ELGIN ST. THOMAS
PUBLIC HEALTH

Managing Influenza Outbreaks in Retirement Home Settings:

It's Not Like Long Term Care

Background

- Influenza outbreaks (OBs) occur in Long Term Care Homes (LTCHs) and Retirement Homes (RHs) throughout the year but are more common from fall to early spring[1].
- Ontario Public Health Standards 2008, directs public health to support facilities in preventing and controlling outbreaks
- Retirement Homes Act, 2010
- The 2012-2013 outbreak season: ↑ levels of flu in the community and institutional settings.
- Local Influenza Statistics:
  - 2012-2013
    - 6 influenza-only outbreaks
    - 68 sporadic cases
  - 2011-2012
    - 2 influenza-only outbreaks
    - 38 sporadic cases

ELGIN ST. THOMAS PUBLIC HEALTH

Objectives of our “study”

1. Begin to examine outbreak trends in LTCHs and RHs.

2. Compare and contrast the successes and challenges of current influenza outbreak control measures in both these settings.

3. Consider implications for public health support of retirement homes in their efforts to prevent and manage influenza outbreaks.

ELGIN ST. THOMAS PUBLIC HEALTH

One of these things is not like the other…

- Both are congregate living facilities but they have different sleeping arrangements
- Differing staffing levels
- Differing levels of staff interaction and familiarity
- Differing approaches to managing health care needs of residents

Methods

- Chart review of institutional outbreaks in which influenza was the only pathogen isolated (LTCH, N=4: RH, N=2).
- Compared and contrasted:

Length of time it took the facility to recognize an outbreak
Duration of the outbreak
Attack rate
Length of time to initiate antivirals for both treatment and prophylaxis
Staff immunization rates at the time of the outbreak
Rate of hospitalizations
Rate of chest x-ray confirmed pneumonia
Mortality rate

Measures

The Health Unit compared and contrasted the successes and challenges each setting experienced with:

1. Conducting Surveillance and Reporting Outbreaks
2. Initiating Antivirals for Prophylaxis and/or Treatment
3. Immunizing Staff and Residents vs Influenza
4. Isolating Cases
5. Restricting Social Activities and Admissions
6. Excluding Staff
7. Using Personal Protective Equipment (PPE)

ELGIN ST. THOMAS PUBLIC HEALTH

Successes

1. Surveillance

Long-Term Care Homes	Retirement Homes
Well developed surveillance processes in place resulting in timely identification and reporting of OBs in 3 of 4 homes. Experienced registered staff who: •Assess residents regularly and identify new cases promptly; •Have a high level of comfort with specimen collection.	One retirement home linked to a LTCH that provides: •Access to registered staff; •Access to other outbreak resources; for example, NP swabs, antiviral treatment and prophylaxis.

Challenges

1. Surveillance

Long-Term Care Homes	Retirement Homes
Surveillance processes well developed. However, delays in outbreak recognition, reporting, and implementation of control measures at one LTCH b/c staffing primarily casual, less familiar with them.	Staff have minimal interaction with most residents, leading to a delay in identifying illness/cases. Surveillance processes not well established leading to difficulties with outbreak recognition. Lack of registered staff resulting in: •Inconsistent assessment of residents; •Failure to recognize new cases; •Problems collecting specimens.

Successes

2. Antiviral Use

Long-Term Care Homes	Retirement Homes
Standing orders exist for residents leading to timely initiation of antiviral prophylaxis and/or treatment . Contracts with pharmacies allowing for pre-planning and easier access to antivirals during an outbreak.	

ELGIN ST. THOMAS PUBLIC HEALTH

Challenges

2. Antiviral Use

Long-Term Care Homes	Retirement Homes
	Residents have their own family doctors and purchase medications on their own making it difficult for staff to ensure timely access and initiation of antivirals. Lack of understanding re the necessity for and appropriate use of antiviral medications during an influenza outbreak.

Successes & Challenges

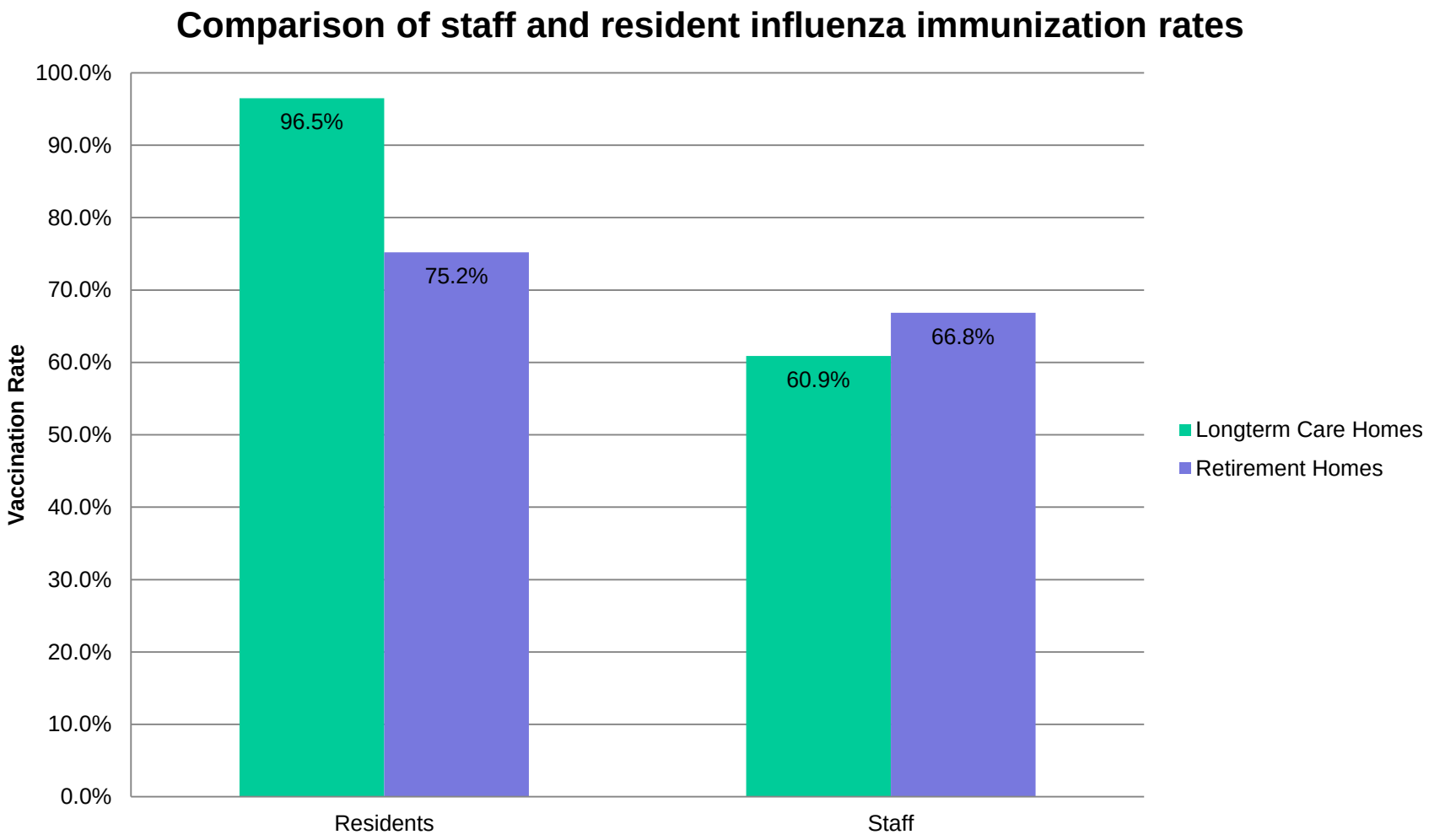
3. Influenza Immunization

Long-Term Care Homes	Retirement Homes
Staff provide influenza vaccination to residents early in the influenza season resulting in higher rates of resident immunization (96.5%) .	

Long-Term Care Homes	Retirement Homes
Low staff immunization rates.	Residents receive their influenza vaccination at their family doctors' offices or in community clinics. This may have contributed to lower rates of resident influenza vaccination . Low staff immunization rates.

ELGIN ST. THOMAS PUBLIC HEALTH

Influenza Immunization



ELGIN ST. THOMAS PUBLIC HEALTH

Successes & Challenges

4. Isolation of Cases

Long-Term Care Homes	Retirement Homes
Cases promptly isolated to their rooms/bed spaces as per MOHLTC guidelines.	Cases asked to self-isolate in their living quarters (“their home”).

Long-Term Care Homes	Retirement Homes
Difficult to keep cases isolated to rooms on locked unit.	Decreased understanding (resident and staff) regarding infectious disease transmission and the rationale behind case isolation .

ELGIN ST. THOMAS PUBLIC HEALTH

Successes & Challenges

5. Restriction of Social Activities and Admissions

Long-Term Care Homes	Retirement Homes
Activation staff provide small group activities for well residents on units that are in isolation, consequently decreasing the emotional impact of confinement to the unit.	

Long-Term Care Homes	Retirement Homes
	Well residents were impacted by changes to the social activities schedule leading to distress.

ELGIN ST. THOMAS PUBLIC HEALTH

Successes & Challenges

6. Staff Exclusion

Long-Term Care Homes	Retirement Homes
Exclusion policies are implemented when outbreaks declared leading to decreased transmission.	Exclusion policies are implemented when outbreaks declared leading to decreased transmission.

Long-Term Care Homes	Retirement Homes
	Difficulty enforcing exclusion policy for the entire duration of the outbreak leading to potential increases in transmission.

ELGIN ST. THOMAS PUBLIC HEALTH

Successes & Challenges

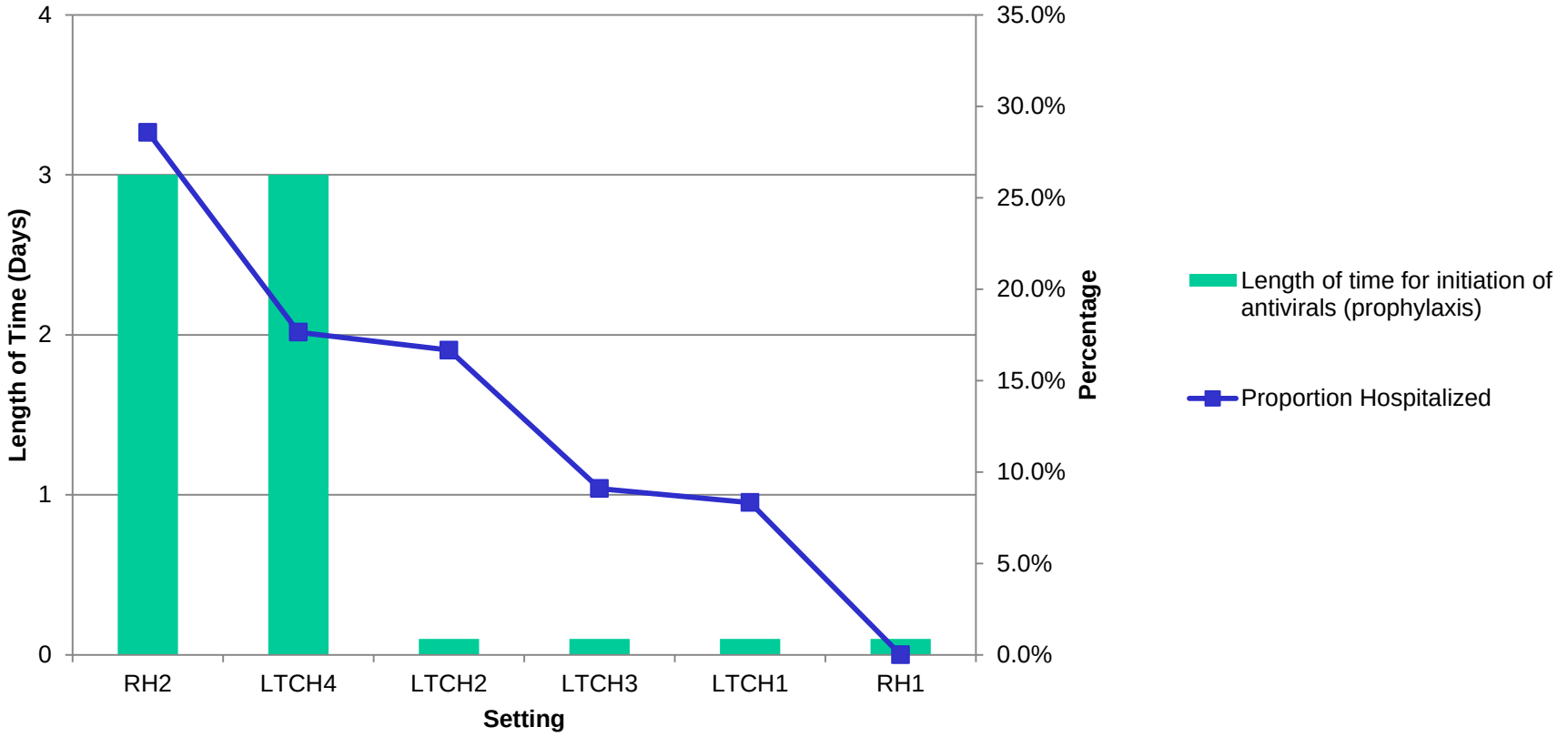
7. Availability and Use of PPE

Long-Term Care Homes	Retirement Homes
PPE adequately stocked and stored in appropriate locations throughout the facility supporting access.	

Long-Term Care Homes	Retirement Homes
	In 1 home, PPE was not stored in an appropriate or easily accessible location due to the facility design and fire regulations .

A picture is worth a 1000 words…

Table 1. The length of time to initiate prophylaxis was associated with increased rate of hospitalization.



ELGIN ST. THOMAS PUBLIC HEALTH

Summary

- The relatively low vaccination rate in residents of RH2 coupled with a delay in prophylaxis was associated with an increased rate of hospitalizations.

- Despite data quality limitations, it seems reasonable to conclude that outbreak control was most influenced by the length of time it took to initiate prophylaxis. This finding is also supported in the literature [3,4,5].

ELGIN ST. THOMAS PUBLIC HEALTH

Recommendations

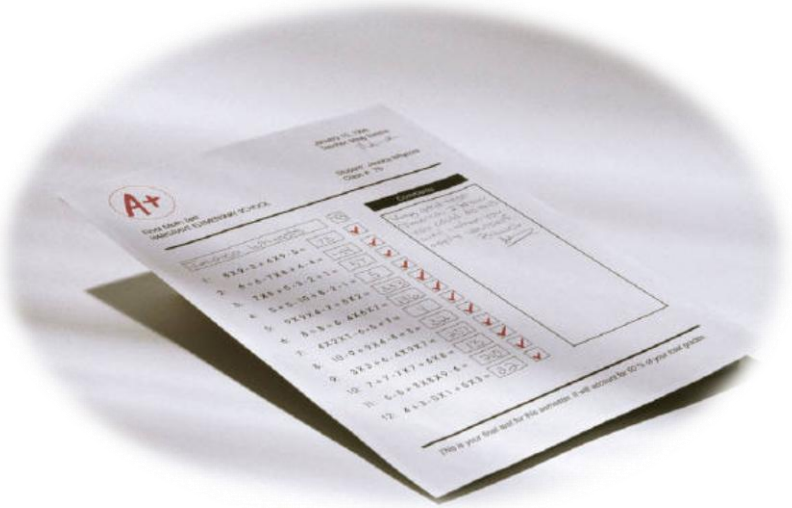
- With increasing frailty of residents in retirement homes (thereby delaying entry into LTCHs), and with the introduction of the Retirement Home Act, the Health Unit will need to work more closely with these homes to support them with outbreak prevention and control.

Recommendations

- Support includes:
  - Helping the Infection Control (IC) lead to improve surveillance and reporting processes;
  - Educating staff, residents, and their families about the use of antivirals as an outbreak control measure;
  - Collaborating with the IC lead to develop a process that enables quick and easy access to influenza vaccination and antiviral medication i.e. admission orders, pharmacy on-call, onsite influenza clinics;
  - Working with the IC lead to improve access to PPE when the facility is in outbreak;
  - Working with the IC lead to increase hand sanitizer accessibility year round and not just during outbreaks.

Self-reflection

We need to look at our outbreak data in a more systematic way, tracking and trending over time.



References

1. Ministry of Health and Long Term Care (October 2004.) *A Guide to the Control of Respiratory Infection Outbreak in Long-Term Care Homes*, p. 5.

2. Ministry of Health and Long Term Care (2008.) *Ontario Public Health Standards: Institutional/Facility Outbreak Prevention and Control Protocol*, p.2.

3. Centers for Disease Control and Prevention (2011.) *Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities*, www.cdc.gob/flu/professionals/infectioncontrol/ltc-facility-guidance.htm.

4. British Columbia Provincial Infection Control Network (February 2007.) *Respiratory Infection Outbreak Guidelines for Healthcare Facilities*, p.24

5. Booy R, Lindley RI, Dwyer D, et al (2012.) *Treating and Preventing Influenza in Aged Care Facilities: A Cluster Randomized Control Trial*. PLOS ONE, Vol.7, Issue 10.

ELGIN ST. THOMAS PUBLIC HEALTH