

# Weekly Influenza Surveillance Report

The New York State Department of Health (NYSDOH) collects, compiles, and analyzes information on influenza activity year round in New York State (NYS) and produces this weekly report during the influenza season (October through the following May).<sup>1</sup>

## During the week ending February 17, 2018

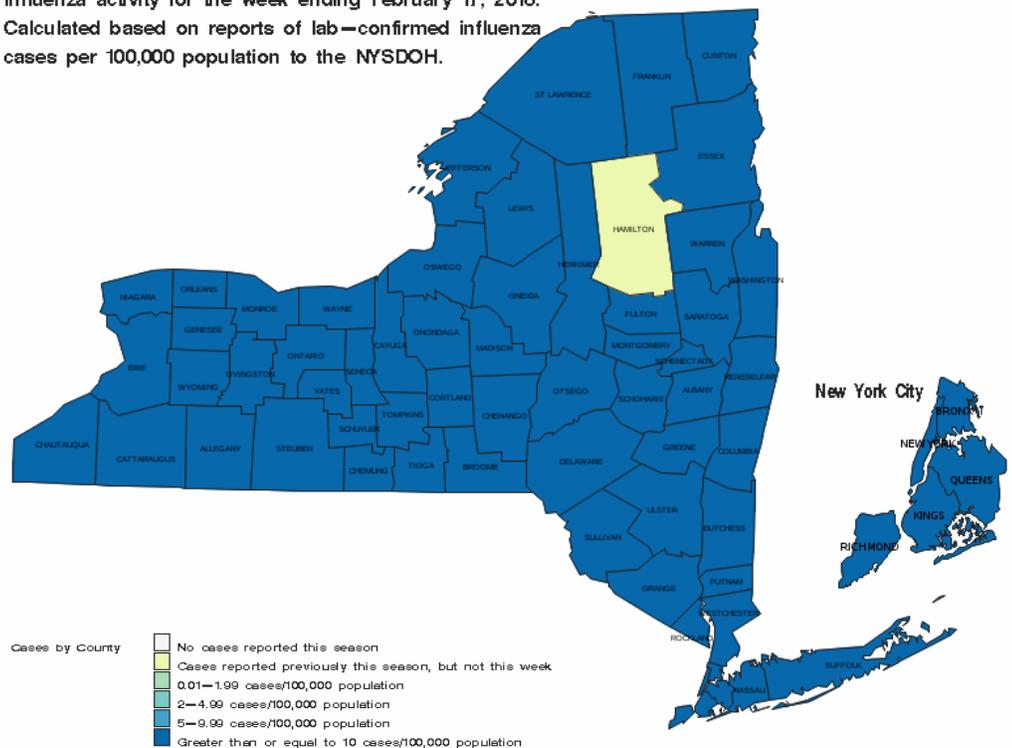
- Influenza activity level was categorized as geographically **widespread**<sup>2</sup>. This is the 11th consecutive week that widespread activity has been reported.
- There were **18,258** laboratory-confirmed influenza reports, a **9% increase** over last week.
- Of the **7,398** specimens submitted to WHO/NREVSS laboratories, **2,445 (33.05%)** were positive for influenza.
- Of the **184** specimens tested at Wadsworth Center, **112** were positive for influenza. **17** were **Influenza A (H1)**, **94** were **influenza A (H3)**, and **1** was **influenza B (Yamagata)**.
- Reports of percent of patient visits for influenza-like illness (ILI)<sup>3</sup> from ILINet providers was **10.66%**, which is above the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **2,160** a **13% decrease** over last week.
- There were **no** influenza-associated pediatric deaths reported this week. There have been **five** influenza-associated pediatric deaths reported this season.
- Preliminary results for **influenza vaccine effectiveness (VE)** are published on CDC's website at [https://www.cdc.gov/mmwr/volumes/67/wr/mm6706a2.htm?s\\_cid=mm6706a2\\_w](https://www.cdc.gov/mmwr/volumes/67/wr/mm6706a2.htm?s_cid=mm6706a2_w).

## Laboratory Reports of Influenza (including NYC)

All clinical laboratories that perform testing on residents of NYS report all positive influenza test results to NYSDOH.

- 61 counties reported cases this week.
- Incidence ranged from 0-271.73 cases/100,000 population.

Influenza activity for the week ending February 17, 2018. Calculated based on reports of lab-confirmed influenza cases per 100,000 population to the NYSDOH.



<sup>1</sup> Information about influenza monitoring in New York City (NYC) is available from the NYC Department of Health and Mental Hygiene website at: <http://www.nyc.gov/html/doh/>. National influenza surveillance data is available on CDC's FluView website at <http://www.cdc.gov/flu/weekly/>.

<sup>2</sup> **No Activity:** No laboratory-confirmed cases of influenza reported to the NYSDOH.

**Sporadic:** Small numbers of lab-confirmed cases of influenza reported.

**Local:** Increased or sustained numbers of lab-confirmed cases of influenza reported in a single region of New York State; sporadic in rest of state.

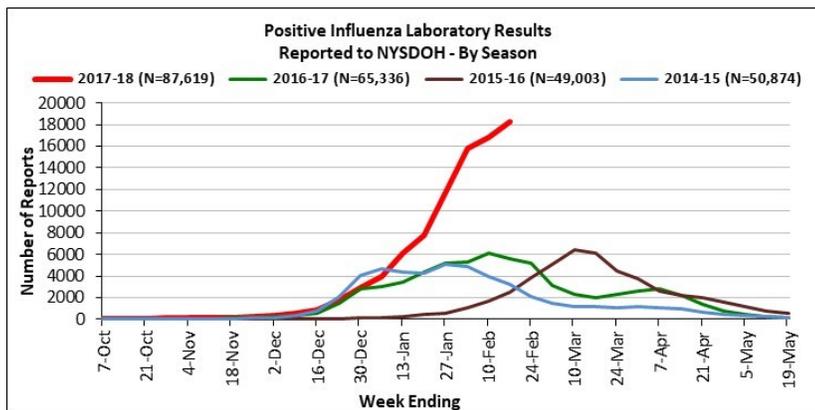
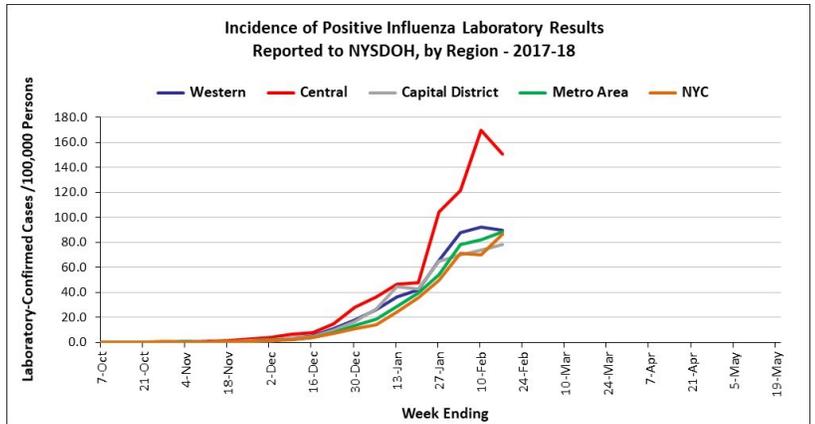
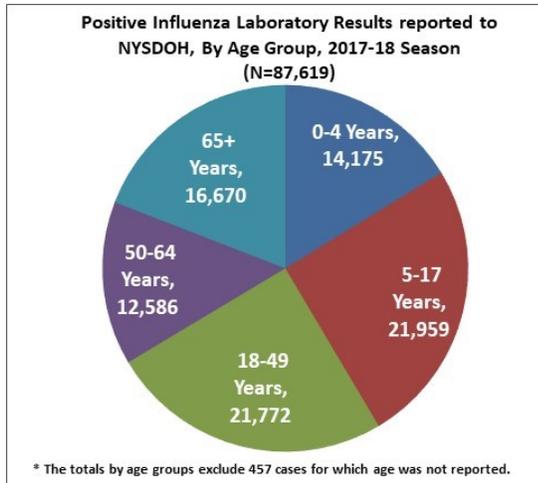
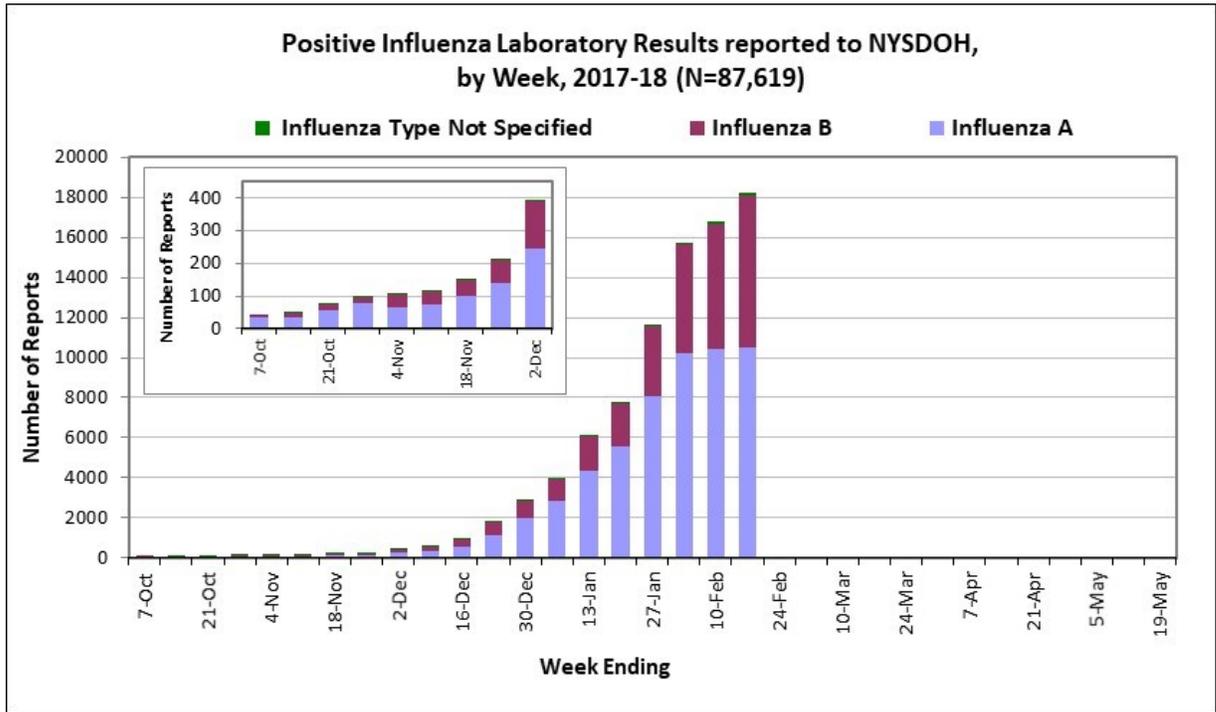
**Regional:** Increased or sustained numbers of lab-confirmed cases of influenza reported in at least two regions but in fewer than 31 of 62 counties.

**Widespread:** Increased or sustained numbers of lab-confirmed cases of influenza reported in greater than 31 of the 62 counties.

Increased or sustained is defined as 2 or more cases of laboratory-confirmed influenza per 100,000 population.

<sup>3</sup> ILI = influenza-like illness, defined as temperature 100° F with cough and/or sore throat in the absence of a known cause other than influenza

Laboratory Reports of Influenza (including NYC)



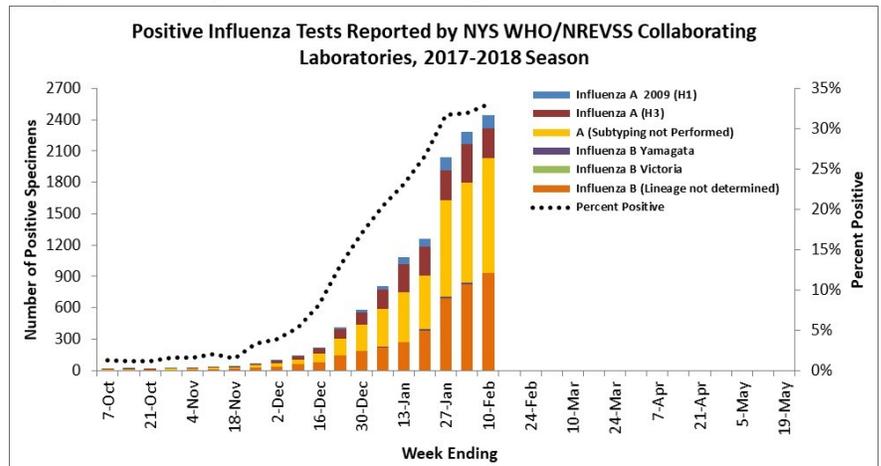
## Laboratory Reports of Influenza (Including NYC)

Data shown in the table represents the number of laboratory-confirmed cases by county for the current week, previous two weeks, and season-to-date totals.

County	Week Ending			Season-To-Date
	3-Feb	10-Feb	17-Feb	
Albany	158	182	176	1140
Allegany	18	20	16	108
Broome	325	385	339	1646
Cattaraugus	54	70	56	338
Cayuga	139	97	71	785
Chautauqua	117	179	214	829
Chemung	56	56	21	285
Chenango	103	106	85	423
Clinton	35	76	64	397
Columbia	45	38	62	253
Cortland	65	79	84	399
Delaware	34	53	40	206
Dutchess	217	264	241	1232
Erie	608	642	605	3244
Essex	13	18	20	92
Franklin	22	14	20	125
Fulton	37	31	41	222
Genesee	98	94	111	538
Greene	19	20	17	175
Hamilton	4	1		20
Herkimer	72	103	118	460
Jefferson	137	262	164	748
Lewis	44	81	73	242
Livingston	58	75	119	391
Madison	57	74	68	399
Monroe	665	736	666	4197
Montgomery	44	57	57	282
Nassau	831	1108	1337	5484
Niagara	112	118	104	557
Oneida	387	479	588	2310
Onondaga	234	462	391	2262
Ontario	212	210	216	1002
Orange	282	228	343	1454
Orleans	54	44	38	226
Oswego	161	195	156	869
Otsego	59	61	65	277
Putnam	114	93	106	457
Rensselaer	92	81	73	573
Rockland	144	176	144	833
Saratoga	198	217	248	1444
Schenectady	284	237	271	1326
Schoharie	21	19	22	99
Schuyler	4	3	5	24
Seneca	56	32	31	210
St. Lawrence	79	201	132	606
Steuben	60	69	70	324
Suffolk	1131	1081	1090	5472
Sullivan	48	40	100	321
Tioga	69	95	96	404
Tompkins	150	197	138	832
Ulster	124	67	64	523
Warren	17	24	30	172
Washington	26	37	34	200
Wayne	228	165	172	923
Westchester	1172	1207	1159	6227
Wyoming	25	35	60	179
Yates	33	35	20	143
<b>Upstate Total</b>	<b>9651</b>	<b>10829</b>	<b>10851</b>	<b>54909</b>
Bronx	1610	1843	2079	8821
Kings	1526	1404	1562	7833
New York	900	702	1049	4602
Queens	1780	1613	2400	9809
Richmond	279	412	317	1645
<b>NYC Total</b>	<b>6095</b>	<b>5974</b>	<b>7407</b>	<b>32710</b>
<b>Total</b>	<b>15746</b>	<b>16803</b>	<b>18258</b>	<b>87619</b>

## World Health Organization (WHO) and National Respiratory & Enteric Virus Surveillance System (NREVSS) Collaborating Laboratories

Clinical virology laboratories, including the Wadsworth Center, that are WHO and/or NREVSS collaborating laboratories for influenza surveillance report weekly the number of respiratory specimens tested and the number positive for influenza types A and B to CDC. Some labs also report the influenza A subtype (H1 or H3) and influenza B lineage (Victoria or Yamagata). Because denominator data is provided, the weekly percentage of specimens testing positive for influenza is calculated.

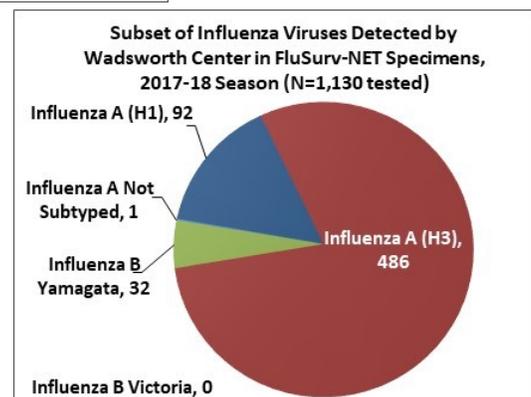
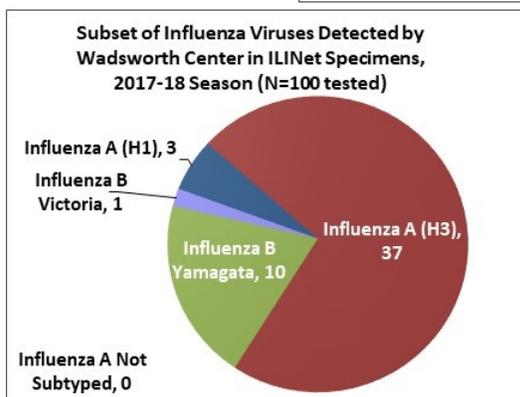
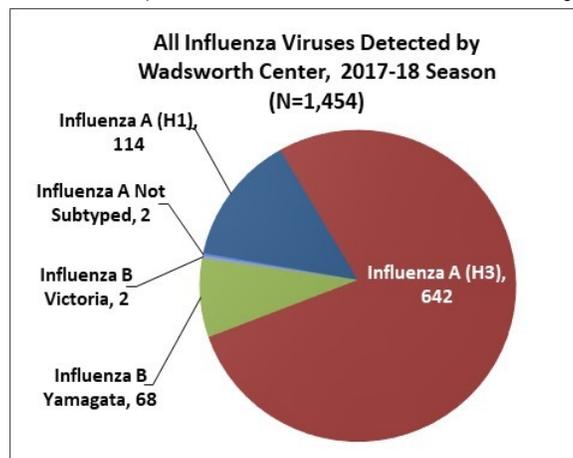


## Influenza Virus Types and Subtypes Identified at Wadsworth Center (excluding NYC)

Wadsworth Center, the NYSDOH public health laboratory, tests specimens from sources including, outpatient healthcare providers (ILINet) and hospitals (FluSurv-NET).

There are 2 common subtypes of influenza A viruses – H1 and H3. Each subtype has a slightly different genetic makeup. Wadsworth also identifies the lineage of influenza B specimens – Yamagata or Victoria. Rarely, an influenza virus is unable to have its subtype or lineage identified by the laboratory.

Wadsworth sends a subset of positive influenza specimens to the CDC for further virus testing and characterization.



## Influenza Antiviral Resistance Testing

The Wadsworth Center Virology Laboratory performs surveillance testing for antiviral drug resistance. <sup>4</sup>

NYS Antiviral Resistance Testing Results on Samples Collected Season to date, 2017-18

	Samples tested	Oseltamivir Resistant Viruses, Number (%)	Zanamivir Resistant Viruses, Number (%)
Influenza A (H1N1pdm09) <sup>i</sup>	34	0 (0.00)	0 (0.00)
Influenza A (H3N2) <sup>ii</sup>	117	1 (0.85)	1 (0.85)
Influenza B <sup>iii</sup>	0	0 (0.00)	0 (0.00)

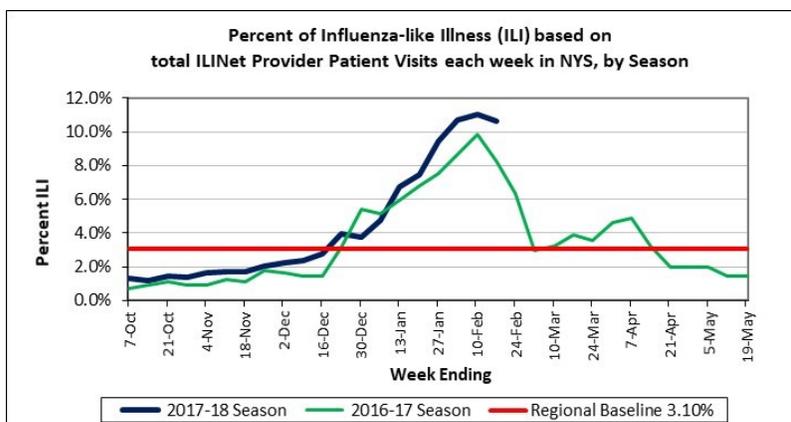
- I. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir and oseltamivir.
- II. All samples tested for oseltamivir resistance by pyrosequencing for E119V, R292K, and N294S in the neuraminidase gene (NA), and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir and oseltamivir.
- III. Samples tested by whole gene dideoxysequencing of the neuraminidase gene. Sequence data reviewed for variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir and oseltamivir.

## Outpatient Influenza-like Illness Surveillance Network (ILINet) (excluding NYC)

The NYSDOH works with ILINet healthcare providers who report the total number of patients seen and the total number of those with complaints of influenza-like illness (ILI) every week in an outpatient setting.

The CDC uses trends from past years to determine a regional baseline rate of doctors' office visits for ILI. For NYS, the regional baseline is currently 3%. Numbers above this regional baseline suggest high levels of illness consistent with influenza in the state.

Note that surrounding holiday weeks, it is not uncommon to notice a fluctuation in the ILI rate. This is a result of the different pattern of patient visits for non-urgent needs.

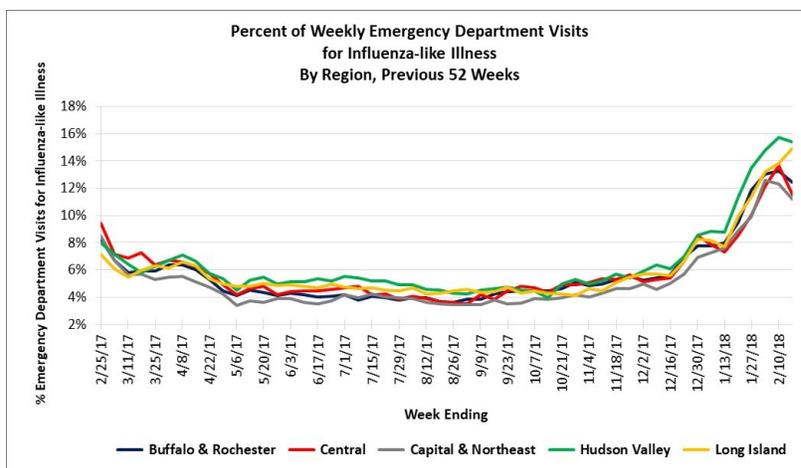


## Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

Hospitals around NYS report the number of patients seen in their emergency departments with complaints of ILI. This is called syndromic surveillance.

An increase in visits to hospital emergency departments for ILI can be one sign that influenza has arrived in that part of NYS.

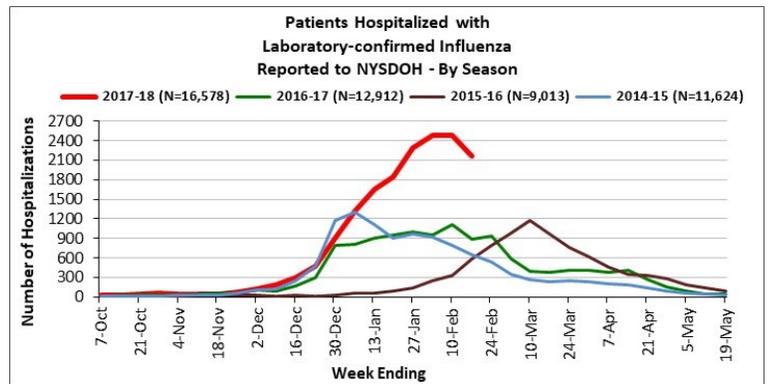
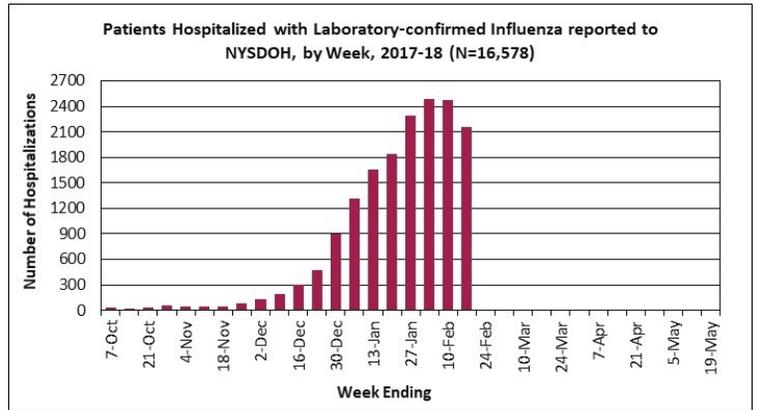
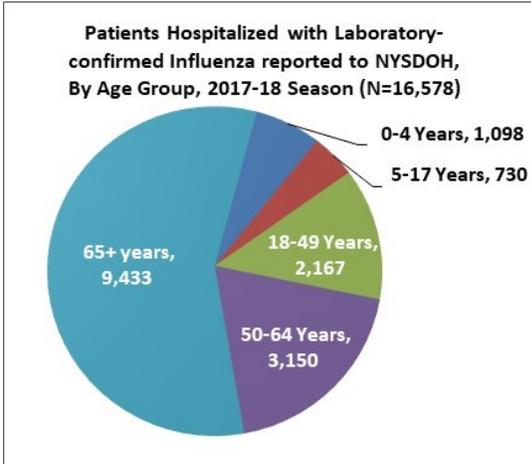
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



<sup>4</sup>Additional information regarding national antiviral resistance testing, as well as recommendations for antiviral treatment and chemoprophylaxis of influenza virus infection, can be found at <http://www.cdc.gov/flu/weekly/>.

## Patients Hospitalized with Laboratory-Confirmed Influenza (including NYC)

Hospitals in NYS and NYC report the number of hospitalized patients with laboratory-confirmed Influenza to NYSDOH. 181 (99%) of 183 hospitals reported this week.



## Influenza Hospitalization Surveillance Network (FluSurv-NET)

As part of the CDC’s FluSurv-Net, the NYS Emerging Infections Program (EIP) conducts enhanced surveillance for hospitalized cases of laboratory-confirmed influenza among residents of 15 counties.<sup>5</sup> Medical chart reviews are completed, and underlying health conditions noted on all identified cases from October 1 through April 30 of the following year.

FluSurv-Net estimated hospitalization rates will be updated weekly starting later this season.

<sup>5</sup>Counties include, in the Capital District: Albany, Columbia, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, and Schoharie; in the Western Region: Genesee, Livingston, Monroe, Ontario, Orleans, Wayne, and Yates

## Healthcare-associated Influenza Activity (including NYC)

Hospitals and nursing homes in NYS report outbreaks of influenza to the State. An outbreak in these settings is defined as one or more healthcare facility-associated case(s) of confirmed influenza in a patient or resident or two or more cases of influenza-like illness among healthcare workers and patients/residents of a facility on the same unit within 7 days. Outbreaks are considered confirmed only with positive laboratory testing.<sup>6</sup>

Week-to-Date (CDC week - 7) 2/11/18 through 2/17/18	Capital Region			Central Region			Metro Region			Western Region			Statewide (Total)		
	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total
# Outbreaks* Lab-confirmed Influenza (any type)		5	5	2	11	13	38	27	65	4	10	14	44	53	97
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
<b>Total # Outbreaks</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>13</b>	<b>38</b>	<b>27</b>	<b>65</b>	<b>4</b>	<b>10</b>	<b>14</b>	<b>44</b>	<b>53</b>	<b>97</b>

Season-to-Date (CDC week - 7) 9/29/17/16 through 2/17/18	Capital Region			Central Region			Metro Region			Western Region			Statewide (Total)		
	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total
# Outbreaks* Lab-confirmed Influenza (any type)	27	55	82	15	86	101	305	280	585	27	108	135	374	529	903
# Outbreaks* viral respiratory illness**		7	7		11	11		22	22	1	6	7	1	46	47
<b>Total # Outbreaks</b>	<b>27</b>	<b>62</b>	<b>89</b>	<b>15</b>	<b>97</b>	<b>112</b>	<b>305</b>	<b>302</b>	<b>607</b>	<b>28</b>	<b>114</b>	<b>142</b>	<b>375</b>	<b>575</b>	<b>950</b>

ACF - Article 28 Acute Care Facility

LTCF - Article 28 Long Term Care Facility

\*Outbreaks are reported based on the onset date of symptoms in the first case

\*\* Includes outbreaks of suspect influenza and/or other viral upper respiratory pathogens

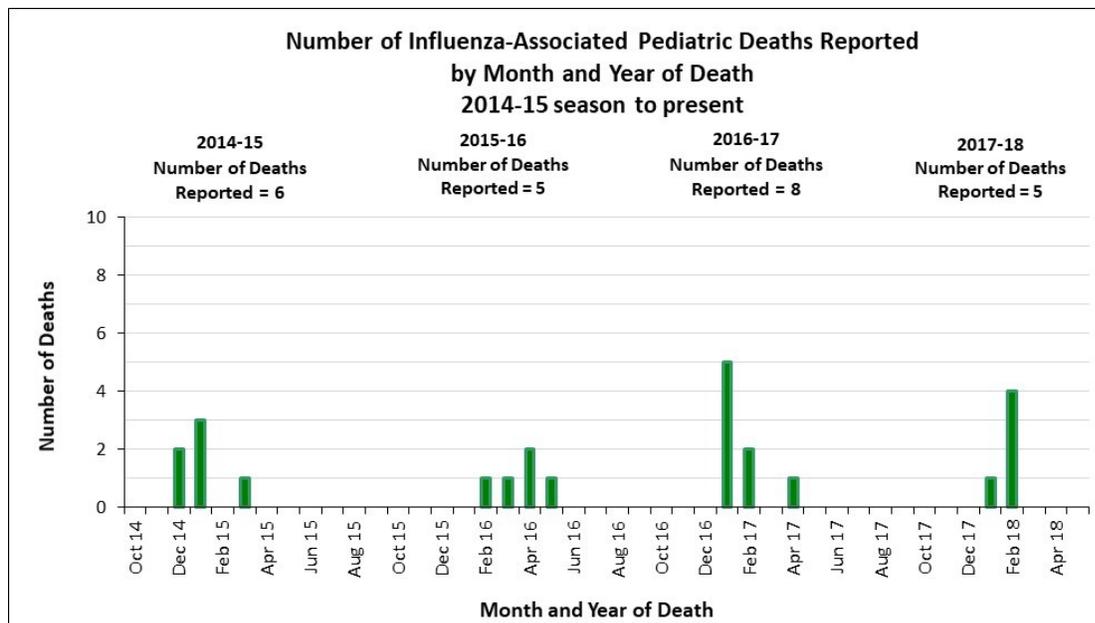
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit [www.health.ny.gov/FluMaskReg](http://www.health.ny.gov/FluMaskReg)

## Pediatric influenza-associated deaths reported (including NYC)

Local health departments report pediatric influenza-associated deaths to NYSDOH.

Flu-associated deaths in children younger than 18 years old are nationally notifiable. Influenza-associated deaths in persons 18 years and older are not notifiable.

All pediatric flu-associated deaths included in this report are laboratory-confirmed.



<sup>6</sup>For more information on reporting of healthcare-associated influenza, visit [http://www.health.ny.gov/diseases/communicable/control/respiratory\\_disease\\_checklist.htm](http://www.health.ny.gov/diseases/communicable/control/respiratory_disease_checklist.htm)