

# 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 March 10, 2018

- Influenza activity level was categorized as geographically **widespread**<sup>2</sup>. This is the 14th consecutive week that widespread activity has been reported.
- There were **3,692** laboratory-confirmed influenza reports, a **42% decrease** over last week.
- Of the **3,065** specimens submitted to WHO/NREVSS laboratories, **586 (19.12%)** were positive for influenza.
- Of the **147** specimens tested at Wadsworth Center, **129** were positive for influenza. **8** were **Influenza A (H1)**, **86** were **influenza A (H3)**, **33** were **influenza B (Yamagata)**, and **2** were **influenza B (Victoria)**.
- Reports of percent of patient visits for influenza-like illness (ILI)<sup>3</sup> from ILINet providers was **4.00%**, which is above the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **694** a **35% 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).

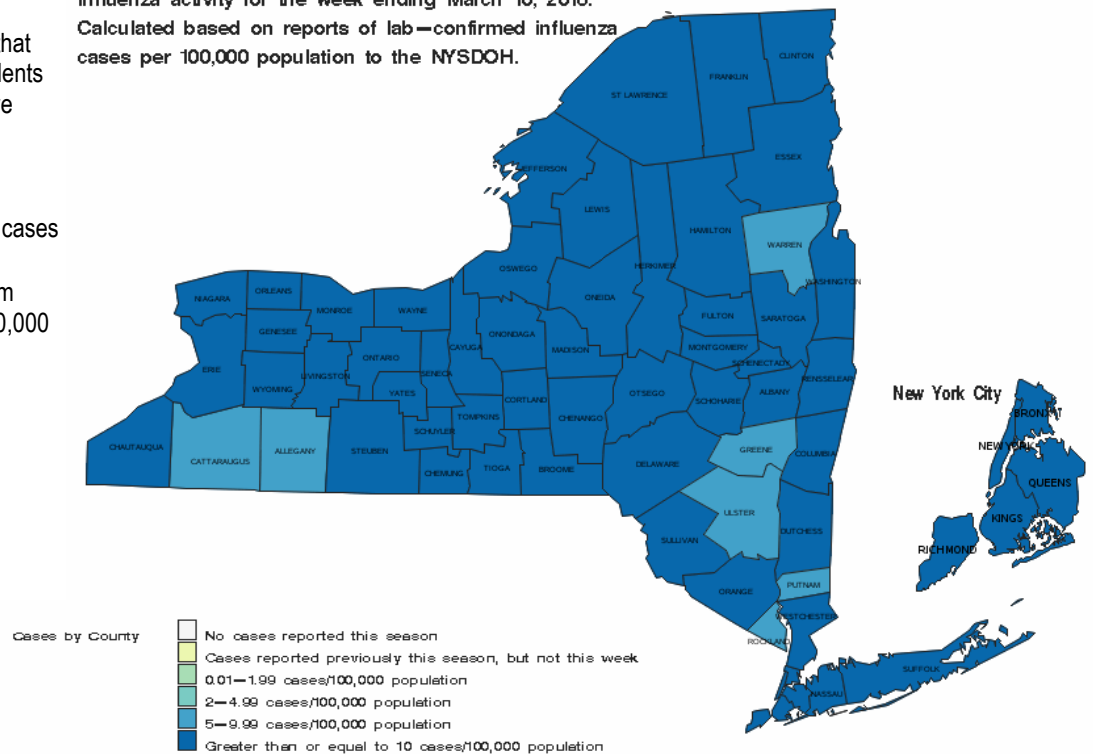
## Laboratory Reports of Influenza (including NYC)

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

- 62 counties reported cases this week.
- Incidence ranged from 6.44-67.91 cases/100,000 population.

Influenza activity for the week ending March 10, 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.

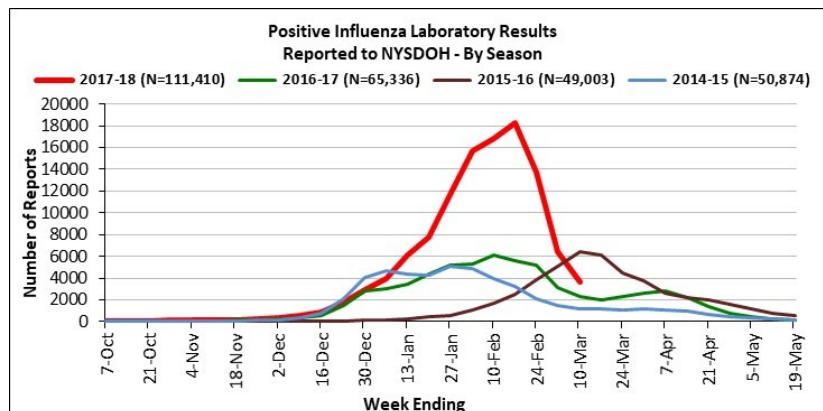
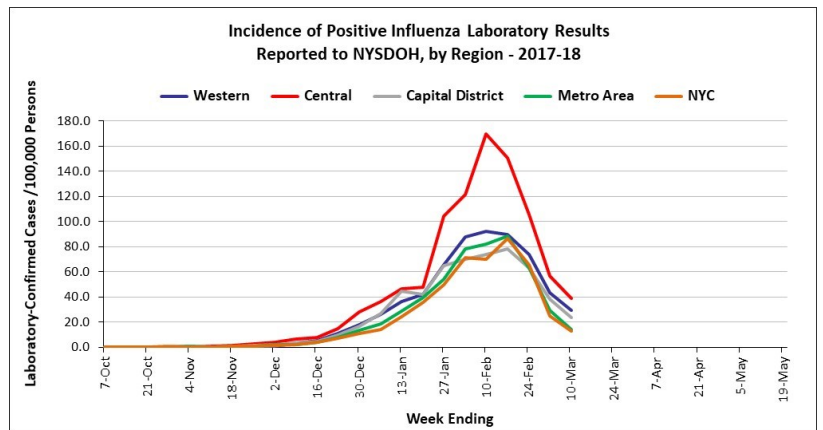
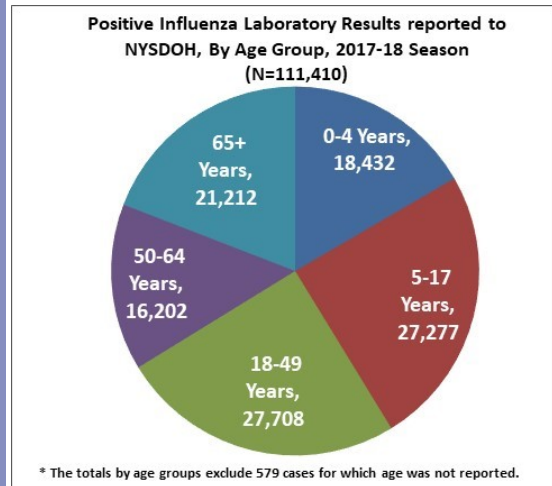
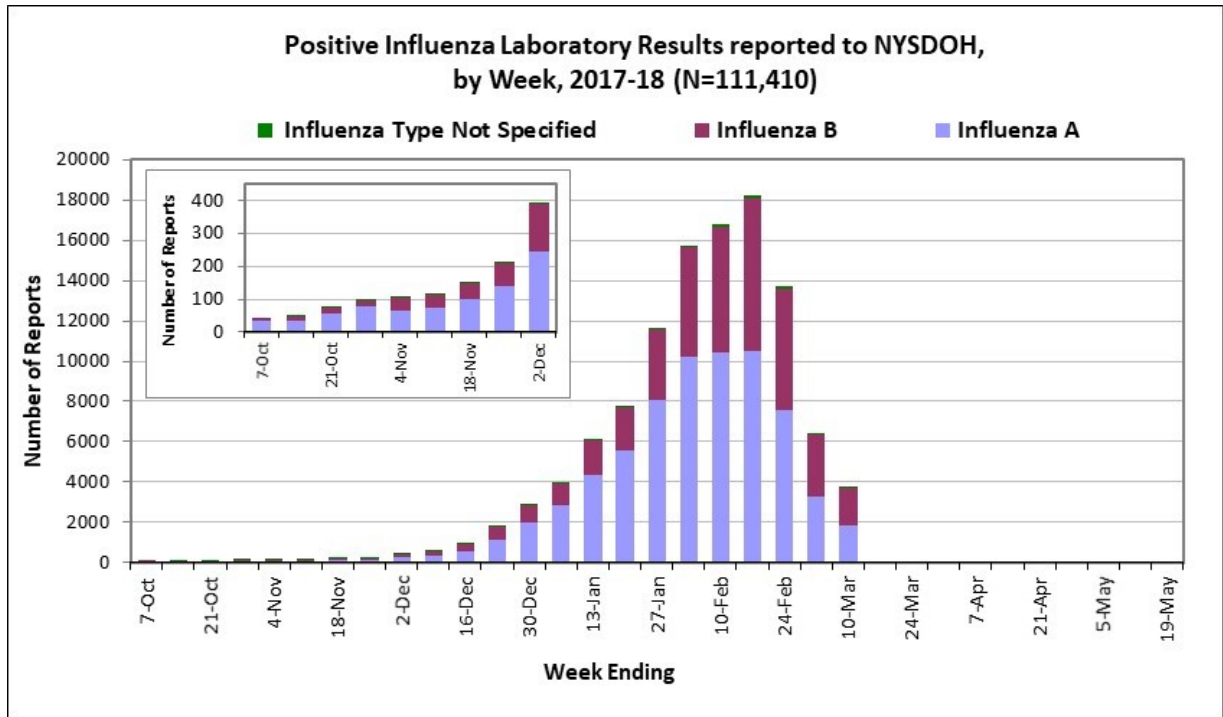
**Widespread:** Increased or sustained numbers of lab-confirmed cases of influenza reported in greater than 31 of the 62 counties.

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)

Test results may identify influenza Type A, influenza Type B, or influenza without specifying Type A or B. Some tests only give a positive or negative result and cannot identify influenza type (not specified).



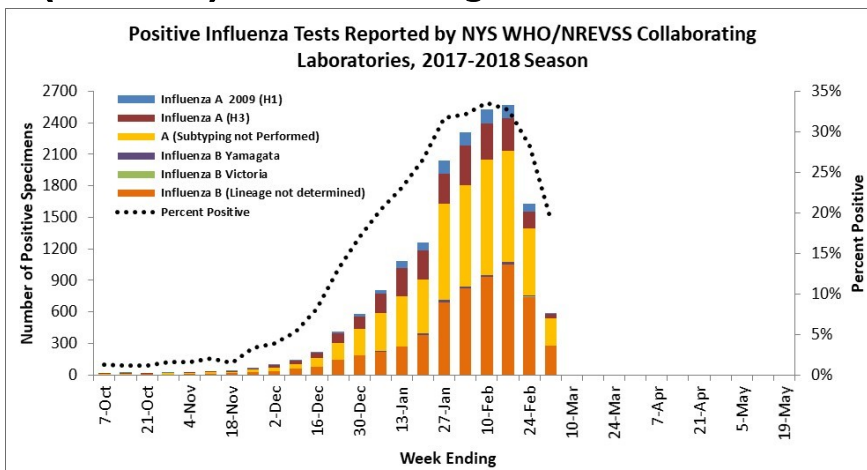
## Laboratory Reports of Influenza (including NYC)

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
	17-Feb	24-Feb	3-Mar	
Albany	159	102	44	1444
Allegany	33	9	4	154
Broome	144	90	47	1927
Cattaraugus	53	30	5	426
Cayuga	65	42	28	920
Chautauqua	158	83	62	1132
Chemung	41	32	25	383
Chenango	32	31	21	507
Clinton	52	41	52	542
Columbia	35	9	9	303
Cortland	65	40	16	520
Delaware	28	10	18	262
Dutchess	119	54	33	1438
Erie	561	336	216	4357
Essex	24	14	12	142
Franklin	20	30	15	190
Fulton	32	23	9	286
Genesee	46	27	21	632
Greene	15	5	4	198
Hamilton	0	0	1	21
Herkimer	121	50	35	665
Jefferson	135	134	60	1077
Lewis	53	40	17	352
Livingston	66	34	27	518
Madison	59	20	33	511
Monroe	604	393	277	5471
Montgomery	67	26	20	395
Nassau	942	410	177	7011
Niagara	108	59	34	758
Oneida	377	188	157	3032
Onondaga	291	100	69	2722
Ontario	109	54	34	1198
Orange	230	135	63	1882
Orleans	39	34	20	319
Oswego	150	55	46	1120
Otsego	45	20	18	360
Putnam	95	34	7	593
Rensselaer	69	51	20	713
Rockland	123	50	22	1028
Saratoga	189	114	68	1814
Schenectady	190	122	71	1708
Schoharie	25	14	6	144
Schuyler	10	5	3	42
Seneca	20	14	18	262
St. Lawrence	109	93	66	874
Steuben	44	38	24	430
Suffolk	807	361	180	6820
Sullivan	74	45	24	464
Tioga	64	33	19	520
Tompkins	90	31	34	987
Ulster	38	22	12	595
Warren	24	9	5	210
Washington	26	18	8	252
Wayne	121	47	35	1126
Westchester	833	410	227	7697
Wyoming	39	13	6	237
Yates	20	9	9	181
<b>Upstate Total</b>	<b>8088</b>	<b>4293</b>	<b>2593</b>	<b>69872</b>
Bronx	1236	525	276	10857
Kings	2000	572	283	10687
New York	603	257	165	5627
Queens	1555	661	326	12351
Richmond	220	102	49	2016
<b>NYC Total</b>	<b>5614</b>	<b>2117</b>	<b>1099</b>	<b>41538</b>
<b>Total</b>	<b>13702</b>	<b>6410</b>	<b>3692</b>	<b>111410</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.

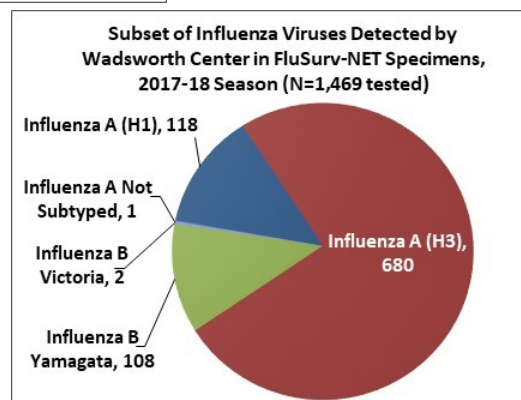
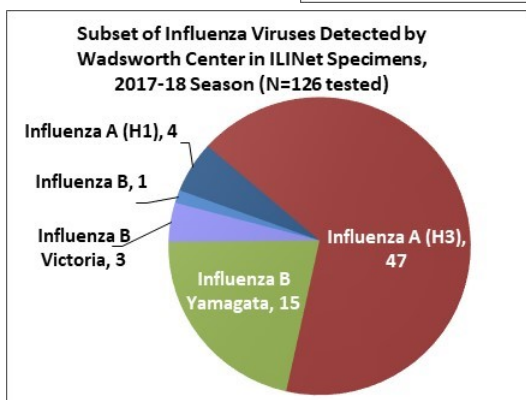
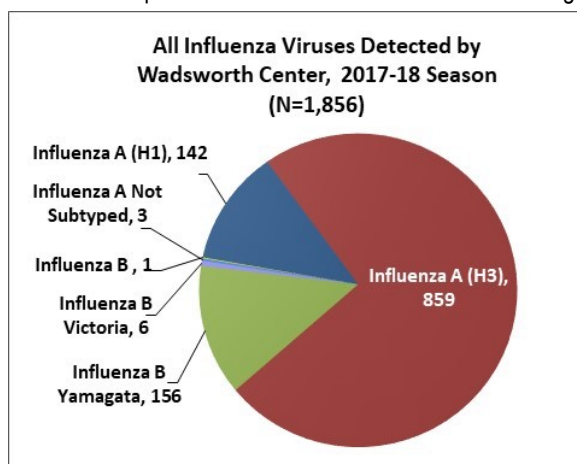


### Influenza Virus Types and Subtypes Identified at Wadsworth Center (excluding NYC)

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 it’s 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>	94	0 (0.0)	0 (0.0)
Influenza A (H3N2) <sup>ii</sup>	164	1 (0.6)	1 (0.6)
Influenza B <sup>iii</sup>	0	0 (0.0)	0 (0.0)

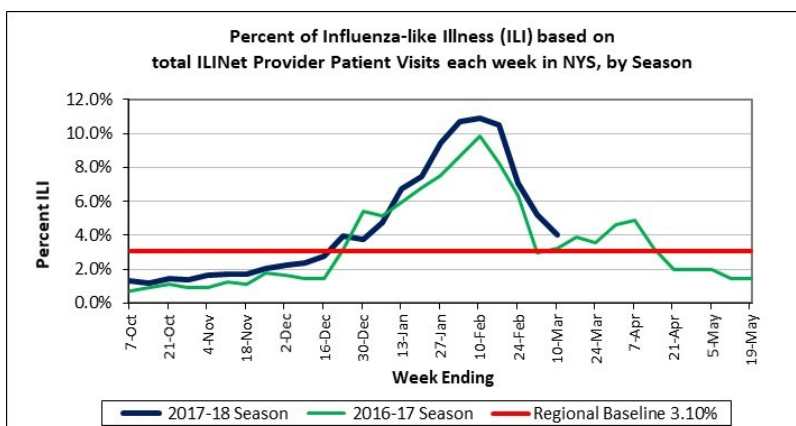
- I. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir 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.

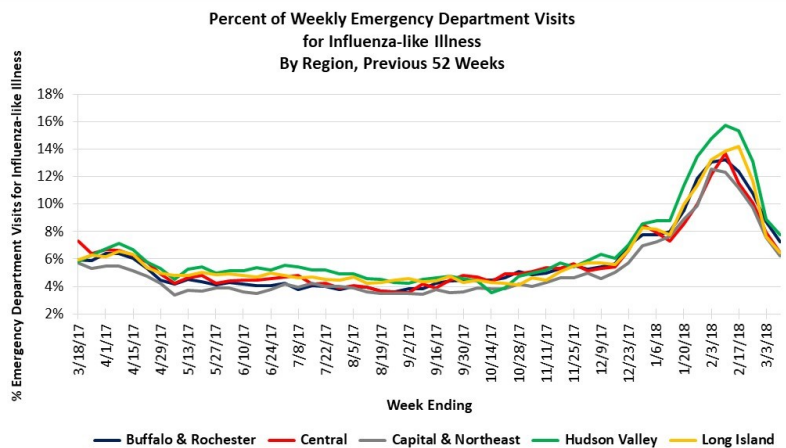


## Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

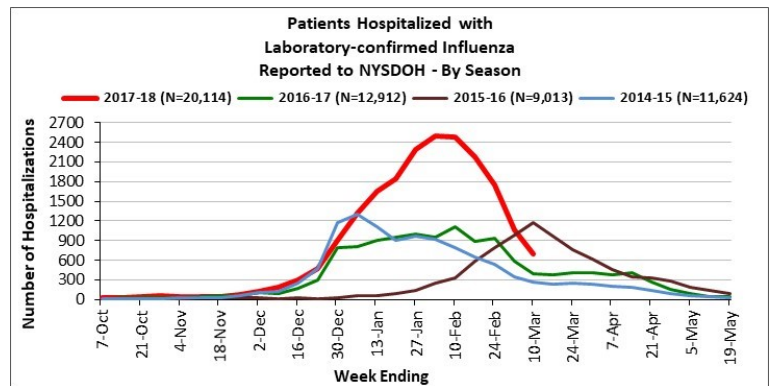
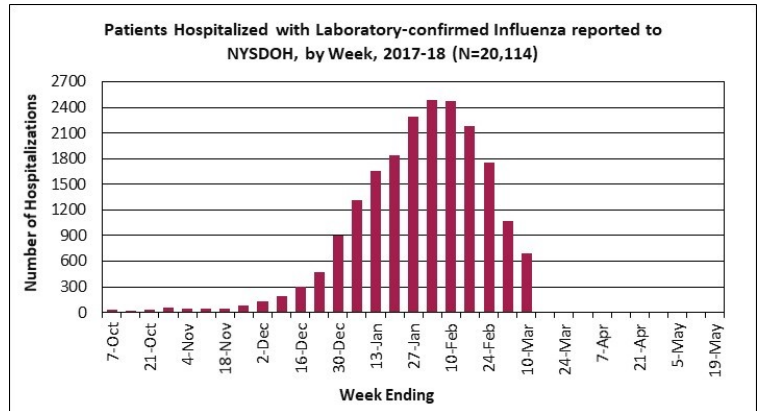
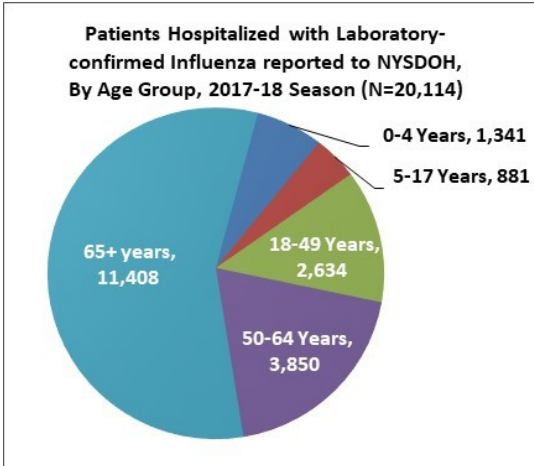
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



<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/>.

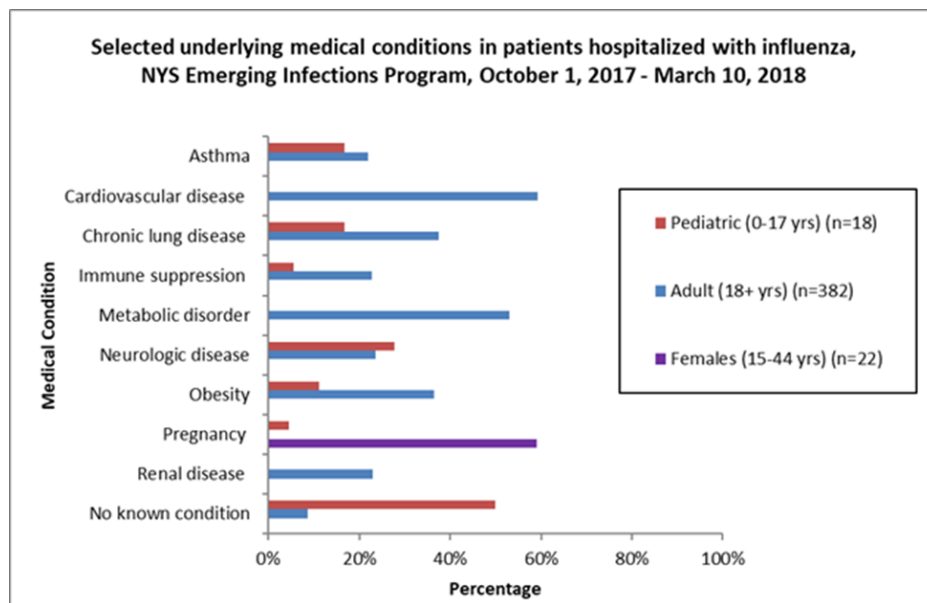
## Patients Hospitalized with Laboratory-Confirmed Influenza (including NYC)

Hospitals in NYS and NYC report the number of hospitalized patients with laboratory-confirmed Influenza to NYSDOH. 178 (97%) 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> Underlying health conditions are assessed through medical chart reviews for cases identified during the season.<sup>6</sup>



<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

<sup>6</sup>Data are based on completed medical chart reviews for 422 of 2,625 hospitalized cases and should be considered preliminary.

## 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>7</sup>

Week-to-Date (CDC week - 10) 3/4/18 through 3/10/18	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)		3	3	2	5	7	10	11	21	2	4	6	14	23	37
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
<b>Total # Outbreaks</b>	<b>0</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>7</b>	<b>10</b>	<b>11</b>	<b>21</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>14</b>	<b>23</b>	<b>37</b>

Season-to-Date (CDC week - 10) 9/29/17 through 3/10/18	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)	29	70	99	24	102	126	377	346	723	31	131	162	461	649	1110
# Outbreaks* viral respiratory illness**		6	6		12	12		23	23		6	6	0	47	47
<b>Total # Outbreaks</b>	<b>29</b>	<b>76</b>	<b>105</b>	<b>24</b>	<b>114</b>	<b>138</b>	<b>377</b>	<b>369</b>	<b>746</b>	<b>31</b>	<b>137</b>	<b>168</b>	<b>461</b>	<b>696</b>	<b>1157</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

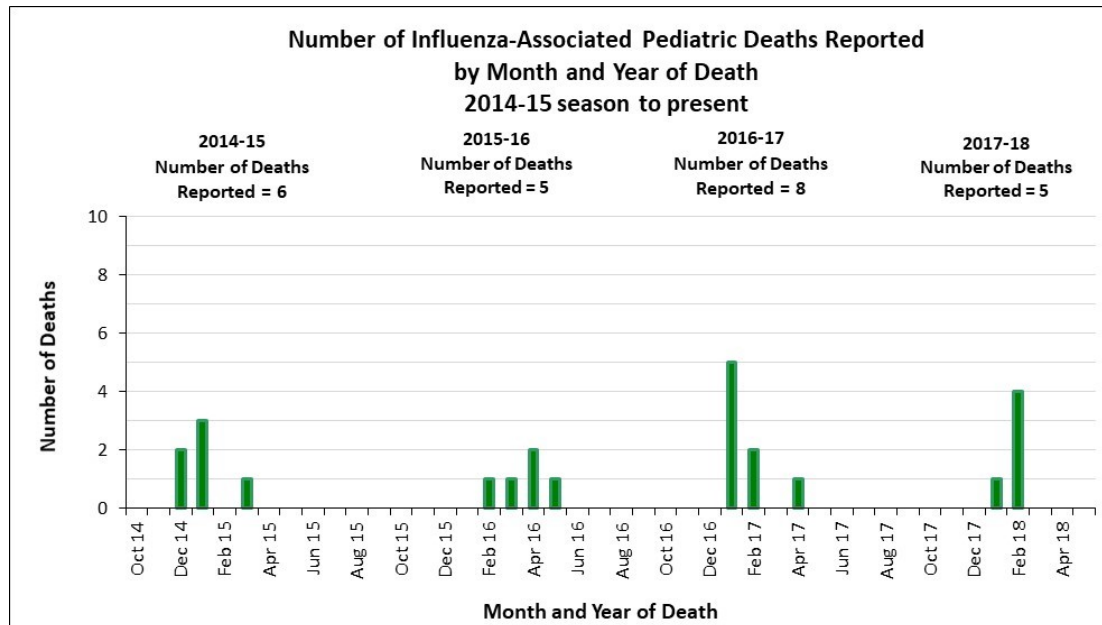
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit [www.health.ny.gov/FluMaskReg](http://www.health.ny.gov/FluMaskReg)

## 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>7</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)