Public Health Ontario | Santé publique Ontario

To view an archived recording of this presentation please click the following link:
https://youtu.be/N23HGI_SJc0

Please scroll down this file to view a copy of the slides from the session.

Public Health Ontario | Santé publique Ontario

Interim IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Confirmed or Suspected COVID-19

Long-term Care/Retirement Homes

December 20, 2021

Terms of Use

- This educational content 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.
- This educational content may be reproduced without permission for non-commercial purposes only and provided that appropriate credit is given to Public Health Ontario.
- No changes and/or modifications may be made to this educational content without explicit written permission from Public Health Ontario.

Poll Questions 1 of 3

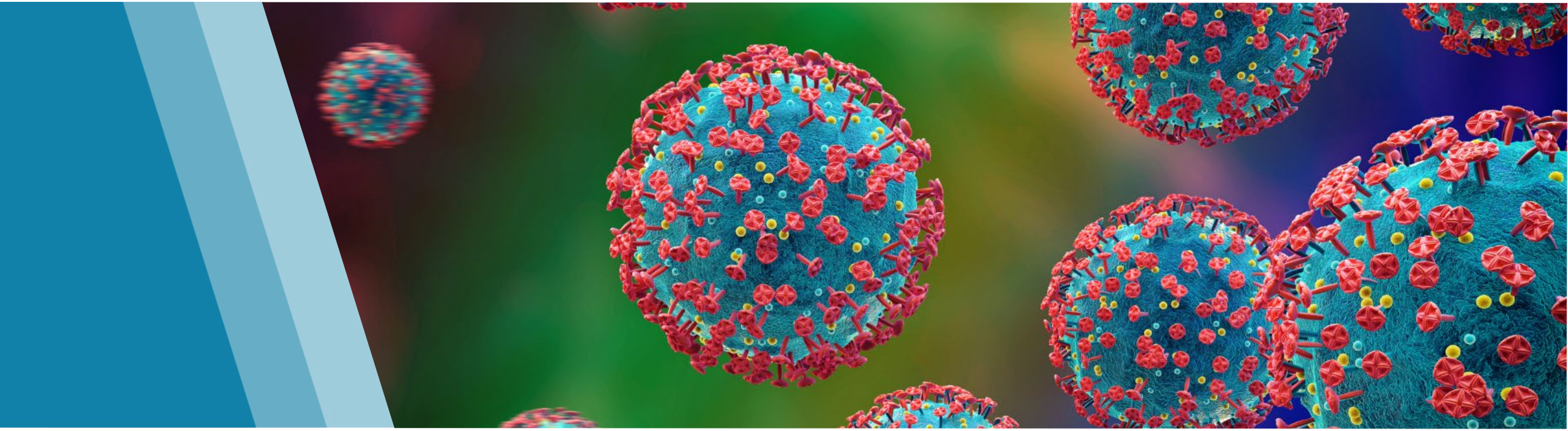
Please answer questions that are displayed in poll pod.

Objectives

By the end of this session, **Long-term Care and Retirement Home** participants will be able to

- describe the layers of protection when caring for those with suspect or confirmed COVID-19
- discuss the use of personal protective equipment (PPE) and other IPAC measures based on an individual risk assessment
- identify the implementation of any required changes within the care environment

Variants of Concern (VOCs)

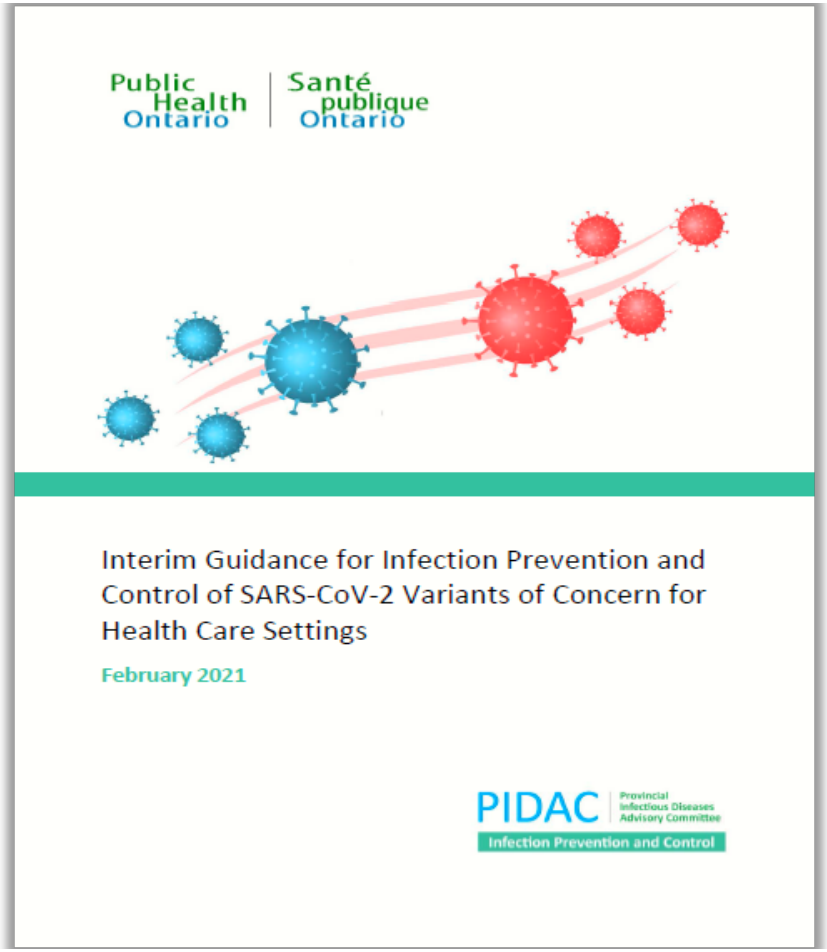


What are Variants of Concern? (VOCs)

Variants are viruses that have changed or mutated and are common with coronaviruses.

VOCs have a clinical or public health significance that affects one or more of:

- transmissibility (spread)
- virulence (severity of disease)
- vaccine effectiveness
- diagnostic testing



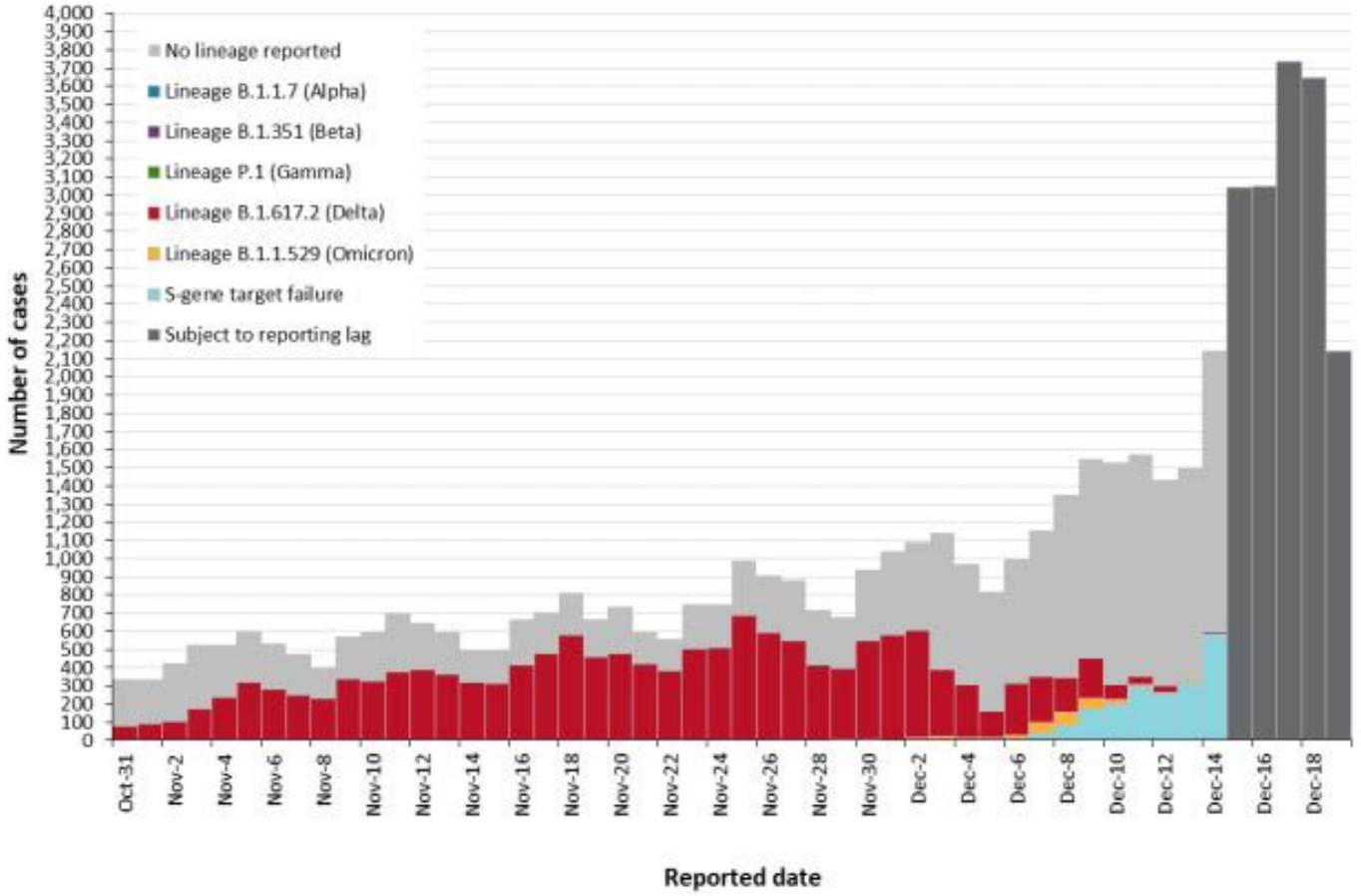
Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Interim guidance for infection prevention and control of SARS-CoV-2 variants of concern for health care settings. 2nd revision [Internet]. Toronto, ON: Queen's Printer for Ontario; 2021. [cited 2021 Dec 20]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/voc/2021/02/pidac-interim-guidance-sars-cov-2-variants.pdf?la=en

SARS-CoV-2 VOC Omicron 9 (lineage B.1.1.529)

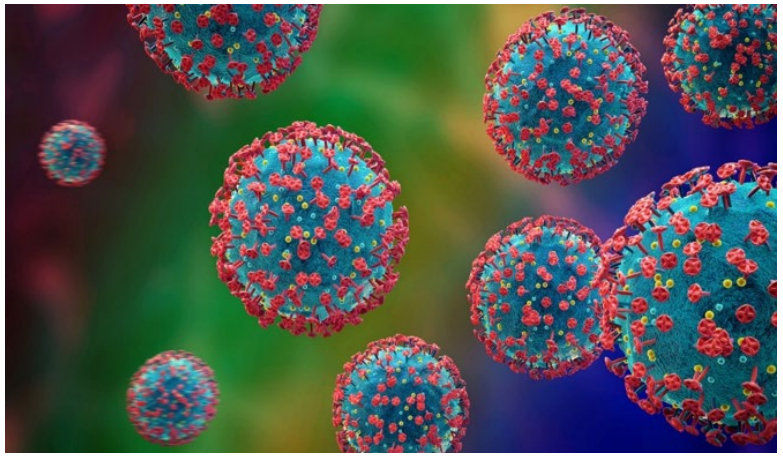
- Designated a variant of concern (VOC), Omicron, by the World Health Organization (WHO) on November 26, 2021.
- Detection in South Africa coincided with rapid increases in COVID-19 incidence and positivity rates, where only 24% of its eligible population is fully vaccinated.
- Compared to other VOCs, carries the highest number of novel mutations, the significance of which is not yet clear.
- As of December 17, 2021 most cases are likely to be infected with Omicron (>90%)

Confirmed COVID-19 cases with variant of concern detected by public health unit. Ontario, October 31, to December 19, 2021

Figure 5. Confirmed COVID-19 cases with a lineage* or S-gene target failure detected by public health unit reported date: Ontario, October 31, 2021 to December 19, 2021**



Omicron variant (lineage B.1.1.529)



- Evidence indicates:
  - Increased transmissibility.
  - Decreased vaccine effectiveness.
- Mechanisms for increased transmissibility are unclear;
  - At this stage there is uncertainty if respiratory particles contain more infectious virus that could explain the higher transmissibility.
- Lower vaccine effectiveness suggests that;
  - For a given exposure there is a greater likelihood of infection.

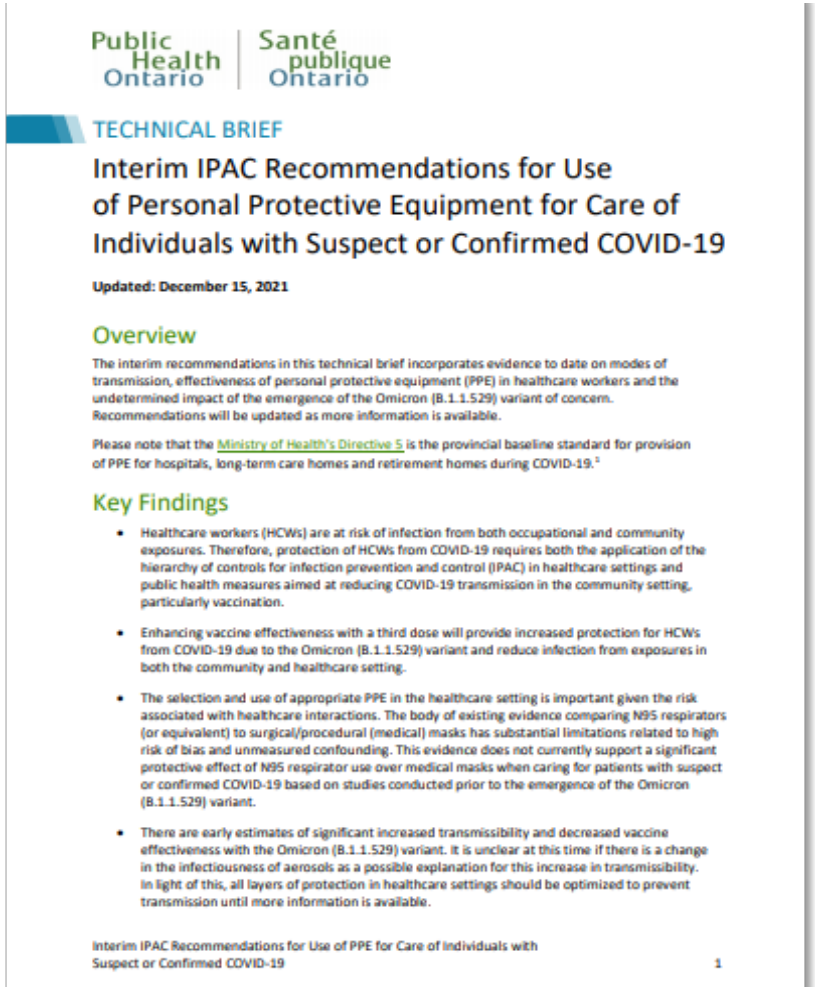
Airborne Versus Opportunistic Aerosol Transmission

- "**Airborne**" = special meaning = describes infections that are **efficiently** transmitted by inhalation of aerosols that have remained suspended in the air for a long period of time or in air currents over long distances.
- **Opportunistic aerosol transmission** of SARS-CoV-2 can occur under the right combination of conditions:
  - Poorly ventilated space AND
  - Sufficient quantity of infectious virus produced
- Less frequent
- Less efficient

Updates to Interim Guidance for Long-Term Care and Retirement Homes

Updates to Interim Guidance (1/2)

- As we learn more about Omicron, PHO has updated recommendations in its Technical Brief for Infection Prevention and Control practices in health care settings.
- In addition to other layers of protection, interim PPE recommendations are provided for health care workers who are directly caring for residents with suspect or confirmed COVID-19.



Public Health Ontario | Santé publique Ontario

TECHNICAL BRIEF

Interim IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID-19

Updated: December 15, 2021

Overview

The interim recommendations in this technical brief incorporates evidence to date on modes of transmission, effectiveness of personal protective equipment (PPE) in healthcare workers and the undetermined impact of the emergence of the Omicron (B.1.1.529) variant of concern. Recommendations will be updated as more information is available.

Please note that the Ministry of Health's Directive 5 is the provincial baseline standard for provision of PPE for hospitals, long-term care homes and retirement homes during COVID-19.[1]

Key Findings

- Healthcare workers (HCWs) are at risk of infection from both occupational and community exposures. Therefore, protection of HCWs from COVID-19 requires both the application of the hierarchy of controls for infection prevention and control (IPAC) in healthcare settings and public health measures aimed at reducing COVID-19 transmission in the community setting, particularly vaccination.
- Enhancing vaccine effectiveness with a third dose will provide increased protection for HCWs from COVID-19 due to the Omicron (B.1.1.529) variant and reduce infection from exposures in both the community and healthcare setting.
- The selection and use of appropriate PPE in the healthcare setting is important given the risk associated with healthcare interactions. The body of existing evidence comparing N95 respirators (or equivalent) to surgical/procedural (medical) masks has substantial limitations related to high risk of bias and unmeasured confounding. This evidence does not currently support a significant protective effect of N95 respirator use over medical masks when caring for patients with suspect or confirmed COVID-19 based on studies conducted prior to the emergence of the Omicron (B.1.1.529) variant.
- There are early estimates of significant increased transmissibility and decreased vaccine effectiveness with the Omicron (B.1.1.529) variant. It is unclear at this time if there is a change in the infectiousness of aerosols as a possible explanation for this increase in transmissibility. In light of this, all layers of protection in healthcare settings should be optimized to prevent transmission until more information is available.

Interim IPAC Recommendations for Use of PPE for Care of Individuals with Suspect or Confirmed COVID-19 1

Source: Ontario Agency for Health Protection and Promotion (Public Health Ontario). Interim IPAC recommendations for use of personal protective equipment for care of individuals with suspect or confirmed COVID-19 [Internet]. Toronto, ON: Queens's Printer for Ontario; 2021. [cited 2021 Dec 20]. Available from: https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?sc_lang=en

Updates to Interim Guidance (2/2)

- Based on the precautionary principle and based on the undetermined impact of the Omicron (B.1.1.529) variant, this technical brief describes interim PPE recommendations when providing direct care to residents.
  - N95 respirator, gloves, gown and eye protection.
- Currently there is limited evidence to support the use of N95 respirators over medical masks when caring for residents with known or suspected COVID-19.

Please note that the Ministry of Health's Directive 5 is the provincial baseline standard for provision of PPE for hospitals, long-term care homes and retirement homes during COVID-19.

Changes to Personal Protective Equipment (PPE)

Personal Protective Equipment (PPE) Recommendations (1/4)

- Direct care to residents with suspect or confirmed COVID-19
  - **Previous:**
    - Recommended PPE includes medical mask, isolation gown, gloves, eye protection.
  - **Interim:**
    - Recommended PPE includes a fit-tested **N95 respirator**, isolation gown, gloves, eye protection.
    - Acceptable PPE (based on risk assessment) includes medical mask or non-fit tested N95 respirator (or equivalent), isolation gown, gloves, eye protection.

Please note that the Ministry of Health's Directive 5 is the provincial baseline standard for provision of PPE for hospitals, long-term care homes and retirement homes during COVID-19.

PPE Recommendations (2/4)

- Providing an aerosol-generating medical procedure (AGMP) (e.g., continuous positive airway pressure (CPAP) and/or open suctioning) on a resident with suspect or confirmed COVID-19
  - **Previous:**
    - Recommended PPE includes fit-tested N95 respirator, isolation gown, gloves, eye protection.
    - Manage in a single room with door closed.
    - Keep the number of people in the room during the procedure to a minimum.
  - **Interim:**
    - **No change**

PPE Recommendations (3/4)

- Environmental services workers entering the room of a resident with suspect or confirmed COVID-19
  - **Previous:**
    - Recommended PPE includes medical mask, isolation gown, gloves, eye protection.
- Environmental services workers entering **and cleaning** in the room of residents with suspect or confirmed COVID-19
  - **Interim:**
    - Recommended PPE includes a fit-tested **N95 respirator**, isolation gown, gloves, eye protection.
    - Acceptable PPE (based on risk assessment) includes medical mask or non-fit tested N95 (or equivalent), isolation gown, gloves, eye protection.

PPE Recommendations (4/5)

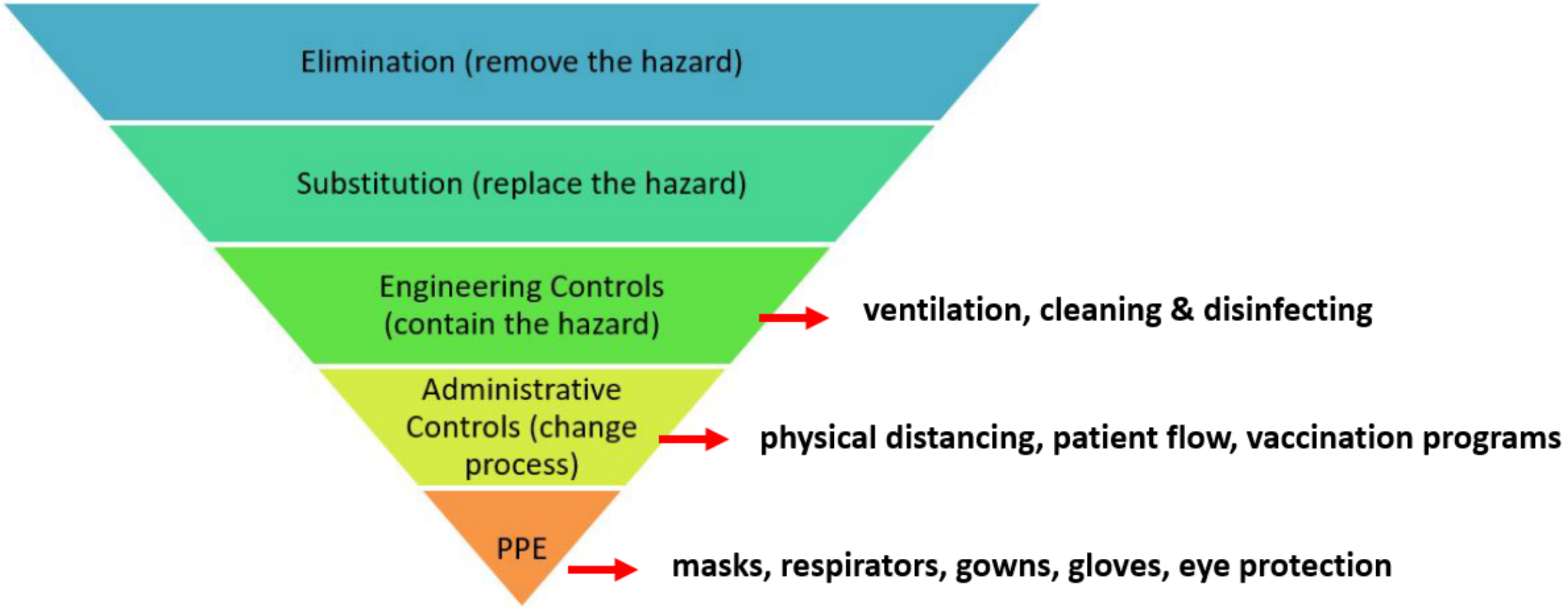
- Visitors entering the room of a patient with suspect or confirmed COVID-19
  - **Previous:**
    - Recommended PPE includes medical mask, isolation gown, gloves, eye protection.
    - Visitors should be kept to a minimum.
  - **Interim:**
    - Recommended PPE includes medical mask or non-fit tested N95s , isolation gown, gloves, eye protection.
    - Limited to those providing essential care.
    - Consider restricting to fully vaccinated.

Poll Questions 2 of 3

Please answer questions that are displayed in poll pod.

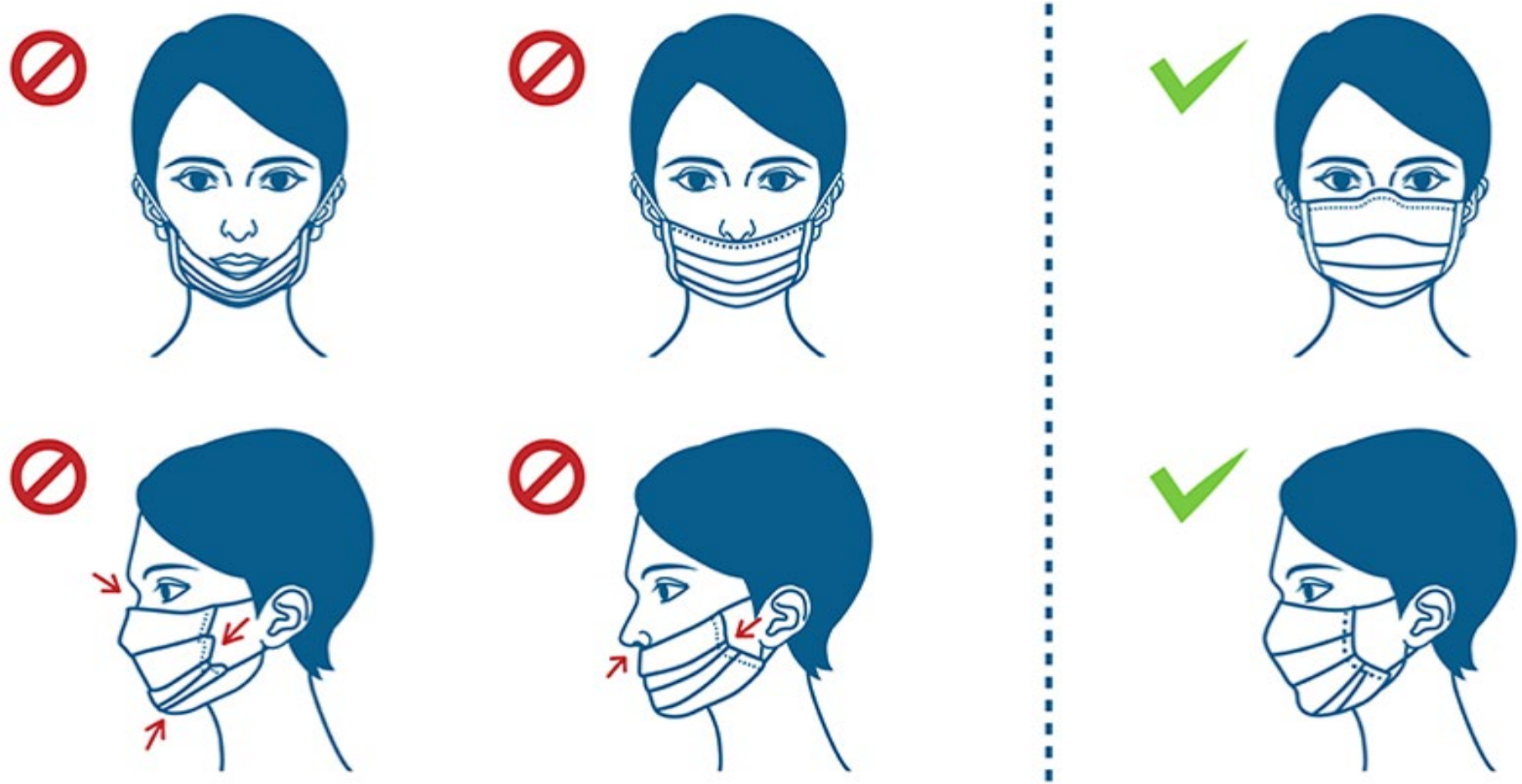
IPAC Controls and Risk Assessment

Hierarchy of Controls



Source: National Institute for Occupational Safety and Health (NIOSH). Hierarchy of controls [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2015 [cited 2021 Aug 12]. Available from: https://www.cdc.gov/niosh/topics/hierarchy/default.html. Adapted with permission available from: https://stacks.cdc.gov/view/cdc/44301

How do I Wear a Mask Correctly?



Individual Risk Assessment (1/2)

- Considers the task at-hand, any interaction with others, and the environment.
- Should be completed by the Health Care Worker (HCW) before every resident interaction or task to determine risk of being exposed to an infection.
- Allows HCW to select the correct PPE required to protect the health worker and other staff in their interaction with the resident and resident environment.
- HCW should receive education and training on how to effectively perform a risk assessment.

Individual Risk Assessment (2/2)

Examples of risk factors that may increase transmission and infection risk in the HCW include:

- **HCW:** Vaccination status
- **Resident:** Unable to mask for source control, unvaccinated
- **Interaction:** prolonged, close contact (i.e. < 1 m for > 15 minutes), performing a high-risk procedure*

*Procedures that are listed as aerosol-generating medical procedures (AGMPs) are those procedures that may increase risk of infection to health care workers within close range of the procedure and thus N95 respirators are required as a minimum level of respiratory protection.

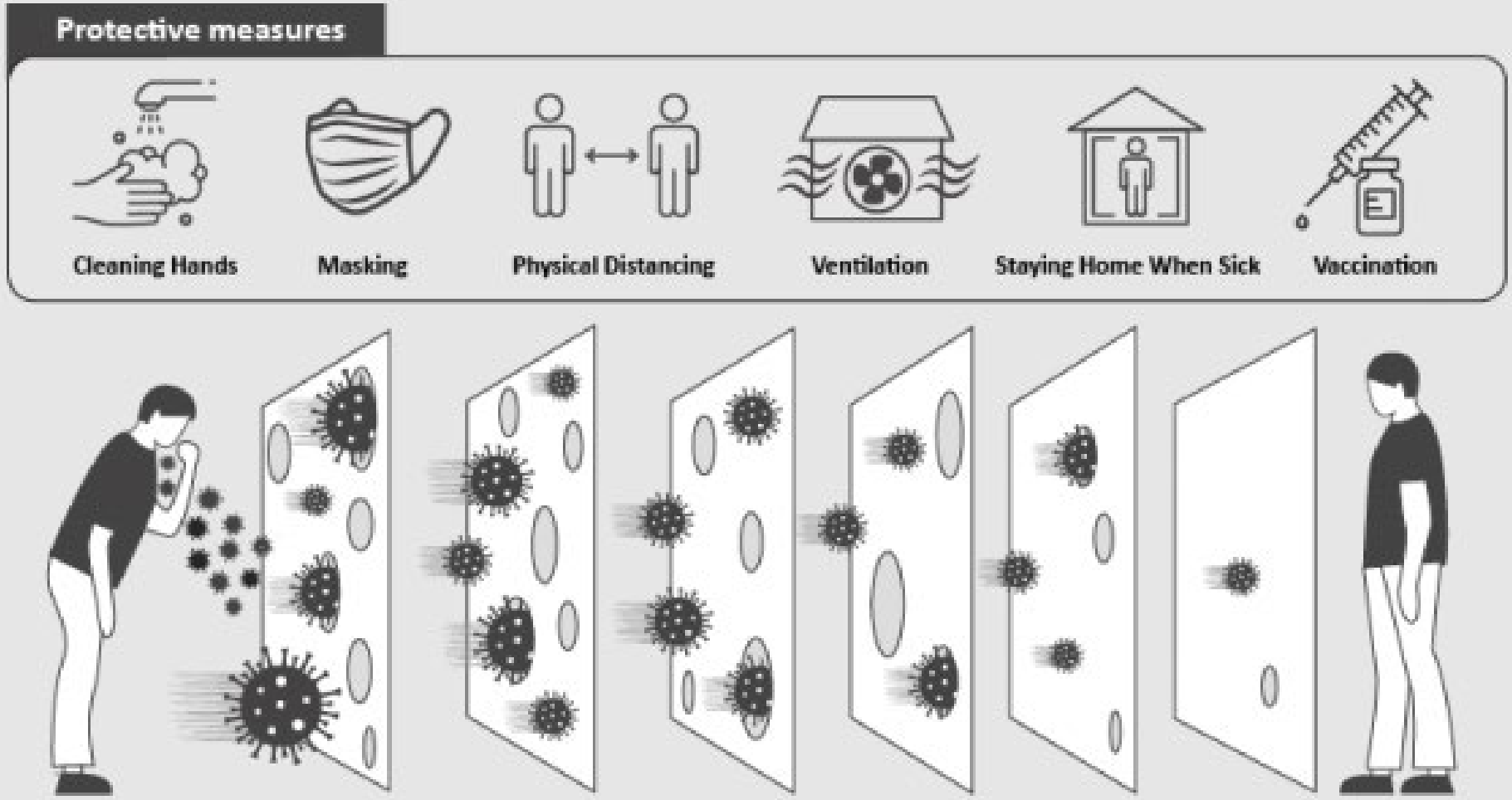
Poll Questions 3 of 3

Please answer questions that are displayed in poll pod.

Layers of Protection Against COVID-19

Multiple-layers of Prevention

- Health care workers are at risk of COVID-19 infection from exposures in the workplace as well as in the community.
- The protection of HCWs from COVID-19 requires multiple-layers of prevention in healthcare and community settings aimed at reducing COVID-19 transmission.
- Public health measures, particularly vaccination and other layered preventative measures such as physical distancing, masking, getting tested, and staying home when sick, are important to prevent COVID-19 transmission.



Adapted from: Rockefeller Foundation. Layers of protection against covid-19 - the "Swiss cheese" model [video recording on the Internet]. New York: Rockefeller Foundation; 2021 [cited 2021 Jun 02]. 1:15 min. Available from: https://www.youtube.com/watch?v=ou8&lei-52k

Helpful Resources

- PHO Posters/lanyard cards
  - Putting on Personal Protective Equipment (PPE)
  - Remove Personal Protective Equipment (PPE)
- PHO Videos
  - Putting on Flatfold N95 Respirator
  - Taking off Flatfold N95 Respirator
  - Putting on Cone N95 Respirator
  - Taking off Cone N95 Respirator
- Ministry of Health
  - Directive 5

If you have any additional questions about this presentation, please contact:

ipac@oahpp.ca

All questions specific to Directive 5 or other Ministry Directives should be sent to: emergencymanagement.moh@ontario.ca

Public Health Ontario keeps Ontarians safe and healthy. Find out more at **PublicHealthOntario.ca**

Ontario