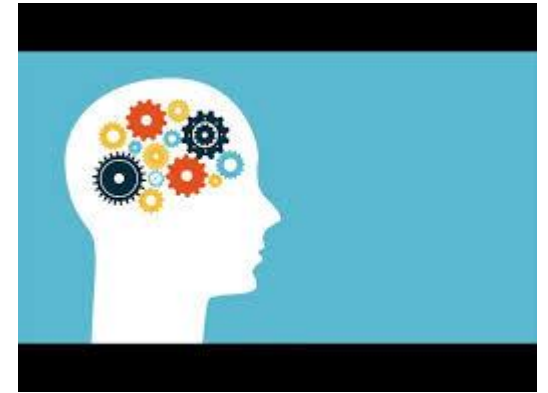


# IPAC Measures to Prevent the Spread of Respiratory Infections - Presentation for HCWs

2025-2026 Season





## To gain a better understanding of:

- Respiratory Illness and Outbreaks
- Infection Prevention and Control Measures in Outbreak situations
  - Hand Hygiene
  - Signage
  - PPE
  - Other Additional Precautions
  - Environmental and Equipment Cleaning and Disinfection

# RESPIRATORY ILLNESS AND OUTBREAKS



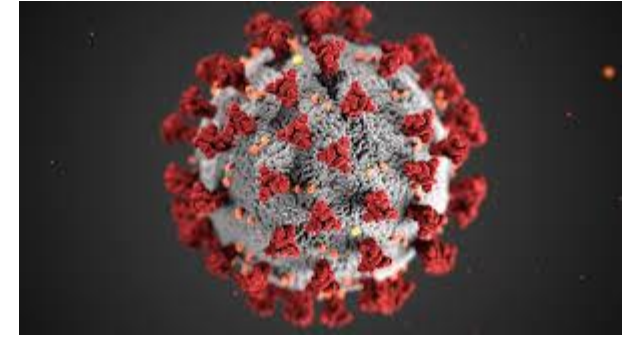
# RESPIRATORY DISEASE FACTS - INFLUENZA



Influenza, commonly known as ‘the flu’

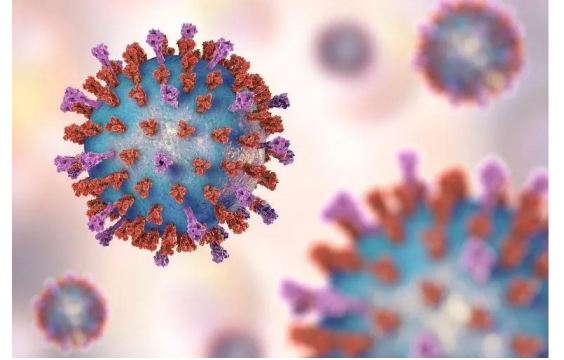
- Caused by influenza A or B viruses that can be serious
- Influenza is very contagious:
  - Symptoms typically appear **1 to 4 days after you've been exposed** to the virus, but you're **still contagious** even if you don't show symptoms yet
- Symptoms usually last 7-10 days, sometimes longer in the elderly
- Vaccination is the best prevention!

# RESPIRATORY DISEASE FACTS — COVID-19



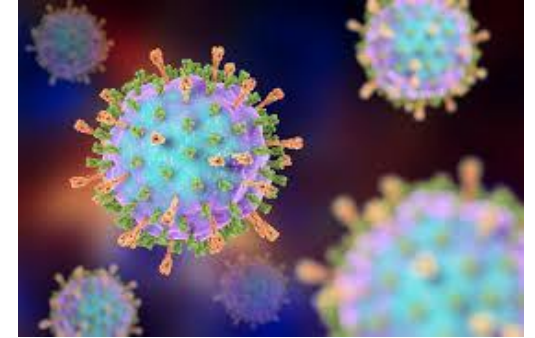
- COVID-19, caused by the SARS-CoV-2 virus, is a highly contagious respiratory illness
- In Canada, it has led to widespread illness, hospitalizations, and deaths since its emergence in early 2020
- Symptoms range from mild, like fever and cough, to severe, such as difficulty breathing and pneumonia
- Vaccination is the best prevention!

# RESPIRATORY DISEASE FACTS — RSV



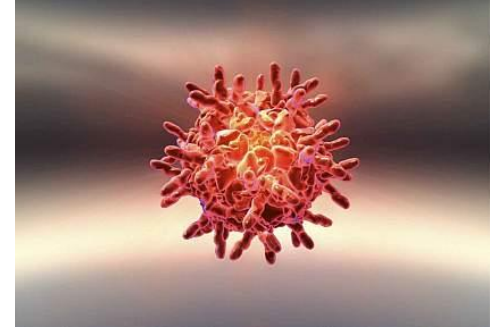
- Respiratory Syncytial Virus (RSV) is a common respiratory virus that typically causes mild, cold-like symptoms such as a runny nose, cough, and fever
- In Canada, RSV activity usually peaks from late fall to early spring
- While most people recover within one to two weeks, RSV can lead to more severe respiratory illnesses like bronchiolitis and pneumonia, especially in infants, older adults, and individuals with weakened immune systems
- Vaccination is the best prevention!

# RESPIRATORY DISEASE FACTS — PARAINFLUENZA



- Parainfluenza refers to a group of viruses known as human parainfluenza viruses (HPIVs)
- These viruses cause common respiratory infections, such as colds, croup, bronchiolitis, bronchitis, and pneumonia
- HPIVs are particularly concerning for young children, older adults, and individuals with weakened immune systems, as they are more likely to experience severe illness
- Symptoms can range from mild, like a runny nose and cough, to more serious conditions, such as difficulty breathing and pneumonia

# RESPIRATORY DISEASE FACTS — RHINOVIRUS/ENTEROVIRUS



- Rhinoviruses and enteroviruses are common causes of respiratory illnesses in Canada
- Rhinoviruses are the most frequent cause of the common cold, leading to symptoms like a runny nose, sore throat, and cough
- Symptoms can last for 10-14 days
- Enteroviruses, which include non-polio enteroviruses, can cause a range of illnesses from mild respiratory infections to more severe conditions like viral meningitis



# RESPIRATORY INFECTIONS

## MODE OF TRANSMISSION — PERSON-TO-PERSON THROUGH DROPLETS

- The virus is spread through the air by infectious droplets created when an infected person breathes, coughs, sneezes, sings, shouts, or talks
- The virus needs to directly enter the mouth, eyes or the nose of an individual to cause infection



# RESPIRATORY INFECTIONS

## MODE OF TRANSMISSION — PERSON-TO-PERSON THROUGH DROPLETS

- You may become infected with a respiratory infectious disease if:
  - You breathe infectious particles in
  - Infectious particles or secretions come into direct contact with your eyes, nose or mouth
    - For example, if someone who is infected:
      - Coughs or sneezes on you
      - Kisses or shares food or drinks with you
  - You touch someone who has infectious particles or secretions on them then touch your eyes, nose or mouth before you clean your hands



Droplet

# RESPIRATORY INFECTIONS

## MODE OF TRANSMISSION — CONTACT

- Surfaces and objects may become contaminated with infectious particles or secretions after being touched, coughed or sneezed on by a person who is infected
- High-touch surfaces and objects are more likely to be contaminated, including:
  - Phones
  - Door handles
  - Light switches
  - Elevator buttons
- You can become infected if you touch a contaminated surface or object, and then touch your eyes, nose or mouth before you clean your hands



# RISK GROUPS FOR RESPIRATORY ILLNESS RELATED COMPLICATIONS OR HOSPITALIZATION

- Adults 65 and older
- Children younger than 5
- People who are pregnant
- People with chronic lung diseases, such as asthma or chronic obstructive pulmonary disease
- Individuals with weakened immune systems, including those undergoing treatments like chemotherapy
- Residents of long-term care homes and other residential care facilities
- Indigenous Peoples



# RESPIRATORY OUTBREAKS

- Respiratory infection outbreaks in facilities are reportable as a disease of public health significance in Ontario
- Ongoing surveillance allows for recognition of respiratory symptoms in staff, residents and volunteers
- Prompt identification of any symptomatic individuals allows the home to apply appropriate infection prevention and control measures to prevent further spread of illness to others.
  - Should staff develop any symptoms of respiratory infection, they must report their condition to their Supervisor and leave the home as soon as possible
- York Region Public Health works with facilities such as long-term care homes, retirement homes and congregate living settings, in managing their outbreaks, and provides guidance on infection prevention and control measures

# RESPIRATORY OUTBREAK REPORTING

- Notify public health when there is any case(s) or cluster(s) of respiratory infection in residents and/or staff

## **Confirmed Respiratory Outbreak Definition**

- Two or more patient/resident cases of test-confirmed acute respiratory infections (ARI) with symptom onset within 48 hours and an epidemiological link (e.g., same unit/floor/service area) suggestive of transmission within the setting

**OR**

- Three or more patient/resident cases of ARI with symptom onset within 48 hours and an epidemiological link suggestive of transmission within the setting AND testing is not available or all negative

# INFECTION PREVENTION AND CONTROL MEASURES DURING OUTBREAKS



# HAND HYGIENE





# PERFORM HAND HYGIENE

- Hand hygiene plays a very important role in limiting the spread of respiratory infections
- Adherence to hand hygiene recommendations is the **single most important practice** for preventing the transmission of pathogens
- The correct steps need to be taken when performing hand hygiene
- Residents should be supported to perform proper hand hygiene at appropriate times



# HANDWASHING — WASH WITH SOAP AND WATER

## How to handwash

Lather hands for 15 seconds

-  Wet hands with warm water.
-  Apply soap.
-  Lather soap and rub hands palm to palm.
-  Rub in between and around fingers.

Lather hands for 15 seconds

-  Rub back of each hand with palm of other hand.
-  Rub fingertips of each hand in opposite palm.
-  Rub each thumb clasped in opposite hand.
-  Rinse thoroughly under running water.

-  Pat hands dry with paper towel.
-  Turn off water using paper towel.
-  Your hands are now safe.

**JUST CLEAN YOUR HANDS**

For more information, please contact [handhygiene@oahpp.ca](mailto:handhygiene@oahpp.ca) or visit [publichealthontario.ca/JCYH](http://publichealthontario.ca/JCYH)

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## HOW TO HANDWASH

- 1 Wet hands**  

- 2 Apply liquid soap**  

- 3 Lather (minimum 15 seconds)**  

- 4 Rinse**  

- 5 Dry hands with paper towel**  

- 6 Turn taps off with paper towel**  






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TTY: 1-866-512-6228  
[york.ca/InfectionPrevention](http://york.ca/InfectionPrevention)

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# HAND SANITIZER – HOW TO USE HAND RUB

## How to handrub

Rub hands for 15 seconds


-  Apply 1 to 2 pumps of product to palms of dry hands.
-  Rub hands together, palm to palm.
-  Rub in between and around fingers.
-  Rub back of each hand with palm of other hand.

Rub hands for 15 seconds

-  Rub fingertips of each hand in opposite palm.
-  Rub each thumb clasped in opposite hand.
-  Rub hands until product is dry. Do not use paper towels.
-  Once dry, your hands are safe.

JUST CLEAN YOUR HANDS

For more information, please contact [handhygiene@oahpp.ca](mailto:handhygiene@oahpp.ca) or visit [publichealthontario.ca/JCYH](http://publichealthontario.ca/JCYH)

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## HOW TO USE HAND SANITIZER

- 1 Apply enough to cover both hands**  

- 2 Rub hands and around all fingers**  

- 3 Rub hands until dry (minimum 15 seconds)**  


**Important Tips:**

- To ensure proper hand hygiene, remove hand and wrist jewellery
- Use hand sanitizer if hands are not visibly dirty
- Use an alcohol-based hand sanitizer that has 70-90% alcohol with a Natural Product Number (NPN)
- Do not apply hand sanitizer near an open flame

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23-2025

# YOUR 4 MOMENTS OF HAND HYGIENE

## Your 4 Moments for Hand Hygiene

**1** BEFORE INITIAL RESIDENT/RESIDENT ENVIRONMENT CONTACT

**2** BEFORE ASEPTIC PROCEDURES

**3** AFTER BODY FLUID EXPOSURE RISK

**4** AFTER RESIDENT/RESIDENT ENVIRONMENT CONTACT

# PRACTICE RESPIRATORY ETIQUETTE

## COVER YOUR COUGHS AND SNEEZES

- 1** Cover your mouth and nose with a tissue or your sleeve  

- 2** Put used tissue in the garbage  

- 3** Wash hands with soap and water (minimum 15 seconds)  

- OR** Clean hands with hand sanitizer (70-90% alcohol-based)  


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# OUTBREAK SIGNAGE



# OUTBREAK SIGNS



**ATTENTION VISITORS**



**WE ARE EXPERIENCING A SUSPECT OUTBREAK**

Please speak to the staff prior to your visit.

Stay safe.  
Stay informed.  
york.ca



**ATTENTION VISITORS**



**WE ARE EXPERIENCING AN OUTBREAK**

Please speak to the staff prior to your visit.

Stay safe.  
Stay informed.  
york.ca



# SCREENING SIGNAGE

## Have you screened yourself?

Do you have two (2) or more of the following new or worsening symptoms?



Fever ( $\geq 38^{\circ}\text{C}$ )  
and/or chills



Nausea/vomiting/  
diarrhea



Runny nose/  
nasal congestion



Sore throat



Headache



Body aches



Coughing

If you answered yes, please do not enter the home until you have no fever, and your symptoms are improving for at least 24 hours (or 48 hours for nausea/vomiting/diarrhea).

Staff and Visitors who become symptomatic while in the home:

- please notify home administration
- leave the home immediately
- do not return until your symptoms are improving
- seek medical attention if needed

Residents who become sick:

- please notify nursing staff
- please return to your room

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# PERSONAL PROTECTIVE EQUIPMENT (PPE)



# PPE NEEDED WHEN CARING FOR SOMEONE WITH A RESPIRATORY ILLNESS - DROPLET AND CONTACT PRECAUTIONS

## 1. Mask

- Secure mask over nose and mouth
- Apply a new mask if the mask becomes wet, contaminated, or needs to be removed
- When caring for a resident with suspected or confirmed COVID-19, a medical mask or N95 mask can be worn



## 2. Eye Protection

- If eye protection is reusable, it needs to be cleaned and disinfected after resident care, dedicated to one staff and stored in a clean manner
- Personal eyeglasses are **not** an acceptable form of eye protection



# PPE NEEDED WHEN CARING FOR SOMEONE WITH A RESPIRATORY ILLNESS - DROPLET AND CONTACT PRECAUTIONS

## 3. Gloves

- Wear the correct size
- Perform hand hygiene before putting on gloves and after removal of gloves
- Remove gloves carefully and discard gloves immediately after the activity for which they were used – glove to glove, skin to skin



## 4. Gown

- Gown must be properly worn; tied at the top and around the waist
- Gown is single-use only and removed after resident care
- Can be disposable or laundered



# PPE POSTER — DON AND DOFF IN THE PROPER SEQUENCE

## Personal Protective Equipment

Personal Protective Equipment (PPE) should be worn to prevent the spread of disease-causing microorganisms. By protecting your skin and face (mouth, eyes and nose) with PPE you minimize your chance of getting these organisms into your body.


### Putting on Personal Protective Equipment

|                          |                  |                  |                            |                    |
|--------------------------|------------------|------------------|----------------------------|--------------------|
| <b>1</b><br>Hand hygiene | <b>2</b><br>Gown | <b>3</b><br>Mask | <b>4</b><br>Eye protection | <b>5</b><br>Gloves |
|                          |                  |                  |                            |                    |

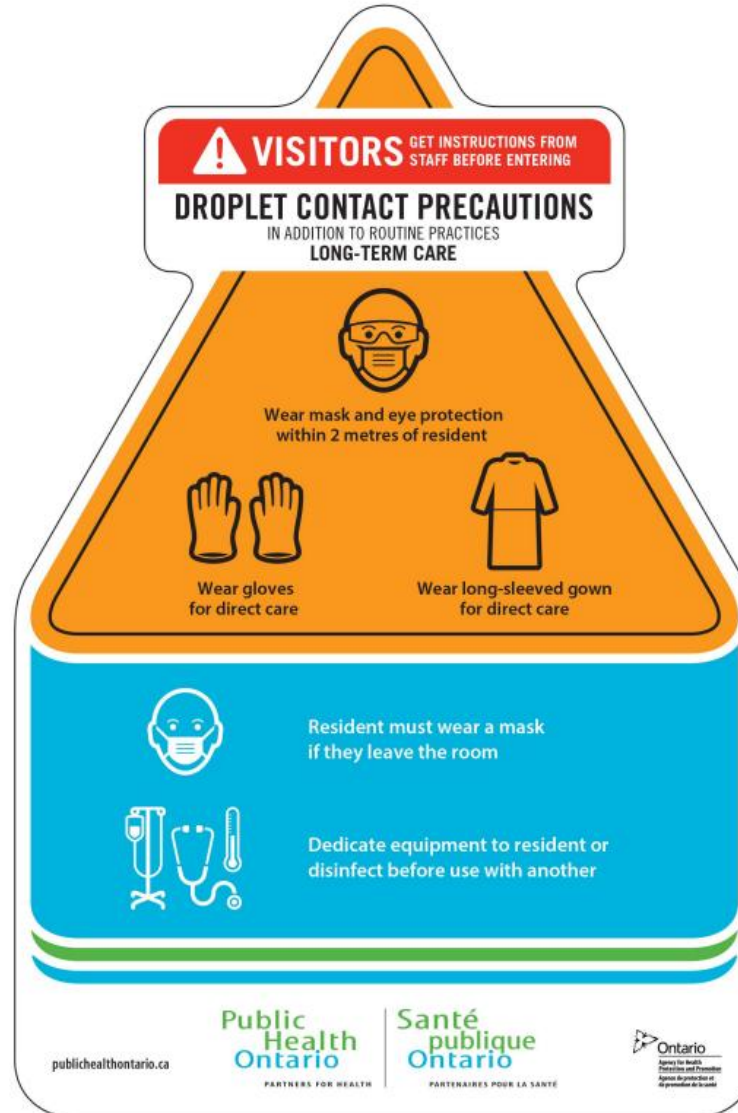
### Removing Personal Protective Equipment

|   |   |  |  |   |  |
|---|---|--|--|---|--|
| <b>1</b><br>Gloves  | <b>2</b><br>Gown  | <b>3</b><br>Hand hygiene                             | <b>4</b><br>Eye protection   | <b>5</b><br>Mask                                  | <b>6</b><br>Hand hygiene                             |
|   |   |  |  |   |  |
| Remove using glove-to-glove/skin-to-skin method and discard | Peel off away from body and turn inside out, roll into ball and discard | Use hand sanitizer or wash hands with soap and water | Hold eye protection at the sides, pull away from face and set aside or discard | Hold mask by straps, remove from face and discard | Use hand sanitizer or wash hands with soap and water |

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# ADDITIONAL PRECAUTIONS SIGN — DROPLET AND CONTACT



# UNIVERSAL MASKING

- Means masks need to be always worn by staff and visitors on the outbreak affected unit – this could be the whole facility depending on the lay-out of the home
- Residents on the outbreak unit are also encouraged to wear a mask, if tolerated, while receiving care and when in common areas
- New masks need to be made available for staff, residents and visitors to apply as they enter the home or outbreak unit



# ADDITIONAL POINTS ON PPE

- Staff and essential caregivers should conduct a point of care risk assessment before each resident interaction
- PPE caddies need to be set-up at the entrance to resident rooms who are on Additional Precautions
- PPE carts/caddies should always be fully stocked with all required PPE (e.g., masks, eye protection, gowns, gloves of various sizes and N95)
- Ensure there is a waste bin/laundry hamper with a lid inside the resident's room for PPE disposal – PPE is always doffed before leaving the room
- Ensure waste materials are handled and transported safely and removed in a timely manner to prevent overflow



# OTHER ADDITIONAL PRECAUTIONS





# ADDITIONAL PRECAUTIONS FOR RESIDENTS WITH RESPIRATORY ILLNESS



## Cohorting

- Staff should be cohorted to the outbreak unit
- Single room preferred
  - If room is shared (no more than two people), ensure privacy curtain is drawn between beds

## Isolation

- Symptomatic residents or those on Additional Precautions do not participate in group activities with other residents, where possible
- Residents on Additional Precautions receive tray meal service in their rooms, with disposable dishes, where possible
- Residents who are symptomatic or on Additional Precautions remain in their room until the end of their isolation period. If they need to leave their room for overall physical and mental well-being, they are supported to do so in ways that minimize spread of infection

# ADDITIONAL PRECAUTIONS FOR RESIDENTS WITH RESPIRATORY ILLNESS



## Group Activities

- Symptomatic residents or those on Additional Precautions do not participate in group activities with other residents, where possible

## Physical Distancing

- Processes are in place to support physical distancing during respiratory outbreaks
  - Stagger eating times
  - Staff break room set-up supports physical distancing
  - Limit food sharing between residents or staff

# ENVIRONMENTAL AND EQUIPMENT CLEANING AND DISINFECTION



# CLEANING AND DISINFECTION OF ENVIRONMENTAL SURFACES

- Always follow a two-step process: clean then disinfect
  - If a one-step cleaner/disinfectant product is used, two-steps are still needed
- Use disinfectants that have a DIN and a kill claim against non-enveloped viruses in outbreak situations or a bleach solution of 5,000ppm
- Allow disinfectant to remain wet on the surface for the required contact time
- Always follow manufacturer's instructions and check expiry
- Twice-daily cleaning on outbreak unit of frequently touched surfaces
- Rooms of residents who are on Additional Precautions are cleaned and disinfected at least once a day (if feasible) and when visibly soiled



# PROPER CLEANING AND DISINFECTING PRACTICES POSTER

## PROPER CLEANING AND DISINFECTION PRACTICES

### Cleaning

- Cleaning must always be the first step to remove dirt and debris from a surface and is necessary for a disinfectant to be effective
- Clean with a detergent, water, and friction and clean from least contaminated to most contaminated areas

### Disinfectants

- Disinfectants are applied to a clean surface in order to kill disease-causing germs
- Disinfectants must have a drug identification number (DIN) if approved for use in Canada (common household bleach and isopropyl alcohol are the only exceptions)
- Always follow manufacturer's instructions for use (MFU). Read label for direction on: dilution and mixing, personal protective equipment (PPE) needed (e.g. gloves, goggles), surfaces appropriate for use, contact time, efficacy on specific organisms, and rinsing requirements
- There are a variety of disinfectants in the market. Choose a disinfectant that is compatible with your surfaces and with contact times that fit your needs
- Check the expiry date. If a product has expired, do not use. Discard expired product safely or return to manufacturer
- Ensure the concentration of disinfectant is correct before use (i.e. use test strips)
- Toys that will be mouthed should be rinsed thoroughly with water following disinfection
- Do not use antiseptic wipes and other products intended for skin (i.e. alcohol-based hand rubs) on surfaces

### Cleaning and disinfecting wipes

- Follow manufacturer's recommendations
- Wipes may become dry (improper storage or during use) due to fast drying properties before contact time is achieved
- Wipes are not recommended as a routine cleaning/ disinfectant tool, especially for heavily soiled surfaces
- They can be used for items that cannot be soaked and for small items that must be disinfected between uses
- Ensure the surface or item remains wet with the product for the required contact time (additional wipes may be needed)
- Wipes must be kept wet and should be discarded if they become dry

### Blood and body fluid spills

- Wipe spills immediately- use disposable towels to remove most of the organic matter, clean the area and then disinfect the spill area
- See the chart below for examples of disinfectants to use depending on volume of blood/ body fluid spill

| When to Clean and Disinfect   | Examples of Active Ingredients/ Disinfectant Products   | Contact Time (minutes) | Where to Clean and Disinfect  |
|---|---|------------------------|---|
| <b>1. Everyday use (non-outbreak)</b><br><b>2. Minor blood/ body fluid spill (drops of fluid)</b><br><br><b>Effective against:</b><br>Vegetative bacteria and enveloped viruses <ul style="list-style-type: none"> <li>• Staphylococcus aureus (includes MRSA)</li> <li>• Streptococcus</li> <li>• Salmonella</li> <li>• Vancomycin Resistant Enterococcus (VRE)</li> <li>• Human Immunodeficiency Virus (HIV)</li> <li>• Respiratory Syncytial Virus (RSV)</li> <li>• Influenza Virus</li> <li>• Pseudomonas Aeruginosa</li> <li>• Herpes</li> </ul> | 100 ppm bleach solution<br>(Everyday use: non-outbreak)   | 10                     | <b>Surfaces:</b> <ul style="list-style-type: none"> <li>• Door knobs</li> <li>• Hand rails</li> <li>• Chairs</li> <li>• Tables</li> <li>• Elevator buttons</li> <li>• Telephones</li> <li>• Counter tops</li> <li>• Sink faucet handles</li> <li>• Toys</li> <li>• Commode chairs</li> <li>• Shared play equipment</li> <li>• Vinyl mattress covers</li> <li>• Floor mats</li> <li>• Water fountains</li> <li>• Diaper change stations</li> </ul> <b>Equipment:</b> <ul style="list-style-type: none"> <li>• Blood pressure cuffs</li> <li>• Thermometers</li> <li>• Stethoscope</li> </ul> |
|   | 1,000 ppm bleach solution<br>(Minor blood/ body fluid spill)  | 10                     |   |
|   | Quaternary Ammonium Compounds (QUATS)<br>(i.e. Lysol® ED- Everyday Disinfectant, Quato 78 Plus™, A-3® Swish Clean and Green™) | MFU                    |   |
|   | 3% Hydrogen Peroxide  | 10                     |   |
|   | 70-90% Alcohol (Ethyl or Isopropyl)<br>(For soaking)  | 10                     |   |
|   | Zochlor   | MFU                    |   |
| <b>1. Outbreak situation</b><br><b>2. Major blood/ body fluid spill</b><br><b>3. Confirmed viral or bacterial infection of pathogens listed below (non-outbreak situation)</b><br><br><b>Effective against:</b><br>Mycobacteria, enveloped and non-enveloped viruses and fungi <ul style="list-style-type: none"> <li>• Mycobacteria tuberculosis</li> <li>• Norovirus</li> <li>• Hepatitis A Virus</li> <li>• Rotavirus</li> <li>• Coxsackie Virus/ Hand, Foot and Mouth Disease</li> <li>• Rhinovirus/ Common Cold</li> <li>• Candida</li> </ul>    | 5,000 ppm bleach solution<br>Also a sporocidal<br>(see below for recipe)  | 10                     |   |
|   | 6% Hydrogen Peroxide  | 30                     |   |
|   | Enhanced Action Formulation Hydrogen Peroxide   | MFU                    |   |
|   | Zochlor   | MFU                    |   |

Note: York Region Community and Health Services does not endorse any of the examples of brand name products listed above.

### Bleach [Sodium Hypochlorite] Solutions

- Use undiluted household bleach (5.25% or ~50,000 ppm) when making the solutions in the chart below
- When making bleach solutions, add bleach to water- do not add water to bleach
- Store bleach solutions in closed containers, away from heat and light
- Bleach solutions should be properly labelled
- Online dilution calculator available from Public Health Ontario at the following link:  
<https://www.publichealthontario.ca/en/health-topics/environmental-occupational-health/water-quality/chlorine-dilution-calculator>

| Parts per million (ppm) Concentration | Recipes<br>(= approximately 1/2 teaspoon, 1/2 tablespoon)  |
|---------------------------------------|--|
| 100 ppm (1:500, 0.01%)                | Mix 2 ml (0.4 t) of bleach with ~1 L (4 cups) of water     |
| 1,000 ppm (1:100, 0.1%)               | Mix 20 ml (4 t) of bleach with ~1 L (4 cups) of water      |
| 5,000 ppm (1:10, 0.5%)                | Mix 100 ml (8 1/2 t) of bleach with ~1 L (4 cups) of water |

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# RESIDENT CARE EQUIPMENT

- Dedicate equipment to ill resident when possible
- Shared equipment must be cleaned and disinfected between residents
- Follow manufacturer's guidelines on proper cleaning and disinfection procedures for equipment
- Disinfectants should be readily accessible to staff
- Policies should clearly state who is responsible for cleaning equipment and when



# SUMMARY



# IN SUMMARY

- Practice careful hand hygiene to limit the transmission of respiratory illness
- Follow proper infection prevention and control measures to prevent the spread of respiratory infections
- Get vaccinated annually (or as recommended) with vaccines you are eligible for
- Stay off work when ill, notify your supervisor and seek medical attention if needed





# ADDITIONAL INFORMATION

- **Visit our websites:**
  - [york.ca/flu](http://york.ca/flu)
  - [york.ca/COVID19](http://york.ca/COVID19)
  - [york.ca/infectionprevention](http://york.ca/infectionprevention)
- **Call York Region Public Health:**
  - York Region Health Connection: 1-800-361-5653
  - Vaccine Related Questions: 1-877-464-9675, ext.73452

# ADDITIONAL INFORMATION

- [York.ca/flu](https://york.ca/flu)
- [York.ca/covid19](https://york.ca/covid19)
- [The flu | ontario.ca](https://the-flu.onario.ca)
- [Video: The Flu – don't pass it on!](#)
- [COVID-19 | ontario.ca](https://covid-19.onario.ca)
- [Ontario Respiratory Virus Bulletin](#)
- [Canadian Flu Monitoring](#)
- National Advisory Committee on Immunization (NACI): [Statement on seasonal influenza vaccine for 2025–2026 - Canada.ca](#)
- [Hand Hygiene - PHO](#)

THANK YOU

