

# Occ-COVID Conversation: Understanding Post-COVID-19 Condition in Canada

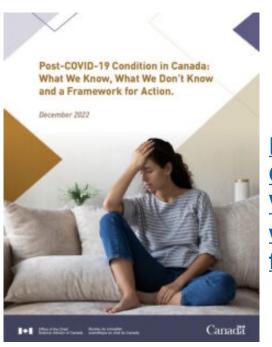
DATE: Friday June 23, 1:30 – 3:00 pm

#### **Guest Speaker:**

Dr. Sarah Viehbeck,

Chief Science Officer, Public Health Agency of Canada and Member, Chief, Science Advisor of Canada's Task Force on Post-COVID-19 Condition

Hosted by: **Kevin Hedges**, Ph.D., CIH, COH, Occupational Hygienist, on behalf of OHCOW Eastern Region/Ottawa Clinic



Post-COVID-19
Condition in Canada:
What we know, what
we don't know, and a
framework for action

### Why prevention is so important





### Land Acknowledgement

I would like to begin by acknowledging that I am speaking from Ottawa, Canada. To all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land.

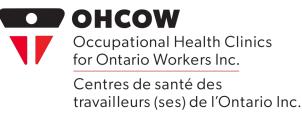
As I am in Ottawa I am located on the unceded, Territory of the Anishinaabe Algonquin Nation.



Canada





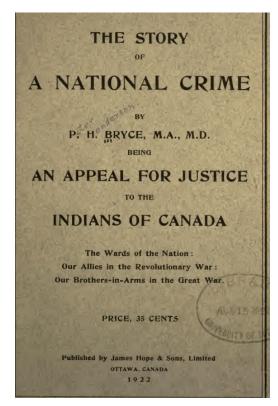






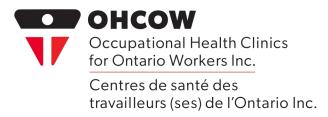
Dr. Peter Bryce (1853–1932):whistleblower on residential schools

Bryce was responsible for the health of Indigenous children in the schools. Bryce's report named <u>poor</u> <u>ventilation</u> and poor standards of care from school officials as the primary cause of deaths. His report was never published!



His 1907 report and The Story of A National Crime (1922) found that roughly one-quarter of all Aboriginal children attending residential schools died of tuberculosis.

https://caid.ca/AppJusIndCan1922.pdf



#### **Lessons From COVID-19 for Protecting Workers in the Next Pandemic**

#### From the US:

Michaels et al. 2023. JAMA. Published online June 16, 2023. doi:10.1001/jama.2023.8229

"COVID-19 is an occupational disease that sickened and killed countless workers in health care and long-term care, and in meat processing, agriculture, warehousing, transportation, corrections, and other "essential" industries. Nonetheless, COVID-19 has rarely been treated or tracked as an occupational disease by public health agencies.

The lessons from the failure to protect workers during the COVID-19 pandemic can be helpful as the nation anticipates and prepares for the next public health emergency."

https://www.canada.ca/en/publichealth/services/reportspublications/canada-communicabledisease-report-ccdr/monthlyissue/2023-49/issue-4-april-2023/covid-19-outbreak-trends-

canada-2021.html

MENU **▼** 

Canada.ca > Public Health Agency of Canada > Public Health Agency of Canada reports and publications

- ➤ Canada Communicable Disease Report (CCDR), CCDR 49 ➤ 2023 Volume 49 Canada Communicable Disease Report (CCDR)
- > CCDR: Volume 49-4, April 2023: Children's Health and COVID-19

#### COVID-19 outbreak trends in Canada, 2021



Government

Volume 49-4, April 2023: Children's Health and COVID-19



**Results:** Incidence of outbreaks followed similar trends to case incidence. **Outbreaks were most** common in school and childcare settings (39%) and industrial/agricultural settings (21%). Outbreak size ranged from 2 to 639 cases per outbreak; the median size was four cases per outbreak. Correctional facilities had the largest median outbreak size with 18 cases per outbreak, followed by long-term care facilities with 10 cases per outbreak. During periods of high case incidence, outbreaks may be under-ascertained due to limited public health capacity, or reporting may be biased towards high-risk settings prioritized for testing. Outbreaks reported to CCOSS were dominated by jurisdictions with the largest populations.

# OHCOW Occupational Health Clinics for Ontario Workers Inc. Centres de santé des travailleurs (ses) de l'Ontario Inc.

#### Calgary doctor to challenge AHS mask policy change in court

By Adam Toy Global News
Posted June 16, 2023 5:59 pm
Updated June 17, 2023 5:31 pm



#### In addition

A recent paper from the Canadian Nosocomial Infection Surveillance Program also said that <u>during</u> <u>waves five and six in the first half of 2022, transmission of COVID-19 in hospitals nationwide went up</u>.

In Alberta, the provincial health authority said continuing masking at AHS facilities, continuing care facilities and contracted sites were not be required after Monday.

The president of the United Nurses of Alberta expressed concerns about how the AHS policy changes could affect nurses' health and wellbeing from both COVID-19 and the public.

There is concern also especially high for people who are immune-compromised, like infants or cancer patients, for whom a COVID infection puts them at a much higher likelihood of severe outcomes.

https://globalnews.ca/news/9774892/calgary-doctor-to-challenge-ahs-mask-policy-change-in-court/

PHAC Chief Science Officer reports what we know, don't know, and a framework for action: Research, Patient/Family Support & Preparedness

Excerpts from the Report Executive Summary and accompanying letter released March 9, 2023:

- We now know that COVID-19 manifests as an acute and, for many, a chronic illness. According to Statistics Canada, as of October 2022, 1.4 million adults in Canada were experiencing the long-term symptoms of COVID-19.
- The lingering complex symptoms experienced by a significant number of COVID-19 survivors' weeks after infection, "long Covid" or post-COVID-19 condition (PCC) is not a homogeneous disease. Individuals suffer from a wide spectrum of symptoms and conditions ranging from well-defined medical entities, like hypertension and cardiac arrhythmia, to broad or medically undefined symptoms such as cognitive problems ("brain fog"), exhaustion, chronic pain and fatigue.



- The impact of PCC goes beyond health. PCC affects the ability to work and perform daily tasks, creating considerable consequences for individuals and communities as well as broader socio-economic impacts.
- In Canada, as in other countries, the health care system has been pushed beyond its limits by the pandemic. PCC stands to add further strain on the system due to the increasing number of people requiring health care access due to this new chronic condition. At the same time, a significant number of health care providers are experiencing PCC, which complicates the system as they have difficulty performing their professional duties and seek health care themselves.
- We are all in this together. Pandemic management must address the health and socio-economic effects of SARS-COV-2 infection as a continuum over time.

What can we do in workplaces to <u>recognize</u>, <u>assess</u> and <u>control</u> the hazards that contribute to COVID-19 infection and prevent and mitigate the associated harm?



#### THE LANCET <a href="https://www.thelancet.com/article/S0140-6736(21)00869-2/fulltext">https://www.thelancet.com/article/S0140-6736(21)00869-2/fulltext</a>

Ten scientific reasons in support of airborne transmission of

Trisha Greenhalgh 🖾 • Jose L Jimenez • Kimberly A Prather • Zeynep Tufekci • David Fisman • Robert Schooley



Centres de santé des travailleurs (ses) de l'Ontario Inc.

- Superspreading events.
- Transmission between people in adjacent rooms.
- Asymptomatic or pre-symptomatic transmission (not coughing or sneezing) is likely to account for at least a third, and perhaps up to 59%, of all transmission globally.

SARS-CoV-2

COMMENT | VOLUME 397, ISSUE 10285, P1603-1605, MAY 01, 2021

- Transmission of SARS-CoV-2 is higher indoors than outdoors and is substantially reduced by indoor ventilation.
- Nosocomial infections have been documented in health-care organizations, where there have been strict contactand-droplet precautions and use of personal protective equipment (PPE) designed to protect against droplet but not aerosol exposure.
- Viable SARS-CoV-2 has been detected in the air in the absence of aerosol-generating health-care procedures and in air samples from an infected person's car.
- SARS-CoV-2 has been identified in air filters and building ducts in hospitals with COVID-19 patients; such locations could be reached only by aerosols.
- Studies involving infected caged animals that were connected to separately caged uninfected animals via an air duct have shown transmission of SARS-CoV-2 that can be adequately explained only by aerosols.
- No study to our knowledge has provided strong or consistent evidence to refute the hypothesis of airborne SARS-CoV-2 transmission.
- There is limited evidence to support other dominant routes of transmission—i.e., respiratory droplet or fomite.





### JOHN SNOW **MEMORANDUM**

HOME

JOHN SNOW MEMO

In October 2020, more than 7,000 medical professionals and scientific researchers signed the JOHN SNOW MEMO, <u>published in the Lancet</u>, calling on governments to take steps to prevent mass transmission of the SARS-CoV-2 virus.

Now, more than two years on, it is becoming clear that, although mortality has been greatly reduced, the vaccinesonly strategy is straining healthcare systems around the world and leaving many people disabled in the wake of multiple COVID-19 infections. Some of the signatories of the JOHN SNOW MEMO joined with public health experts from around the world to call for a <u>vaccines-plus strategy</u> to drive down the rate of transmission.

https://www.johnsnowmemo.com/



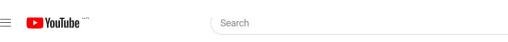


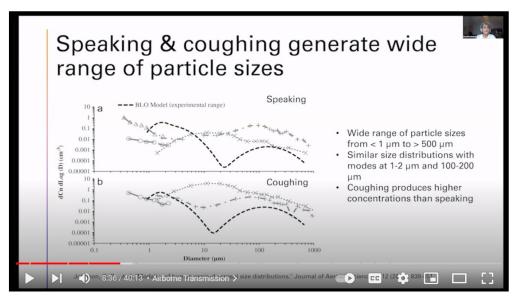
for Ontario Workers Inc.

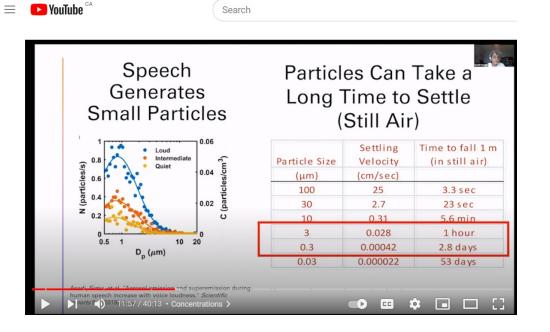
Centres de santé des
travailleurs (ses) de l'Ontario Inc.



https://www.youtube.com/channel/UCj5 PLvW65Lr0feLYGVLBnmQ/videos Dr Lisa Brosseau (presentation via WHWB June 25, 2020)











9 December 2022 @ 1:20 pm - 2:00 pm



Highlighting new OSPE evidence-based guidance, including virus transmission & respirator info, plus recommendations for safer air for ail.

Joey Fox, P. Eng, MASc, HVAC Engineer and @O\_S\_P\_E Indoor Air Quality Chair (@joeyfox85)

Marianne Levitsky, MES, CIH, RDH, FAIHA, founding President, Workplace Health Without Borders, Occupational Hyglenist, ECOH Management Inc., adjunct lecturer, Dalla Lana School of Public Health (@mariannelev)

Stéphane Bilodeau, P.Eng., Ph.D., Fellow of Engineers Canada, Bloengineering Lecturer at McGII University, CTO at Smart Phases, and World Health Network IAQ Task Force Coordinator (@ambilodeau)

Blog

#### Let's hear from the Engineers & stop the spread! Occ-Covid Webinar

COVID-19, OCC-COVID, OHCOW EVENTS, WEENARS (UNS) 2822, CHAMBING WORKPLACS, CHEMICAL, CLEAN AIR, HINC, SMALL DISEASON

#### Part of the Occ-Covid 2022 Webinar Series

#### Date: December 9, 2022

Time: 1:00-3:00 PM

#### Speakers

- Josey Pax, R. Eng, MASc, HVAC Engineer and @CLSLPLE Indoor Air Quality Chair (@(psyfax85))
- Marianne Lavitaky, MSS, CIH, ROH, FAHA, founding President, Workgloop Health Without Sorders, Desuperional Higheris, SCOH Management Inc., edjunct lecturer, Della Lone School of Public Health (@mariannelse)
- Stäphane Billodesu, PSng., Ph.O., Fellow of Engineers Conade, Bloengineering Lecturer at McGill University at Smort Phases, and World Health Network IAQ Task Parce Coordinator (@ambillodesu)

High lighting new OSPE evidence based guidence, including virus transmission & resgirator info, glus recommendations for safer air for all

In 2012, the Christia Society of Professional Engineers formed the Indoor ARI Quality (ARI) Addisory Group, reagginging to the need for widennetbread guidence actual floders to quality and transmission of COVICTIS. The Addisory Group has graduosal four reports thus fer, Identifying how COVICI agreeds and how Orderians can con-

Join 2 members of the development team, OHCOW Occupational Hygienist Krista Thompson and our wise and experienced audience as they review and discuss use and application to drive virus grevention in Ontario workningers.

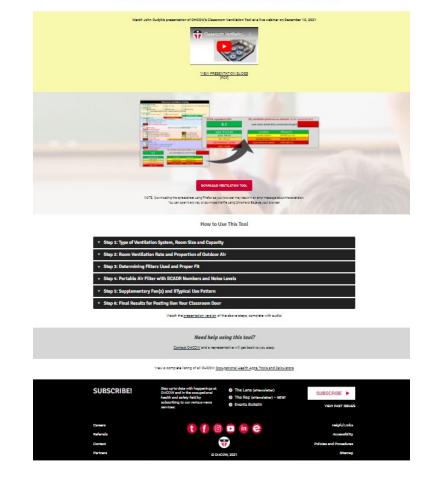


Download pdfs of presentations shown in this webinar:



#### Related Posts

- Calling 911 21 June 2022
   Critical Concepts in Ventilation & Viral Syclution 19 December 2022
- Mcking R.All Scaler: Knowledge Mobilisation & Tools Webiner 24 November 2022
- Worker Informed Science: Learning and Collaborating 20 November 2022



**Ventilation Calculation Tool** 

An Excel-based tool to essist you in determining the adequacy of the ventilation in your workspace\*

"Tool can be used to evaluate classrooms, single offices and small meeting rooms. The levels in this tool are based on classroom occupancies

Search Q







#### https://www.ohcow.on.ca/covid-19/

#### Face Coverings, Surgical Masks, Respirators

COVID-19, EVENTS, OCC-COVID, SLIDES / PRESENTATIONS, WEBINARS (RECORDED) 2021, MASKS / RESPIRATORS, RESPIRATORS AND

A presentation made as part of the 2021 OHCOW OCC-COVID webinar series: A Year in Review: Face Coverings and Respirators – Filling the Gap

Date: March 5, 2021,

Presenter: Lisa Brosseau, Industrial Hygienist, Speaker, Award-winning professor, researcher, writer, educator

This session is included in this overall event video:



VIEW SLIDES

https://www.ohcow.on.ca/posts/occ-covid-face-coverings-masks-respirators/

#### All Workers Need Adequate Airborne Protection

COVID-19, INFO SHEETS | RESPIRATORS AND PROTECTIVE EQUIPMENT

#### The Rationale for Fitted Facepiece Filtering Respirators (FFR) vs Masks

Respirators have been mandatory in public places in <u>Austria</u> for a year. Now, the <u>United States Centers for Disease Control and Prevention</u> suggests respirators be considered for greater protection, for instance, on public transport or in enclosed crowded spaces. It's time to rethink and upgrade masks to filtering facepiece respirators (FFR) for workers the community and your family.

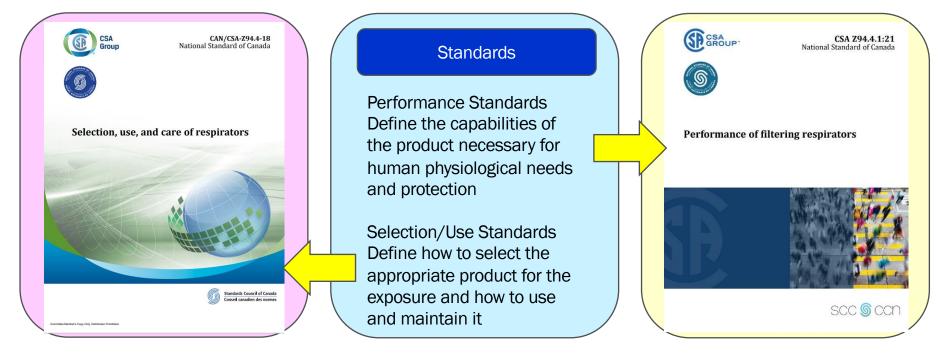


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https://www.ohcow.on.ca/posts/all-workers-need-adequate-airborne-protection/

## Occupational safety equipment usage coverage



Following Health and Safety regulations ensures provision of high-capability protective equipment to the workforce.

Infection control guidance should recognise this.

Courtesy of Dr. Simon Smith, Canadian CSA Z 94.4 and CSA Z 94.4.1 respiratory protection specialist.



The Canadian Standards Association (CSA) which is a not-for-profit body established as a standards developing organization to create standards to improve workplace and community safety and to promote trade.

The CSA standard CSA Z94.4 "Selection, Use and Care of Respirators", providing guidance in the specified field and covering establishment and operation of respiratory protection programmes in workplaces.

The standard is cited in occupational health and safety regulations across Canada, though is a legal requirement only in Federally regulated workplaces and Manitoba. This standard was first published in 1982 and is updated periodically.

Since the 2011 edition, the standard has included guidance on selection of respirators for biological aerosols (such as certain infectious agents in healthcare settings) using a control banding method.

Pers Comm:

Courtesy of Dr. Simon Smith, Canadian CSA Z 94.4 and CSA Z 94.4.1 respiratory protection specialist.





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Home > Standards Support Tools > Occupational Health and Safety > Respirator Selection Tool

#### **Respirator Selection Tool**

# This tool is for the selection of respirators for protection from bioaerosols and is for use in conjunction with CSA 294.4, Selection, use, and care of respirators (2011 and 2018 editions). This tool is intended for use by a qualified person following application of established occupational health and safely principles and a risk assessment for the specific exposure situations under consideration. The selection process addresses a single workplace environment and activity causing exposure. Changes in workplace environment or activity require the tool to be used again. A report can be generated in which the user can complete other details about the exposure situation along with the guidance outputs for future reference. CSA Group always strives to provide up to date and accurate services, tools, and information. However, no representation or warranty, expressed or implied, is made that the Respirator Selection for lithe "Foot" inneed your specific needs and any reliance on the quality, reliability, trimeliness, usefulness, sufficiency, and accuracy of information provided by and recommendations made by this Toot, after inputs are made by you, is at your own risk. The Tool, including any documentation, publications, software programs or code is furnished on an "as-is" basis, and the use of the Tool, is directed to those who have the appropriate degree of knowledge and experience to use and apply the Tool. Please contact CSA Group for more information about this Tool and our services. | | | | | | | | | | | | | | | |

#### Learn More

Introduction

This tool is based on a control banding method which uses a semi-quantitative assessment of factors as inputs into a decision process to provide a recommended level of respiratory protection (output), from which selection of appropriate types of respirators can be made.

View CSA Z94.4-18 on the CSA Store

https://www.csagroup.org/store/standards-support-tools/occupational-health-and-safety/respirator-selection-tool/

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## Masks Work. Distorting Science to Dispute the Evidence Doesn't

New mask studies relying on a medical paradigm do not erase decades of engineering and occupational science that show they work

Columnists

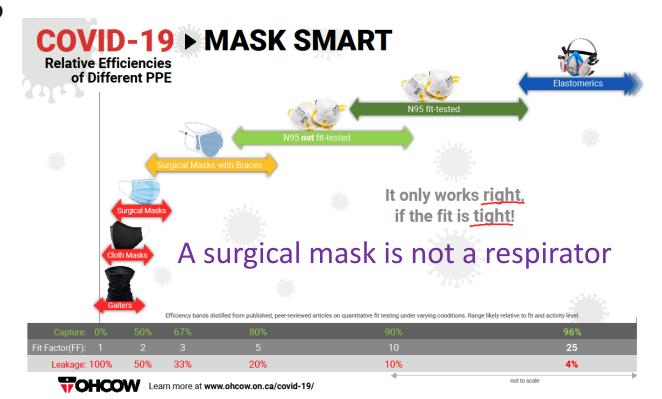
Opinion: Why hospitals should keep mandatory masking

Sanjiv K. Gandhi, Cameron Morhaliek, Joe Vipond

Published Apr 26, 2023 • Last updated Apr 26, 2023 • 3 minute read

☐ 16 Comments

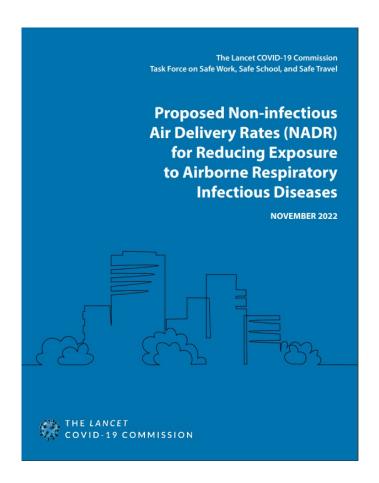
https://www.scientificamerican.com/article/masks-work-distorting-science-to-dispute-the-evidence-doesnt/



https://www.ohcow.on.ca/covid-19/







## "Proposed Non-infectious Air Delivery Rates (NADR) for Reducing Exposure to Airborne Respiratory Infectious Diseases"

#### Proposed Non-infectious Air Delivery Rates (NADR) for Reducing Exposure to Airborne Respiratory Diseases; The Lancet COVID-19 Commission Task Force on Safe School, Safe Work, and Safe Travel

	Volumetric flow rate per volume	Volumetric flow rate per person		Volumetric flow rate per floor area	
	ACHe	cfm/person	L/s/person	cfm/ft²	L/s/m²
Good	4	21	10	0.75 + ASHRAE minimum outdoor air ventilation	3.8 + ASHRAE minimum outdoor air ventilation
Better	6	30	14	1.0 + ASHRAE minimum outdoor air ventilation	5.1 + ASHRAE minimum outdoor air ventilation
Best	>6	>30	>14	>1.0 + ASHRAE minimum outdoor air ventilation	>5.1 + ASHRAE minimum outdoor air ventilation





ASHRAE Standard 241P

**Advisory Public Review Draft** 

#### **Control of Infectious Aerosols**

Advisory Public Review (May 2023)
(Draft Shows Complete Proposed New Standard)

This draft has been recommended for advisory public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at https://www.ashrae.org/techchical-resources/standards-and-guidelines/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-638-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

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ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

The purpose of this standard is to provide minimum requirements to control infectious aerosols to reduce the risk of disease transmission by inhalation outside close range. Unless otherwise indicated this applies to all building types. This standard is not being developed under ASHRAE's ANSI approved rules as there is a need to make it available for public use as soon as possible. This public review draft is being processed as an advisory public review so all commenters will be deemed resolved. The committee will review comments and make additional changes before considering the first version for publication approval. The intent is to approve a document by the end of June 2023. There will be no right to appeals for commenters in the first draft. The committee will go on continuous maintenance to expand the requirements in the standard after its initial publication.



## What is currently happening in the US

## Symposium on Long COVID: Examining the Working Definition



https://recovercovid.org/



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## Symposium on Long COVID: Examining the Working Definition

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The Committee on Examining the Working Definition for Long COVID will host a symposium on June 22-23, 2023, in Washington, D.C., and virtually. Registration is open.

For those attending in-person, please review our health and safety considerations below. We acknowledge that many of you are working hard to protect yourself and others from COVID-19 and acknowledge that there may be those in attendance with infection-associated chronic illnesses, immunodeficiency, and other forms of chronic illness and disability.

Please email LongCovid@nas.edu for additional information.

- <u>Day 1, June 22, 2023 (1:00 p.m. 6:00 p.m. ET)</u> Sessions will examine the elements to be included in a
  definition for long COVID and the evidence supporting these elements.
- <u>Day 2, June 23, 2023 (8:30 a.m. 1:00 p.m. ET)</u> Sessions will explore how the definition might need to be adapted for different purposes and key considerations for updating and modifying the definition in the future.



The importance of improved indoor air quality was emphasized by panelists.

#### Side note:

The Ontario Society of Professional Engineers (OSPE), Air Quality (IAQ) Advisory Group, has leading guidance on evidence-based guidance around indoor air quality and transmission of COVID-19



WHO declares COVID-19 no longer a 'public health emergency of international concern' — what now?

June 19, 2023 11:00 am to June 19, 2023 12:00 pm

On May 5, 2023, the World Health Organization lifted the Public Health Emergency of International Concern for COVID 19 that began in January 2020, thus declaring "COVID 19 over as a global health emergency." The end of the emergency phase of the pandemic is a major milestone.

Join the leaders of the Institute for Pandemics as they use this opportunity to take stock of our experience of the pandemic, what to expect as SARS CoV 2 continues to explain and what we bow learned for future pandemic preparedness.

This online webinar has a brief presentation by Fahad Razak, the past Scientific Director of the Ontario COVID 19 Science Advisory Table, followed by a panel discussion of leaders from the Institute for Pandemics, Netson Lee (Director), David Fisman (Readiness Therme Lead), Resalience Theme Lead), and Geoff Anderson (Recovery Theme Lead), moderated by Adalstelm Brown, Dean of the Datla Lara School of Public Health.



About the Presenters/Panelists

WHO declares COVID-19 no longer a 'public health emergency of international concern' – what now? (19 June 2023).

Institute for Pandemics take stock of our experience of the pandemic, what to expect as SARS-CoV-2 continues to evolve, and what we have learned for future pandemic preparedness.

This online webinar has a brief presentation by Fahad Razak, the past Scientific Director of the Ontario COVID-19 Science Advisory Table, followed by a panel discussion of leaders from the Institute for Pandemics, Nelson

Lee (Director), David Fisman (Readiness
Theme Lead), Sara Allin (Resilience Theme Lead), and Geoff Anderson (Recovery Theme Lead), moderated by Adalsteinn Brown, Dean of the Dalla Lana School of Public Health.



https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/symptoms/post-covid-19-condition.html Post COVID-19 condition (long COVID)

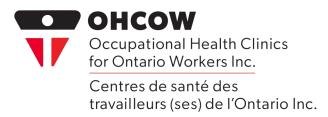
#### **Prevention**

The best way to prevent post COVID-19 condition is to take measures to avoid getting infected in the first place, such as:

- staying home when sick
- wearing a well-fitted mask improving indoor ventilation

Canada continues to monitor new developments to learn more about other preventive measures. Learn more about:

- •COVID-19 treatments
- COVID-19: Improving indoor ventilation
- •COVID-19: Individual public health measures
- Vaccines for COVID-19: How to get vaccinated
- COVID-19 mask use: Advice for community settings
- •COVID-19: Symptoms, treatment, what to do if you feel sick



Dr. Sarah Viehbeck is the Chief Science Officer for the Public Health Agency of Canada (PHAC).

In this role, Dr. Sarah Viehbeck is responsible for providing strategic leadership to oversee and support science excellence, science-policy integration and science promotion, as well as re-energizing the scientific vision and capacity across the Agency. Prior to this role, Sarah worked for 12 years at the Canadian Institutes of Health Research, most recently as an Associate Vice-President. She holds her Ph.D. in health studies from the University of Waterloo.

