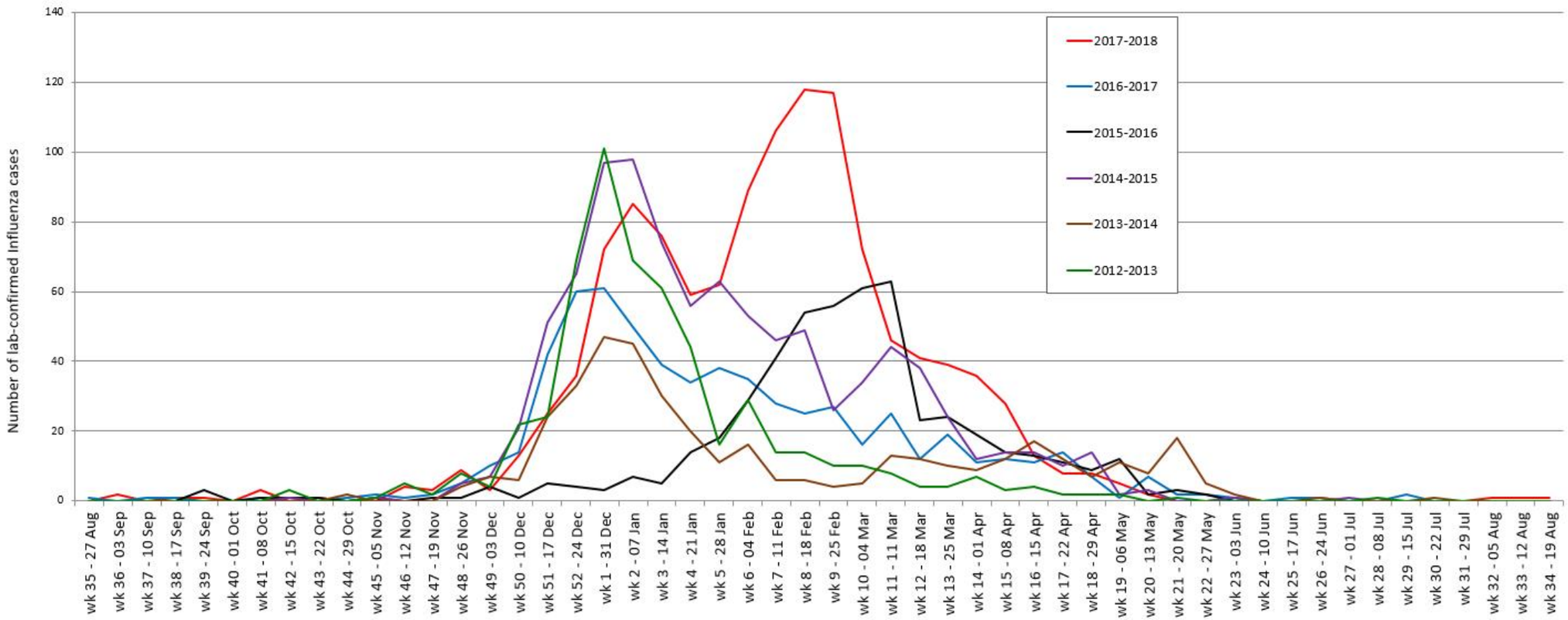
Epidemiological Curve of Lab-Confirmed Influenza Activity in Ottawa, 2012-2013 to 2017-2018



Date ranges for influenza surveillance (flu weeks) weeks change slightly each season. For ease of interpretation, only 2017-2018 flu week date ranges are captured in the epidemiological curve above.

Comparative Table of Influenza Seasons in Ottawa, 2012-2013 to 2017-2018

	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Dominant influenza strain(s)	A/H3N2	A/H1N1	A/H3N2	A/ H1N1	A/H3N2	A/H3N2 and B/Phuket (Yamagata lineage)
Key periods of flu activity						
First week of flu season‡	Nov 4- Nov 10, 2012*	Dec 1-7, 2013*	Nov 23-29, 2014*	Jan 17-23, 2016*	Nov 27- Dec 3, 2016	Nov 26- Dec 2, 2017
Week of maximum % test-positivity	Dec 23-29, 2012*	Dec 29, 2013 - Jan 4, 2014*	Dec 28, 2014 - Jan 3, 2015*	March 6-12, 2016*	Dec 25-31, 2016*	Feb 25- March 3, 2018*
Maximum % test-positivity∞	33.4%*	29.1%*	34.5%*	34.3%*	19.4%	34%
Peak week of flu season±	Dec 31, 2012-Jan 6, 2013	Dec 31, 2013 - Jan 7, 2014	Jan 7-14, 2015	Mar 10-16, 2016	Dec 31, 2016 -Jan 7, 2017	Peak 1: Jan 7-14, 2018 Peak 2: Feb 18-24, 2018
Lab-confirmed influenza cases						
Median age	70 years	54 years	78 years	45 years	71 years	72 years
Total flu cases	544	404	924	506	622	1187
Flu A cases (%)	498 (91%)	300 (74%)	769 (83%)	402 (79%)	544 (87%)	689 (58%)
Flu B cases (%)	46 (8%)	104 (26%)	153 (17%)	104 (21%)	78 (12%)	492 (41%)
Hospitalizations	122	106	234	149	113	Not available
Deaths	13	9	27	7	11	21
Institutional respiratory outbreaks						
Total respiratory outbreaks	103	73	156	78	132	148
Flu A outbreaks	50	20	91	14	44	42
Flu B outbreaks	4	8	11	3	3	37
Non-influenza outbreaks	49	45	54	61	85	62
Hospitalizations≠	Not available	Not available	179	17	46	96
Deaths≠	Not available	Not available	48	5	19	34
Flu Immunization€						
Vaccine doses distributed	353,800	390,640	380,309	379,333	379,241	392,603
Estimated vaccine coverage	38.2%	41.7%	40%	38.9%	38.0%	38.6%
Overall vaccine effectiveness (95% CI)¥	50% (33-63%)	68% (58-76%)	9% (-14-27%)	46% (32-57%)	45% (31-56%)	42% (22-55%)

Data Notes:

The data presented are current as of Sep 1, 2018. Unless otherwise stated, information included in this table was extracted from the Ministry of Health and Long-Term Care integrated Public Health Information System (iPHIS) database by Ottawa Public Health (OPH). iPHIS is a dynamic disease reporting system that allows for ongoing updates to data previously entered. Data extracted from the iPHIS database represent a snapshot at the time of extraction and can be different in previous or subsequent reports.

Influenza cases and respiratory infection outbreaks in institutions and public hospitals meeting Ontario Ministry of Health and Long-Term Care (MOHLTC) case definitions for Diseases of Public Health Significance (DPHS), according to Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards): Infectious Diseases Protocol, are presented. In the City of Ottawa, laboratory confirmation testing of influenza is performed by Public Health Ontario Labs (PHOL) or Eastern Ontario Regional Laboratory Association (EORLA). Changes to DPHS reporting requirements or case definitions, as well as variability in influenza laboratory testing and reporting algorithms at can limit the ability to compare across influenza seasons.

* Influenza laboratory test-positivity data for influenza seasons prior to the 2016-2017 season are unavailable for the City of Ottawa. Ontario data, available from Public Health Ontario (PHO) and accessed here, are included as proxy measures.

‡ First week when 5% or more of samples submitted for laboratory testing were positive for influenza.

ᵒᵒ Highest % of samples submitted for testing that were positive for influenza during a single week.

± Week when the highest number of new influenza cases were reported to OPH, by accurate episode date.

≠ Deaths and hospitalizations are limited to line-listed resident or patient cases from influenza outbreaks in institutions and public hospitals. Influenza infections are not confirmed through laboratory testing for all line-listed cases, as per MOHLTC reporting case definitions. Generally, up to four sample are tested, the remaining outbreak cases are assumed to be caused by the same respiratory pathogen.

€ Flu vaccination coverage estimates are based on the number of vaccine doses distributed by OPH each season. Vaccine coverage = number of vaccine doses distributed / Ottawa population estimates for 2018 *100

¥ Flu vaccine effectiveness data are based on the Canadian Sentinel Practitioner Surveillance Network (SPSN) influenza vaccine effectiveness estimates accessed here.