

A Retrospective Look at COVID-19 Outbreaks within William Osler Health System from April 2020 to January 2023

A success story

A Highly impacted Ontario Community Hospital System



Presented by: Janine Domingos and Adenike Rowaiye - William Osler Health System

Overview

- Outbreak performance
- Retrospective lookback
- Outbreak source review
- Mandatory vaccine impact
- Highly impacted units
- COVID-19 surges (waves)
- Challenges



William Osler Health System (Osler)



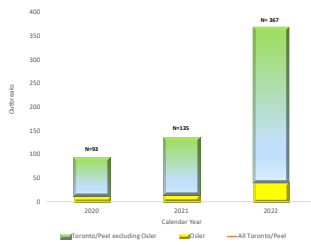
Brampton Civic Hospital



Etobicoke General Hospital



Toronto and Peel Region COVID-19 Outbreaks

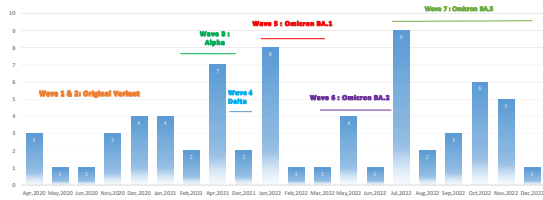


Interpret with caution! It is challenging to compare data, due to events and changes, such as:

- Changes in policies (e.g., declare OI over at 10 days post exposure end date vs. 14 days)
- Reduced testing uptake among staff
- Change in PCR testing eligibility during Omicron
- Differences in practices/policies across hospital corporations



Osler's Outbreaks by Month and Wave



Looking Back

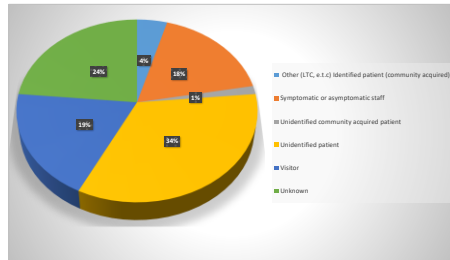
We undertook a retrospective descriptive study of COVID-19 outbreaks at our four sites between April 2020 and early January 2023

Outbreak summaries from Osler and local Public Health Units were cross-referenced to review:

- 1) Outbreak source
- 2) Susceptible units
- 3) How COVID-19 surges (waves) and public health impacted Osler's outbreak trajectory and



Outbreak Sources



Outbreak Sources cont...



1. Unidentified Patient Sources 34%

- Unidentified patients in shared accommodations and mask use varied
- Exposure during admission (another patient, visitor, LTC)
- Universal testing not implemented until Wave 3

2. Unknown Sources 24%

- Not apparent at the time of the investigation
- Some symptomatic patients had challenges with wearing masks, staying in their room i.e. dementia

3. Visitor Sources 19%

- Unknowingly within two days before become symptomatic-highly infectious
- Not disclosing that they were positive or had symptoms
- By-passing screening
- Removing masks at point of care and missed opportunities for hand hygiene
- Multi family residences; transmission opportunities were elevated



Impact of Mandatory Vaccination

Immunity increased in healthcare workers because of mandatory vaccination in waves 3 & 4 thus contributing to less outbreaks



The median attack rate of staff to patient transmission decreased from 2.4% to 1.0% as the pandemic progressed



Highly Impacted Units...

Patients with cardiac complications requiring hospital admissions to our cardiology units presented in a similar fashion to those infected with the COVID-19 virus:

- Shortness of breath
- Chest pain or discomfort
- Fatigue/Weakness
- Cough

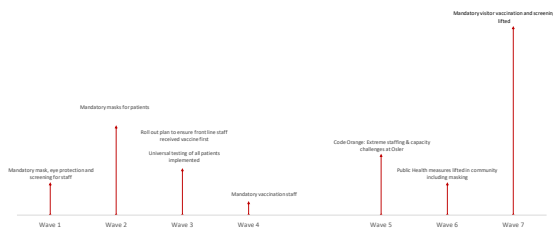


Cardiology units have a shorter LOS and the introduction of new patients each day increased the risk index on the unit because the patients were potentially incubating COVID-19 before universal testing.

Our cardiac units had our highest incidence of COVID-19 outbreaks at our organization (17.6%)

1.1

How COVID-19 Surges/Waves and Public Health Measures Influenced Osler's Outbreaks



Please note that there is a typo in the identification of the lowest point in the waves, which was stated to be in wave 3 instead of wave 4

1.2

Conclusions



- Our hospital was one of the hardest hit with Covid-19 burden but we managed to have fewer outbreaks than our regional partners
- Certain units were more at risk
- Public health measures directly influenced the number of outbreaks at our facilities
- Universal testing and vaccination allowed us to decrease outbreaks and transmission
- The proportion of patients in outbreaks requiring clinical intervention has been decreasing as we move through the pandemic largely due to higher vaccination rates.

1.3

Challenges

- Lifting of public health measures in wave 7
 - mandatory visitor vaccination
 - screening lifted
 - mask compliance with patients and visitors
- Pandemic fatigue





Donna Moore

IPAC Manager

donna.moore@williamoslerhs.ca



Janine Domingos

IPAC Manager

janine.domingos@williamoslerhs.ca



Adenike Rowaiye

Epidemiologist

adenike.rowaiye@williamoslerhs.ca



Thank You!



William Osler
Health System

Presented by: Donna Moore