

Antimicrobial Stewardship in Long-term Care

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Session Objectives

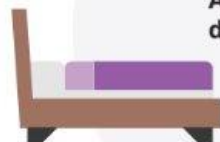
- Describe why antimicrobial stewardship matters for LTC residents
- Identify the team, key components, and realistic first steps for building or strengthening an AMS program in your home
- Describe practical strategies to sustain and strengthen AMS efforts over time

Antimicrobial Resistance (AMR) is a Threat to Public Health

AMR is undermining modern medicine as infections become more difficult to treat. The effectiveness of antibiotics to prevent infections is also reduced, making routine surgery and cancer therapy more risky. Overuse of antibiotics is contributing to rising antimicrobial resistance. Since many antibiotic prescriptions are unnecessary, AMR is a problem we can all help to address.

1.27 Million

Annual global deaths due to AMR.¹



6 Ontarian lives lost per day due to AMR.²

↑30%

Increased odds of death.



In Ontario, bloodstream infections caused by AMR bacteria increase the odds of death by 30% compared to susceptible bacteria.³

1 in 4

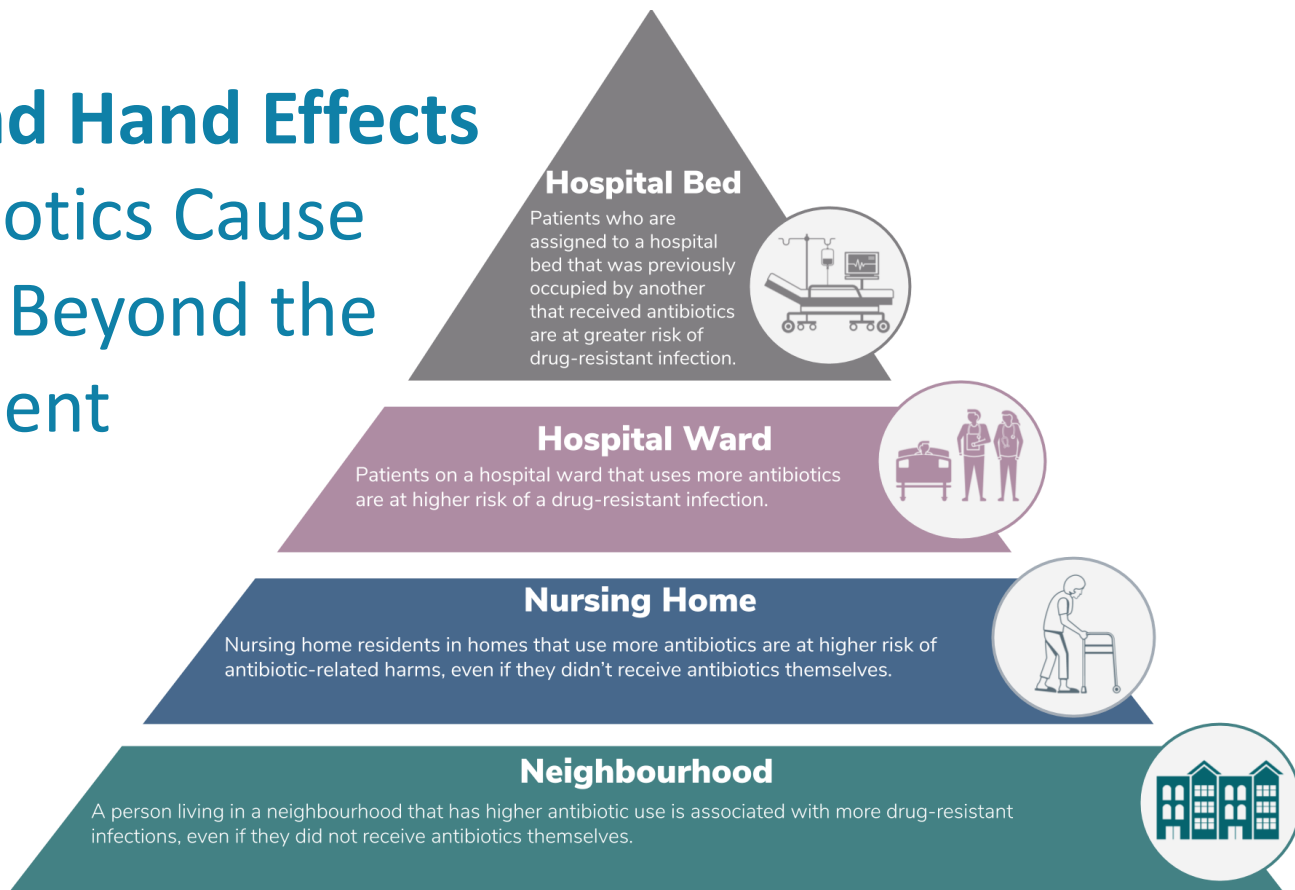
Antibiotics prescriptions are not needed.



At least 25% of antibiotics prescribed in the community are for conditions that don't need antibiotics.⁴

1. Murray CJ, et al. Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis. *Lancet*. 2022;399(10325):629-55. Available from: [https://doi.org/10.1016/S0140-6736\(21\)02724-0](https://doi.org/10.1016/S0140-6736(21)02724-0)
2. Finlay BB, et al. When antibiotics fail: the expert panel on the potential socio-economic impacts of antimicrobial resistance in Canada. Ottawa, ON: Council of Canadian Academies; 2019. Available from: <https://cca-reports.ca/reports/the-potential-socio-economic-impacts-of-antimicrobial-resistance-in-canada/>
3. Daneman N, et al. Antimicrobial resistance and mortality following *E. coli* bacteremia. *Eclinicalmedicine*. 2023;56:101781. Available from: <https://doi.org/10.1016/j.eclinm.2022.101781>
4. Schwartz KL, et al. Unnecessary antibiotic prescribing in a Canadian primary care setting: a descriptive analysis using routinely collected electronic medical record data. *CMAJ Open*. 2020;8(2):E360-9. Available from: <https://doi.org/10.9778/cmajo.20190175>

Second Hand Effects Antibiotics Cause Harm Beyond the Recipient



Langford BJ, Daneman N, Leung V, Wu JH, Brown K, Schwartz KL, Garber G. The second-hand effects of antibiotics: communicating the public health risks of drug resistance. JAC-antimicrobial resistance. 2019 Dec;1(3):dlz059.

Why is antimicrobial stewardship needed in LTC?



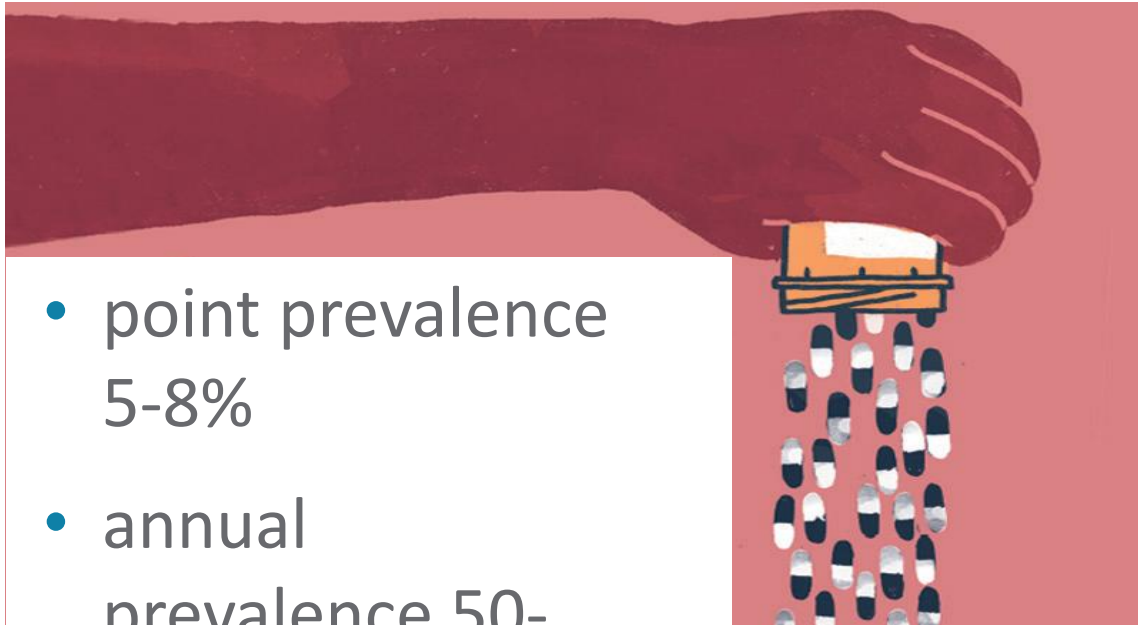
Long term care residents are vulnerable to infection

- Immuno-senescence with aging
- High frequency of comorbidities
- Close proximity to other vulnerable individuals



Antibiotics are among the most frequently prescribed medications in long term care

- point prevalence 5-8%
- annual prevalence 50-80%



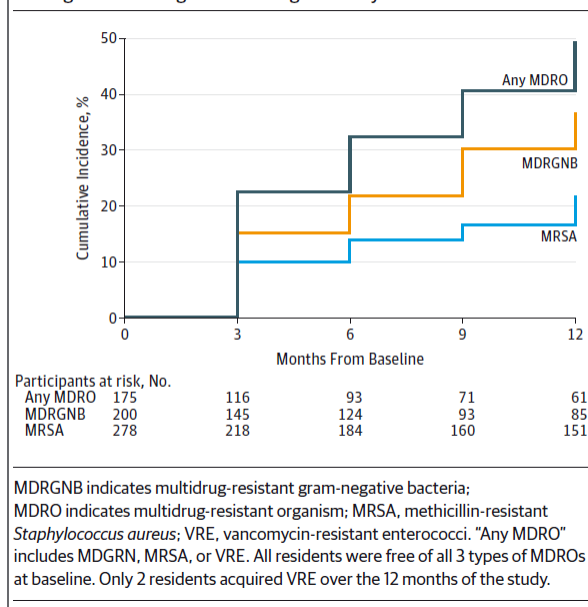
Montgomery *JGDT* 1995; Pakyz *ICHE* 2010; Daneman *JAC* 2011; Van Buul *JAMDA* 2012;

Image cropped from Choosing Wisely / PHO antibiotic awareness campaign 2018

Long Term Care residents are vulnerable to antibiotic-related harms

- Age-related changes in renal and hepatic function
 - decreased clearance, increased organ toxicity
- Polypharmacy
 - drug-drug interactions
- Age-related reductions in microbiome diversity
 - greater risk of *C. difficile* infection with each antibiotic course
- Skin breakdown and indwelling devices
 - increase likelihood of invasive infection once antibiotic-resistant organisms are acquired

Figure. Cumulative Incidence Rates of Resident Acquisition of Drug-Resistant Organisms During the Study Period



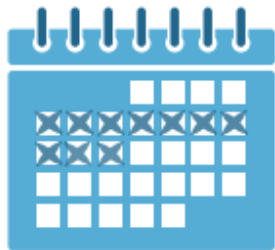
There is variability in prescribing:



10x



Homes with the highest use are using 10x more antibiotics than homes with the lowest use



**Duration of therapy
is often longer than
necessary**

www.publichealthontario.ca/ASP

Daneman N, et al. Variability in antibiotic use across nursing homes and the risk of antibiotic-related adverse outcomes for individual residents. JAMA internal medicine. 2015 Aug 1;175(8):1331-9.

Daneman N, Gruneir A, Bronskill SE, Newman A, Fischer HD, Rochon PA, Anderson GM, Bell CM. Prolonged antibiotic treatment in long-term care: role of the prescriber. JAMA internal medicine. 2013 Apr 22;173(8):673-82.

Older residents of long-term care homes are at high risk for infections, but also high risk for the harmful effects of antibiotics.



Antimicrobial Stewardship

- Antimicrobial Stewardship aims **to improve and measure the appropriate use** of antimicrobial agents in order to mitigate AMR.
- Goal is to protect the patient and those around them
- Appropriate use of antibiotics can be thought of in terms of initiation, selection and duration.

Appropriate Antimicrobial Prescribing

Initiation:
Prescribing antimicrobials only when necessary



Selection:
Ensuring that the specific antimicrobial prescribed is appropriate



Duration:
Antimicrobial has been prescribed for an appropriate period of time.

Does this patient need antibiotics?

Is the right antibiotic agent, route of administration, dose and frequency being prescribed to optimize efficacy and safety for the condition being treated?

Is the right duration of therapy (i.e. days) being prescribed for the condition being treated?

Building an Antimicrobial Stewardship Program in Long-Term Care



Accreditation Canada Requirements for Antibiotic Stewardship

The organizational leaders and teams collaborate to optimize the safe and appropriate use of antimicrobials.
Expanded scope; no longer limited to inpatient, RSP is applicable to **organizations that prescribe antimicrobials**.

Leadership & Program Structure

- Maintain antimicrobial stewardship program (ASP)
- Includes oral, injectable and topical
- Consider interprofessional oversight team

Education & Awareness

- Provide continuous learning opportunities
- Include awareness campaigns and educational initiatives

Program Implementation

- Deliver ASP interventions
- Include patient/caregiver-focused actions:
 - Safe storage and disposal
 - Communication on appropriate use and harms

Measurement & Monitoring

- Quantitative and qualitative insights on impact:
 - Feedback, observations, team input

Benchmarking

- Use internal and/or external data
- Identify improvement opportunities

Continuous Improvement & Outcomes

- Demonstrate measurable improvements in care:
- e.g., Acceptability, accessibility, effectiveness, equity, experience, safety

Accreditation Canada 2026

Three Components of a Successful Program



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Public Health Ontario's Antimicrobial Stewardship Essentials in Long-Term Care: A Primer (2018)

Public Health Ontario's Antimicrobial Stewardship Essentials Checklist in Long-Term Care (2018)

Step 1: Who Should Be Involved



LTC home leadership

Organizational strategic direction and resourcing



Prescriber (MD, NP)

Championing the cause; set the tone for judicious use



Pharmacy

Medication and stewardship expertise



Infection prevention

Synergy in preventing AMR; outcome measurement

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Step 2: Setting Realistic Aims

- Antibiotic start criteria: minimum symptoms required before cultures or antibiotics are considered
- Standard duration of therapy and early-reassessment
- Antibigram use to support treatment selection
- Documentation of reason for use
- Build these into daily workflow, e.g., order sets, daily rounds

Where to Start: Realistic First-Year Priorities

Pick 1-2 areas for improvement and implement multi-pronged strategies

Asymptomatic bacteriuria: the single largest opportunity in most homes

Antibiotics for viral or upper respiratory illness

Antibiotics for skin/wounds without signs of active infection

Antibiotic courses longer than 7 days

Reassessing therapy within 2–3 days of starting

Step 3: Establishing Measures



Process Measures

Are we doing what we said we would?
e.g., recommendations made,
educational modules completed



Outcome Measures

Antibiotic starts, Days of Therapy, *C. difficile* rate — per 1,000 resident-days



Balancing Measures

ED visits, hospitalization, mortality —
watch for unintended harm

Appropriate Antimicrobial Prescribing

Initiation:
Prescribing antimicrobials only when necessary



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Patient Scenario

76 Female with Alzheimer's Disease has new onset confusion and foul smelling, cloudy, urine. Her daughter reports that last time this happened she had a urinary tract infection and got better after antibiotics. What approach would you suggest?

- A. Send culture and re-assess
- B. Send culture and initiate antibiotics
- C. Consider other causes before collecting culture

Asymptomatic Bacteriuria is Common in LTC



Up to **40%** of Men



Up to **50%** of Women



Up to **100%** of
catheterized patients

Biggel M, et al. BMC geriatrics. 2019 Dec;19(1):170.

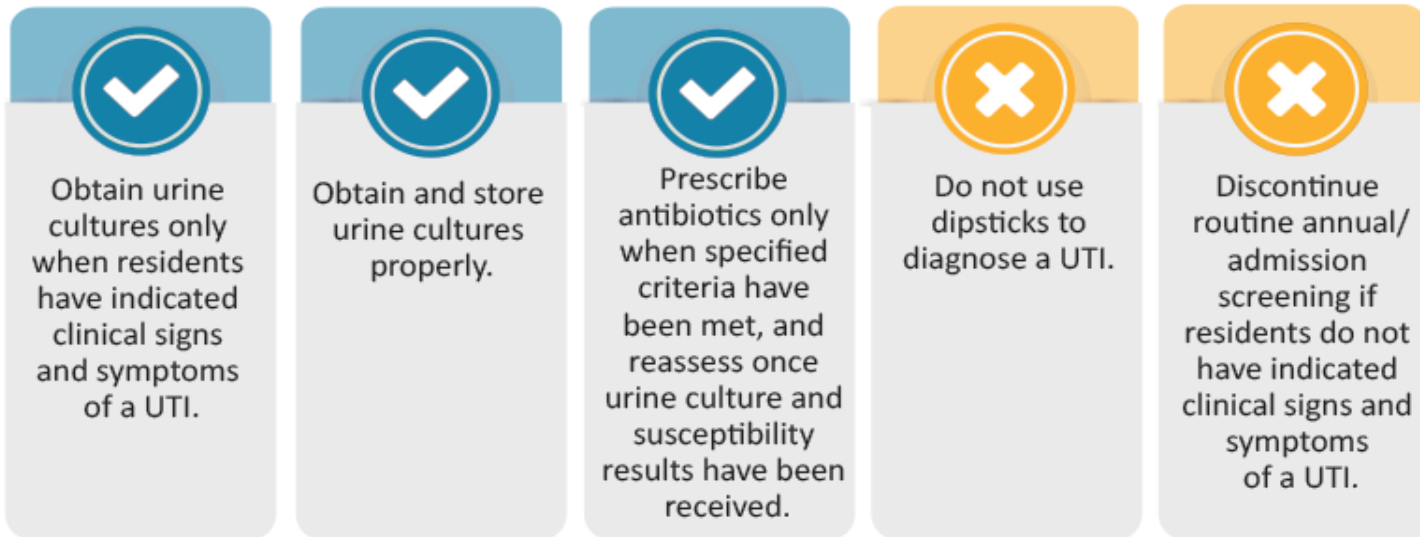
Testing/Treating Asymptomatic bacteriuria (ASB) in non-pregnant adults:

- Six prospective trials showing no benefit

Study	Population
Nicolle LE et al, NEJM, 1983	Elderly non-catheterized men
Nicolle LE et al, <i>Am J Med</i> , 1987	Women in long-term care facilities
Boscia et al, JAMA, 1987	Elderly ambulatory women
Abrutyn et al, <i>Ann Intern Med</i> , 1994	Elderly ambulatory women
Harding et al, NEJM, 2002	Women with diabetes
Cai et al, <i>Clin Infect Dis</i> , 2012	Young women with recurrent UTI

Slide c/o Dr. Jerome Leis

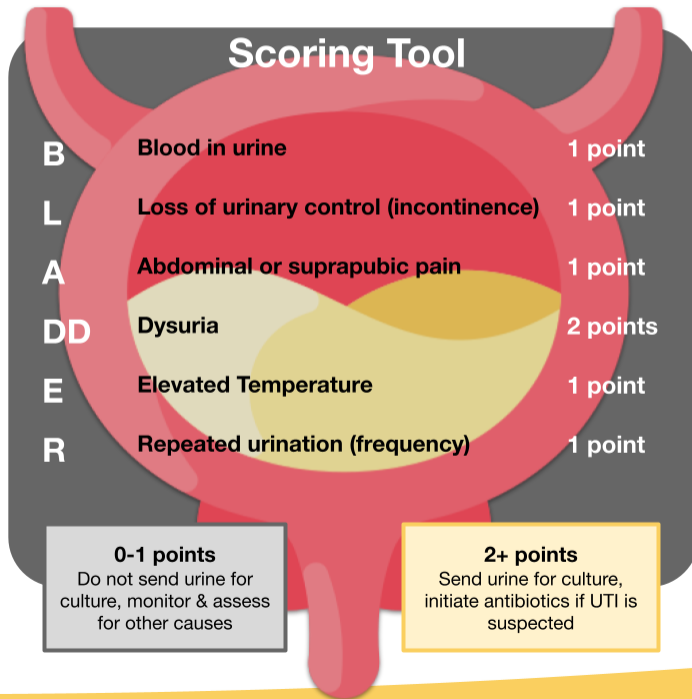
Urine Culturing in LTC: Practice Gaps



www.publichealthontario.ca/UTI

BLADDER Score: A Boosting Tool for Urinary Diagnostic and Antibiotic Stewardship in Hospitalized Adults

A multi-faceted intervention using a 6-item mnemonic scoring tool was developed based on existing minimum criteria for prescribing antibiotics in hospitalized patients with presumed uncomplicated cystitis. The scoring tool was combined with ward- and prescriber-level feedback and education. This was a single-center retrospective design with interrupted time series analysis.



Outcomes



Urine Culturing



13% decrease

IRR 0.87 (95%CI: 0.67 to 1.12)
(not statistically significant)



Urinary Antibiotic Prescribing

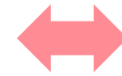


32% decrease

IRR 0.68 (95%CI: 0.59 to 0.79)



Clinical Outcomes



No change

In length of stay, acute care transfers, or mortality

How to Manage Asymptomatic Bacteriuria

- Identify Other Causes
- “**PINCH ME**” Mnemonic

Pain,
Infection,
Constipation,
de**H**ydration,
Medication,
Environment

- Document reason for no culture or antibiotics
- Give fluids when necessary
- Monitor for 24-48 hours
- Educate Staff, Patients and Family

Shorter is Smarter

- Resources to support safe and effective antibiotic duration of therapy in long-term care

www.publichealthontario.ca/ASP

Shorter is Smarter: Reducing Duration of Antibiotic Treatment for Common Infections in Long-Term Care



Key Points^{1,2}

- For uncomplicated cystitis, evidence supports 3 days of TMP-SMX (Septra, Bactrim) or ciprofloxacin, or 5 days of nitrofurantoin.
- For complicated cystitis, evidence supports 7 days of treatment. This includes males with cystitis, catheterized residents and urological abnormalities.
- For pyelonephritis, longer courses of 7 to 14 days is appropriate.
- Asymptomatic bacteriuria should NOT be treated in long-term care.

For more information see [Guidelines of Antibiotic Treatment for Uncomplicated Urinary Tract Infection in Long-Term Care](#).



Key Points³

- Treatment for 5 to 7 days is appropriate as long as there has been some improvement in erythema, warmth, tenderness, or edema.
- Longer courses may be required for severe infections or infections without source control (e.g. requiring debridement).
- Diabetes alone is not an indication for a longer course.

For more information see [Guidelines of Antibiotic Treatment for Uncomplicated Cellulitis in Long-Term Care](#).



Key Points^{4,5}

- Treatment for 5 to 7 days is appropriate in residents with pneumonia who are clinically stable and afebrile for 48-72 hours.
- Residents with extra-pulmonary infections or those with documented infections caused by *Pseudomonas* or *Staphylococcus* may require longer courses of treatment.

For more information see [Guidelines of Antibiotic Treatment for Pneumonia in Long-Term Care](#).

Shorter courses of antibiotics, when indicated, are as effective as longer courses with less risk of harm (antibiotic resistance, adverse effects, *C. difficile* infection).

1. Lefkowitz, Virginia et al. Antibiotic duration for treating uncomplicated, asymptomatic lower urinary tract infections in elderly women. *Cochrane Database Syst Rev*. 2008;CD005025.
2. Cochrane Collaboration. Cystitis. In: *Antibiotic treatment for urinary tract infections in adults*. Cochrane Database of Systematic Reviews. 2014; Issue 12. CD010244.
3. American Academy of Family Physicians. *Guidelines for the management of cellulitis in adults*. 2014. Available at: <http://www.aafp.org/online/1/prr/cellulitis.html>.
4. National Infectious Diseases Society of America. *Guidelines for the management of hospital-acquired pneumonia in adults*. 2016. Available at: <http://www.cdc.gov/pulmoncoz/pneumonia-guidelines.html>.
5. Longa R, Espinosa R, Alvarado A, et al. Duration of antibiotic treatment in community-acquired pneumonia: a multicenter randomized clinical trial. *Ann Intern Med*. 2015;162(10):685-92.
6. Chou R, Griffin R, Singh S, et al. Duration of antibiotic treatment for community-acquired pneumonia in adults: a randomized trial. *BMJ*. 2010;340:b2444.

AMS Strategies in LTC: Shorter is Smarter

Public Health Ontario

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Shorter is Smarter: Reducing Duration of Antibiotic Treatment for Common Infections in Long-Term Care

Cystitis

≤7 days

Cellulitis

5-7 days

Pneumonia

5-7 days

Key Points^{1,2,3,4}

- For uncomplicated cystitis, evidence supports 5 days of TMP-SMX (Bactrim, Bactrim®) or ciprofloxacin, or 5 days of nitrofurantoin.
- For complicated cystitis, evidence supports 7 days of treatment. This includes males with cystitis, catheterized residents and urological abnormalities.
- For pyelonephritis, longer courses of 7 to 14 days is appropriate.
- Asymptomatic bacteriuria should NOT be treated in long-term care.

For more information see the [Guidelines of Antibiotic Treatment for Uncomplicated Urinary Tract Infections in Long-Term Care](#).

Key Points⁵

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Shorter courses of antibiotics, when indicated, are as effective as longer courses with less risk of harm (antibiotic resistance, adverse effects, *C. difficile* infection).

1. Linder H, et al. (2014). Antibiotic resistance in long-term care facilities: a review of the literature. *Antimicrobial Agents and Chemotherapy*, 58(12), 3501-3508.

2. Campbell SM, et al. (2014). Antibiotic resistance in long-term care facilities: a review of the literature. *Antimicrobial Agents and Chemotherapy*, 58(12), 3501-3508.

3. American Society of Health-System Pharmacists. (2014). *Antimicrobial Therapy Guidelines for Long-Term Care Facilities*. [www.ashp.org/antimicrobial-therapy-guidelines-for-long-term-care-facilities](#)

4. American Society of Health-System Pharmacists. (2014). *Antimicrobial Therapy Guidelines for Long-Term Care Facilities*. [www.ashp.org/antimicrobial-therapy-guidelines-for-long-term-care-facilities](#)

5. American Society of Health-System Pharmacists. (2014). *Antimicrobial Therapy Guidelines for Long-Term Care Facilities*. [www.ashp.org/antimicrobial-therapy-guidelines-for-long-term-care-facilities](#)

6. American Society of Health-System Pharmacists. (2014). *Antimicrobial Therapy Guidelines for Long-Term Care Facilities*. [www.ashp.org/antimicrobial-therapy-guidelines-for-long-term-care-facilities](#)

7. American Society of Health-System Pharmacists. (2014). *Antimicrobial Therapy Guidelines for Long-Term Care Facilities*. [www.ashp.org/antimicrobial-therapy-guidelines-for-long-term-care-facilities](#)

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EVIDENCE BRIEF

Duration of Antibiotic Treatment for Uncomplicated Urinary Tract Infection in Long-Term Care Residents

September 2018

Key Messages

- Recent evidence suggests that short courses of antibiotics (7 days or less) are appropriate for older adults with uncomplicated lower urinary tract infections.
- There are several advantages to short course antibiotic therapy when compared to longer durations, including less side effects,^{1,2} less risk of antibiotic-resistant organisms^{3,4} and less risk of *C. difficile* infection.⁵

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SHORTER IS SMARTER

Reducing duration of antibiotic therapy in long-term care

Antibiotic use drives selective pressure

Selective pressure kills susceptible bacteria and allows resistant organisms to thrive and multiply

Shorter courses are as effective as longer courses

Based on studies in hospitalized and outpatients for common infections seen in long-term care: urinary tract infection, pneumonia, and cellulitis.

Shorter courses have a lower risk of harm

Shorter courses are also associated with a lower risk of antibiotic associated harms, like side effects or *C. difficile*.

For more information see [Reducing Duration of Antibiotic Treatment for Common Infections in Long-Term Care](#) or visit [publichealthontario.ca/asp](#)

What is an antibiogram?

- Collection of antibiotic susceptibility data for common organisms
- Can be stratified by healthcare setting, specimen type, etc.
- There are standardized recommendations for their development

	isolate #	Antibiotic A	Antibiotic B	Antibiotic C
Organism A	100	0%	60%	80%
Organism B	50	80%		25%
Organism C	30	10%	30%	90%

Truong WR, Hidayat L, Bolaris MA, Nguyen L, Yamaki J. The antibiogram: key considerations for its development and utilization. JAC-antimicrobial resistance. 2021 Jun;3(2):dlab060.

LTCH-Specific Antibigram

- Over 600 unique urinary antibiograms produced on web-based tool and disseminated via email
- Organisms for each home provided separately AND combined into a syndromic antibiogram to simplify treatment decisions
- Provincial data is used to inform local estimates if sample sizes are small
- Empiric recommendations provided for uncomplicated and complicated UTI based on highest susceptibility (while considering risk of resistance/*C. difficile*).

To receive your home's antibiogram, email:
ASP@oahpp.ca



Ontario Long-Term Care Home Antibioqram Tool

Urine Culture Data for Institution #xyz

Summary



Ensure that your resident has local and/or systemic signs and symptoms of infection before collecting urine for culture and initiating antibiotics.

In hemodynamically stable non-catheterized patients, use [this scoring system](#) to assess likelihood of infection. To support antibiotic stewardship for your residents, visit [Public Health Ontario's Urinary Tract Infection \(UTI\) Program](#).

First-Line Recommendations

For those who have definitive signs/symptoms of urinary tract infection (UTI), we recommend the following empiric antibiotics as optimal based on resistance patterns in your home:

- For uncomplicated UTI, use [nitrofurantoin](#).
- For complicated UTI, use [amoxicillin-clavulanate](#).

Note that empiric antibiotic selection may need to be adjusted or discontinued based on patient-specific culture and susceptibility results.





Urinary Antibigram

Percentage of urine bacteria at your LTCH susceptible to each antibiotic

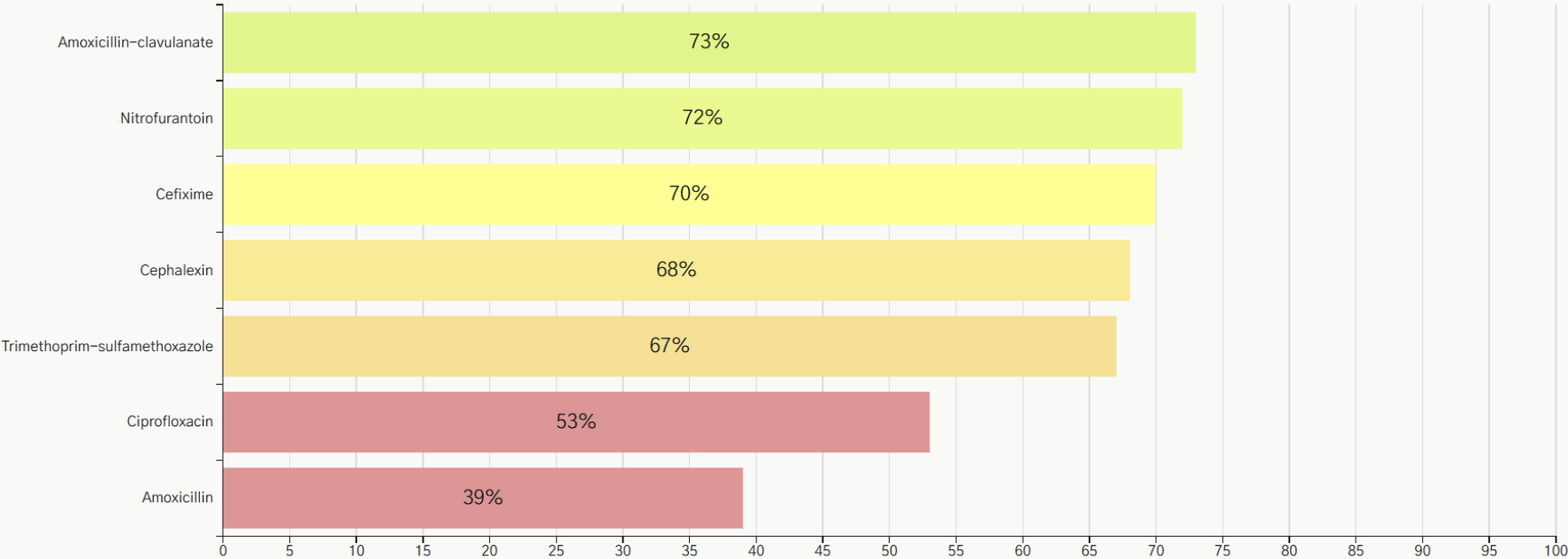
Sort by

↑ %

↓ %

↑ ABC

↓ ABC



Strategies to Encourage Use of Antibiofilms

- Provide links via email and on intranet
- QR codes on screensavers
- Print and post treatment recommendations
- Incorporate recommendations into health record
- Discuss with team members at interdisciplinary/council meetings
- Other suggestions?

Key Takeaways about Using Antibigrams

- Antibigrams can be used to help guide antibiotic selection for an individual patient when an organism is not yet known or when final susceptibility results are pending. However they are not useful if final culture and susceptibility data are available.
- Other key uses for antibigrams include informing local recommendations and tracking resistance over time.
- Patient factors, including prior antibiotic resistance, prior antibiotic use, and type of infection need to be taken into account when using an antibiogram.

My Practice Reports: Get Feedback on Antibiotic Prescribing

MyPractice

Primary Care

A tailored report for quality care

MyPractice

Long-Term Care

A tailored report for quality care

<https://www.hqontario.ca/Quality-Improvement/Practice-Reports/>

Appropriate Antimicrobial Prescribing

Initiation:
Prescribing antimicrobials only when necessary



Selection:
Ensuring that the specific antimicrobial prescribed is appropriate



Duration:
Antimicrobial has been prescribed for an appropriate period of time.

Does this patient need antibiotics?
e.g. UTI Program; [BLADDER Score](#)

Is the right antibiotic agent, route of administration, dose and frequency being prescribed to optimize efficacy and safety for the condition being treated?
e.g., [Antibiograms](#)

Is the right duration of therapy (i.e. days) being prescribed for the condition being treated?
e.g., [Shorter is Smarter Resources](#)

Where Does Your Home Stand?

- Take a moment: which step is your home's biggest gap right now?
- **Short term:** What is 1 simple strategy you implement in the coming weeks?
- **Long term:** How can you build capacity for AMS in your home; think 1. structure, 2. strategies, 3. measurement

Three Components of a Successful Program



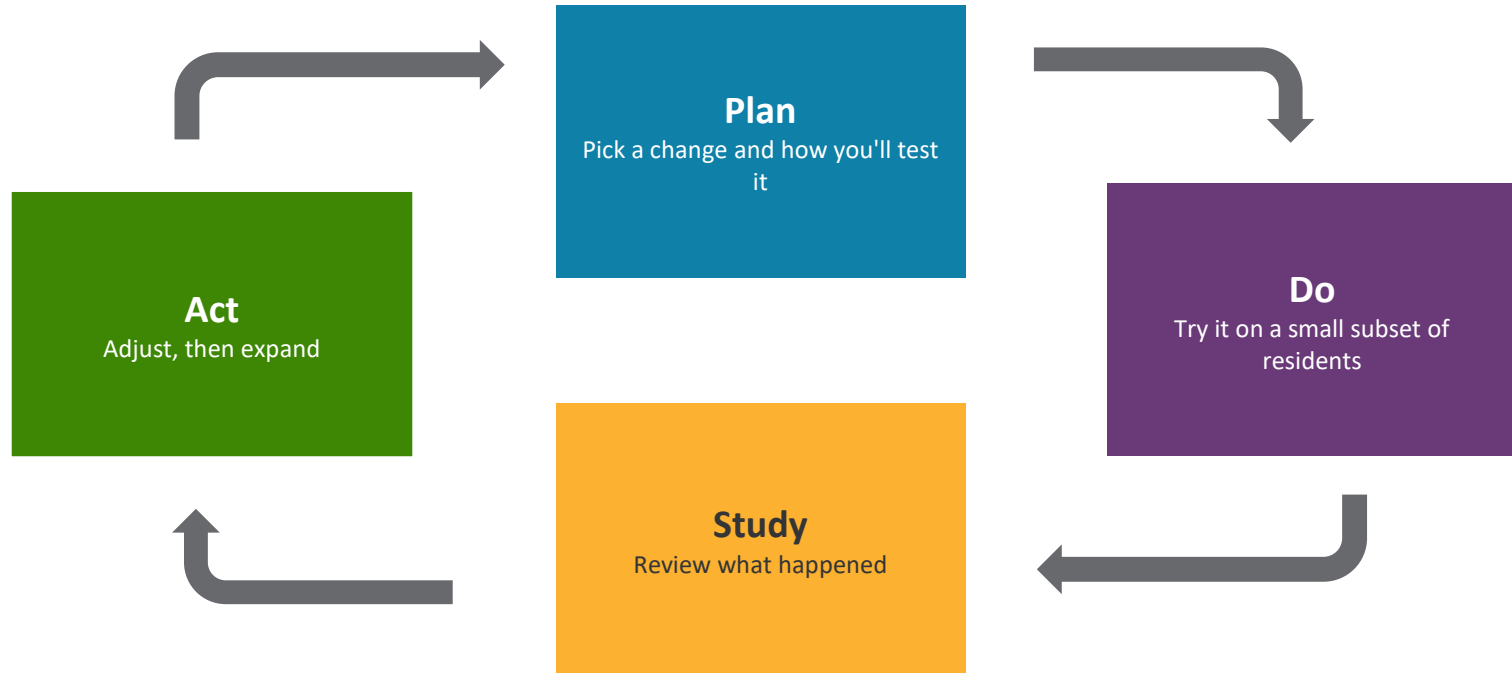
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Public Health Ontario's Antimicrobial Stewardship Essentials in Long-Term Care: A Primer (2018)

Public Health Ontario's Antimicrobial Stewardship Essentials Checklist in Long-Term Care (2018)

Step 5: Test Small, Then Sustain

- Plan-Do-Study-Act (PDSA) cycles: pilot a change on one unit, learn, then expand what works home-wide.

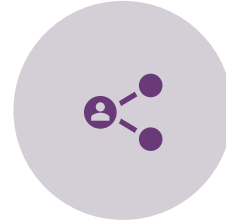


Making It Stick



MAKE IT ROUTINE

Build regular feedback into routine: share results with prescribers, nurses, and staff on a set schedule



KEEP IT SUSTAINED

Put AMS in orientation packages, staff meetings, huddles, and care rounds, not just a one-time launch



ENGAGE RESIDENTS & FAMILY

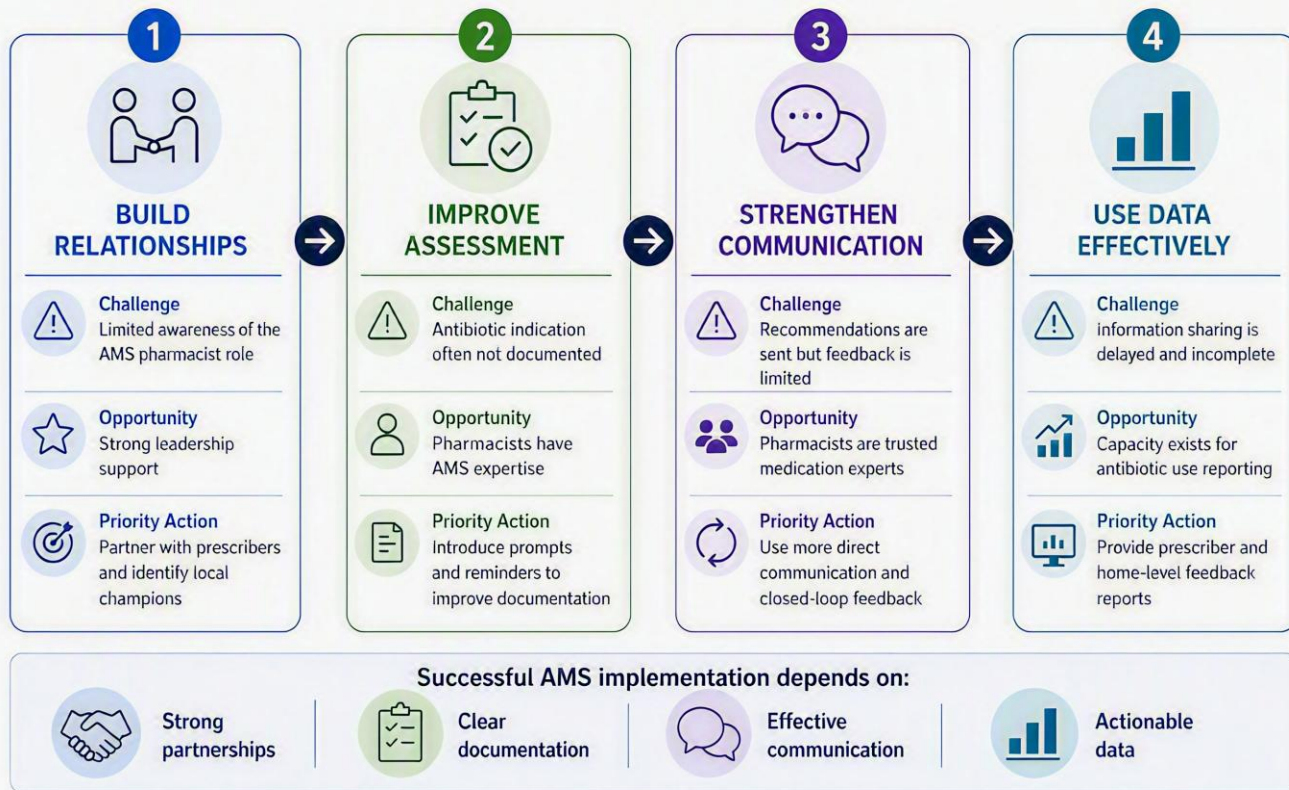
Educate residents and families through discussions, resources



LEVERAGE EXPERTISE

Partner with local experts in antimicrobial stewardship, pharmacy, and data evaluation

Advancing Antimicrobial Stewardship in Retirement Homes



Dalton D et al. Antimicrob Steward Healthc Epidemiol. 2026;10.1017/ash.2026.10744

Summary

- AMR is a global public health issue, and antibiotic use in LTC drives it — with wide variation between homes
- Asymptomatic bacteriuria remains the single biggest opportunity to reduce unnecessary antibiotic use
- Building a program doesn't require a new hire: form a small interdisciplinary team, set realistic first-year aims, and pick 1–2 changes to start
- Facility-specific antibiograms and tools like the BLADDER score are available now to support front-line decisions
- Use the PHO Resources to find your home's biggest gap, and build regular feedback into your routine to make changes stick

Help reduce antibiotic resistance in long-term care homes.

Prescribe antibiotics with care.



**For more information or to receive your home's
antibiogram, contact:**

ASP@oahpp.ca

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

Moving the Needle on Fall Vaccine Uptake & Fall Vaccine Update

September 17, 2026

Mary Ann Holmes, RN, BScN, MHS
Immunization Program Manager



simcoe
muskoka
DISTRICT HEALTH UNIT

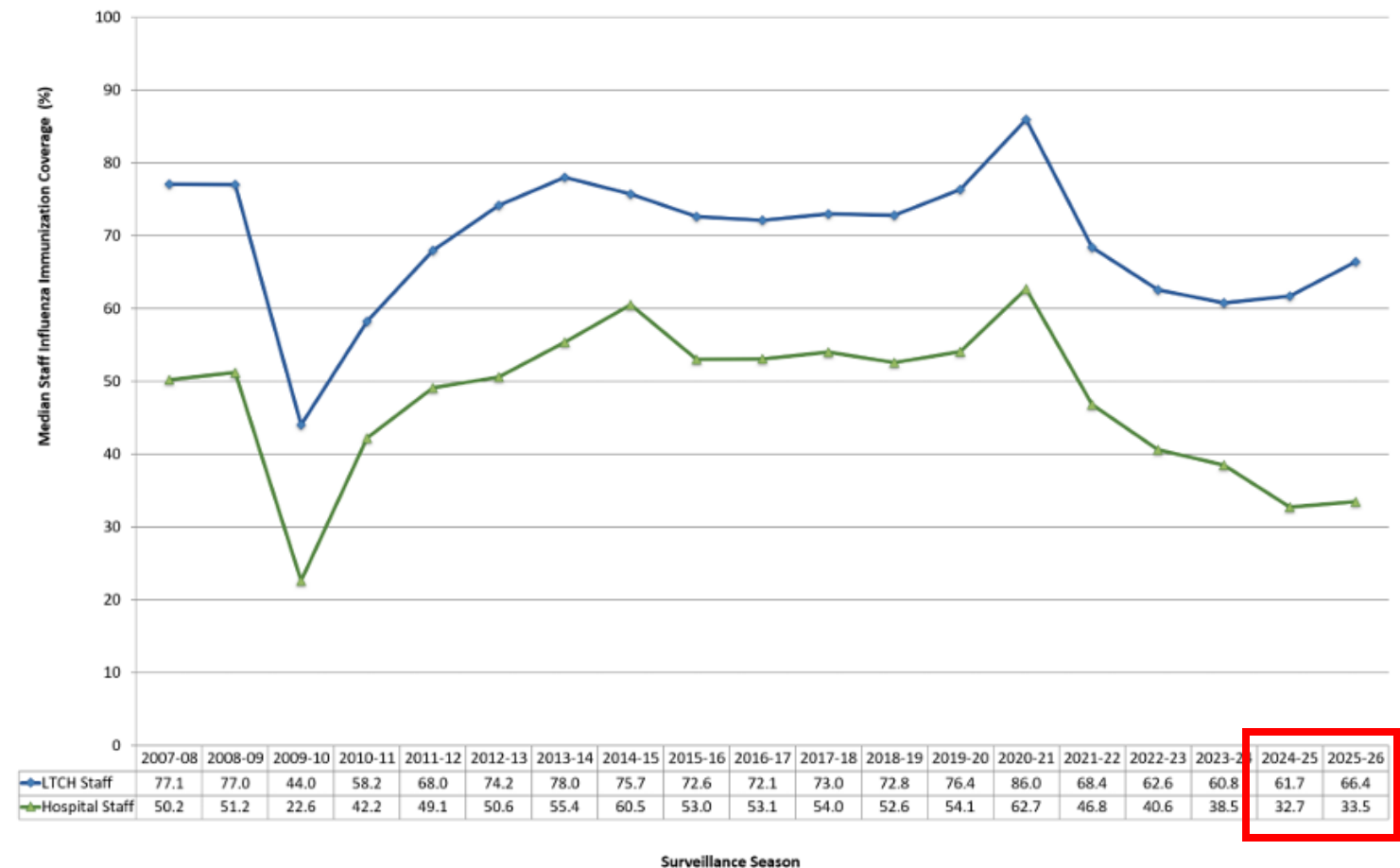
Overview

- Local Uptake of Fall Vaccines
- Addressing Vaccine Hesitancy
- Fall Vaccine Program Updates
- Questions

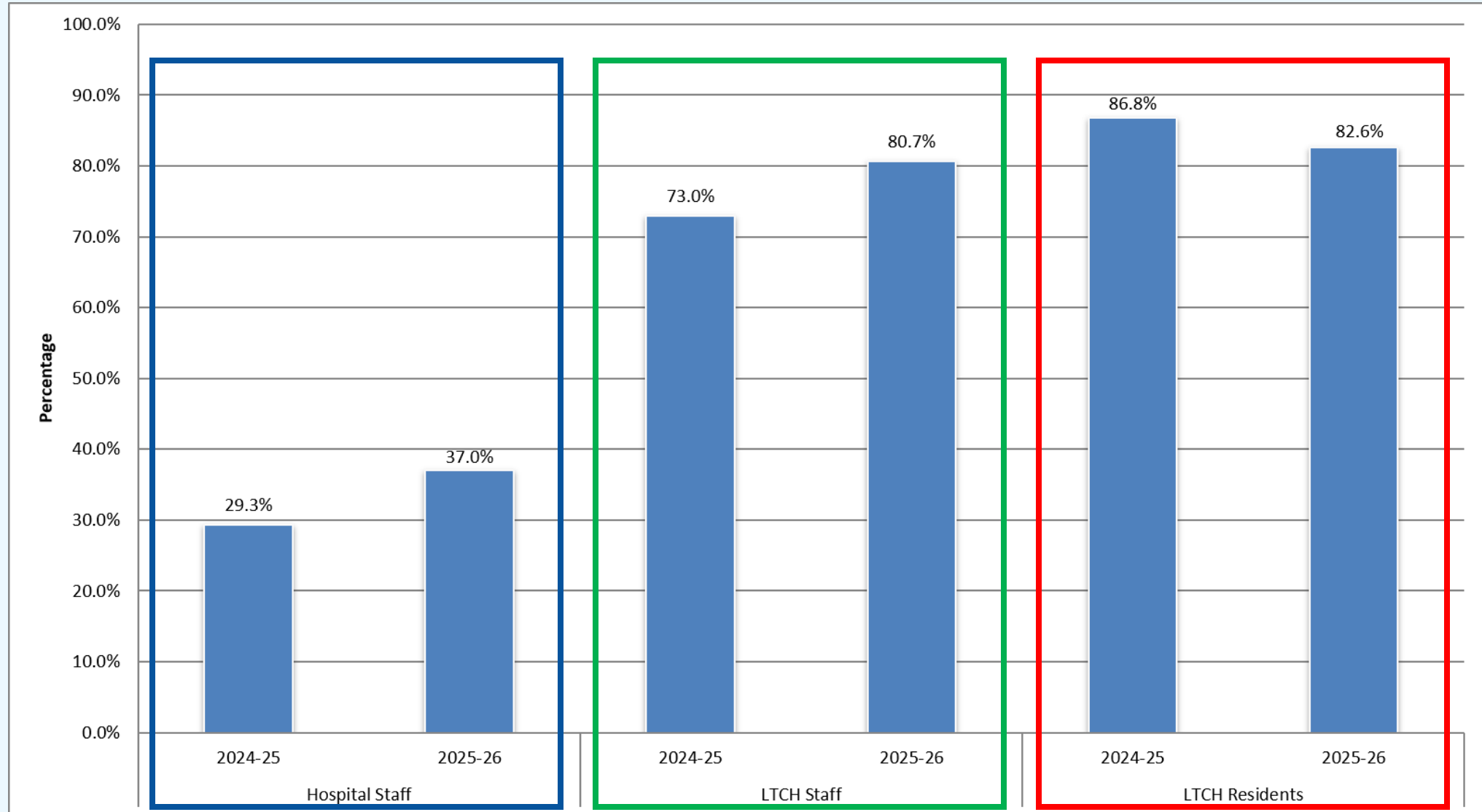
Health Care Worker Influenza Immunization Rates

Canada's National
Seasonal Influenza
Vaccination Target
for HCWs is 80%

Figure A: Median HCW Influenza Immunization Coverage Among Hospitals and LTCHs, by Respiratory Virus Surveillance Season: Ontario, 2007-08 to 2025-26 Seasons



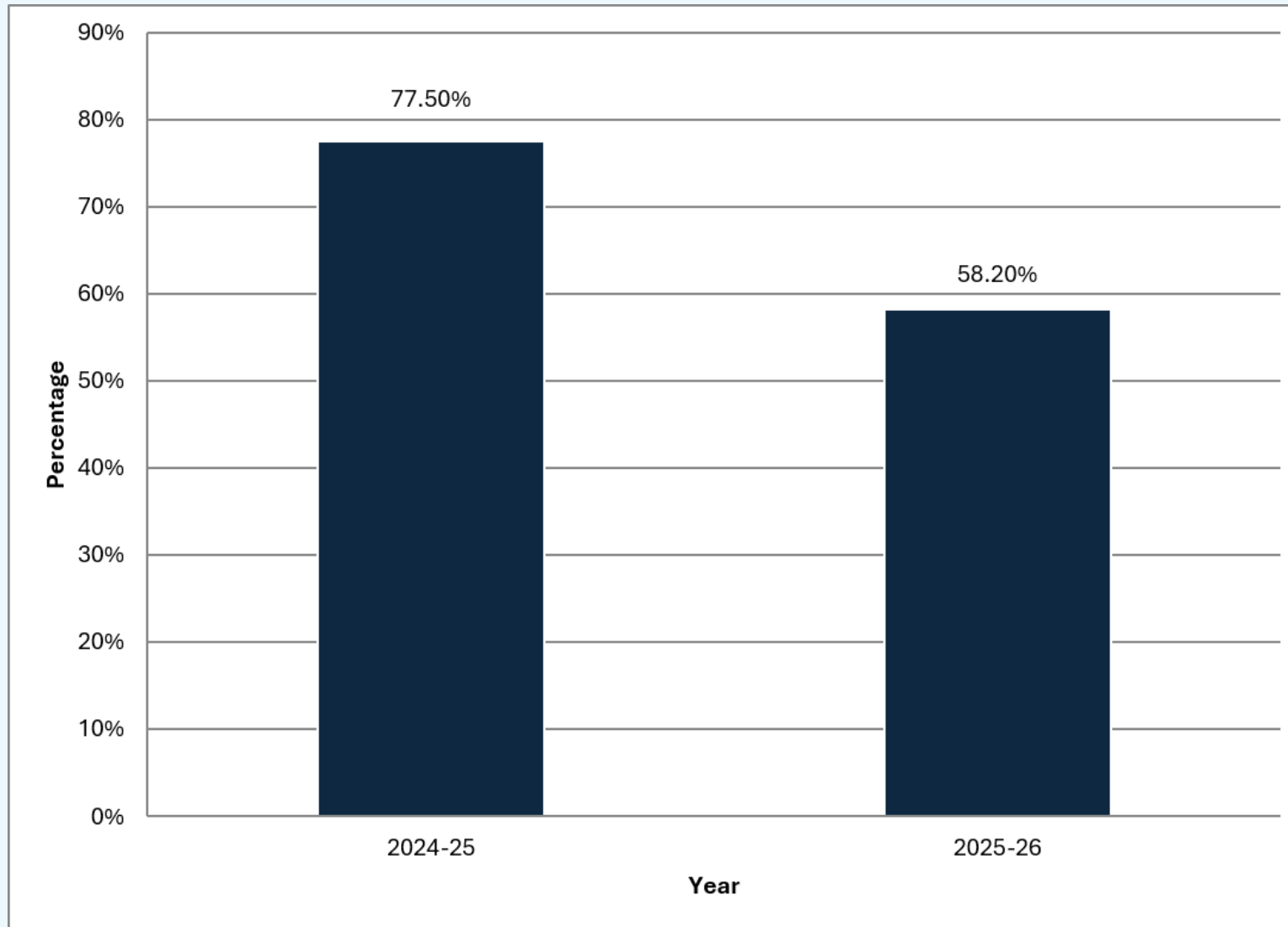
HCW & LTCH Resident Influenza Immunization Rates in SM



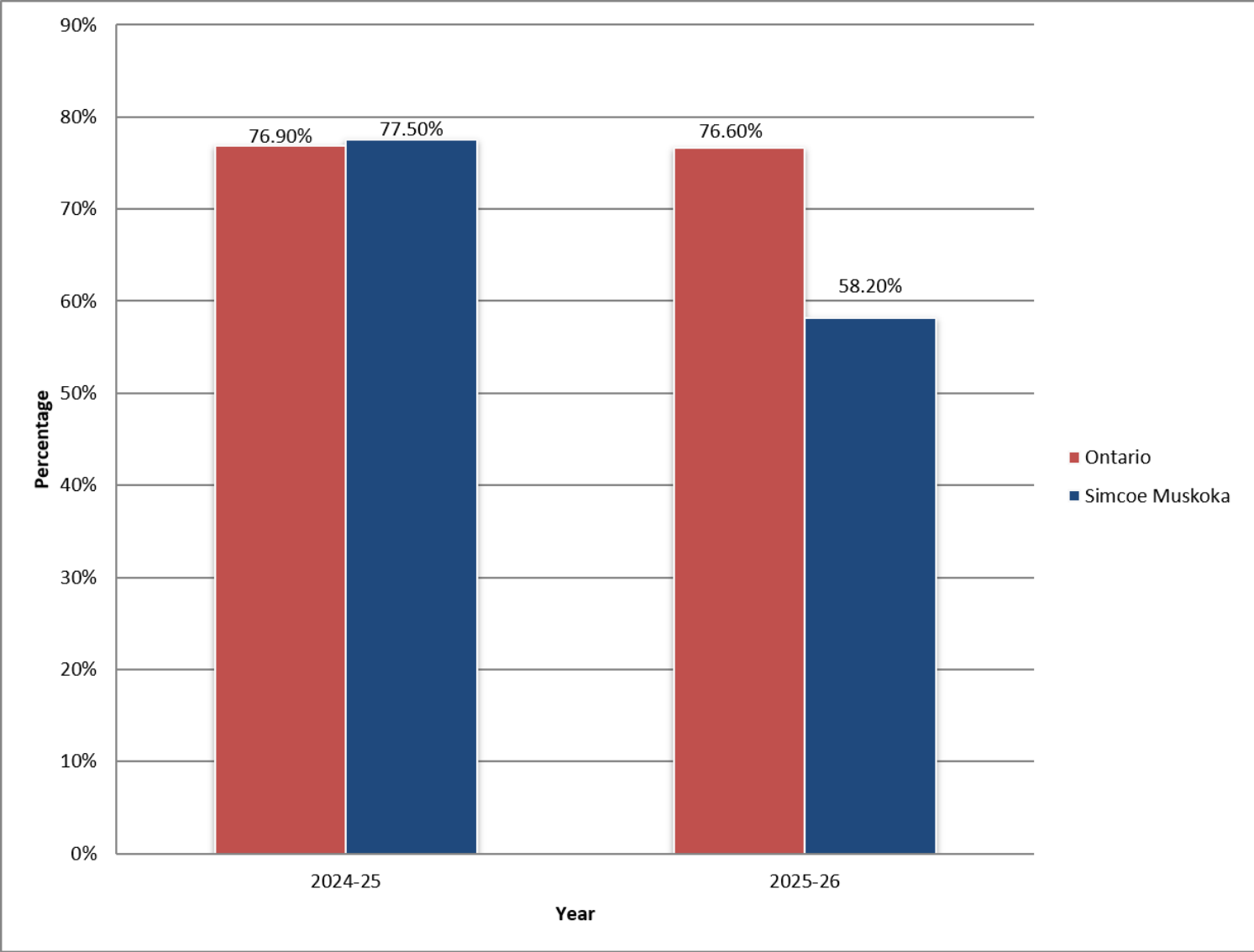
Influenza Immunization Rates SMDHU vs. Ontario



LTCH Resident RSV Immunization Rates in SM



LTCH Resident RSV Immunization Rates SMDHU vs. Ontario



Vaccine Hesitancy



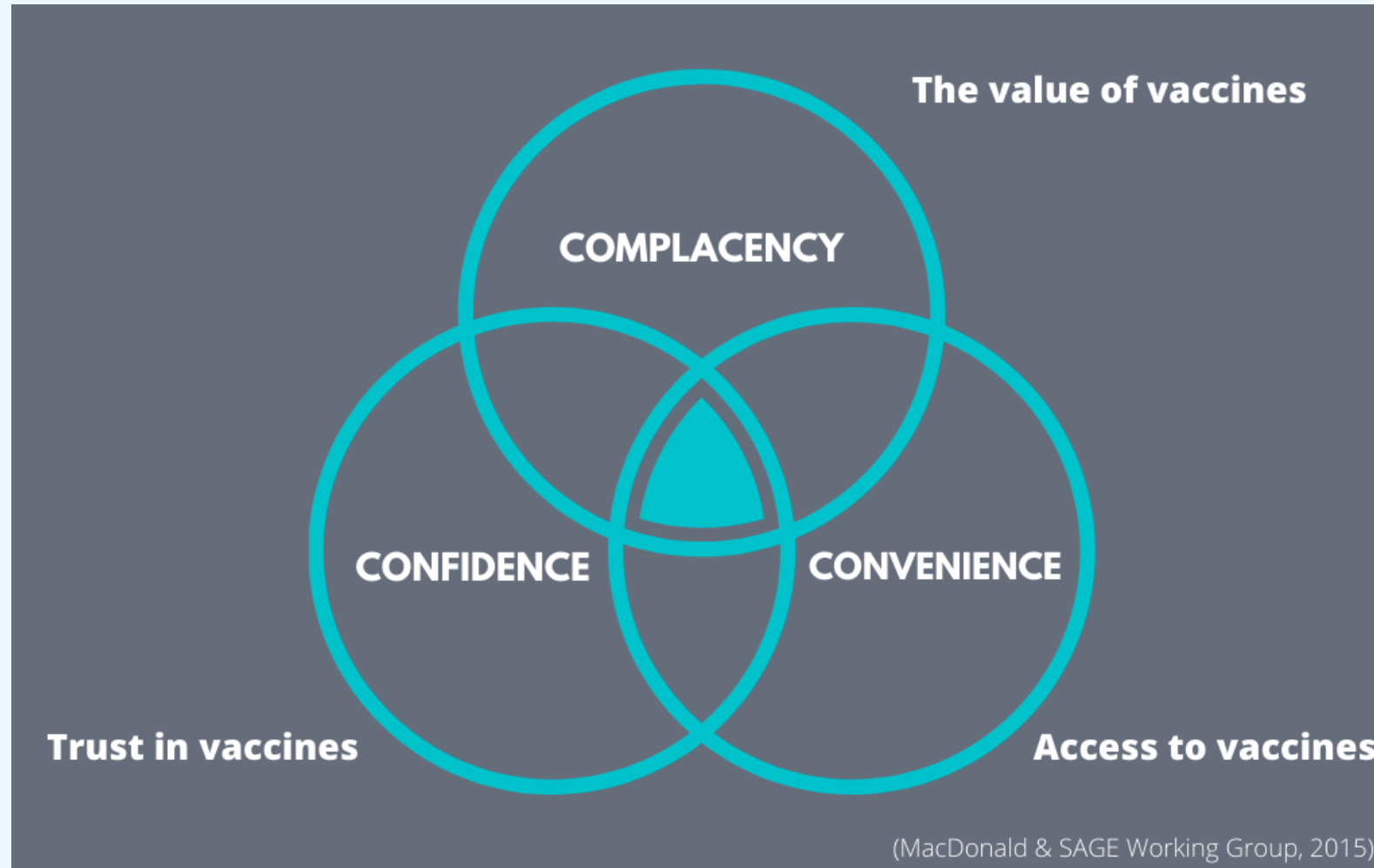
 The Globe and Mail

Quebec will not administer free flu shots this fall

Quebec will no longer administer free flu shots for its entire population this fall, a year after it stopped providing COVID-19 vaccinations...

1 week ago

The Three C's of Vaccine Hesitancy



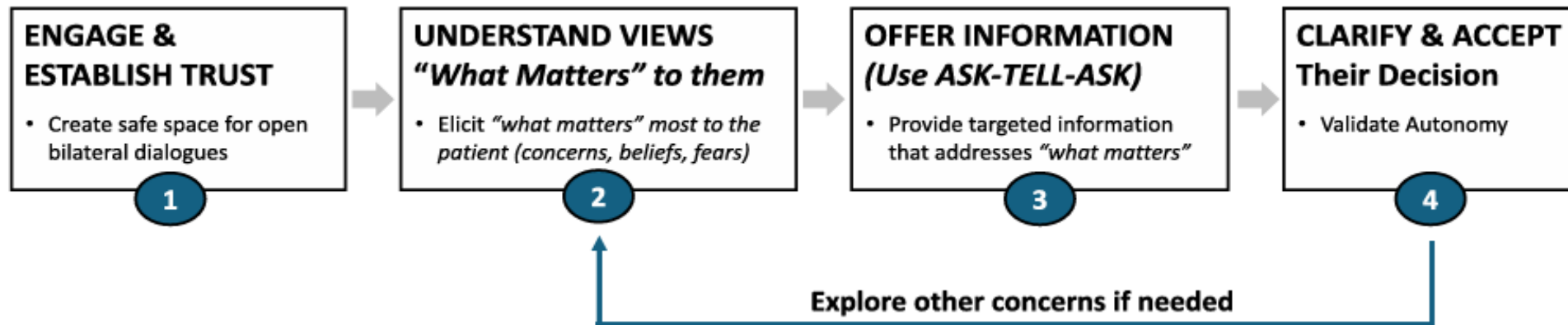
How does that apply to Fall Vaccine Uptake?

3 Cs of Vaccine Hesitancy	How VH May Come Through	Potential Intervention
Confidence	• Questions about effectiveness of vaccines “I got vaccinated and then got the flu” • Questions about safety • Distrust in sources of info or recommendations	✓ Transparent evidence ✓ Respected clinical leaders and/or peer champions ✓ Highlight local outbreak information
Complacency	• Perceived low personal risk Illness “I never get sick” or “it’s just a cold” • Underestimation of transmission “as long as I wear a mask, patients are ok”	✓ Patient safety & Occ Health focus ✓ Create some urgency – the sooner the facility is protected, better protected against outbreak
Convenience	• Busy schedules • Shift work barriers • Access challenges	✓ Easily accessible vaccination opportunities ✓ Incentives, fun competition

Supportive Communication

- Use presumptive language
- Respectful – ask permission
- Be empathetic and active listening
- Use open-ended questions, “tell me more about”
- Be transparent, provide evidence-based information

4-Step Practical Framework



Refreshing Key Messages


Vaccination as a Brain–Heart Risk Reduction Strategy
Factsheet for Health Professionals

Background

Brain and heart conditions often coexist and share common risk factors.

Acute infections (e.g., influenza, pneumococcal disease, herpes zoster) can trigger:

- systemic inflammation
- endothelial dysfunction
- atherosclerotic plaque instability
- thrombotic events

These processes increase the risk of:

- myocardial infarction (MI)
- stroke
- cardiovascular (CV) death
- cognitive decline and dementia (potential risk)

Key concept: Infection is a modifiable risk factor for cardiovascular and cerebrovascular events.

Guideline Recommendation

Based on evidence reviewed in the *Management of Brain–Heart Multimorbidity* clinical practice guideline developed by the Canadian Cardiovascular Harmonized National Guideline Initiative (C-CHARGE), we now know that vaccines can help prevent cardiovascular disease and stroke.

Recommendation	Routinely offer adult vaccinations as part of a comprehensive brain–heart risk reduction strategy.
Target populations	• adults 18+ years • individuals with heart disease, high blood pressure, diabetes, or high cholesterol • individuals who have had a heart attack or stroke • individuals with multiple chronic health conditions
Approach	• Integrate vaccination alongside: • smoking • lipid management • lifestyle modification

Key takeaway

- ✓ Vaccination is a **low-risk, net-effective intervention**.
- ✓ Beyond preventing infections, it also offers protection against **cardiovascular and cerebrovascular disease and cognitive decline**.
- ✓ Vaccination should be treated as a standard preventive care, similar to medications.

Vaccination should be **actively incorporated** into cardiovascular and cognitive risk reduction strategies for adults—especially older individuals and people with existing risk factors.


What are the added benefits of vaccination?

Vaccination does more than prevent infection

Many people know that vaccines protect against serious infections like influenza (flu), pneumonia, and shingles. What is less widely known is that some routine adult vaccines may also help **protect your heart and your brain**.

Based on evidence reviewed in the *Management of Brain–Heart Multimorbidity* clinical practice guideline developed by the Canadian Cardiovascular Harmonized National Guideline Initiative (C-CHARGE), we now know that vaccines can help prevent cardiovascular disease and stroke.

The heart and brain are connected

The heart and brain are closely linked. Conditions that affect blood vessels—such as inflammation, clotting, and plaque buildup—can increase the risk of:

- heart attacks (myocardial infarction)
- stroke
- cognitive decline and dementia

Certain infections can trigger these harmful processes. For example, influenza and pneumococcal infections can cause inflammation, damage blood vessels, and increase the risk of blood clots. Preventing these infections can help lower the risk of serious heart and brain events.

Who benefits most?

Vaccination against influenza, pneumococcal disease, and shingles is recommended for **all adults**, with particular benefits for people who:

- are 65 years or older
- have heart disease, high blood pressure, diabetes, or high cholesterol
- have had a previous heart attack or stroke
- have multiple chronic health conditions



Evaluating vaccine information online: Fact vs. fiction



Online vaccine resources: The current landscape

The online landscape contains a limitless amount of content. Information is readily obtainable through a variety of media from websites, to social media posts, to videos, and everything in between. With the volume of information available at our fingertips, it is imperative to know how to tell the good information from the bad information, especially when it comes to vaccines. This factsheet provides tools and tips to help you discern between what is reliable vaccine information, and what is unreliable vaccine misinformation and disinformation.



Misinformation vs. disinformation: What is the difference?

Misinformation:

information that is inaccurate/false but is spread innocently and without the intention of causing harm. For example, people may read of or talk about a vaccine myth, not knowing that the information is incorrect. This would be considered misinformation.

Disinformation:

information fabricated by a person or group to deliberately confuse, manipulate, or cause harm to others.



Public & HCP Fact Sheets available at <https://immunize.ca/>

<https://immunize.ca/evaluating-vaccine-information-online>

Fall Vaccine Program Updates

Influenza, COVID-19, & RSV



Influenza Vaccines for 2026/2027

For vaccines for use in the 2026-2027 northern hemisphere influenza season, WHO recommends the following:

Egg-based vaccines

- an A/Missouri/11/2025 (H1N1)pdm09-like virus;
- an A/Darwin/1454/2025 (H3N2)-like virus; and
- a B/Tokyo/EIS13-175/2025 (B/Victoria lineage)-like virus.

Cell culture-, recombinant protein- or nucleic acid-based vaccines

- an A/Missouri/11/2025 (H1N1)pdm09-like virus;
 - an A/Darwin/1415/2025 (H3N2)-like virus; and
 - a B/Pennsylvania/14/2025 (B/Victoria lineage)-like virus.
- Cell Culture Recombinant Vaccines**
- More efficient to make than egg-based
 - Safe, effective, and non-inferior

Influenza Vaccine Eligibility



- No changes to eligibility anticipated for this season
- Early vaccination (as soon as vaccine is available) recommended for:
 - High risk (people who are at ↑ risk of influenza-related complications or more likely to require hospitalization)
 - Priority populations (those who should be vaccinated to optimize co-administration with COVID vaccine) which includes HCWs, caregivers and facility staff, first responders, members of underserved communities, and those with increased exposure to avian influenza
- General population late Oct/early Nov

Vaccines for Ontario 2026/2027 UIIP Program

	Fluviral®	Fluzone®	Flucelvax®	Fluad®	Fluzone® High- dose
Indication	≥6 months	≥6 months	≥6 months	65 years and up	65 years and up
Dosage	0.5mL	0.5mL	0.5mL	0.5mL	0.5mL
Route	IM	IM	IM	IM	IM
Format	MDV 10 dose vials	MDV & PFS 10 dose vials or 10 doses/box	PFS 10 doses/box	PFS 10 doses/box	PFS 5 doses/box
Storage & Handling	Store 2°-8°C MDV - 28 days once punctured	Store 2°-8°C MDV - 28 days once punctured	Store 2°-8°C Store in original box	Store 2°-8°C Store in original box	Store 2°-8°C Store in original box

COVID-19 Vaccines for 2026/2027

We are awaiting confirmation on this year's eligibility criteria but expected to align closely with NACI:

NACI continues to strongly recommend COVID-19 immunization programs for individuals at increased risk of SARS-CoV-2 exposure or severe COVID-19 disease.

The following groups are considered at increased risk of exposure to or severe COVID-19 disease:

- All adults 65 years of age or older
- Those 6 months of age and older who are:
- Residents of long-term care homes and other congregate living settings for seniors;
- Individuals with underlying medical conditions that put them at higher risk of severe COVID-19, including children with complex health needs;
- Pregnant women and pregnant individuals;
- Individuals in or from First Nations, Inuit and Métis communities;
- Health care workers and other care providers in facilities and community settings; and
- Members of racialized and other equity-denied communities.

NACI recommends that programs may also offer immunization to all other individuals 6 months of age and older.

Individuals may choose to receive the vaccine based on individual COVID-19 risk assessment or preference.

Vaccines for Ontario 2026/2027 COVID-19 Program

	Spikevax (Moderna) 25 ug / 0.25 mL or use 50 ug / 0.5 mL		Comirnaty (Pfizer) 30 mcg / 0.3 mL	
Indication	6 mths through 11 years	12 years and older	12 years and older	
Dosage	0.25mL	0.5mL	0.3mL	
Route	IM	IM	IM	
Format	MDV (10 doses)	MDV (5 doses) & PFS	MDV (6 doses) & PFS	
Storage & Handling	MDV 60 days at 2°-8°C 24 hours at 2°-8°C once punctured	PFS 60 days at 2°-8°C	MDV 10 weeks at 2°-8°C 12hrs at 2°-25°C once punctured	PFS 2°-8°C until expiry date

***Awaiting confirmation on whether Novavax will be available in Ontario this year

Older Adult RSV Vaccine Program

Ongoing eligibility:

- All individuals aged 75 and older
 - Individuals 60 to 74 years of age who are also:
 - residents of long-term care homes, Elder care lodges, or retirement homes including similar settings (e.g., co-located facilities)
 - patients in hospital receiving alternate level of care (ALC) including similar settings (i.e., complex continuing care, hospital transitional programs)
 - patients with glomerulonephritis (GN) who are moderately to severely immunocompromised
 - patients receiving hemodialysis or peritoneal dialysis
 - recipients of solid organ or hematopoietic stem cell transplants
 - individuals experiencing homelessness
 - individuals who identify as First Nations, Inuit, or Métis
- ❖ Still no boosters recommended. Only to receive one dose.



Vaccines for Older-Adult RSV Program

	Abrysvo™	Arexvy®
Indication	• 60 years and older • Pregnant individuals 32 through 36 weeks gestation	• 60 years and older
Dosage	0.5 mL – must be reconstituted	0.5 mL – must be reconstituted
Route	IM	IM
Format	1 pack or 10 pack Vial of powder, PFS of diluent and vial adapter	Single dose packages Vial of lyophilized antigen (powder) and one vial of the adjuvant
Storage & Handling	Store between +2°C and +8°C in original carton to protect from light. MUST be reconstituted prior to administration Recommended to reconstitute and administer immediately. If not, must be used within 4 hours of reconstitution. Do not store reconstituted vaccine in the fridge – keep at room temp	Store between +2°C and +8°C in original carton to protect from light. MUST be reconstituted prior to administration Recommended to reconstitute and administer immediately. If not, must be used within 4 hours of reconstitution.

Infant RSV Protection Program for 2026/2027

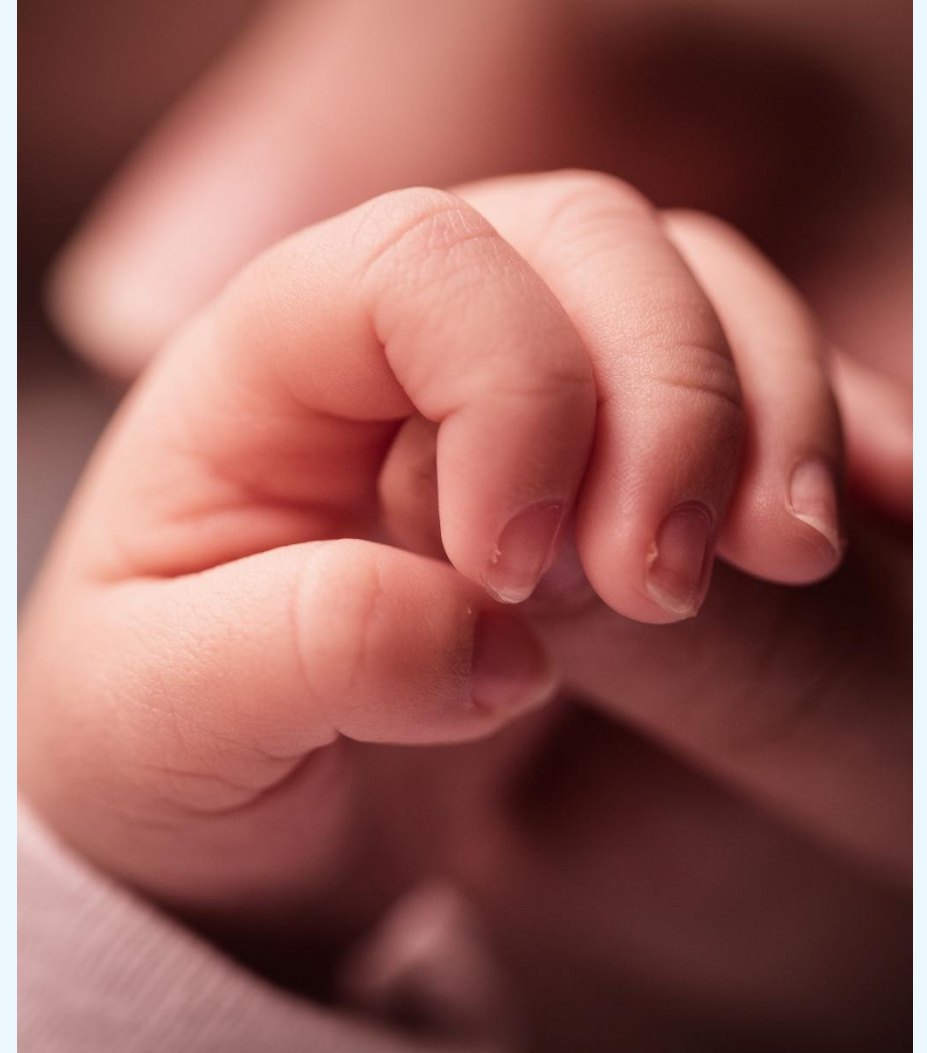
RSV Vaccine (Abrysvo™) for Pregnant People

- Administered 28-36 weeks gestation

OR

RSV Monoclonal Antibody (mAb) (Beyfortus®)

- All babies born on or after April 1st, 2026 and who are less than 8 months of age at time of immunization
- Children less than 24 months who remain vulnerable to severe RSV disease (see PHA for eligibility)
- To be administered to newborns born after October 1st, 2026 shortly after birth (before discharge), and for those born before October 1st, to receive as part of their routine immunization schedule this Fall.



Ordering Fall Vaccines

HEALTH
PROFESSIONAL

RESOURCES

Translate


simcoe muskoka
DISTRICT HEALTH UNIT
Your Health Connection

Search

Q

HOME

PUBLIC HEALTH ALERTS

HEALTHSTATS

CONTACT US

Home

Chronic Disease Prevention

Environmental Health Hazards

Immunization & Vaccines

IMMUNIZATION & VACCINES

Clinical Resources

Patient Resources

Forms
Approved, inspected Health Care Provider facilities have different vaccine order forms to use, depending on location.

	Influenza	COVID-19	RSV Vaccine
Hospitals & LTCHs	Order by Sept 30 th Pick up Oct 7 th	Order by Sept 30 th Pick up Oct 7 th	Order anytime
Primary Care and Other Facilities	Order by Oct 7 th Pick up Oct 14 th	Order by Oct 7 th Pick up Oct 14 th	Order anytime

Where Can People Access Fall Vaccines

	Influenza	COVID-19	RSV – Older Adult	RSV – Infant (Beyfortus®)
Pharmacies	• 2 years and older	• 6 months and older	!*	X
Primary Care	✓	Limited	✓	✓
Hospitals/LTCH/Rhodes	✓	✓	✓	Oct 1 st - Newborns before discharge
Public Health	Under 5 – no HCP and no local pharmacy offering to children	Under 5 – no HCP and no local pharmacy offering to children	If no HCP	If no HCP

*Pharmacists can administer purchased RSV vaccine to adults with an Rx from their PCP. We are hoping they will also have access to publicly funded RSV vaccine at some point this season. Pharmacists can only administer PF vaccines that they order, store, and handle (i.e., influenza and COVID-19 vaccines)

Additional Information

- Watch for our [Public Health Alerts](#)
- [SMDHU Health Professionals Website](#)
- Call our HCP Immunization Line: 705-721-7520 ext. 8806

Thank You

Contact

Mary Ann Holmes, RN, BScN, MHS

Program Manager, Immunization Program

Clinical Service Department

Tel: 705-721-7520 ext. 7464

Toll free: 1-877-721-7520 ext. 7464

MaryAnn.Holmes@smdhu.org



www.smdhu.org

References

- Government of Canada. Vaccination Coverage Goals and Vaccine Preventable Disease Reduction Targets by 2025 <https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html>
- Public Health Ontario. (June 2026). Surveillance Report: HCW Influenza Immunization Coverage Among Hospitals and Long-Term Care Homes in Ontario. From vaccine hesitancy to vaccine motivation: A motivational interviewing based approach to vaccine counselling,” by A. Gagneur, D. Gutnick, P. Berthiaume, A. Diana, S. Rollnick, and P. Saha, 2024, Human Vaccines and Immunotherapeutics, 20(1), p. 2 (<https://doi.org/10.1080/21645515.2024.2391625>).
- Recommended composition of influenza virus vaccines for use in the 2026-2027 northern hemisphere influenza season (WHO, Feb 27, 2026) <https://www.who.int/publications/m/item/recommended-composition-of-influenza-virus-vaccines-for-use-in-the-2026-2027-northern-hemisphere-influenza-season>
- NACI Supplemental Statement – Mammalian Cell Culture-Based Influenza Vaccines (2020-2021) <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/mammalian-cell-culture-based-influenza-vaccines.html>
- Ministry of Health: Health Care Provider Fact Sheets
- NACI Statement: Guidance for use of COVID-19 Vaccines starting Fall 2026, (June 2026) <https://www.canada.ca/en/public-health/services/publications/vaccines-immunization/national-advisory-committee-immunization-summary-guidance-covid-19-vaccines-starting-fall-2026.html>
- Ministry of Health: *Older Adult High-Risk Respiratory Syncytial Virus (RSV) Vaccine Program Fact Sheet - Health Care Providers*; Version 5.0 – August 27, 2025
- Ministry of Health: *Infant and High-risk Children Respiratory Syncytial Virus (RSV) Prevention Program Factsheet for Health Care Providers*

Tuberculosis Screening in Long-Term Care & Retirement Homes



Dr. Colin Lee

Associate Medical Officer of Health
Simcoe Muskoka District Health Unit

September 17, 2026

Conflict of Interest Statement

- There are no conflicts of interest to declare.

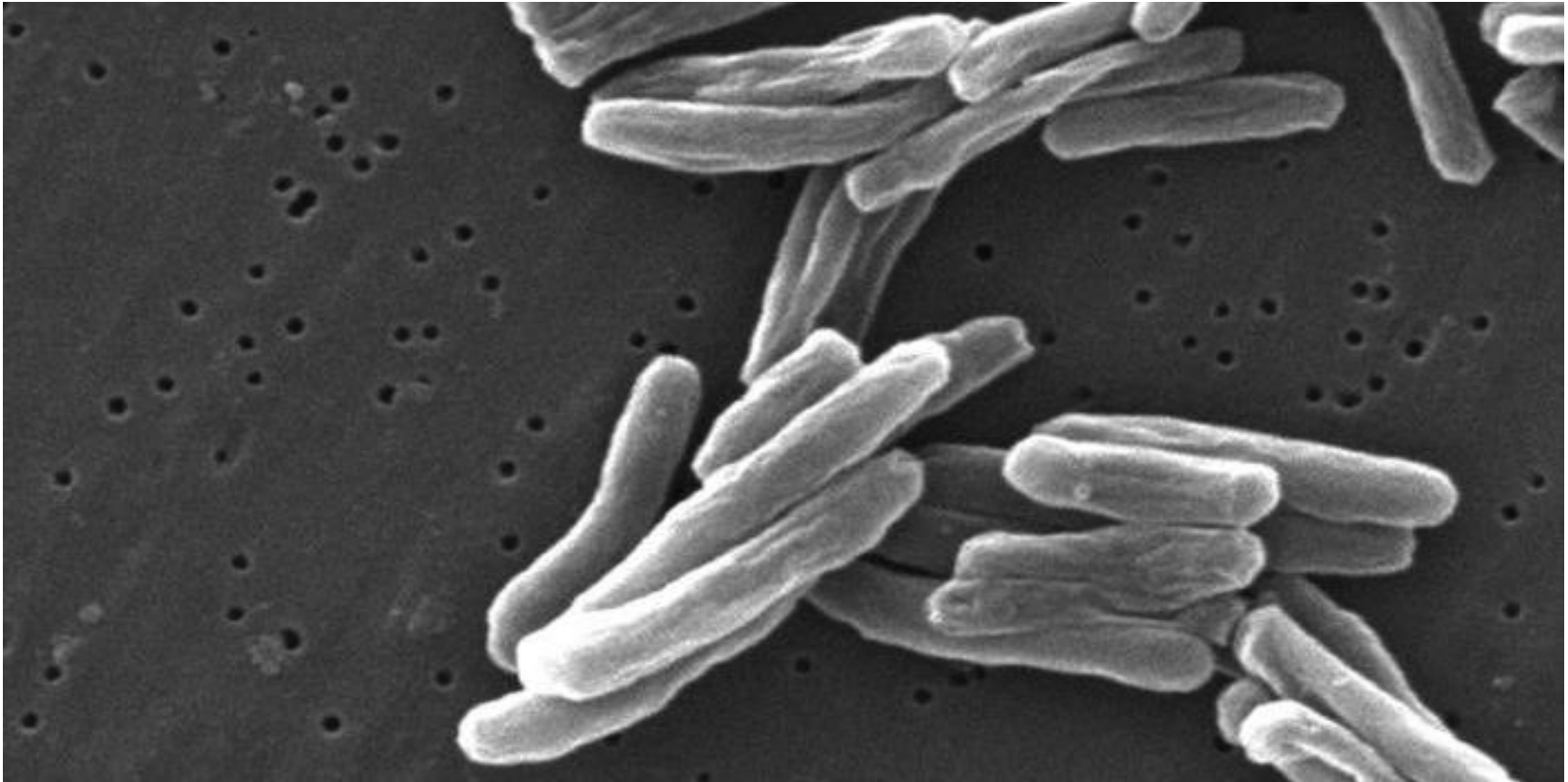
Acknowledgment

- Special thanks to the Jennifer Elliott and the rest of the TB team for their assistance in preparing the slides being presented today.

Learning Objectives

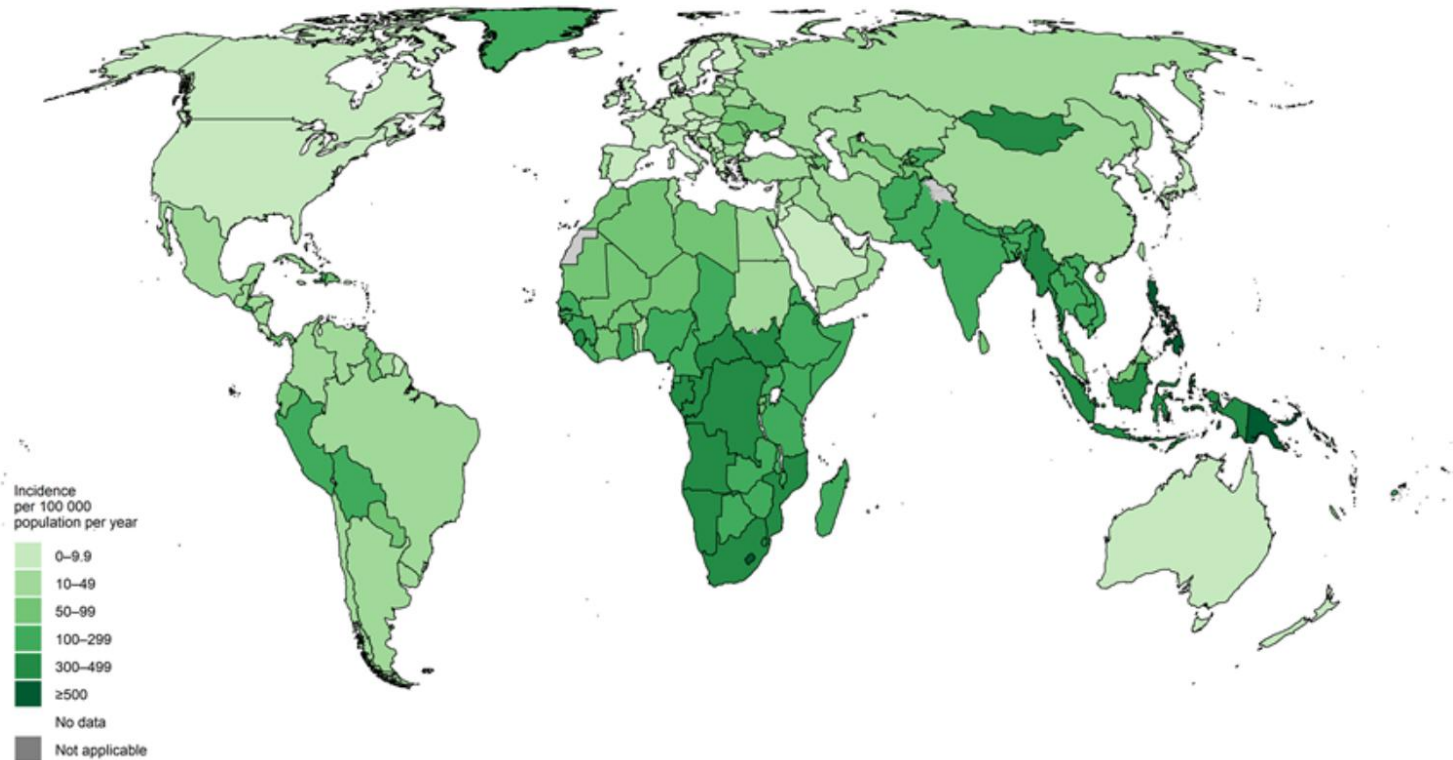
- Describe TB epidemiology, terminology, and disease progression.
- Distinguish TB infection screening from TB disease diagnosis.
- Apply screening recommendations for residents, employees, volunteers, students, and contract workers.

Mycobacterium Tuberculosis



TB Epidemiology — Global

Estimated TB incidence rates, 2024



TB Epidemiology — Canada

TB disease 2024

2,508

new cases in
Canada

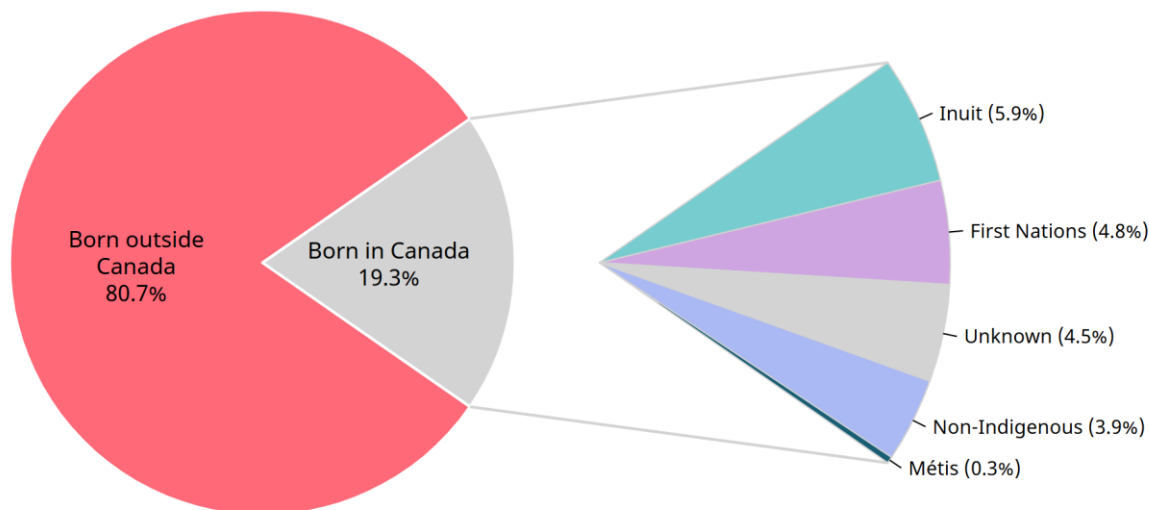
6.1

new cases per 100,000
population

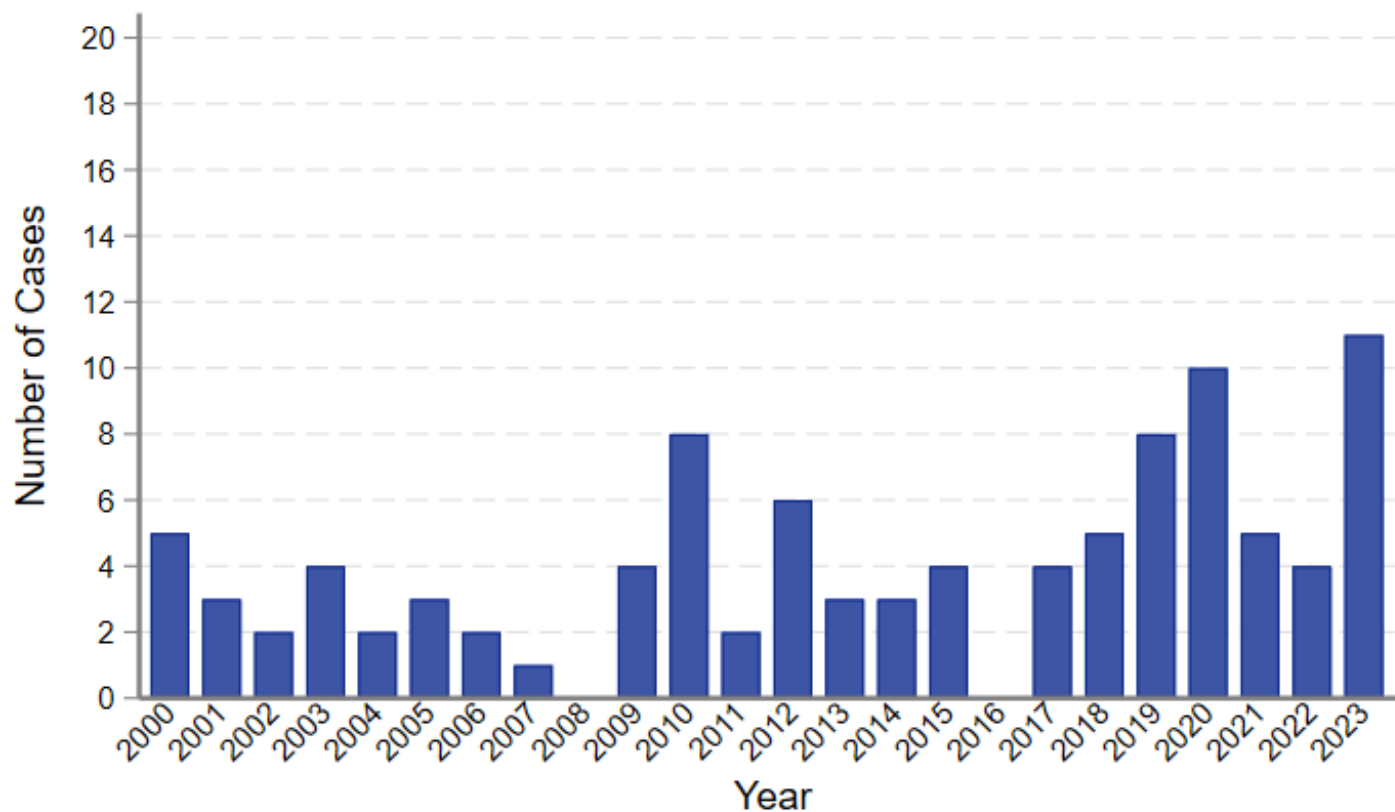
5.3%

of new cases reported in 2023 had TB listed as the underlying or
contributing cause of death

Figure 6: Percentage of TB disease cases by population group, 2024



Number of Tuberculosis cases in Simcoe Muskoka, 2000-2023



Data Source: Integrated Public Health Information System (iPHIS) [2000-2023]. Ontario Ministry of Health, extracted 15 Aug 2024

TB Transmission



How does TB infection occur?

- Droplets or aerosols are inhaled and reach alveoli.
- Once droplets or aerosols reach the alveoli, the person may develop **TB infection**.
- It could take 2 to 8 weeks for an infected person to develop a +ve TB skin test.
- TB is **not highly infectious** despite it being an airborne respiratory disease.
- TB requires hours of exposure to become infected with transmission typically occurring within the same household.

TB Transmission

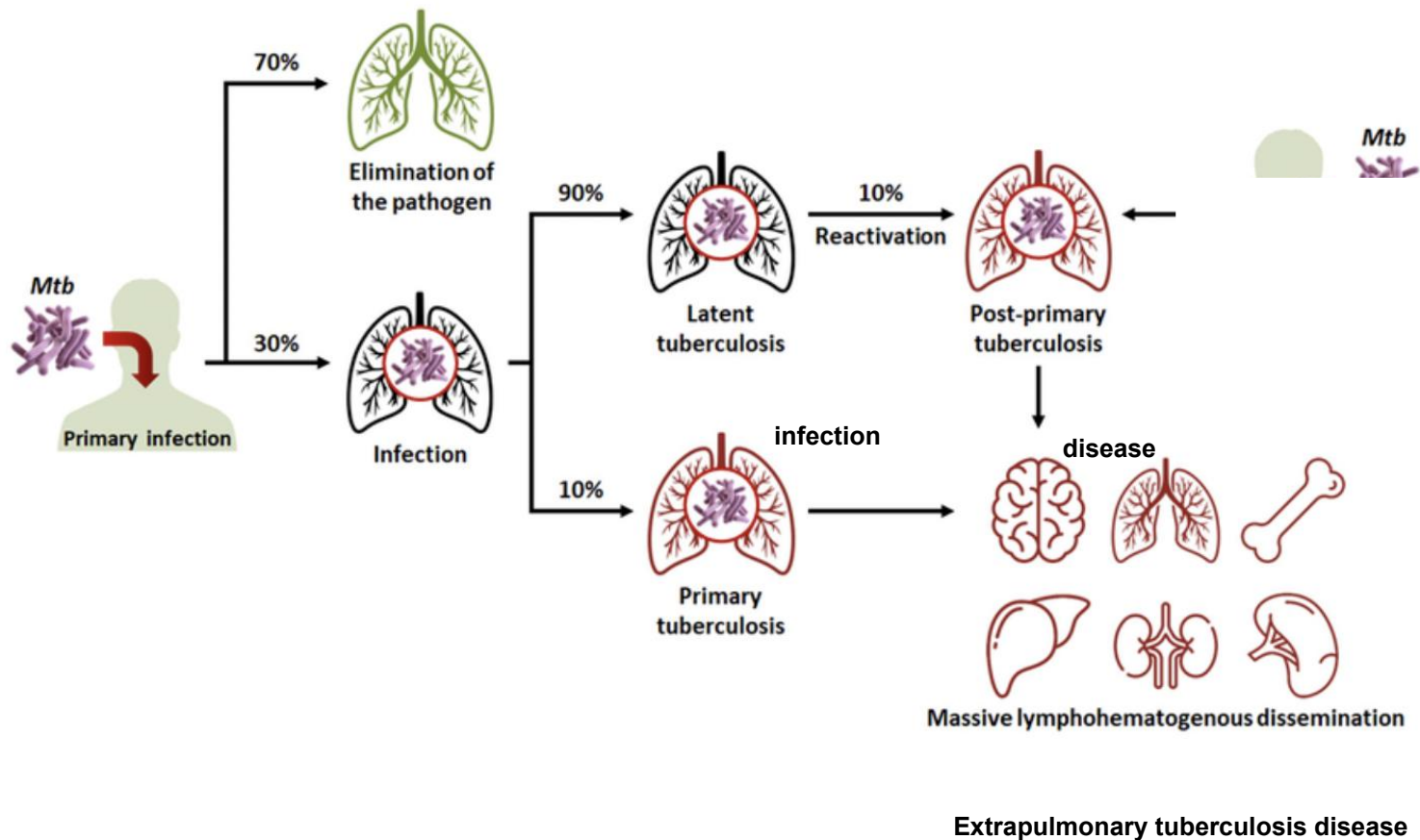
TB Infection = Latent TB

- Asymptomatic
- Not infectious
- ¼ global population infected
- Treatment to prevent progression to TB disease
- Diagnosed via TB skin test or IGRA blood test

TB Disease = Active TB

- Symptomatic (cough, hemoptysis, fevers, chills, night sweats, weight loss)
- Infectious if in respiratory tract
- Can present in any part of the body
- Treatment to cure
- Diagnosed via:
 - imaging (e.g. chest xray) AND
 - fluid/tissue sampling like sputum, CSF, biopsy for acid-fast bacilli staining, molecular testing and culture

Disease Progression



Common TB Skin Test Scenario for LTCH Workers

- Mrs. H is a 43 year-old woman born in India who immigrated to Ontario 12 years ago with her family. Mrs. H has been hired as a PSW and requires a two-step TB skin test before starting work.
 - Mrs. H believes she had the BCG vaccine as a baby
 - Mrs. H is otherwise healthy and is asymptomatic



Common Case Scenario

- Mrs. H is a 43 year-old woman born in India who immigrated to Ontario 12 years ago with her family. Mrs. H has been hired as a PSW and requires a two-step TB skin test before starting work.
 - Mrs. H believes she had the BCG vaccine as a baby
 - Mrs. H is otherwise healthy and is asymptomatic



BCG Vaccine

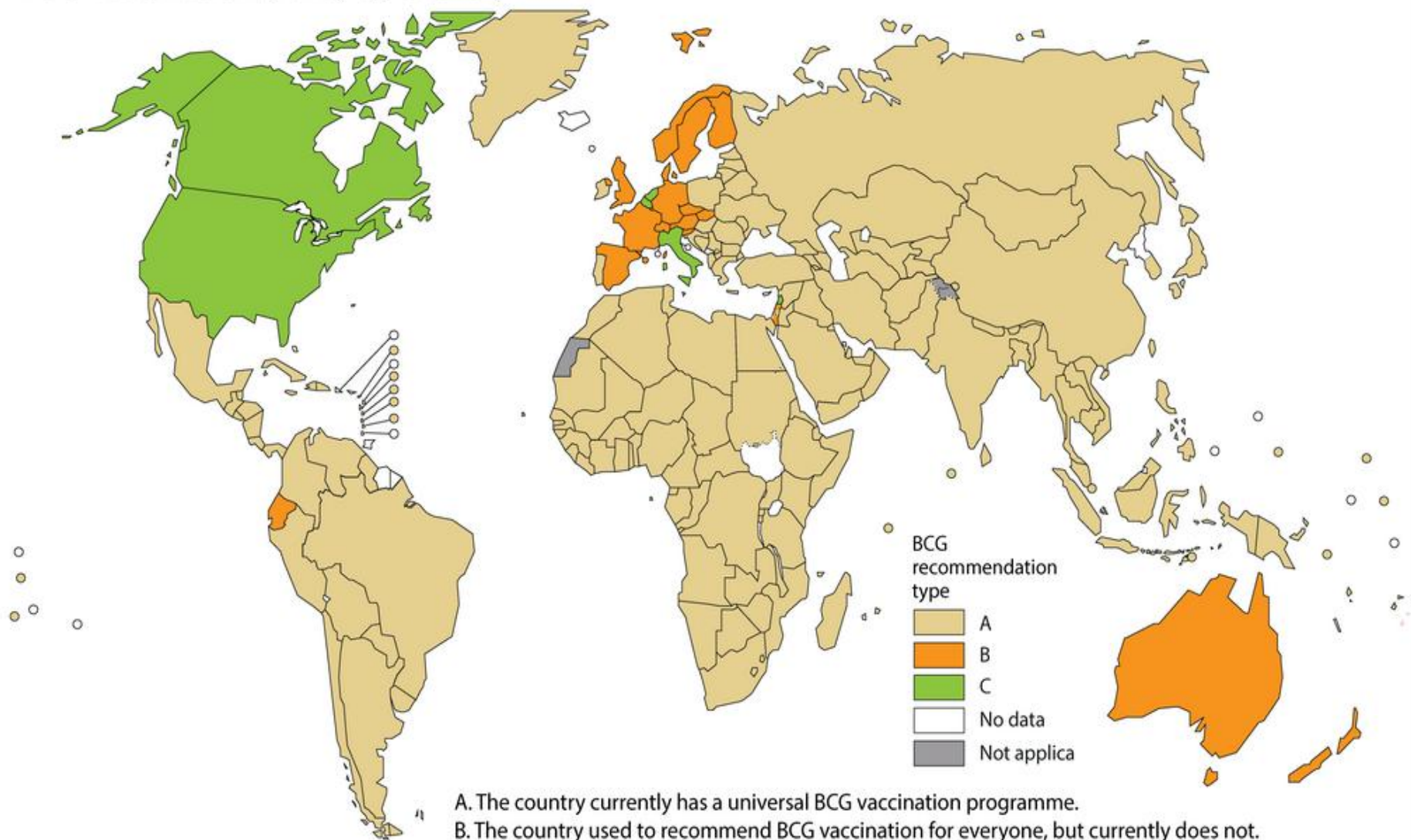
- Live attenuated TB vaccine
- Used in high incidence TB countries
 - Canadian Inuit populations
- Given at or close to birth (most effective)
- Typically leaves a scar
- 51% effective in preventing disease and up to 78% effective in protecting newborns from miliary (disseminated) or meningeal TB
- Highly protective against death ($\geq 80\%$ effectiveness) until 14 years of age
- Protection starts to decline at 10-15 years



Generally:

- the BCG vaccine scar has a raised center
- the smallpox vaccine scar is depressed, with lines that radiate to the edges

BCG vaccination policy by country*



* BCG = Bacille-Calmette-Guérin

Source: The BCG World Atlas 2nd Edition. <http://www.bcgatlas.org/index.php>, accessed 25 July 2017.

TB Skin Test

- TB antigen solution (tuberculin)
- Implanted intradermally in the forearm
- Delayed hypersensitivity reaction indicates body has developed immune response to TB (previously infected)
- 2 Step TB test:
 - Same procedure as 1 step repeated within 7-28 days
 - Ensures that the first step was not a false negative, as sometimes it takes the second step to wake up the immune system's memory of a previous TB infection. Indicated in those who may be subject to future increased TB risk and regular TB testing
 - **Only needs to be performed once in a lifetime**

Time 0:



Time 48-72hrs:



TB Skin Test Interpretation

- Among BCG-vaccinated persons, TST specificity was estimated in a meta-analysis to be 59% (95% CI: 46 to 73%)
- Studies conducted in Canada and several other countries show that if BCG was received in infancy (the first year of life), only 1% had a TST result of ≥ 10 mm if tested > 10 years later
- A history of BCG vaccination received in infancy can be ignored as the cause of a positive result in all persons aged 10 years and older when interpreting an initial TST reaction of 10 mm or greater"**
- The TST can still be a false positive test

Key resources:

- [The Online TST/IGRA interpreter](#)
- [BCG World Atlas](#)

TST result	Situation in which reaction is considered positive*
0-4 mm	In general this is considered negative, and no treatment is indicated. Child under 5 years of age and high risk of TB infection
≥ 5 mm	HIV infection Contact with infectious TB case within the past 2 years Presence of fibronodular disease on chest x-ray (healed TB, and not previously treated) Organ transplantation (related to immune suppressant therapy) TNF alpha inhibitors Other immunosuppressive drugs, e.g. corticosteroids (equivalent of ≥ 15 mg/day of prednisone for 1 month or more; risk of TB disease increases with higher dose and longer duration) End-stage renal disease
≥ 10 mm	All others, including the following specific situations: - TST conversion (within 2 years) - Diabetes, malnutrition ($< 90\%$ ideal body weight), cigarette smoking, daily alcohol consumption (> 3 drinks/day) - Silicosis - Hematologic malignancies (leukemia, lymphoma) and certain carcinomas (e.g. head and neck)

Risk Factors for Infection



Common Case Scenario (continued)

- Mrs. H is a 43 year-old woman born in India who immigrated to Ontario 12 years ago with her family. Mrs. H has been hired as a PSW and requires a two-step TB skin test before starting work.
 - Mrs. H's TST is implanted. She returns two days later and you measure an induration of 15 mm. Now what?



Why do we do TB skin testing for health care providers (HCP)?

- Primary reason is to detect a future TB infection if the HCP is exposed to TB at work
- Another reason is to detect previous latent TB infection
- A negative baseline for HCPs would be a TB skin test of < 10mm. For our region that has a low incidence of TB transmission in our health care institutions, there is not a need to do annual or periodic TB skin tests unless there has been an exposure
- If there is an exposure, an increase in the induration on repeat testing would be suspicious of an infection

Management of a Positive TB Skin Test/Latent TB Infection (LTBI)

Rule out active disease:

- Symptom review
- Focused physical exam
- **Chest X ray noting that periodic or repeat chest x-rays are not required nor recommended for those going to school, working in health care institutions or changing workplaces unless there are signs and symptoms of active TB.**
- +/- sputum or other cultures if symptomatic
- No role for future TST testing if positive
- It is estimated that 1 in 4 foreign born persons in Canada have latent TB.

Recommendations for LTCH/RH TB Screening

SMDHU has developed [guidance](#) for:

- Residents
- Employees and volunteers
- Contract workers and students

Recommendations for LTCH/RH TB Screening

Recommendations for Employees and Volunteers

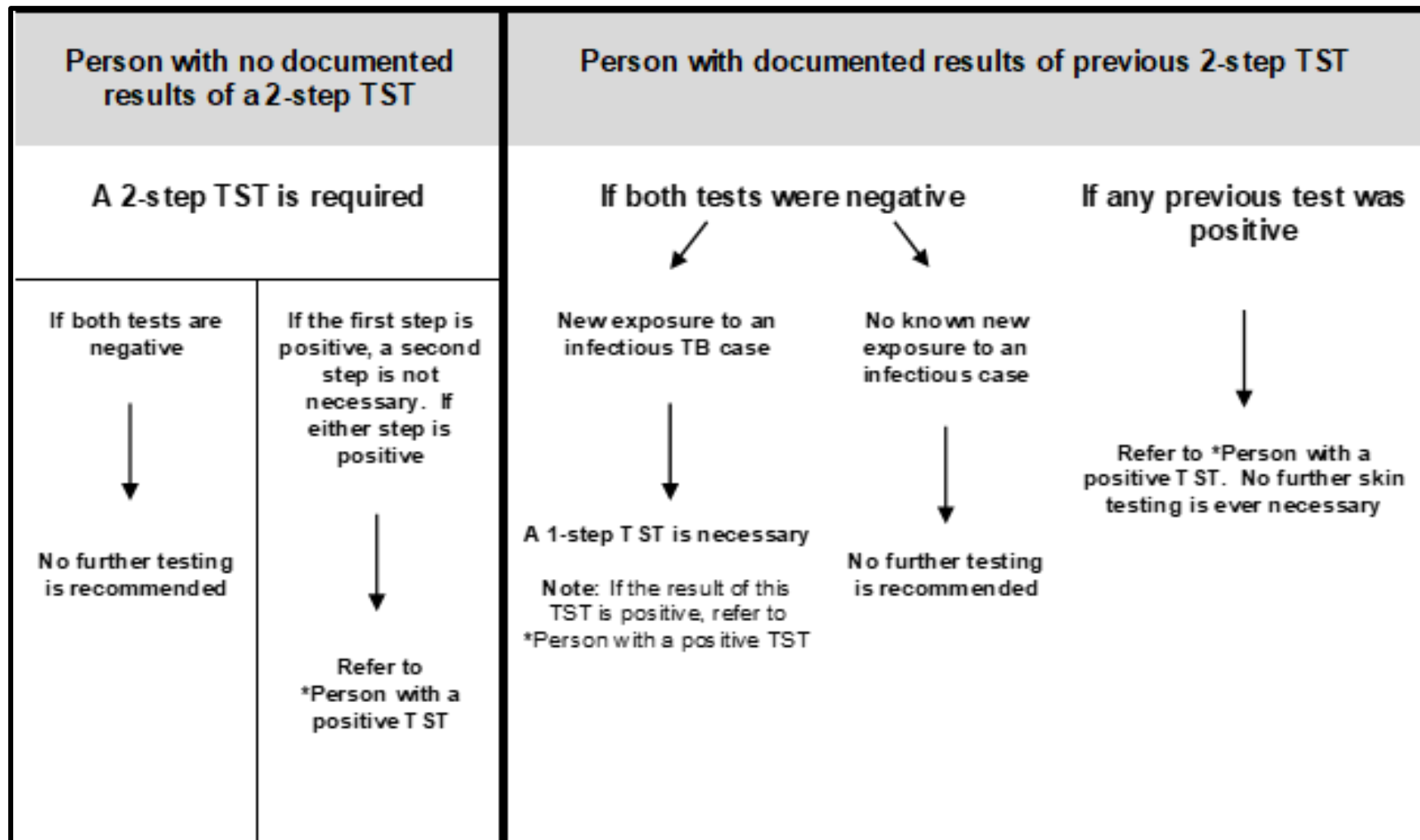
The following assessment should be initiated anytime from six months to 14 days before starting work. For persons with previous history of BCG/TB immunization, they must still undergo the TST steps and not go directly to the chest X-ray, as studies conducted in Canada and several other countries show that if BCG was received in infancy (the first year of life), only 1% had a TST result of ≥ 10 mm if tested >10 years later. The main goal of the TST is to have a baseline. For those with a negative baseline, it can then be used to compare to a future TST in the event there is an exposure to an infectious TB case. TST is not to be done for those who have a previous positive TST. A positive TST for most people is ≥ 10 mm. Note for a 2-step TST, ideally the 1st and 2nd step should be done one to four weeks apart. However, the 2nd step can be accepted up to one (1) year later provided no exposure to active TB occurred within the time in between the two steps.

Person with no documented results of a 2-step TST		Person with documented results of previous 2-step TST		Person with a positive TST (≥ 10mm)
A 2-step TST is required		If both tests were negative		- For a new positive TST, a symptom review, physical exam, risk factor review, and a chest X-ray are recommended to rule out active TB disease. - For previous positive TST, nothing further is required if they are asymptomatic and have undergone previous assessment to rule out active TB disease. <i>Note: For new or previous positive TSTs who are asymptomatic, the chest X-ray can be from the preceding 3 months before the positive TST. A new chest X-ray is only necessary if the person is symptomatic or there has been a recent exposure to an infectious TB case.</i> - Periodic or future skin testing is not recommended as it is no longer useful. - Periodic chest X-rays are not recommended. A future chest X-ray would only be recommended and necessary if there are signs and symptoms of TB in the lung. - A positive TST may indicate a latent TB infection (which is not contagious). - The person should be informed to monitor for the signs and symptoms of potential future reactivation of their latent TB infection to active TB disease. The lifetime risk is 5-10%. - Recommended to follow up with their primary care provider for consideration for treatment of the latent TB infection.
If both tests are negative ↓ No further testing is recommended	If the first step is positive, a second step is not necessary. If either step is positive ↓ Refer to *Person with a positive TST	New exposure to an infectious TB case ↓ A 1-step TST is necessary <i>Note:</i> If the result of this TST is positive, refer to *Person with a positive TST	No known new exposure to an infectious case ↓ No further testing is recommended	
		If any previous test was positive ↓ Refer to *Person with a positive TST. No further skin testing is ever necessary		
				If person has symptoms of TB or an abnormal chest X-ray: - Collect 3 sputum samples at least 1 hour apart each - Should not work until physician or public health indicates that the person does not have infectious TB disease. If person has no symptoms: - Can continue to work, while physician completes assessment to rule out active TB disease.

Recommendations for Employees and Volunteers

- Assessment should be initiated anytime from 6 months to 14 days before starting work.
- For persons with a history of BCG/TB immunization, they must still undergo the TST steps and not go directly to the chest x-ray.
- The main goal of the TST is to have a baseline. For those with a negative baseline, it can then be used to compare to a future TST in the event there is an exposure to an infectious TB case.
- TST is not recommended for those who have a previous positive TST.
- 2-step TST: ideally the first and second step should be done 1 to 4 weeks apart. However, the second step can be accepted up to 1 year later if no exposure to TB Disease occurred within the time, between the 2 steps.

TST Algorithm



Person with a positive TST ($\geq 10\text{mm}$)

- **New positive TST:** a symptom review, physical exam, risk factor review, and a chest x-ray are recommended to rule out TB disease.
- **Previous positive TST:** nothing further is required if they are asymptomatic and have undergone previous assessment to rule out TB disease.
 - Periodic/future TST is not recommended as it is no longer useful.
 - Periodic chest x-rays are not recommended.
 - **A new chest x-ray is only necessary if the person has signs and symptoms of TB in the lungs, or there has been a recent exposure to an infectious TB case.**
- **For New or Previous positive TST:**
 - The person should be informed to monitor for signs and symptoms of TB disease and seek medical assessment should signs and symptoms develop in the future.
 - Recommended to follow up with their healthcare provider to discuss if TB preventative therapy should be considered for their latent TB infection. Lifetime risk of 5-10% for reactivation to TB disease.
 - If there are signs and symptoms compatible with TB disease +/- an abnormal chest x-ray: three sputum samples and off work until public health clears for return to work. If no signs and symptoms, can continue to work while healthcare provider completes assessment to rule out TB disease.

Requirements for Contract Workers and Students

- Supplying agencies or schools are responsible for pre-placement TB assessment and follow-up.
- This should be clarified with agencies or schools to confirm that individual contract workers and/or students have had their TB skin test and any additional assessment as needed to rule out TB disease prior to starting the placement.

Annual and Repeat Testing for Employees and Volunteers

- Annual or regular repeated routine TB skin testing in Simcoe-Muskoka is generally not recommended.
- Annual or periodic repeat chest x-rays are also **not** recommended in the assessment of persons with positive skin tests.
- These tests are also not necessary to be repeated for new employees who have already complied with the TB skin test requirement for another workplace or for other purposes, unless there has been recent known exposure to TB Disease

Recommendations for Residents

All new residents must undergo a history and physical examination by a physician/nurse practitioner within 90 days prior to admission or within 14 days after admission (Fixing Long-Term Care Homes Act, S.O. 2021, c.39, Sched1).

It is recommended that this assessment include:

- A symptom review for active pulmonary TB disease.
- Ontario has removed the requirement for a TB chest X-ray for all applicants to long-term care. However, if there are new or worsening symptoms consistent with active pulmonary TB disease, a chest X-ray (posterior-anterior and lateral) should be done.
- If signs and symptoms and/or chest x-ray indicate potential pulmonary TB disease, the resident should not be admitted until three sputum samples are taken, and the results indicate no Acid Fast Bacilli (AFB) seen.

TB infection testing with TB skin test or IGRA is not recommended for resident admission

Resident TB Screening Part of the Health Assessment before LTCH admission

Tuberculosis (TB) Screening

Part 1: Symptom Screen

☐ Symptom Screen Completed

☐ Symptom Screen **Not** Completed

Note: The Ministry of Long-Term Care has removed the requirement for a TB chest x-ray for all applicants to long-term care, and requires it only for symptomatic individuals

Symptoms include new or worsening cough (lasting three or more weeks); hemoptysis (coughing up blood); non-resolving pneumonia; fever; unexplained weight loss; night sweats; loss of appetite (anorexia); extreme fatigue; lymphadenopathy; chest pain (unexplained); dyspnea (unexplained).

Has the applicant developed new or worsening symptoms?

☐ Yes – Chest x-ray required. Please attach results and include any additional action taken, as applicable:

☐ No – Please proceed to Risk Factor Screen.

If symptoms were present but testing was negative, please proceed to the Risk Factor Screen.

Part 2: Risk Factor Screen

☐ Risk Factors Screen Completed

☐ Risk Factors Unknown / Screen **Not** Completed

Where possible, asymptomatic individuals should be screened for risk factors. This information is useful for long-term care patient management.

Risk Factors for TB infection include being born in or recently travelled to a TB endemic region (3+ months to a high TB incidence area or cumulative in one's lifetime); has lived, worked, or spent time in regions or settings in Canada where TB exposure is known to be high; previously stayed in a correctional facility or shelter; has experienced homelessness or being underhoused; persons who inject drugs and/or with a substance use disorder.

Are you aware of any risk factors for TB in the applicant?

☐ Yes ☐ No

If "Yes", please specify:

Please note: Once indicated whether any risk factor(s) apply, no further action is required.

Public Health Follow-Up

- If an infectious case of TB disease occurs in the facility, contact follow-up will be coordinated by Public Health.
- TB skin testing is free for persons identified as a contact of a case of TB disease.
- Medication for treatment of TB infection and TB disease is free through Public Health.

SMDHU's Infectious Diseases Program 705-721-7520 ext. 8809.

Key Takeaways

- TB infection screening and TB disease diagnosis can be confusing and complex.
- For staff TB screening, please refer to our [recommendations](#) located in our [Health Professionals Portal](#) which has other useful public health related resources
- If there are questions on TB infection screening or concern around someone who may have infectious TB disease, please do not hesitate to connect with your SMDHU liaison

Questions?

Colin.Lee@smdhu.org

Resources

- WHO Global Tuberculosis Report 2025 : <https://www.who.int/teams/global-programme-on-tuberculosis-and-lung-health/tb-reports/global-tuberculosis-report-2025>
- Public Health Agency of Canada, Tuberculosis in Canada: <https://www.canada.ca/en/public-health/services/diseases/tuberculosis/surveillance.html>
- Research Gate: [https://www.researchgate.net/figure/Evolution-of-the-different-clinical-stages-of-tuberculosis-TB-from-primary-infection_fig1_367400507-](https://www.researchgate.net/figure/Evolution-of-the-different-clinical-stages-of-tuberculosis-TB-from-primary-infection_fig1_367400507)
- Taylor and Francis Online: <https://www.tandfonline.com/doi/full/10.1080/24745332.2022.2036503>

IPAC CHAMPION PROGRAM

STEPHANIE ALBERT RPN, LTC-CIP



HOW I INITIATED THE PROGRAM

- Did audit of the program
- Did some research on what was out there for IPAC Champion programs
- Put up signage around the home to spark interest



CALLOUT FOR STAFF & VOLUNTEERS:

IPAC CHAMPIONS NEEDED!

Interested?

Please contact your home's IPAC Lead for additional information.

YOU COULD HELP WITH:

- Education
- Auditing
- Surveillance
- Vaccinations
- Facilitating staff input on IPAC-related issues



IPAC Champion Program

FIRST STEPS

- Initial presentation
 - Very small group and management team
- 



PROGRAM INITIATION

- Education requirements reviewed
- Speedy Audit (at the time) have since moved to Health Connex
- Shadowing
- Communication
- Role requirements

EVALUATION OF THE PROGRAM

- ▶ Hand Hygiene audits and PPE audits better surveillance on multiple shifts and disciplines
- ▶ Education is done in the moment which is helpful and supports new staff when issues arise.
- ▶ Improvement in stock surveillance and keeping carts and supply cupboards maintained
- ▶ Education in the moment when there are concerns. Improving compliance



HOW TO KEEP STAFF ENGAGED

- ▶ Have fun
 - ▶ Buy Treats
 - ▶ Engage staff and listen to ideas
 - ▶ Involve them in activities
- 



► Questions?





THANK YOU

Stephanie Albert RPN, LTC-CIP

705-645-4488 ext. 4752

Stephanie.albert@muskoka.on.ca





A New Electronic Hand Hygiene Prompting Strategy for Congregate Spaces

Authors: Alexandria Ojha, Ali Barzegar, Geoff Fernie

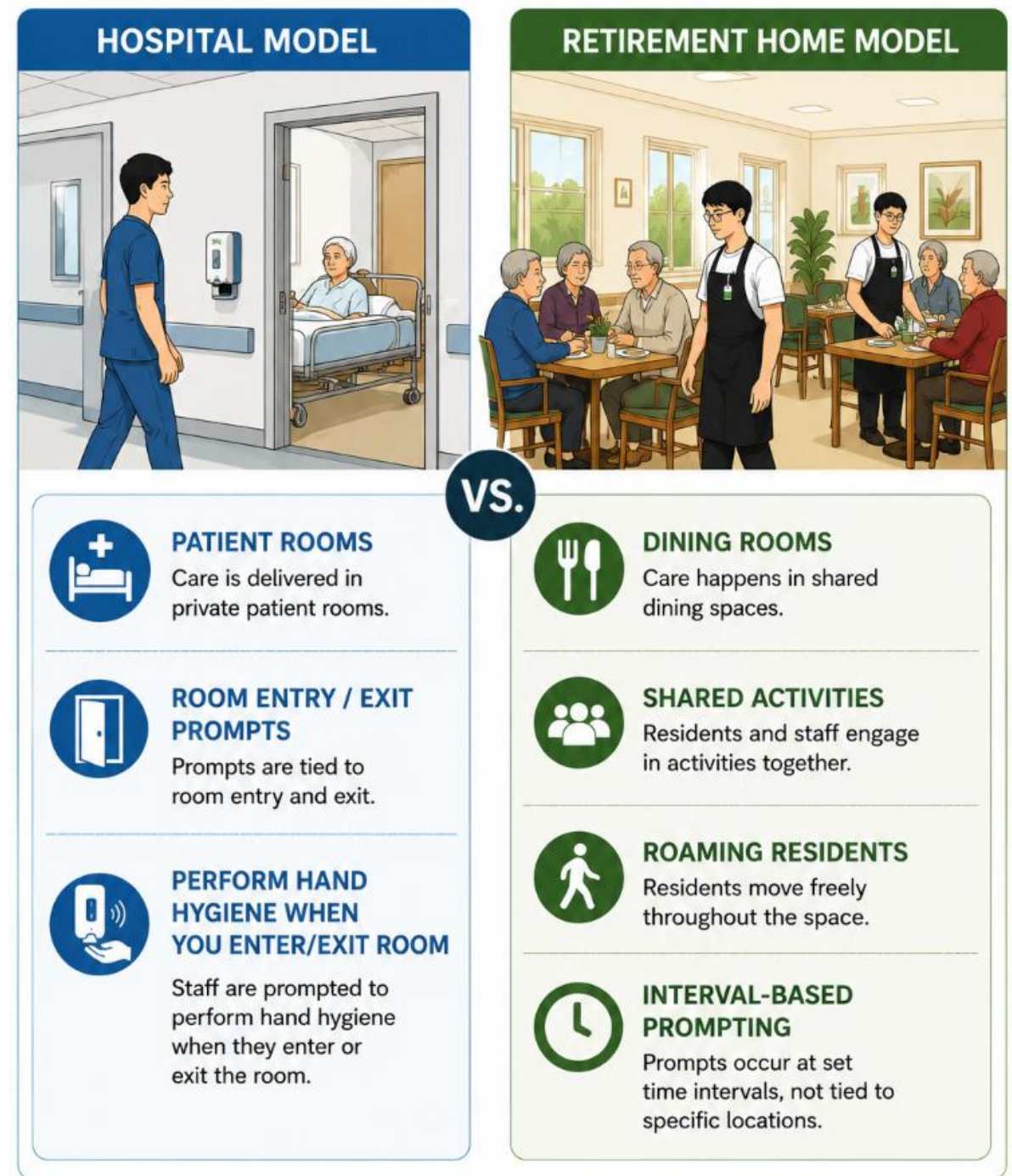


About the Project

Collaboration between The
Alexander Muskoka Residence
& Hygienic Echo

Introduction

- Traditionally, Electronic Hand Hygiene Systems (EHHS) were designed to remind staff to perform hand hygiene upon entering/exiting a patient's environment.
- While this model works well in hospital settings, we need to augment it in LTC/Retirement homes, as residents also need protection in congregate spaces.

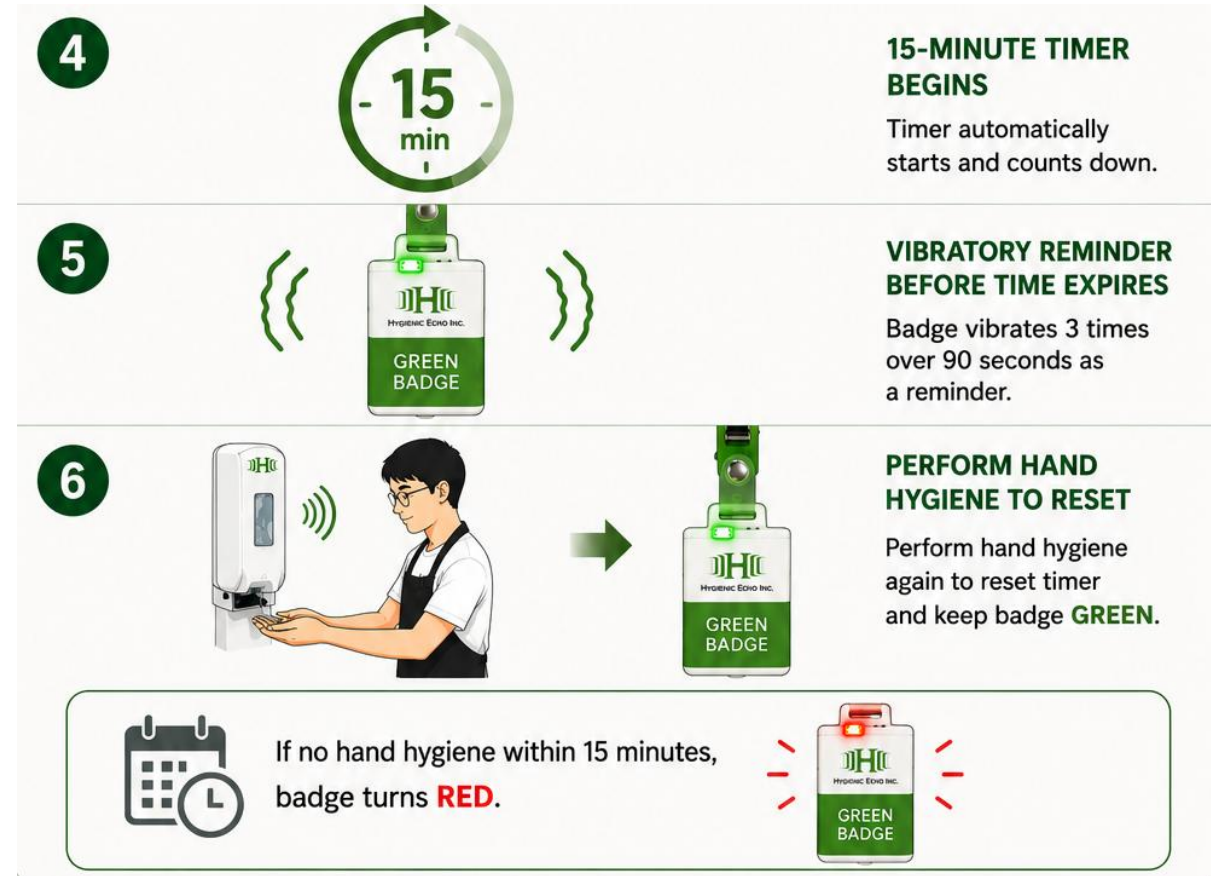
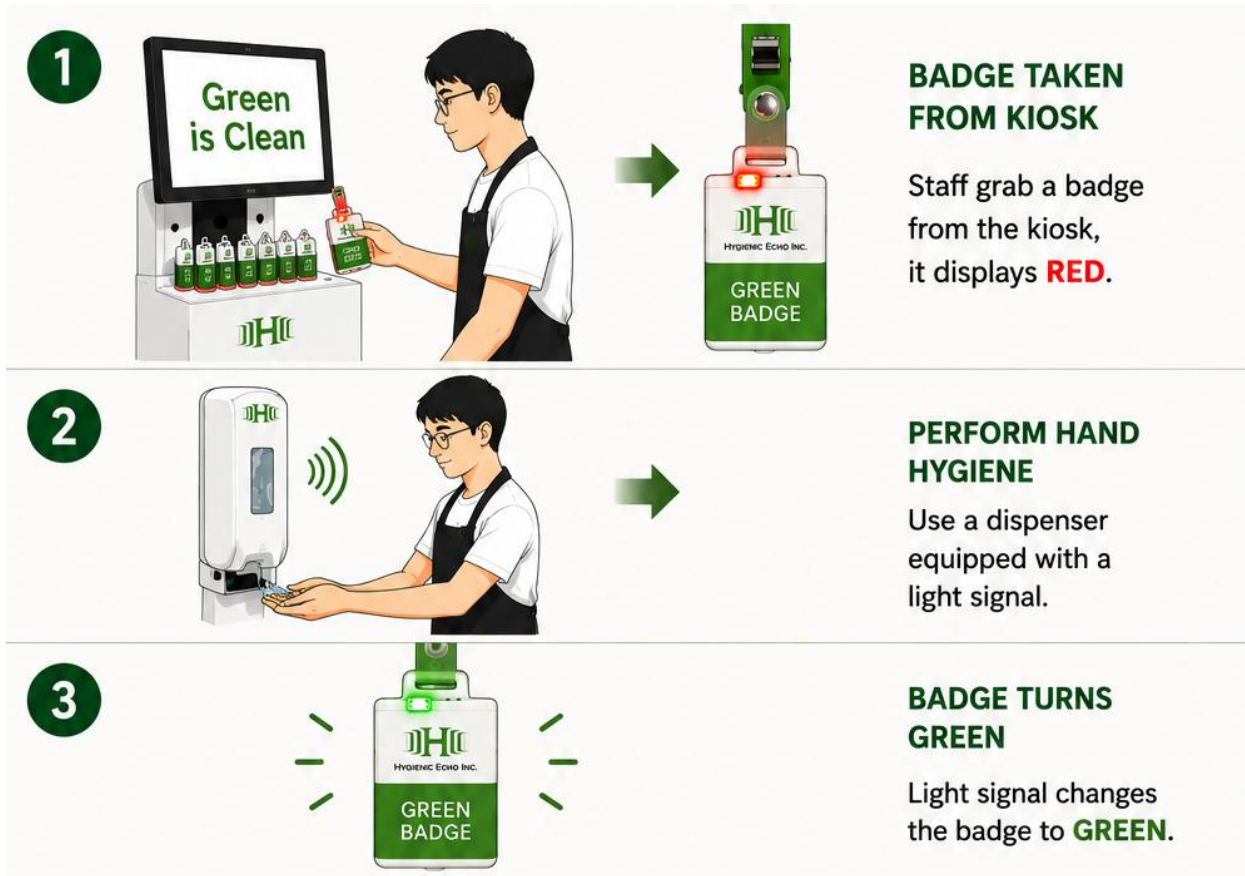


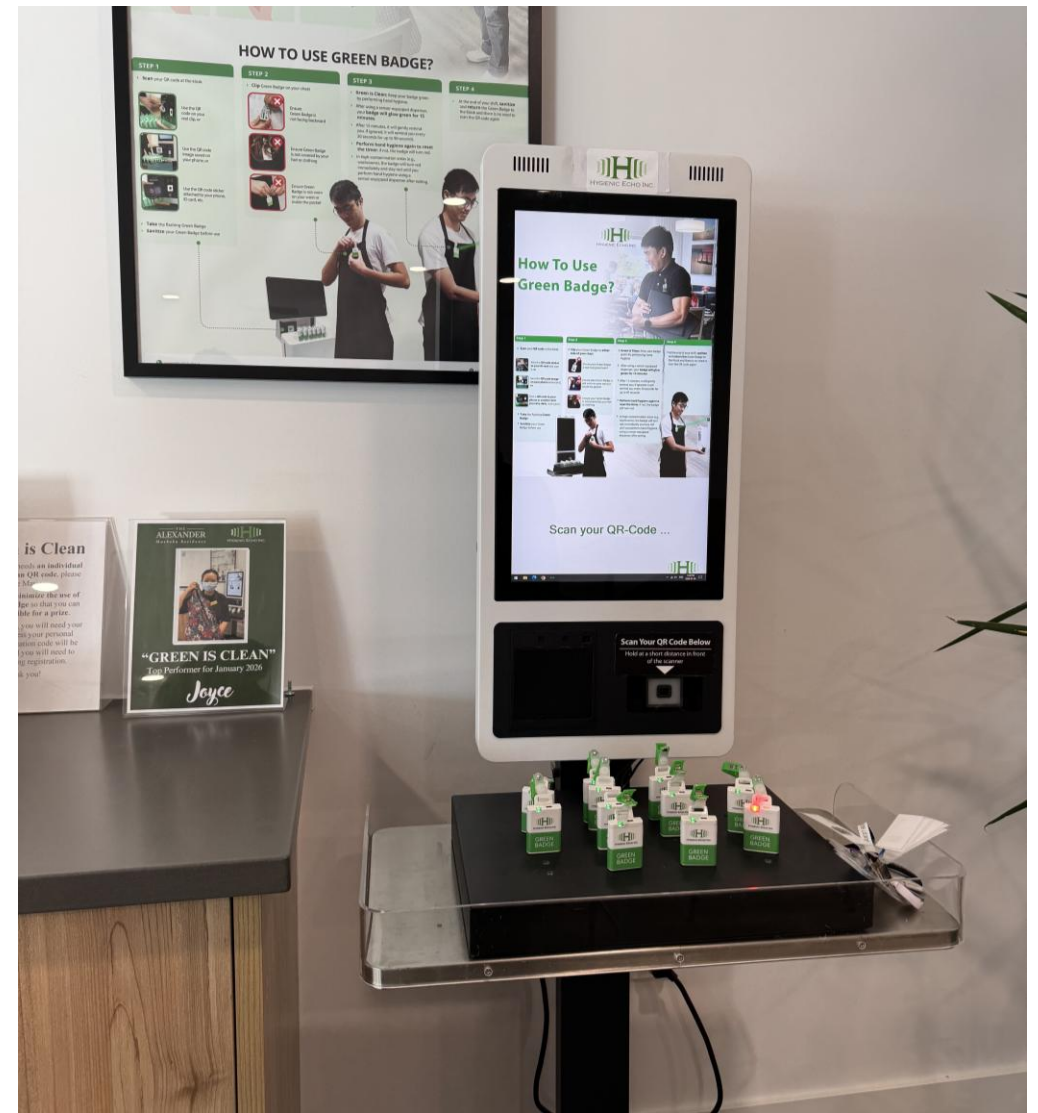
Hypothesis

A time interval-based prompting strategy may be more effective in congregate settings.



Methods







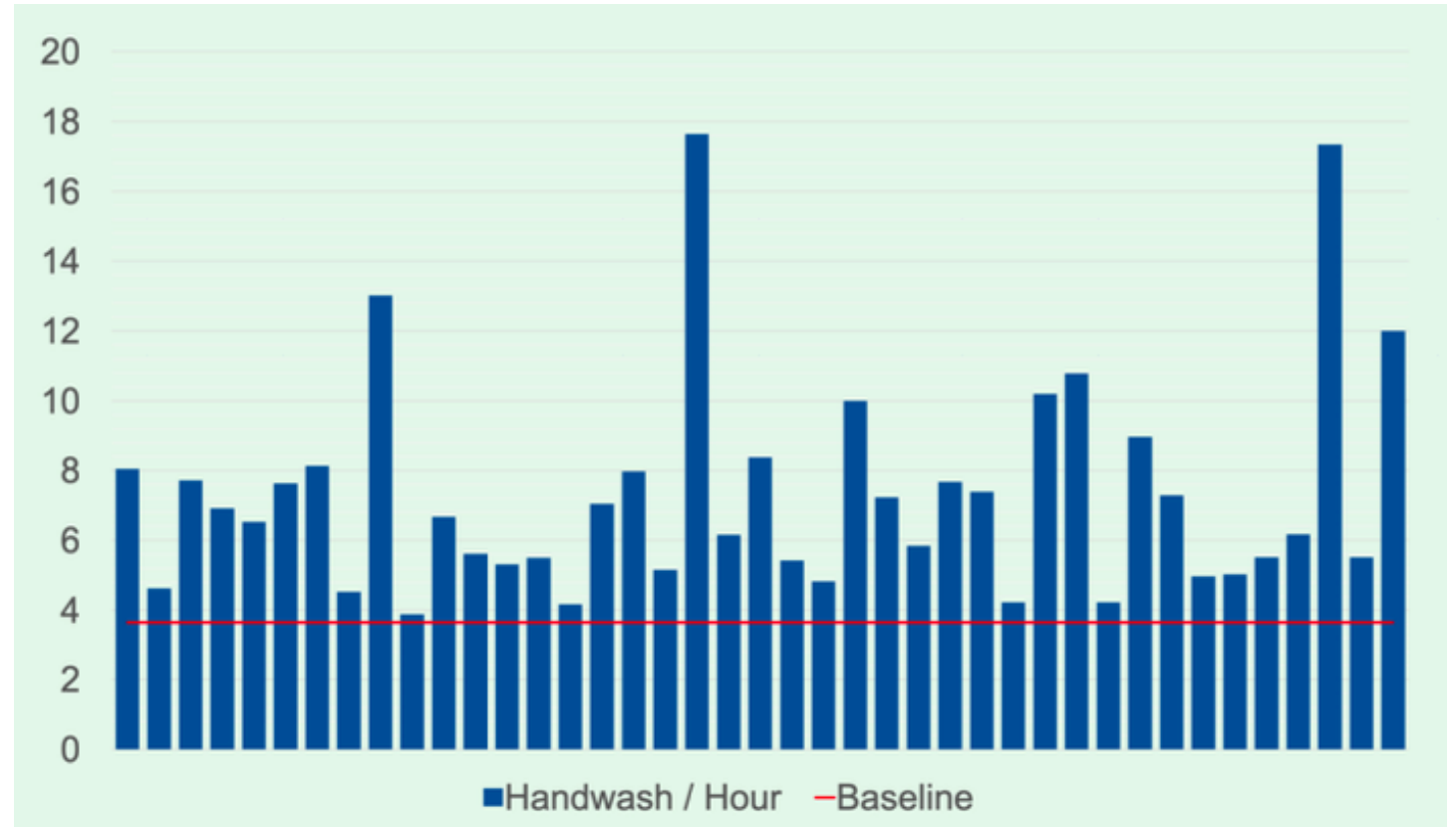
Summary of Study Characteristics

Study Location	The Alexander Muskoka Residence
Time Frame	February 2025 – December 2025
Staff Participants	48
Total # of Residents Served	86
Dining Areas	3



The Dining Rooms

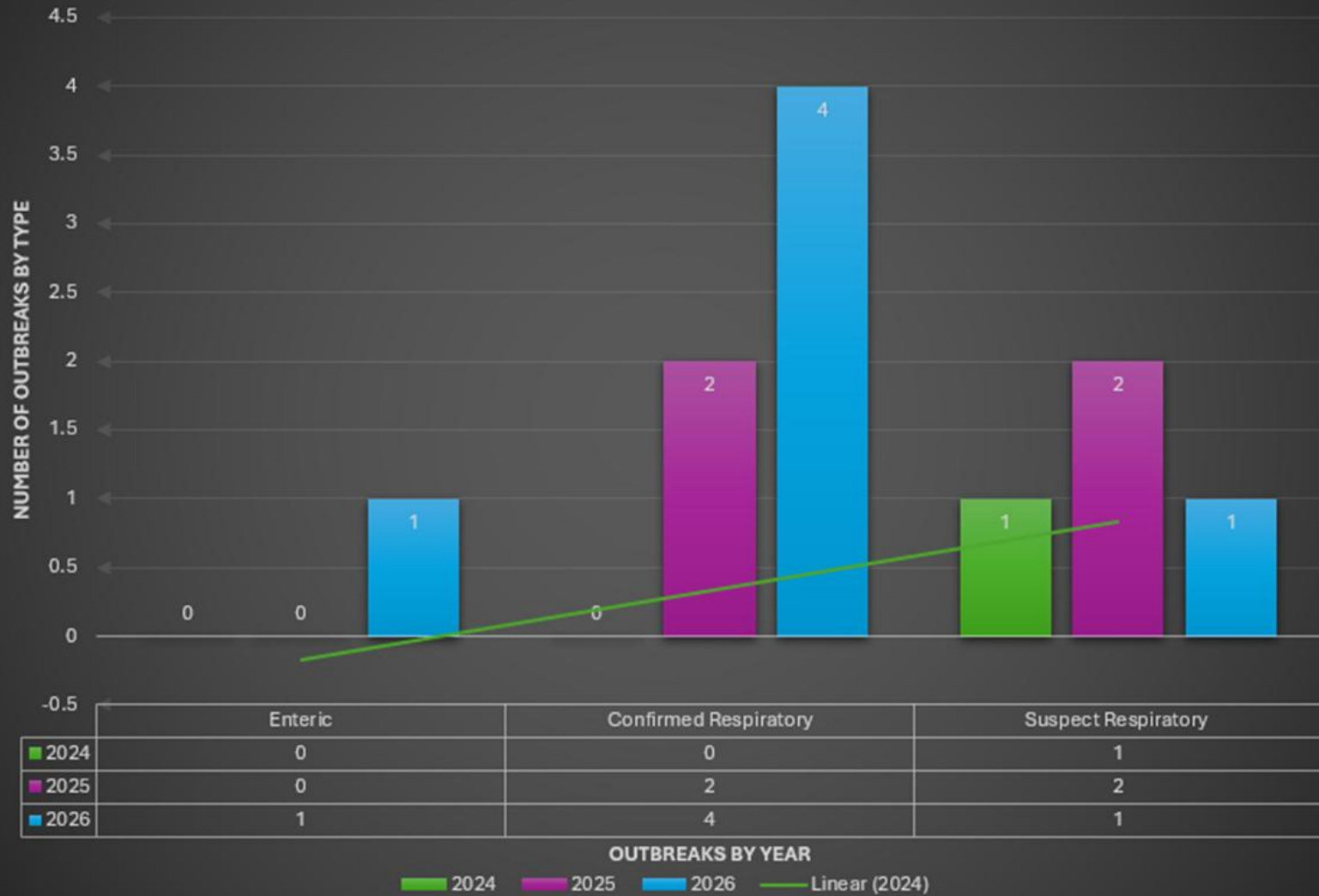
Results



Results Summarized



- An EHHS using a time interval-based prompting strategy was well-received by staff working in a congregate setting.
- Staff achieved hand hygiene frequencies ranging from 3.88 to 17.65 per hour.



(Graph created by Jodi-Marie Bunker, September 2026)

Discussion

- The Alexander Muskoka Statistics:
- 2024 – 1 Suspect Respiratory OB – declared over as DNM
- 2025 – 4 respiratory OB's
 - – 2 confirmed
 - 2 closed as DNM
- 2026 – 6 OB's
 - 1 confirmed Enteric
 - 5 Respiratory
 - 1 closed as DNM
 - 4 Confirmed
- DNM = Does not meet – suspect (or sometimes confirmed) outbreak was closed as not meeting outbreak definitions

Rewards Program

Prizes given to top-performing staff based on badge usage and compliance.

THE
ALEXANDER
Muskoka Residence


HYGIENIC ECHO INC.

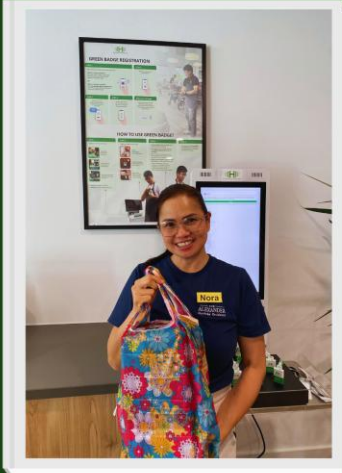


“GREEN IS CLEAN”
Top Performer for August 2026

Jake

THE
ALEXANDER
Muskoka Residence


HYGIENIC ECHO INC.



“GREEN IS CLEAN”
Top Performer for May 2026

Nora

THE ORCA INNOVATION AWARD

Winner of the
ORCA
Innovation
Award 2026

- The award recognizes an ORCA Operator Member that has elevated its organization through innovative practices, whether through design, enhanced care solutions, technology, or a groundbreaking concept that improves residents' quality of life, employee engagement, or operational efficiency.

Interested in the badge?

Please reach out to Hygienic Echo!

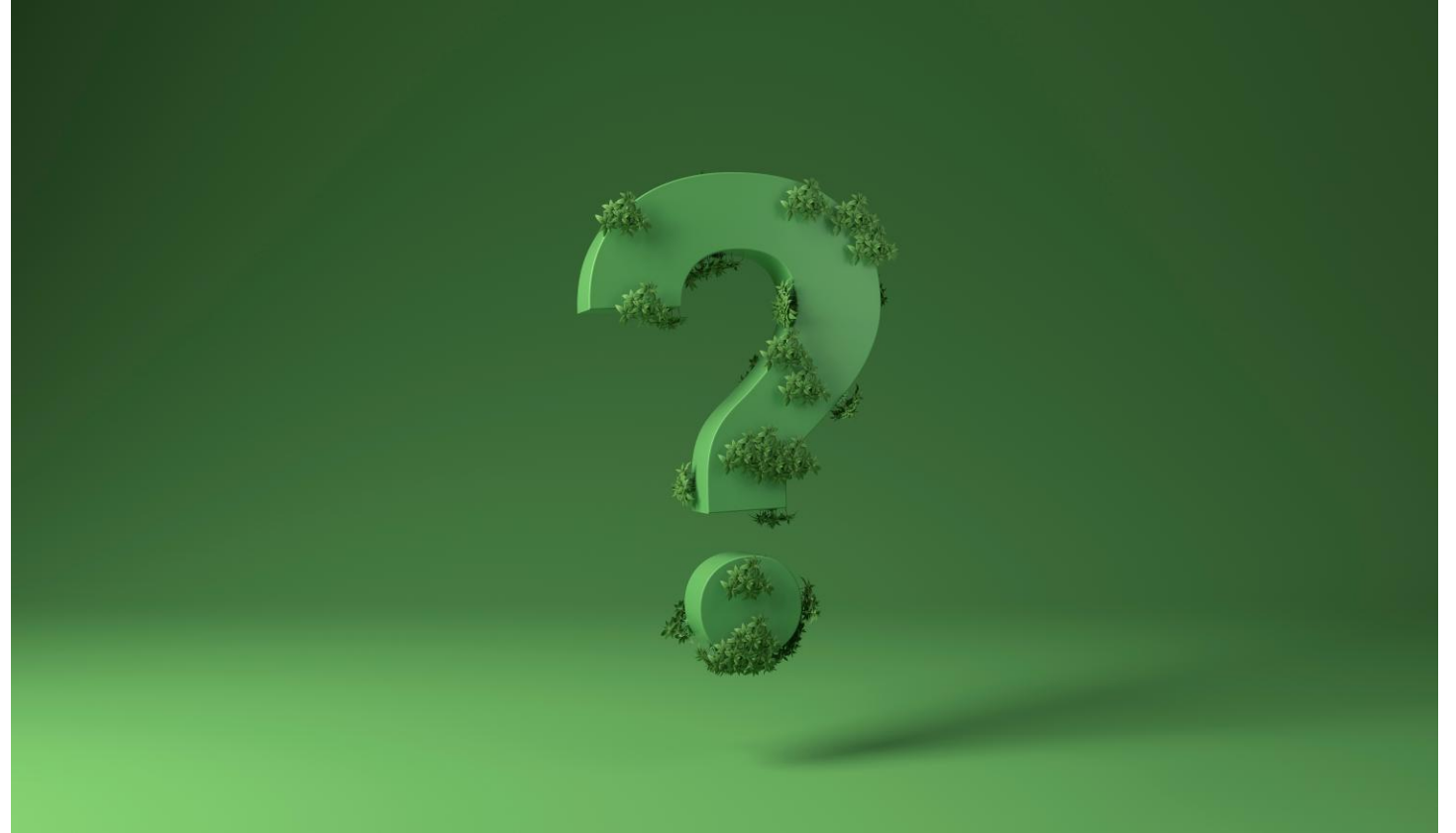


Business Inquiries
Phone: +1 (844) 828-3394 ext. 117
Email:
Partnerships@hygienicecho.com



Thank You For
Listening!

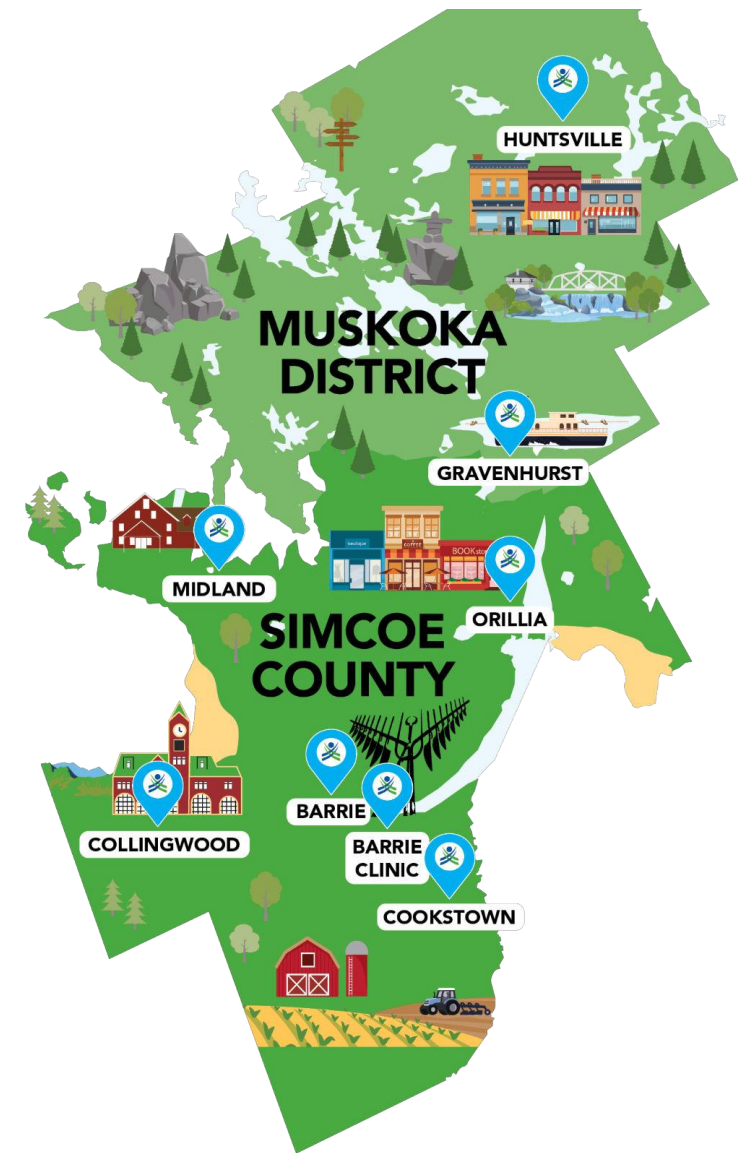
Any Questions?



ENTERIC OUTBREAK PREPAREDNESS

Mock Outbreak Activity

Fall Preparedness Education Day 2026 | Congregate Living Settings



Overview of Presentation

This mock outbreak exercise offers a review of:

- Enteric outbreak control measures to be implemented
- Resources available to support enteric outbreak management
- Methods to prepare for outbreak identification, declaration, and management
- How enteric outbreaks differ from respiratory outbreaks – in transmission, precautions, hand hygiene, and environmental cleaning

How to use this exercise

- The facilitator reads each scenario update aloud
- Table groups discuss their next steps for 3–5 minutes
- The group reviews the recommended response together

REMEMBER

Enteric outbreaks move fast.

Norovirus – the most common cause of enteric outbreaks in congregate living settings – has an incubation period as short as 12 hours and an infectious dose of as few as 18 viral particles.

Early recognition, soap-and-water hand hygiene, and the right disinfectant used for the right contact time are your most powerful tools.

INITIAL SITUATION

A resident becomes unwell

You are the IPAC lead of Happy Home Facility, which has 3 units and a total of 100 residents and 40 staff.

A PSW reports to you that a resident on Home Area 1 (HA 1) had two episodes of vomiting overnight and one episode of loose stool this morning. The resident says they feel nauseated and did not come to breakfast.

What next steps do you take?

1

UPDATE #1

Additional symptomatic residents

Later that same day, an RPN reports that during afternoon rounds **three** additional residents on HA 1, and **one staff** from the same home area have had new onset vomiting and/or diarrhea.

All four ill residents attended the same communal dining room the previous evening.

What next steps do you take? Is this an outbreak?

2

UPDATE #2

Confirmed enteric outbreak declared

You consult with your SMDHU primary facility liaison, who agrees that the confirmed outbreak definition has been met. They provide you with your outbreak number and outbreak case definition.

What additional steps should be taken with the confirmed outbreak?

3

UPDATE #3

Repatriation from hospital

You receive notification from your local acute care centre that the resident who was transferred from your outbreak facility is now able to be repatriated back to your facility.

4

What steps do the facility and hospital take to prepare for a safe repatriation?

Declaring the outbreak over

As you continue managing the outbreak, you reach a point where no additional resident or staff cases have been identified anywhere in the facility, and there is no evidence of ongoing transmission.

The OMT would like to declare the outbreak over.

What steps do you take to declare the outbreak over?

INITIAL SITUATION

A resident becomes unwell

You are the IPAC lead of Happy Home Facility, which has 3 units and a total of 100 residents and 40 staff.

A PSW reports to you that a resident on Home Area 1 (HA 1) had two episodes of vomiting overnight and one episode of loose stool this morning. The resident says they feel nauseated and did not come to breakfast.

What next steps do you take?

1

Point of Care Risk Assessment & Resident Assessment

Assess and protect

- With initial reported illness, the resident should be assessed and placed in **additional precautions immediately** and document symptoms.
- The assessing staff member should conduct a point-of-care risk assessment (**PCRA**).
- With enteric symptoms, anticipate soiling and splashing. Gown and gloves at minimum, adding a mask and eye protection where vomiting or splashing is likely.

Document at the point of assessment

- Onset date and time of the first episode
- Type and number of episodes in the last 24 hours
- The resident's usual bowel pattern: what is normal for them?
- Other symptoms: fever, abdominal cramps, nausea, myalgia
- Fluid intake, output, and signs of dehydration

Rule out non-infectious causes

- New or changed medications (including antibiotics)
- Laxatives, stool softeners, bowel protocols
- New tube feed, diet change, or supplement
- Chronic GI conditions or known malabsorption
- Recent bowel procedure or preparation

Symptoms attributable to another cause do not meet an enteric case definition – but document your reasoning.

Placing the Resident on Additional Precautions

1

Contact Precautions

Each resident with enteric symptoms should be placed on Contact Precautions in addition to routine practices. Gown and gloves for all interactions; add a mask and eye protection where there is a risk of splash or spray from vomit.

2

Signage

Additional precaution signage should be posted on the ill resident's door, and PPE should be readily available at the point of care.

3

Dedicated equipment

Dedicate toileting equipment where possible (commode, bedpan, urinal). Dedicate or fully disinfect any shared equipment between residents.

4

Hand hygiene

Use soap and water for hand hygiene. Alcohol-based hand rub (ABHR) is *not reliable* against norovirus or *C. difficile* spores. Assist residents with hand hygiene after toileting and before meals.

5

Location and care

The resident should remain in their room where possible and should **not attend** communal dining or group activities while symptomatic. Support hydration and comfort.

Case Management – Enteric Illness

Symptomatic residents

- Maintain Contact Precautions until at least 48 hours after symptoms have fully resolved.
- Reassess at least twice daily; document every episode of vomiting and diarrhea.
- Monitor hydration, intake and output, and skin integrity
- Notify the resident's Health Care Provider for signs of dehydration, ongoing vomiting, blood in stool, or significant deterioration.
- Cases should not attend communal dining or group activities while symptomatic.

Additional considerations

- Where *C. difficile* is suspected or confirmed, use soap-and-water hand hygiene and a sporicidal disinfectant, and follow facility policy for the duration of precautions.
- There is no antiviral treatment for viral gastroenteritis, care is supportive.
- Antidiarrheal medication should not be given without direction from the resident's Health Care Provider.
- Residents recovering from illness may continue to shed the organism for several days after symptoms resolve.

Timeframes vary by causative agent. Confirm case and contact management timeframes with your SMDHU facility liaison once an agent has been identified.

Surveillance and Monitoring

What surveillance should include

- A known baseline
- Retroactive review of any recent staff or resident enteric illness as a potential source of transmission
- Enhanced symptom assessment of all residents in the affected area for early identification
- Twice daily assessment of resident cases to identify new or worsening symptoms and monitor hydration
- A low threshold for reporting – every new episode of vomiting or diarrhea, on every shift

Data to capture for every case

- Onset date and time (time matters – incubation periods are short)
- Symptom type and number of episodes in 24 hours
- Room number and home area
- Where the resident ate and which activities they attended
- Which staff provided care
- Specimen collected, date, and result
- Date symptoms resolved

UPDATE #1

Additional symptomatic residents

Later that same day, an RPN reports that during afternoon rounds **three** additional residents on HA 1, and **one staff** from the same home area have had new onset vomiting and/or diarrhea.

All four ill residents attended the same communal dining room the previous evening.

What next steps do you take? Is this an outbreak?

2

Continuation of Existing Control Measures

1

Assess

Assessment of each resident using a PCRA

2

Isolate

Place all ill residents on Contact (droplet/contact) Precautions with signage and PPE at the door

3

Test

Collect up to four stool specimens from symptomatic residents

4

Monitor

Continue surveillance and twice daily monitoring across the home area

And escalate immediately – do not wait for a confirmation

- **Increase cleaning and disinfection** frequency of washrooms, high-touch surfaces, and shared equipment on the affected home area
- **Reinforce** hand hygiene with soap and water for staff, residents, and visitors
- Review the **enteric outbreak checklist** and begin a **line list** using your surveillance data
- Consider suspending self-serve and buffet-style dining on the affected area while you investigate

Confirming Outbreak Status: Outbreak & Case Definitions

Confirmed Outbreak Definition

Two or more cases meeting the case definition with a common epidemiological link (e.g., specific unit or floor, same caregiver) with initial onset within a 48-hour period.

Suspect Outbreak Definition

- A specific suspect outbreak definition does not exist
- Ongoing surveillance is necessary to identify any increase or changes to enteric illness
- If an outbreak is suspected, notify the local board of health to support with the investigation and management
- The case definition in an outbreak is dependent on the presenting signs and symptoms and circumstances. It may vary between outbreaks and also vary during an outbreak.

Case Definitions

Symptoms must not be attributed to another cause, are not present or incubating upon admission and at least one of the following must be met:

- Two or more episodes of diarrhea within a 24-hour period
- Two or more episodes of vomiting within a 24-hour period
- One or more episodes of diarrhea AND one or more episodes of vomiting within a 24-hour period.

Report to SMDHU

Your reporting obligation

- Outbreaks and diseases of public health significance are required to be reported to the Medical Officer of Health or their designate by institutions under the *HPPA*.
- Gastroenteritis outbreaks in institutions must be **reported immediately**, and reporting should take place in a timely manner via a telephone call.

Information to have ready when you call

- Number of ill residents and/or staff.
- Signs and symptoms with onset dates and times.
- Total number of residents and staff in the affected area, and in the facility.
- Any common exposures: dining room, specific food items, activities, shared care staff.
- Recent admissions, transfers, or visitors with enteric illness.

REPORTING CONTACTS

Infectious Diseases Team

705-721-7520

1-877-721-7520

ext. 8809

**After hours, weekends
and holidays**

Infectious Diseases Investigator

1-888-225-7851

**Do not wait for lab confirmation to
report a suspected outbreak.**

The Outbreak Management Team and Meetings

What the OMT does:

- The [Outbreak Management Team \(OMT\)](#) are the individuals who consult, provide support, and assist with implementing and reviewing outbreak control measures.
- The OMT should meet regularly to review the status of suspect or confirmed outbreak and to discuss continued evaluation of the control measures in place.

In an enteric OB, OMT should also review:

- Food services practices, menus, and any common food or water exposure
- Environmental services capacity, product selection, and cleaning frequency
- Laundry and waste handling volumes
- Supply levels: gowns, gloves, soap, paper towel, disinfectant, spill kits
- Planned admissions, discharges, and transfers
- Staffing contingency plans and non-essential services that can be discontinued during the outbreak
- This is an opportunity to “look outside the box” and consider any and all sources of transmission/acquisition

Members of the OMT should include:

Administrator

Physician or Medical Director

Director of Nursing

IPAC Lead

Food Services

Environmental Services

OT / PT / Recreation

Occupational Health

Pharmacy

Public Health

Others as appropriate,
including your IPAC Hub
Liaison

Collecting Enteric Specimens

Considerations for testing

- Enteric specimen kits are available through SMDHU, and the PHO Lab. Specimens are collected from **symptomatic** residents only.
- An order or medical directive is in place to initiate testing.
- Ensure kits and transport media are **not** expired.
- Ensure the requisition and specimen label are completed **accurately** and match.
- Store and transport specimens as directed on the kit. Most require refrigeration.

Getting the best yield

- Collect during the acute phase – ideally within 48 to 72 hours of symptom onset.
- Aim for specimens from at least **four** different symptomatic cases.
- Note recent Abx use and any known *C. difficile* history on the requisition.

General Test Requisition

ALL sections of the form must be completed by [authorized](#) health care providers for each specimen submitted, or testing may be delayed or cancelled. Verify that **all testing requirements** are met before collecting a specimen. For **HIV, respiratory viruses, or culture isolate** requests, use the dedicated requisitions available at: [publichealthontario.ca/requisitions](#)

Submitter / Health Care Provider (HCP) Information

Licence No.: Lab / Hospital or Facility Name:

HCP Full Name: Address:

City: Postal Code: Province:

Tel: Fax:

Copy to Other Lab / Health Unit / Authorized Health Care Provider (HCP)

Licence No.: Other Lab / Health Unit / Facility Name:

72317 Simcoe Muskoka District Health Unit

HCP Full Name: LEE, Colin Address: 15 Sperling Drive

City: Barrie Postal Code: L4M 6K9 Province: ON

Tel: 705-721-7520 Fax: 705-733-7738

Patient Setting

☐ Clinic / Community ☐ ER (Not Admitted / Not Yet Determined) ☐ ER (Admitted)

☐ Inpatient (Non-ICU) ☐ ICU / CCU ☐ Congregate Living Setting

Testing Indication(s) / Criteria

☐ Diagnosis ☐ Screening ☐ Immune Status ☐ Follow-up / Convalescent

☐ Pregnancy / Perinatal ☐ Impaired Immunity ☐ Post-mortem

Other (Specify):

Signs / Symptoms

☐ No Signs / Symptoms ☒ Onset Date (yyyy-mm-dd):

☐ Fever ☐ Rash ☐ STI

☐ Gastrointestinal ☐ Respiratory ☐ Hepatitis ☐ Meningitis / Encephalitis

Other (Specify):

Relevant Exposure(s)

☐ None / Not Applicable ☐ Most Recent Date (yyyy-mm-dd):

☐ Occupational Exposure / Needlestick Injury (Specify): ☐ Source ☐ Exposed

Other (Specify):

Relevant Travel(s)

☐ None / Not Applicable ☐ Most Recent Date (yyyy-mm-dd):

Travel Details:

The personal health information is collected under the authority of the Personal Health Information Protection Act, s.36 (1)(c)(iii) for the purpose of clinical laboratory testing. If you have questions about the collection of this personal health information please contact the PHO's Laboratory Customer Service at 416-235-6556 or toll free 1-877-604-4567. F-SD-SCG-1000, version 004.1 (January 2024).

For Public Health Ontario's laboratory use only:

Date Received (yyyy-mm-dd): PHO Lab No.:

Patient Information

Health Card No.:

Date of Birth (yyyy-mm-dd): Sex: ☐ Male ☐ Female

Medical Record No.:

Last Name (per health card):

First Name (per health card):

Address: Postal Code:

City: Tel:

Investigation / Outbreak No. from PHO or Health Unit (if applicable):

Specimen Information

★ Date Collected (yyyy-mm-dd): Submitter Lab No.:

☐ Whole Blood ☐ Serum ☐ Plasma

☐ Bone Marrow ☐ Cerebrospinal Fluid (CSF) ☐ Nasopharyngeal Swab (NPS)

☐ Oropharyngeal / Throat Swab ☐ Sputum ☐ Bronchoalveolar Lavage (BAL)

☐ Endocervical Swab ☐ Vaginal Swab ☐ Urethral Swab

☐ Urine ☐ Rectal Swab ☐ Faeces

Other (Specify type AND body location):

Test(s) Requested

Enter each assay as per the [publichealthontario.ca/testdirectory](#):

- Clostridium perfringens enterotoxin - EIA
- Enteric - Bacterial Culture
- Gastroenteritis - Stool Viruses
-
-
-

For routine hepatitis A, B or C serology, complete this section instead:

Hepatitis A ☐ Immune Status (HAV IgG) ☐ Acute Infection (HAV IgM, signs/symptoms info)

Hepatitis B ☐ Immune Status (anti-HBs) ☐ Chronic Infection (HBsAg + total anti-HBc)

☐ Acute Infection (HBsAg + total anti-HBc + IgM if total is positive) ☐ Pre-Chemotherapy Screening (anti-HBs + HBsAg + total anti-HBc)

Hepatitis C ☐ Current / Past Infection (HCV total antibodies) ☐ No immune status test for HCV is currently available.



Green-Capped vial: for bacterial testing

White-Capped vial: for viral testing

UPDATE #2

Confirmed enteric outbreak declared

You consult with your SMDHU primary facility liaison, who agrees that the confirmed outbreak definition has been met. They provide you with your outbreak number and outbreak case definition.

3

What additional steps should be taken with the confirmed outbreak?

Submitting Outbreak Specimens

Now that an outbreak is declared

- Ensure that samples collected from residents on the outbreak unit include the outbreak number on the requisition.
- Notify your facility liaison so that a courier can be arranged to submit specimens to the Public Health Ontario Laboratory.
- Aim to submit specimens from at least four different symptomatic cases, collected in the acute phase of illness.
- Additional specimens may be requested if the initial set is negative or the outbreak continues.

What testing looks like

- Enteric outbreak specimens are typically tested for both bacterial and viral causes, including norovirus, with parasitology added where indicated.
- Your facility liaison will confirm which panel is being run for your outbreak.
- Report positive results to your liaison, medical advisor, and OMT as soon as they are received.
- A negative result does not end an outbreak – control measures continue based on epidemiology.

Identifying the causative agent guides the disinfectant you use, the exclusion periods you apply, and the date the outbreak can be declared over.

Outbreak Line List

The Line List:

- A summary of information about suspect, probable, or confirmed cases associated with an outbreak.
- Staff and residents should be on **separate** pages of the line list.
- The line list should be organized by home area, unit, or outbreak area.
- Ensure all fields are filled in before submitting.
- Submit the line list when reporting the outbreak
- Submit line lists to SMDHU electronically or as directed by your facility liaison, at a frequency agreed upon on.
- Line lists should be submitted daily with any updates regarding new cases or changes to case status

Enteric-specific fields that matter

- Symptom type: vomiting, diarrhea, or both
- Onset date Room number and home area
- Specimen collected, date submitted, and result
- Date symptoms resolved

Upload or fax to 705-733-7738

☐ Staff

Unit Name: _____

Date Outbreak Declared: _____

With two or more episodes of diarrhoea and/or vomiting in a 24-hour period on or after:
or any lab confirmed case.

[illegible]

Enteric Outbreak Management Checklist

- Complete the Enteric Outbreak Management Checklist and fax/upload the signed document to SMDHU with the next line list.



Facility Name:		Date Initiated yyyy/mm/dd
Outbreak #:		
LTCH/Rhome Enteric Outbreak Management Checklist		
1.	Development of working case definition - Any resident or staff working/residing at _____ or on unit _____ (if not facility wide) - with two or more episodes of diarrhea and/or vomiting in a 24-hour period on or after _____ ; or - any lab confirmed case.	
2.	Line list is provided to the Simcoe Muskoka District Health Unit (SMDHU) - Line list to be uploaded or faxed to health unit (705-733-7738). - Symptomatic residents placed on additional precautions and tested. - Residents and staff are to be documented on separate line lists.	
3.	Notifications, communications, and signage - Communication to families, visitors, and community partners. Includes posting signage. - Notify the Outbreak Management Team (OMT) and set up an initial OMT meeting.	
4.	Surveillance, screening, and exclusion - Daily surveillance measures to monitor for symptomatic residents and staff. - Residents/patients with any symptom(s) are immediately isolated and placed on additional precautions. - Screening of all staff and visitors is recommended.	
5.	Implement general Infection Prevention and Control (IPAC) measures - Ensure all supplies are readily available (ABHR, appropriate PPE, signage, etc.) - Complete a Point of Care Risk Assessment (PCRA) for all direct resident/patient care. - Implement Additional Precautions for symptomatic residents/patients.	
6.	Cohort care per unit - Limit movement of staff/residents/visitors between affected and unaffected areas. - Cohort staff to same unit for the duration of the outbreak (as best able). - Cohort external agency staff to same unit for the duration of the outbreak (as best able). - Within affected units, staff should be further subdivided to look after ill residents/patients while another set of staff look after well residents/patients. - Residents should be cohorted based on status (infected or exposed and potentially incubating) for all non-essential activities including communal dining, organized events and social gatherings.	
7.	Activities Cancel or reschedule social activities and communal meetings.	
9.	Enhanced and appropriate environmental cleaning and disinfection during outbreak - Increased frequency of cleaning and disinfecting of high touch surfaces. Minimum of twice daily. - Use a hard surface disinfectant with kill claim for the identified/suspected pathogen (e.g. norovirus).	
10.	Transfers, discharges, appointments and admissions should be done in consultation with SMDHU Notify SMDHU when resident movement is anticipated/planned.	
11.	Foodborne and waterborne transmission assessed - Follow facility policy and procedures on safe food handling. - If it is suspected that the outbreak source is a food source or an infected food handler, retain food samples and follow public health recommendations.	
12.	Testing - Early collection, storage, and submission of appropriate specimens. - SMDHU courier can take samples directly to PHOL Lab (speak with Facility Liaison regarding courier). - Enteric OB kits can be ordered from Public Health Ontario, Kit and Test Ordering Instructions Webpage. - Number of Enteric OB kits on site _____ Expired? ☐ Yes ☐ No	
13.	Auditing - IPAC practices such as PPE donning/doffing; hand hygiene; environmental cleaning; and appropriate use of face coverings should be audited frequently on affected units/floors during an outbreak to identify gaps/potential transmission risk. - IPAC Self-Assessment audits are to increase from quarterly to weekly during an outbreak and be documented for review. IPAC Self-Assessment Audit for Long-Term Care and Retirement	

Notification, Communication & Signage

Who needs to know

- Notification and communication that an outbreak has been declared should be provided to staff, residents, families, visitors, and community partners.
- Include contracted services, agency staff, volunteers, and students who attend the facility.
- Notify any external programs residents attend – dialysis, day programs, adult day away, appointments.
- Notify any facility a resident is transferred to during the outbreak.
- Postpone or reschedule non-essential visits and services on an outbreak area until the outbreak is declared over.

Signage and screening

- Signage should be posted at the entrance to the facility and on the outbreak areas regarding outbreak status, for the purpose of notification as well as passive and active screening.
- Screening messaging for an enteric outbreak should specifically ask about vomiting and diarrhea, not just respiratory symptoms.
- Ask visitors to defer visiting until at least 48 hours after their own enteric symptoms have resolved.
- Direct visitors to wash their hands with soap and water on entering and leaving the home area.
- Post additional precaution signage on the doors of all ill residents.

Cohort Care Per Outbreak Area / Unit

Limit movement of staff, residents, and visitors between affected and unaffected areas.

Cohorting residents

- Grouping of residents who are infected with, or exposed to, the same pathogen, with staffing assignments restricted to the cohorted group of residents.

Cohorting staff

- Grouping of staff to care for a specific group of residents or assigning them to a floor or unit that either contains or does not contain active cases.

Enteric-specific cohorting considerations

- Where staffing allows, assign staff to symptomatic residents last in the care sequence, and to well residents first.
- Avoid staff working across multiple home areas within the same shift, and avoid working at more than one facility during an OB.
- Dedicate care and cleaning equipment to each cohort; if equipment must be shared, it is cleaned and disinfected between residents.
- Cohort dining as well as care – tray service or separate seating for symptomatic and exposed residents.

Additional Outbreak Measures

Hand hygiene

- Soap and water is the preferred method during an enteric outbreak.
- ABHR does not reliably kill norovirus or *C. difficile* spores – it may be used in addition to, never instead of, hand washing.
- Assist residents with hand hygiene before meals and after toileting.

Dining and food service

- Suspend self-serve and buffet-style service.
- No shared serving utensils, condiments, snack bowls, or self-serve beverage stations.
- Consider tray service on affected areas, in consultation with SMDHU.
- There is no requirement to use disposable utensils or plates

Environmental cleaning

- Minimum **twice** daily cleaning and disinfection of high-touch surfaces, objects, and environments.
- Increase frequency for washrooms, commodes, and shared equipment.
- Appropriate disinfectant used as per manufacturer's instructions for use (MIFU), including the full contact time.

Review of facility activities

- Postpone group activities on affected areas.
- Where possible, continue activities for unaffected cohorts to support resident mental health and wellbeing.
- Offer in-room and small cohort alternatives for residents on precautions.

Environmental Cleaning & Disinfection

The single most important environmental control in an enteric outbreak

Product and technique

- Use a Health Canada–approved disinfectant with a DIN and a kill claim for the causative agent: norovirus or feline calicivirus for norovirus, sporicidal for *C. difficile*.
- Clean first to remove organic matter, then disinfect.
- Observe the full contact or wet time stated on the label – **This is the most missed step.**
- Work clean to dirty and top to bottom; clean washrooms last.
- No double-dipping cloths; change cloths between rooms and between clean and dirty tasks.

Scope and frequency

- Increase frequency for washrooms, commodes, handrails, door handles, light switches, call bells, and shared equipment.
- Soiled carpets and upholstery: clean with hot water and detergent or steam clean. Do not vacuum.
- Laundry: handle soiled linen with minimal agitation, wash in hot water on the longest available cycle, and dry on the highest safe heat setting.
- Dedicate cleaning equipment to the outbreak area.

The right product, applied to a pre-cleaned surface, for the full contact time – all three, every time.

Auditing and Education

Why audit

- Audits help to ensure that standards and procedures are being followed, to reduce the transmission of disease.
- Audits are *recommended* on a regular basis to identify benchmarks and baseline rates.
- Ensure dedicated staff conduct IPAC audits for hand hygiene, PPE use, and cleaning and disinfection – and that **compliance rates** are reported back.
- Contact the IPAC Hub and/or SMDHU for assistance when gaps or training needs are identified.

What to audit in an enteric outbreak

- Hand washing technique with soap and water, not just whether ABHR was used.
- The **4 moments** for hand hygiene, particularly after contact with the resident environment.
- Gown and glove donning and doffing at the point of care.
- Environmental cleaning: product selection, coverage of high-touch surfaces, frequency, and adherence to contact time.
- Consider fluorescent marker to verify cleaning quality.
- Just-in-time education during an outbreak is highly effective – audit, then teach in the moment.

Managing Vomit and Diarrhea Spills

1

Clear

Move residents and staff away from the area. A single vomiting event can contaminate a wide radius through aerosolized droplets.

2

Protect

Don PPE before approaching: gown, gloves, mask, and eye protection.

3

Contain

Cover with absorbent material, remove bulk soilage carefully with minimal agitation, and dispose of waste as per facility policy.

4

Disinfect

Clean the area, then disinfect a generous radius around the spill using the appropriate product for the full contact time.

5

Finish

Doff PPE carefully, perform hand hygiene with soap and water, and launder or dispose of soiled items appropriately.

Have a spill kit readily available on every unit.

Ensure all staff (including evenings, nights, weekends, and agency staff) know where the kit is, what is in it, and how to use it. Spills happen most often when the fewest people are on the floor.

UPDATE #3

Repatriation from hospital

You receive notification from your local acute care centre that the resident who was transferred from your outbreak facility is now able to be repatriated back to your facility.

4

What steps do the facility and hospital take to prepare for a safe repatriation?

Repatriation from Hospital to an Outbreak Facility

Considerations

- Status of transmission at the facility – is it controlled, and is the receiving home area still affected?
- Resident status: line listed, previously positive, symptoms resolved, and whether they are 48 hours symptom free.
- Any new test results from the hospital admission.
- Confirmation from the hospital that the resident developed no new enteric symptoms and was not exposed to a hospital outbreak.

Before the resident travels

- Where the resident will be placed on return – room availability, cohorting, and which precautions continue.
- Immunization status reviewed, and any treatment or follow-up completed.
- Equipment and room prepared and **terminally cleaned** before arrival.

All resident movement during an outbreak – admissions, transfers, and repatriations – is discussed with your SMDHU facility liaison first.

Declaring the outbreak over

As you continue managing the outbreak, you reach a point where no additional resident or staff cases have been identified anywhere in the facility, and there is no evidence of ongoing transmission.

The OMT would like to declare the outbreak over.

What steps do you take to declare the outbreak over?

Consult with the OMT – Declaring the Outbreak Over

The rule

- In consultation with the OMT and the PHU, an enteric outbreak may be declared over when no new cases meeting the case definition have occurred in residents or staff for a period equal to one incubation period plus one period of communicability, calculated from the last case.
- Both the incubation period and the period of communicability vary by causative agent – which is why identifying the organism matters.
- Confirm that all cases have been captured and the line list is complete and up to date before the declaration.

Applying the rule

NOROVIRUS

Commonly applied as 5 days from the symptom onset of the last case – approximately a 2-day incubation period plus a 3-day period of communicability.

OTHER OR UNIDENTIFIED AGENTS

The interval is based on that agent – commonly applied as 48 hours after the last case's symptoms have resolved.

Always confirm the outbreak-over date with your SMDHU facility liaison.

Contrast this with a respiratory outbreak, where the commonly applied interval is 8 days from the symptom onset of the last resident case.

Lifting the Remaining Outbreak Precautions

Precautions and residents

- Even though outbreak precautions have been lifted, identified cases need to finish their isolation periods and additional precautions.
- Return dedicated care and cleaning equipment to normal use after cleaning and disinfection.
- Remove outbreak signage and notify staff, residents, families, visitors, and community partners that the outbreak is over.
- The facility should return to baseline function after the outbreak is declared over.

Terminal cleaning of the outbreak area

- Resident rooms, washrooms, common areas, shared equipment, and all high-touch surfaces.
- Launder or replace privacy curtains as indicated.
- Discard opened boxes of PPE that were **inside** the rooms on Additional Precautions.
- Clean/steam soiled carpets and upholstery.

Hold an outbreak debrief with your OMT

What worked, what did not, and what will change before the next outbreak. Capture it in writing while the detail is still fresh.

Final Reminders

- 1 No outbreak is ever the same, and every outbreak will have some level of nuance.
- 2 Enteric outbreaks move quickly. The incubation period can be as short as 12 hours, so early recognition and immediate action matter more than a perfect diagnosis.
- 3 Hand hygiene with soap and water, and cleaning and disinfection with the right product for the full contact time, are your most powerful tools.
- 4 Your SMDHU facility liaison and IPAC Hub liaison are here to support your facility.
- 5 Never hesitate to consult regarding outbreak control measures.

Outbreak Management Orientation

OUTBREAK MANAGEMENT

for Long-Term Care & Retirement Homes

Revised: September 2025



On-Site IPAC Assessment & Collaboration with the IPAC Hub

The IPAC Hubs work in coordination with the SMDHU to build the overall IPAC capacity of supported homes in the Simcoe Muskoka region and to prevent the spread of communicable disease within these settings.

Services provided include, but are not limited to

- On-site IPAC walkthroughs and assessments
- IPAC education and training for staff and residents/clients
- RVH IPAC Hub Community of Practice (CoP) with monthly meetings, held every third Thursday of the month.
- Recommendations on IPAC best practices
- Initiative implementation support
- Outbreak management in collaboration with SMDHU

IPAC HUB CONTACTS

RVH IPAC Hub

ipachub@rvh.on.ca

OSMH IPAC Hub

ipachub@osmh.on.ca

An on-site assessment during an active outbreak can identify practice gaps that are difficult to see from inside the home.



THANK YOU

www.smdhu.org

Questions? Contact your SMDHU facility liaison or the Infectious Diseases Team at 705-721-7520 ext. 8809

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