www.cdc.gov/coronavirus/2019-ncov/downloads/novel-coronavirus-2019-Nursing-Homes-Preparedness-Checklist_3_13.pdf
77. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Routine practices and additional precautions in all health care settings [Internet]. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2012 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2012/bp-rpap-healthcare-settings.pdf?la=en>
78. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best practices for surveillance of health care-associated infections in patient and resident populations [Internet]. 3rd ed. Toronto, ON: Queen's Printer for Ontario; 2014 [cited 2023 Jan 3]. Available from: <https://www.publichealthontario.ca/-/media/documents/b/2014/bp-hai-surveillance.pdf?la=en>

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). Prevention and management of COVID-19 in long-term care and retirement homes. 4th ed. Toronto, ON: King's Printer for Ontario; 2023.

Publication History

Published: 2020

2nd Edition: August 2021

3rd Edition: June 2022

4th Edition: January, 2023

Disclaimer

This document was developed by Public Health Ontario (PHO). PHO provides scientific and technical advice to Ontario's government, public health organizations and health care providers. PHO's work is guided by the current best available evidence at the time of publication. The application and use of this document is the responsibility of the user. PHO assumes no liability resulting from any such application or use. This document may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to PHO. No changes and/or modifications may be made to this document without express written permission from PHO.

Public Health Ontario

Public Health Ontario is an agency of the Government of Ontario dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. Public Health Ontario links public health practitioners, front-line health workers and researchers to the best scientific intelligence and knowledge from around the world.

For more information about PHO, visit publichealthontario.ca



© King's Printer for Ontario, 2023