Influenza Immunization Challenge: Continuing Upwards

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Outline

- Overall summary
- LTC facilities results
- Hospitals results
- Review of 2015/16 Influenza Season

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Definitions for IIC Awards

- **Gold** = 90% or more of staff received seasonal influenza immunization for the current flu season
- **Silver** = 80% < 90% of staff received seasonal influenza immunization for the current flu season
- **Bronze** = 70% < 80% of staff received seasonal influenza immunization for the current flu season
- Honourable Mention = staff seasonal influenza immunization rate in the current flu season is at least 10% higher (in absolute terms) than the previous year

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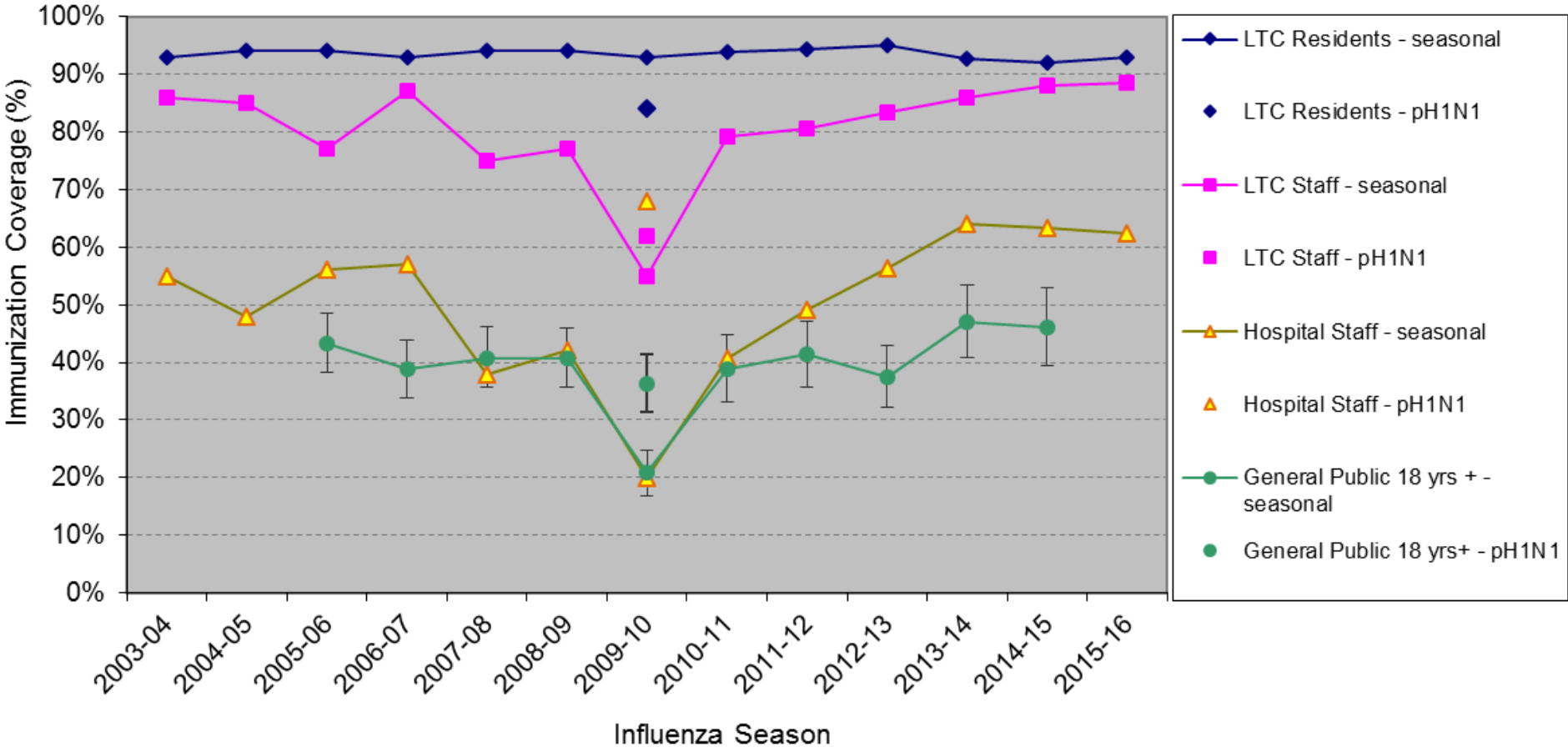
Median Influenza Immunization Coverage Rates, Simcoe Muskoka Facilities, 2003/04 - 2015/16



Data Sources: SMDHU facility immunization records* 2003/04-15/16; Rapid Risk Factor Surveillance system (RRFSS), Jan-Apr, 2006-2015, Collected by the Institute for Social Research (ISR) at York University on behalf of SMDHU

*Coverage rates from 2010/11 to present are reported as of January 15. Note that these rates may not be directly comparable to previous years when rates were reported as of November 15. Also note that in 2010/11 , hospital staff= MD's, payroll staff + volunteers. Since 2012/13, most hospitals have excluded volunteers who are not present for influenza season (ie. snowbirds). The definition of staff in previous years varied by hospital.

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LTC Facility IIC Award Summary, Current and Previous Influenza Seasons

	LTC Facilities IIC Awards	
Awards	**2014-15**	**2015-16**
Gold	12	12
Silver	11	13
Bronze	2	2
Honourable Mention	2	
No Award	2	2
Total	**29**	**29**

Data Source: MOHLTC Reporting Forms submitted to SMDHU for Influenza Immunization Challenge (IIC)

- 8 improved in their award ranking
- 5 dropped in their award ranking
- 16 remained the same

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Special Congratulations 2015-16

The IOOF Seniors Home Inc. and Good Samaritan Nursing Home achieved 100% staff coverage.

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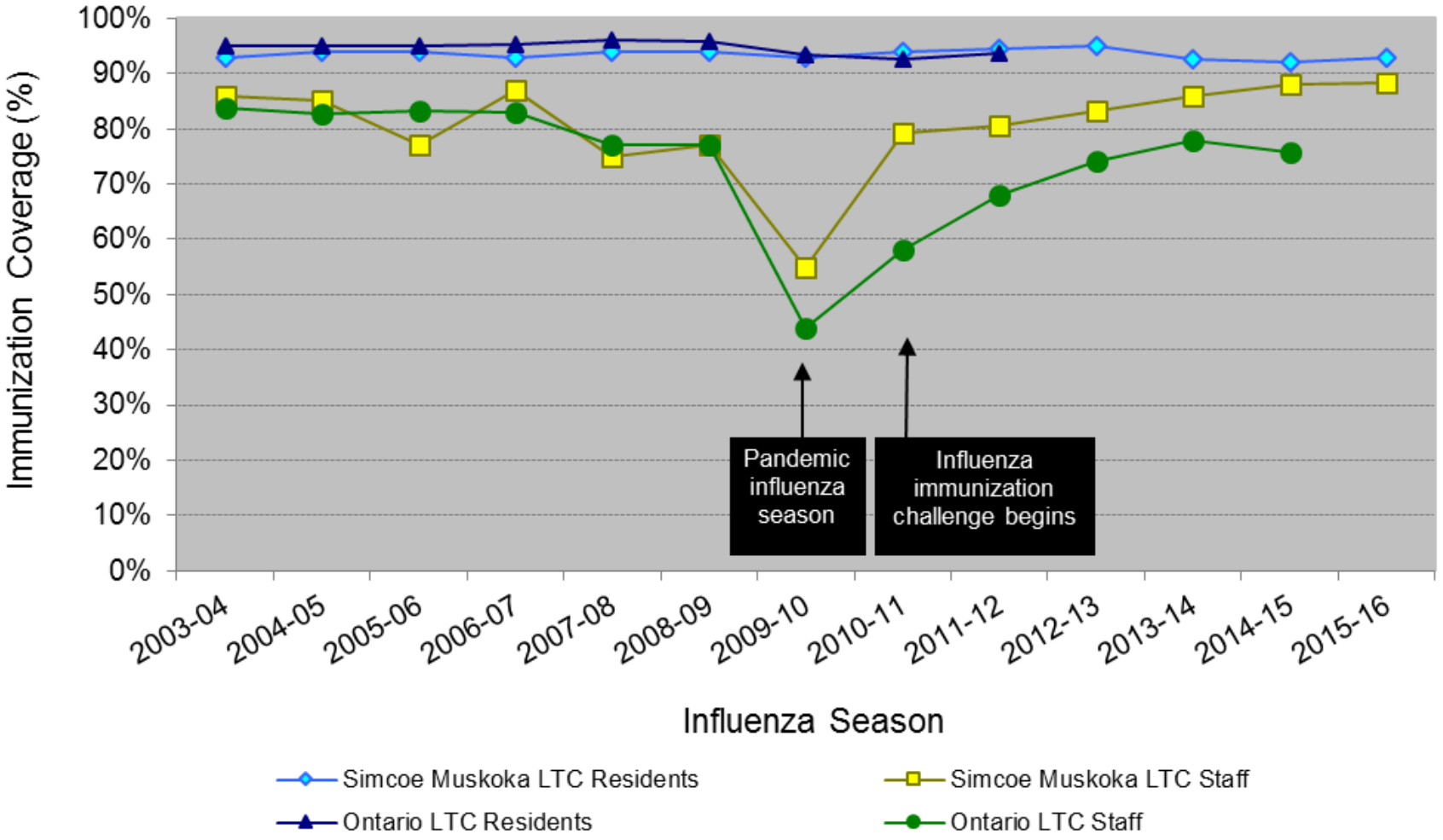
Median Influenza Immunization Coverage* in Long-Term Care Facilities, Simcoe Muskoka and Ontario, 2003/04 - 2015/16



Data Sources: SMDHU immunization records; Public Health Ontario 2014/15 Ontario Respiratory Bulletin #18

*Coverage rates from 2010/11 to present are reported as of January 15. Note that these rates may not be directly comparable to previous years when rates were reported as of November 15.
Ontario LTC resident coverage rates are not available after 2011/12

Acute Care IIC Award Summary, Current and Previous Influenza Seasons

	Hospital IIC Awards	
Awards	**2014-2015**	**2015-2016**
Gold	0	0
Silver	1	0
Bronze	1	1
Honourable Mention	1	0
None	4	6
Total	**7**	**7**

Data Source: MOHLTC Reporting Forms submitted to SMDHU by facilities for Influenza Immunization challenge (IIC)

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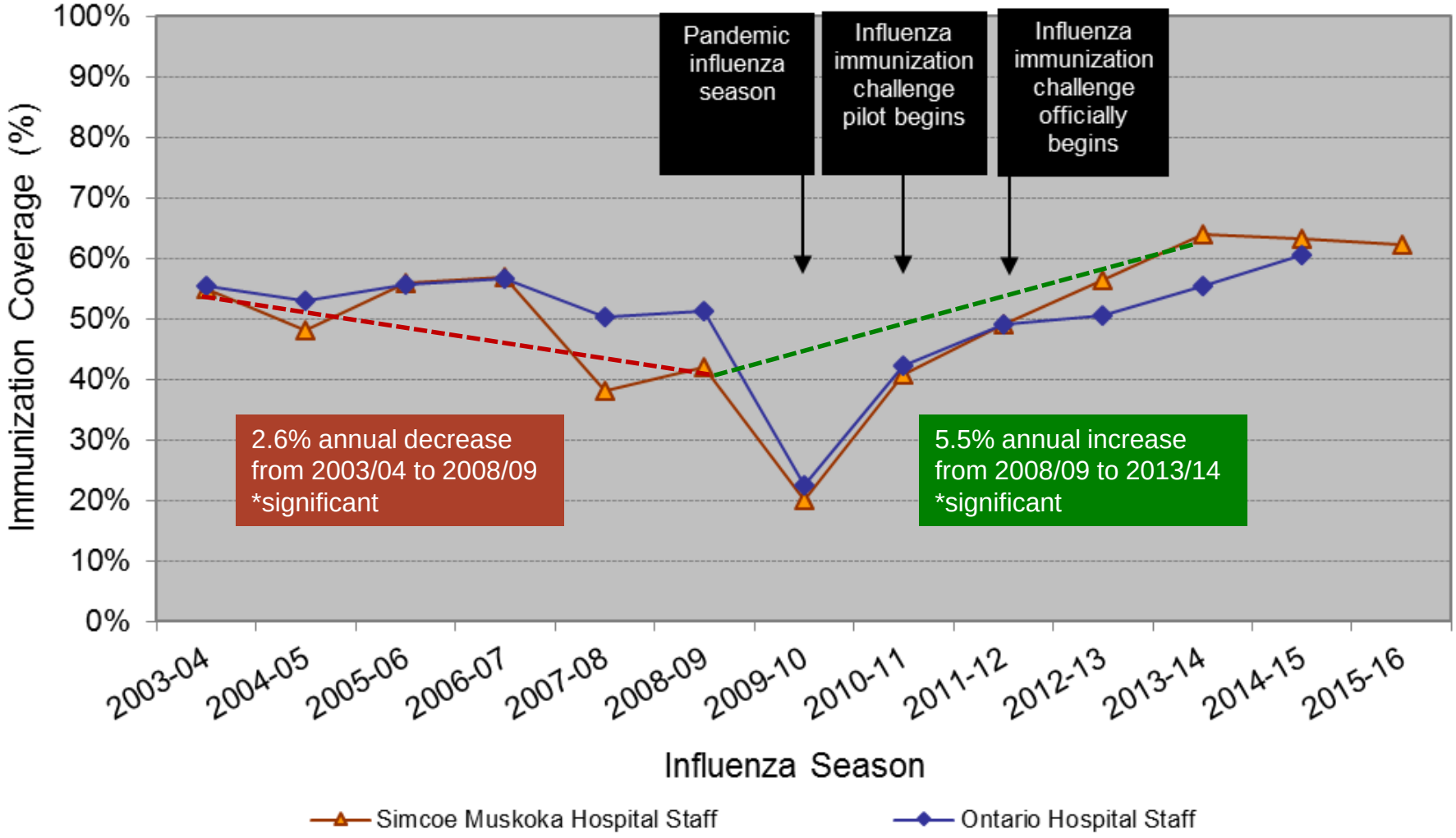
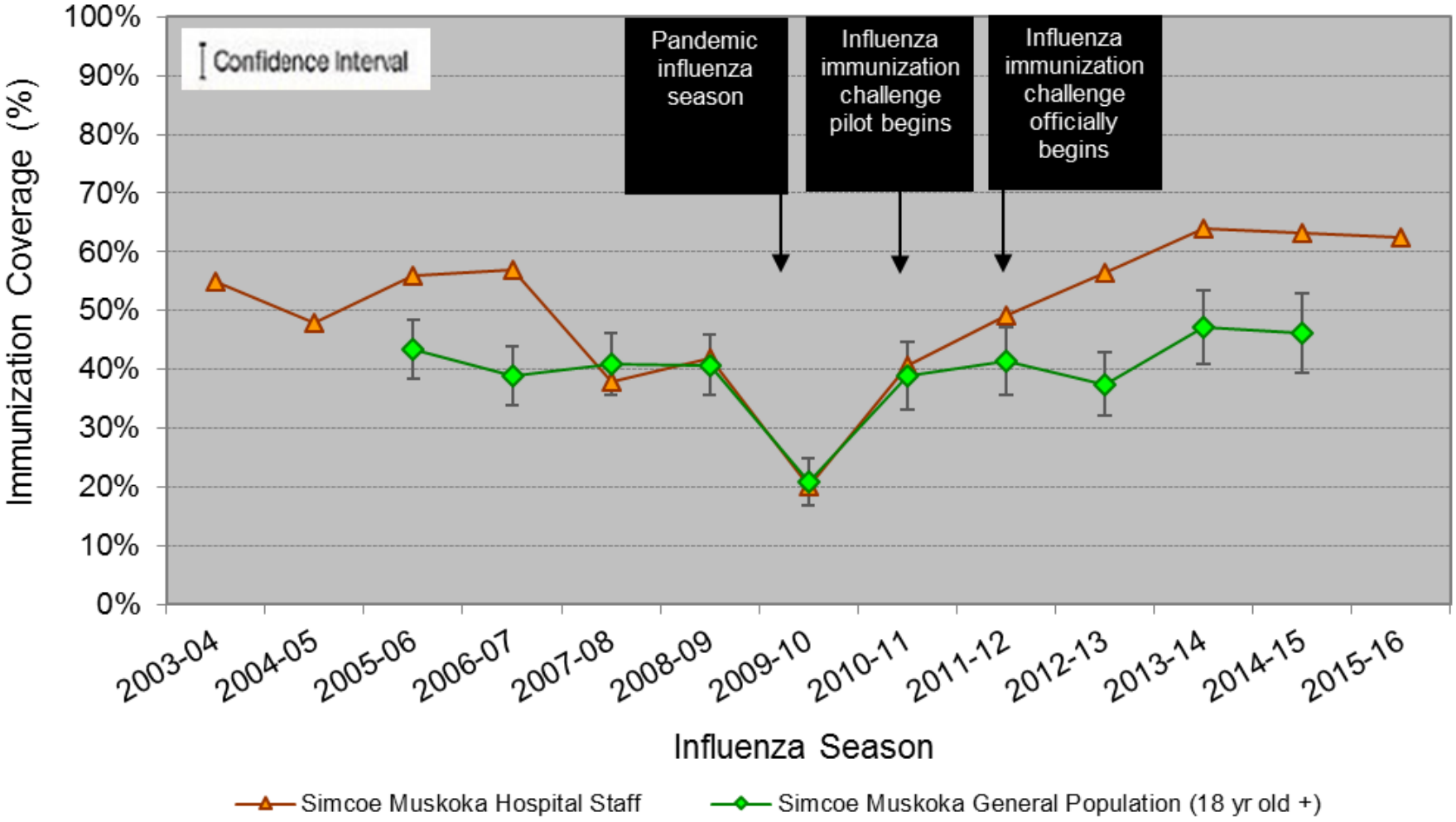
Median Influenza Immunization Coverage* in Hospitals, Simcoe Muskoka and Ontario, 2003/04 - 2015/16



Sources: SMDHU immunization records; Public Health Ontario 2014/15 Ontario Respiratory Bulletin #18

*Coverage rates from 2010/11 to present are reported as of January 15. Note that these rates may not be directly comparable to previous years when rates were reported as of November 15. Also note that starting in 2010/11 , hospital staff= MD's, payroll staff + volunteers. Since 2012/13, most hospitals have excluded volunteers who are not present for influenza season (ie. snowbirds). The definition of staff in previous years varied by hospital.

Median Influenza Immunization Coverage* in Hospitals and General Public, Simcoe Muskoka, 2003/04 - 2015/16



Data Sources: SMDHU immunization records, Rapid Risk Factor Surveillance system (RRFSS), Jan-Apr, 2006-2015, Collected by the Institute for Social Research (ISR) at York University on behalf of SMDHU

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IIC Results Summary / Highlights

- Influenza immunization coverage among staff in LTC facilities continues to be substantially higher than in hospitals (among staff and volunteers).
- Small but steady increases in LTC staff coverage since 2010/11 continued in 2015/16.
- Significant improvement in staff/volunteer coverage in hospitals between 2009/10 and 2013/14 but has levelled off since then
- Median SMDHU LTC coverage remains above the provincial median.

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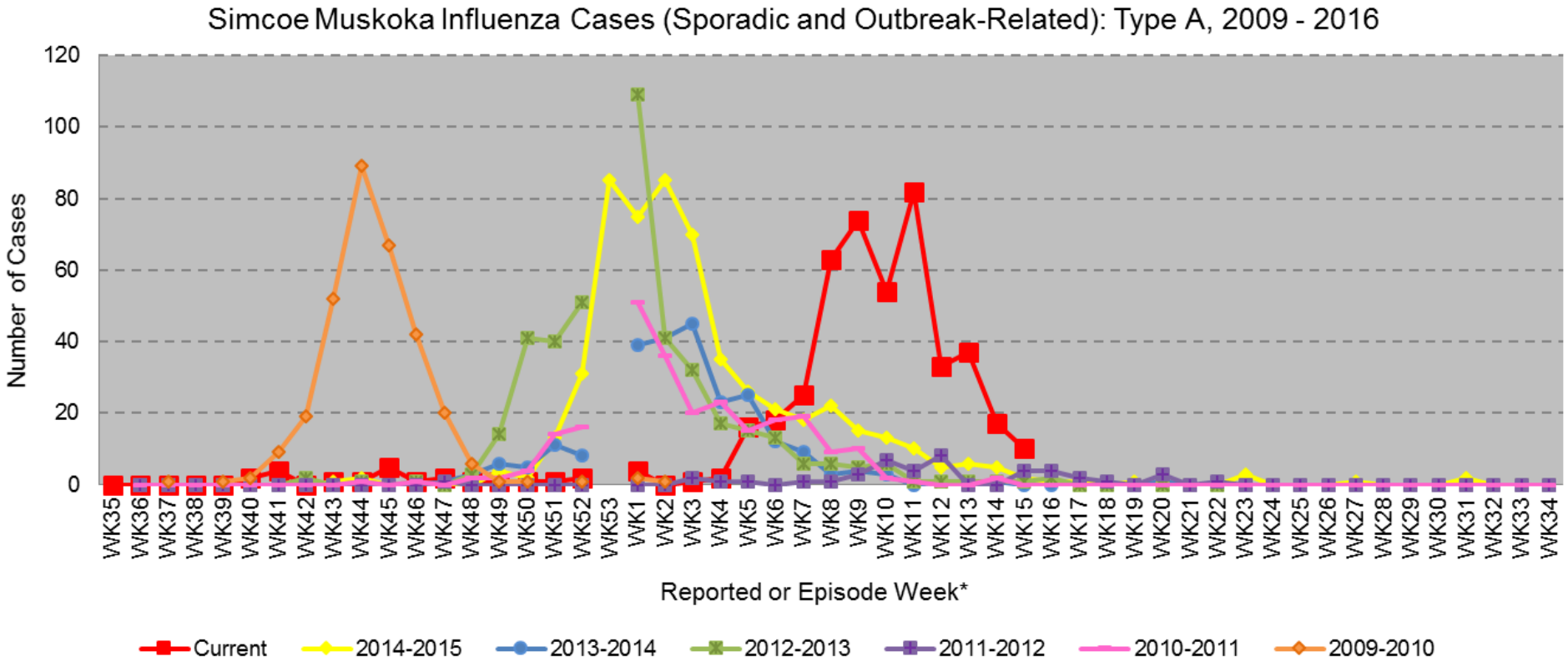
Seasonal Influenza Epidemiology

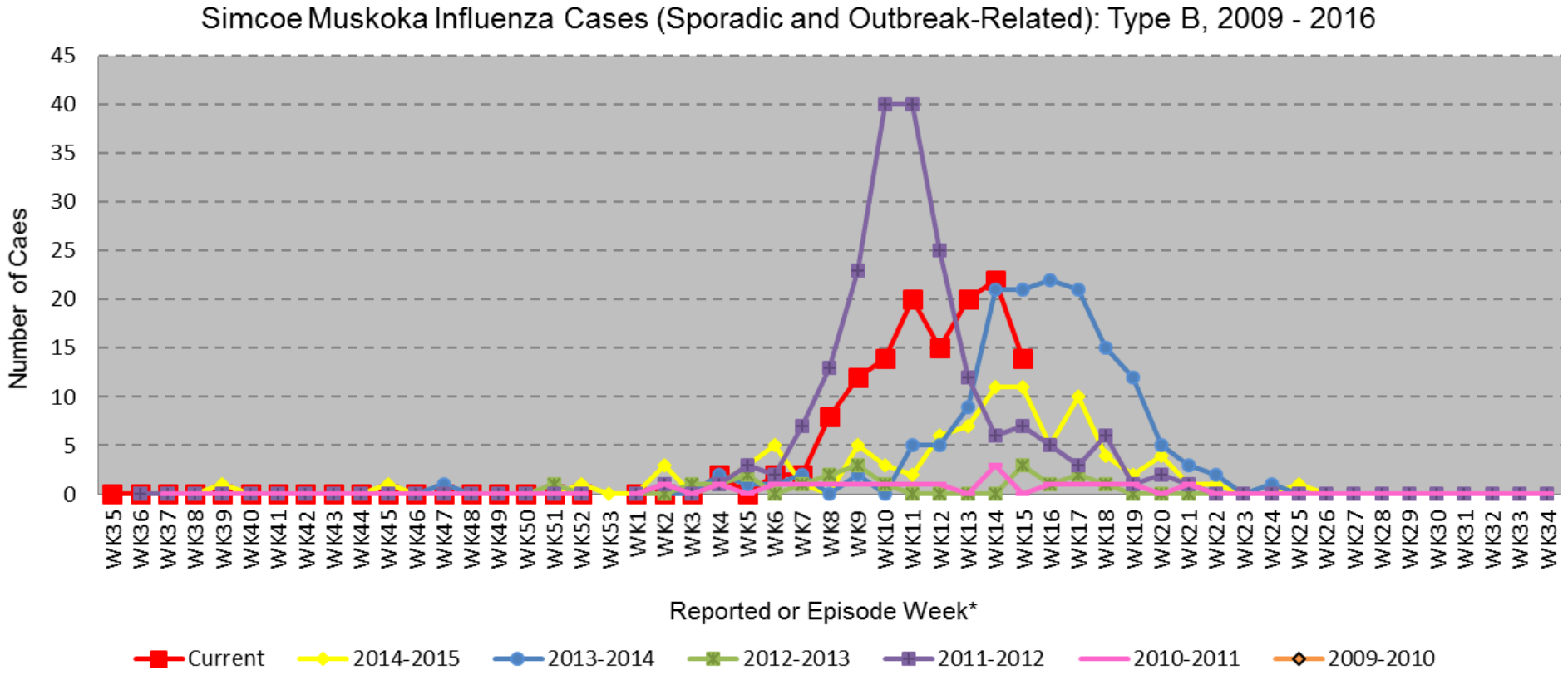
Flu A(H1N1) Activity Increasing Later in Season Than 'Usual'



Data Source: Cases 2010-present = CD Intake Databases. All other cases = iPHIS database

*__Case counts__ for the 2010-2011 flu season going forward are based on reported date and cases for previous years are based on episode date (a hierarchy of onset, collection, lab test and reported date). Reported date is on average 7-10 days after onset date thus the number of cases for a given week in the current year may be more comparable to 1 week previous in previous years.

Significant Flu B Activity, but Lower than Flu A



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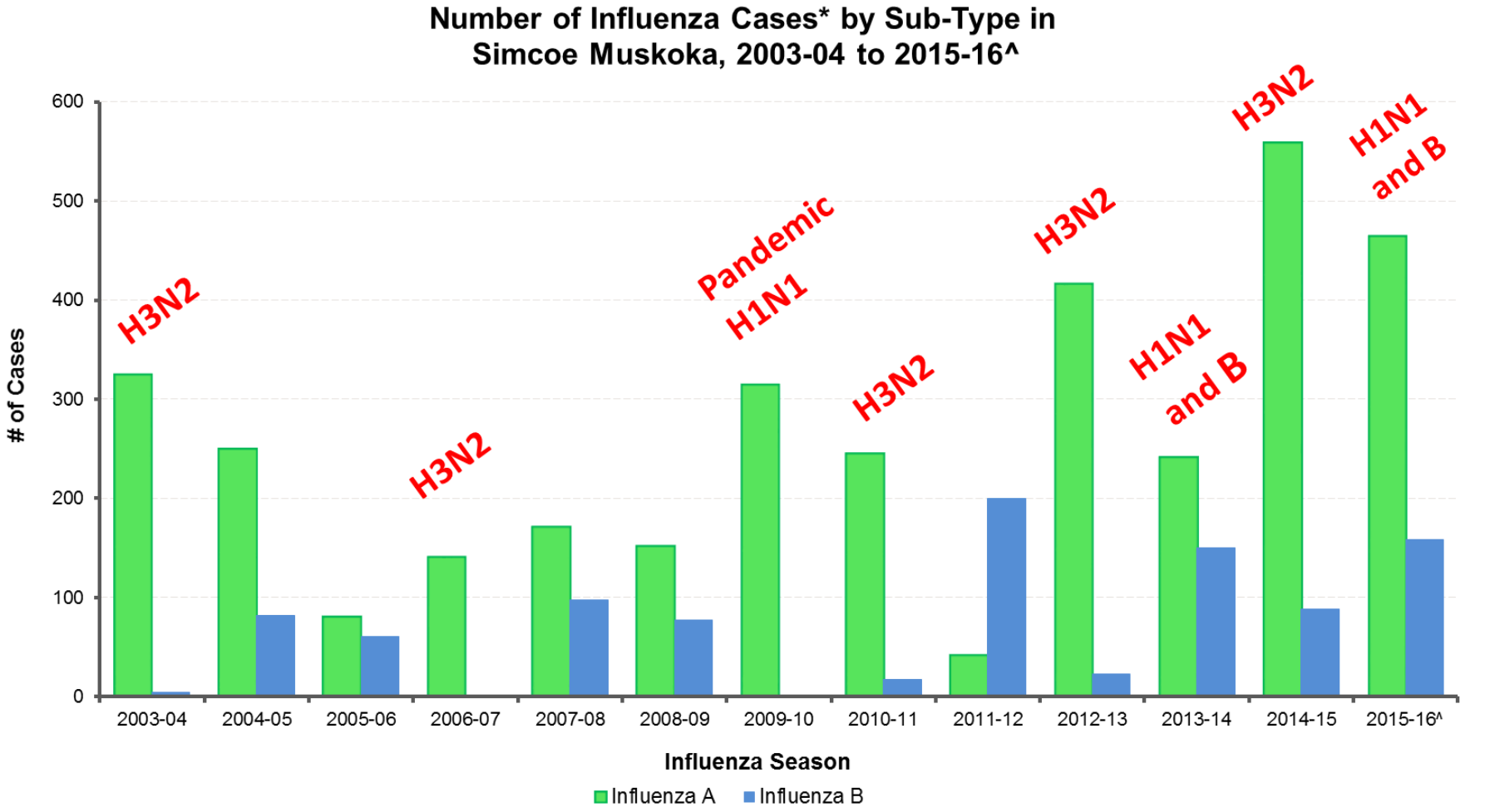
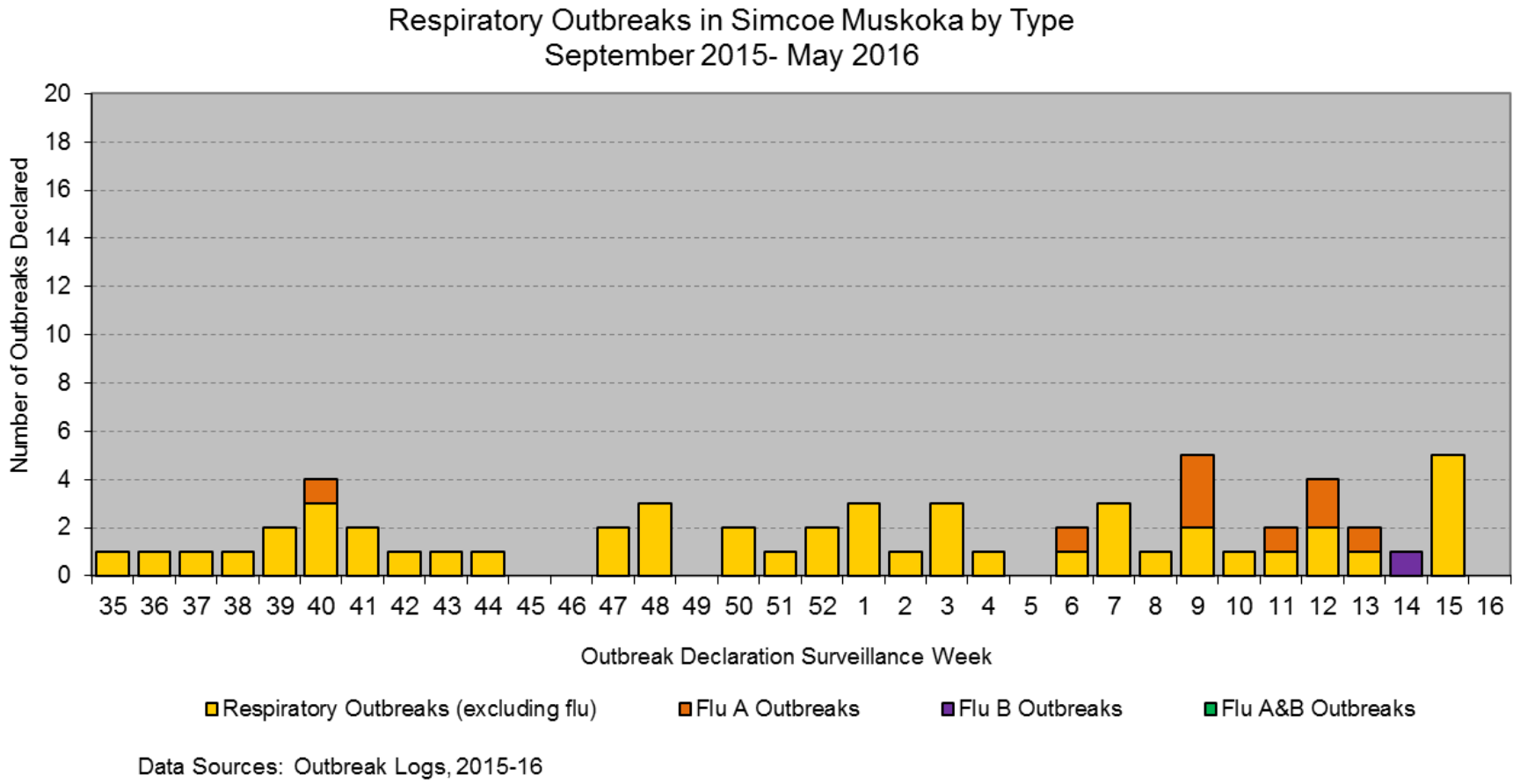
Most Recent H1N1 Season was 2013/14



Data Sources: Integrated Public Health Information System (iPHIS), extracted May 2016
* Confirmed Cases
^Data for 2015-16 is current until April 30, 2016

Fewer Institutional Flu Outbreaks in H1N1 Season



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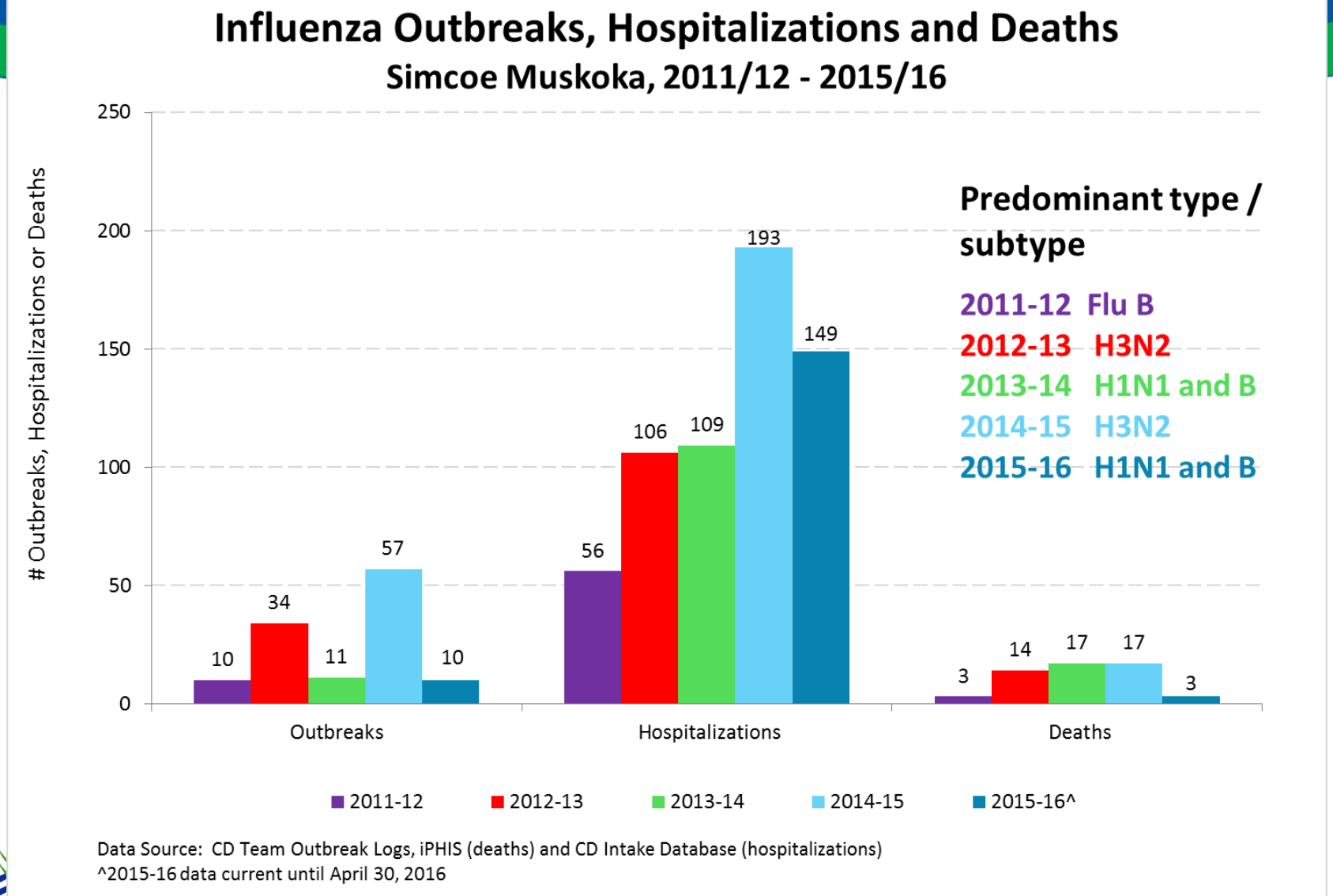
Less Severe Outcomes than H3N2



Data Source: CD Team Outbreak Logs, iPHIS (deaths) and CD Intake Database (hospitalizations)
^2015-16 data current until April 30, 2016

2015/16 Flu Vaccine Appears to be Good Match to Circulating Strains

- The strain characterization from the National Microbiology Lab (NML) as of mid-April states:
  - 889/889 (100%) H1N1 viruses tested nationally were antigenically similar to the vaccine strain (A/California/7/2009).
  - Only 42 influenza A(H3N2) virus samples grew to sufficient titre for antigenic characterization by HIA. All were characterized as antigenically similar to the vaccine strain (the cell-passaged A/Switzerland/9715293/2013).
  - 125/512 (24%) virus samples were antigenically similar to the recommended influenza B component (B/Phuket/3073/2013). 387 (76%) were characterized as B/Brisbane/60/2008-like, which is included as an influenza B component of the 2015-2016 quadrivalent vaccine

QUESTIONS?

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Pneumonia in Outbreaks

Medical Definition

- **Mayoclinic.org** Pneumonia is an infection that inflames the air sacs in one or both lungs. The air sacs may fill with fluid or pus (purulent material), causing cough with phlegm or pus, fever, chills, and difficulty breathing. A variety of organisms, including bacteria, viruses and fungi, can cause pneumonia.
- **Merckmanuals.com** Pneumonia is acute inflammation of the lungs caused by infection. Initial diagnosis is usually based on chest x-ray and clinical findings. Causes, symptoms, treatment, preventive measures, and prognosis differ depending on whether the infection is bacterial, viral, fungal, or parasitic; whether it is acquired in the community, hospital, or other health care–associated location; and whether it develops in a patient who is immunocompetent or immunocompromised.

Most common ways of diagnosing and managing pneumonia

- Clinical signs, symptoms and findings
  - Cough, fever, chills, shortness of breath, increased respiratory rate or/and increased sputum
  - On auscultation of chest, decreased air entry into lung, or/and crackles in lung
- Lung imaging if available eg.chest xray
- Sputum for culture: usually not done and results not available for days and therefore not useful for initial treatment
- Treatment: usually empirical antibiotics (antivirals and antifungals for non-bacterial causes), oxygen support if needed

Managing pneumonia in the context of a respiratory outbreak

- Clinical management as per attending physician.
- Respiratory outbreak management
  - Because no causative agent/organism is usually available for residents with pneumonia, they should be line-listed as part of the outbreak because they have a respiratory infection.
  - They should still be considered infectious even though they are on antibiotics, as most outbreaks are viral. They should follow outbreak protocol for infection control measures.(e.g. isolation, antivirals)
  - Some pneumonias, particularly in the elderly do not have the typical signs and symptoms and therefore, may not present with a fever or cough for that matter. If the MD has diagnosed pneumonia, unless there is a compelling reason such as aspiration pneumonia, they should be line-listed.
  - During influenza season, pneumonias may be a direct result of an influenza infection or a bacterial pneumonia as a complication of being infected with influenza

QUESTIONS?

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