

# 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 24, 2018

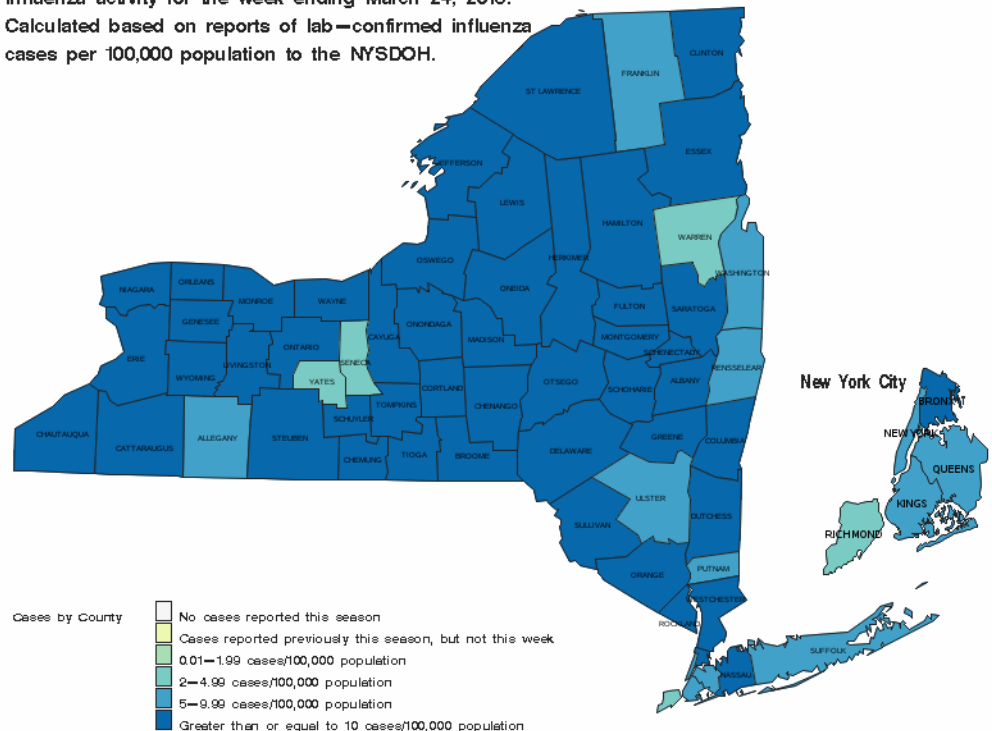
- Influenza activity level was categorized as geographically widespread<sup>2</sup>. This is the 16th consecutive week that widespread activity has been reported.
- There were 2,711 laboratory-confirmed influenza reports, a 10% decrease over last week.
- Of the 3,040 specimens submitted to WHO/NREVSS laboratories, 393 (12.93%) were positive for influenza.
- 86 specimens tested at Wadsworth Center were positive for influenza. 4 were influenza A (H1), 30 were influenza A (H3), 45 were influenza B (Yamagata), 2 were influenza B (Victoria), 4 were influenza B, and 1 was an influenza A&B co-infection.
- Reports of percent of patient visits for influenza-like illness (ILI<sup>3</sup>) from ILINet providers was 2.78%, which is below the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was 458, a 20% 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.

- All 62 counties reported cases this week.
- Incidence ranged from 2.88-46.69 cases/100,000 population.

Influenza activity for the week ending March 24, 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.

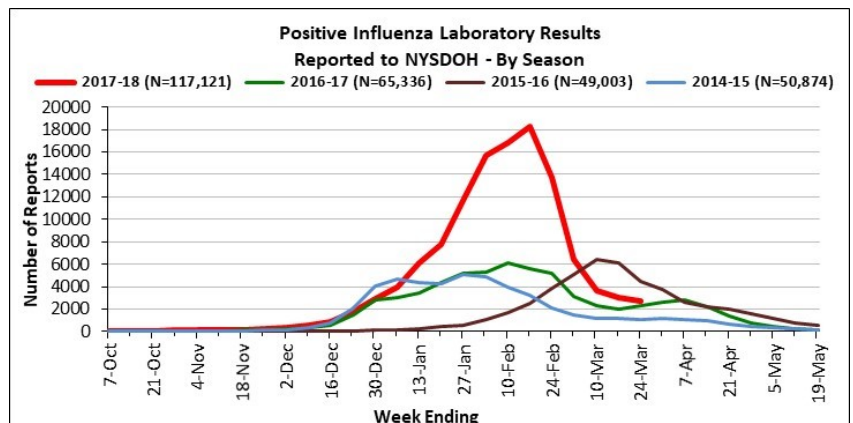
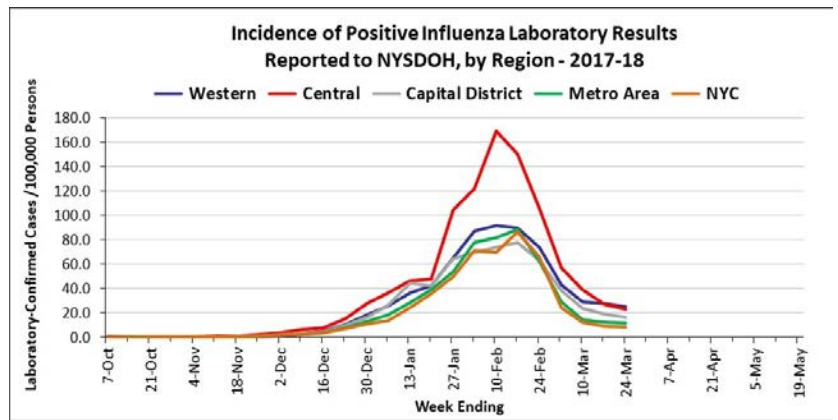
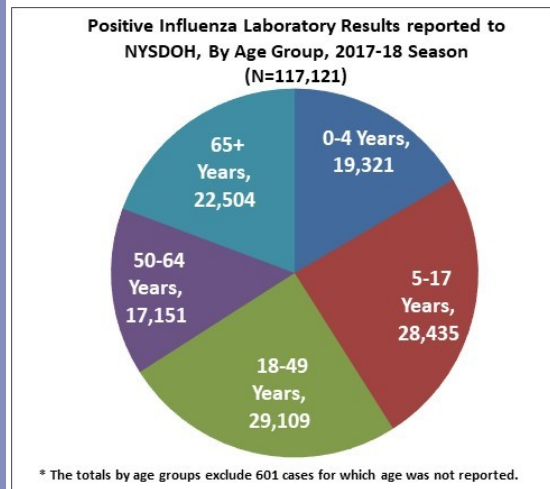
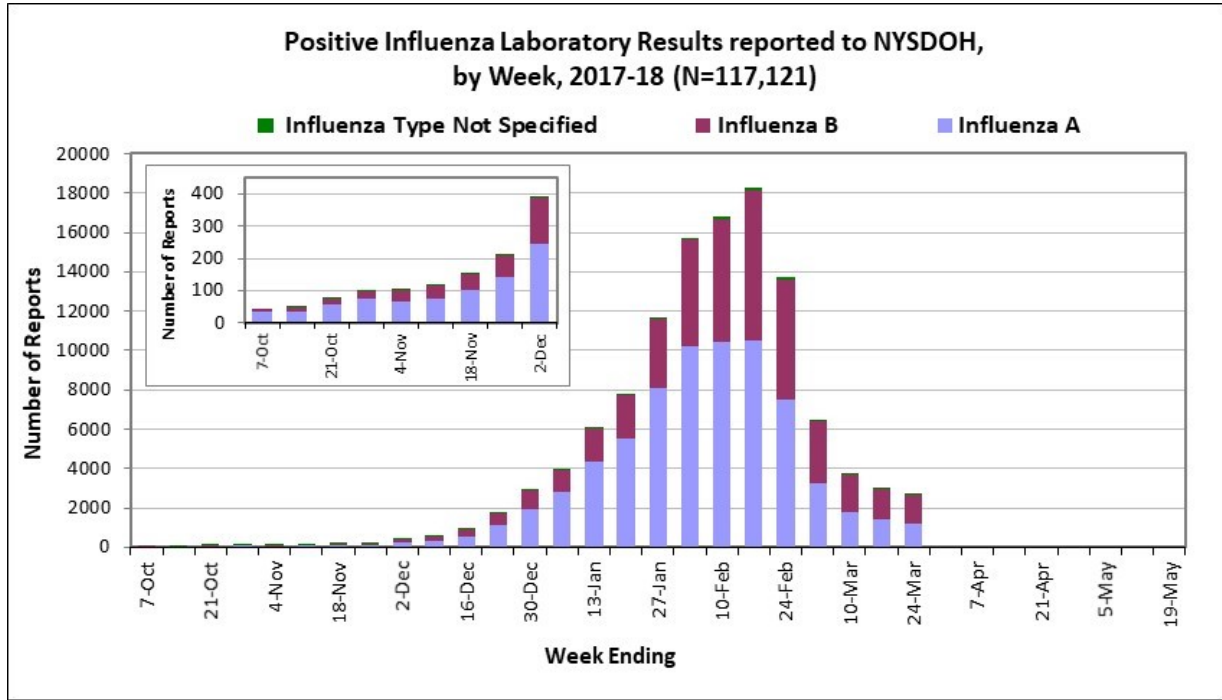
Widespread: Increased or sustained numbers of lab-confirmed cases of influenza reported in greater than 31 of the 62 counties.

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).



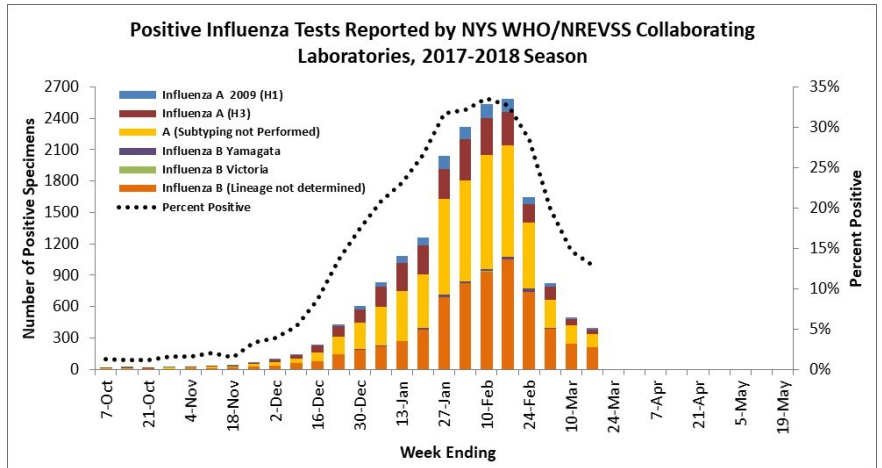
## Laboratory Reports of Influenza (including NYC)

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
	10-Mar	17-Mar	24-Mar	
Albany	43	46	35	1524
Allegany	4	10	4	168
Broome	47	58	35	2020
Cattaraugus	5	14	13	453
Cayuga	28	24	19	963
Chautauqua	62	58	43	1233
Chemung	25	11	19	413
Chenango	21	14	14	535
Clinton	52	28	14	584
Columbia	9	6	9	317
Cortland	16	10	11	541
Delaware	18	11	8	281
Dutchess	33	22	30	1490
Erie	216	176	190	4723
Essex	12	11	4	157
Franklin	15	4	3	197
Fulton	9	16	7	309
Genesee	21	15	13	660
Greene	4	9	7	213
Hamilton	1	3	1	25
Herkimer	35	16	16	697
Jefferson	60	54	40	1171
Lewis	17	13	5	370
Livingston	27	38	30	586
Madison	33	24	12	547
Monroe	277	295	267	6033
Montgomery	20	21	19	435
Nassau	177	159	151	7321
Niagara	34	36	24	818
Oneida	157	77	82	3191
Onondaga	69	42	47	2811
Ontario	34	25	14	1237
Orange	63	40	84	2006
Orleans	20	18	13	350
Oswego	46	35	21	1176
Otsego	18	9	12	381
Putnam	7	12	8	613
Rensselaer	20	11	11	735
Rockland	22	21	34	1083
Saratoga	68	67	65	1946
Schenectady	71	43	53	1804
Schoharie	6	3	8	155
Schuyler	3	3	2	47
Seneca	18	10	1	273
St. Lawrence	66	48	29	951
Steuben	24	25	33	488
Suffolk	180	165	122	7107
Sullivan	24	20	12	496
Tioga	19	10	17	547
Tompkins	34	29	35	1051
Ulster	12	17	15	627
Warren	5	5	2	217
Washington	8	9	6	267
Wayne	35	36	41	1203
Westchester	227	194	178	8069
Wyoming	6	13	8	258
Yates	9	6	1	188
<b>Upstate Total</b>	<b>2592</b>	<b>2195</b>	<b>1997</b>	<b>74061</b>
Bronx	276	186	190	11233
Kings	283	198	160	11045
New York	165	117	117	5859
Queens	326	276	227	12854
Richmond	49	33	20	2069
<b>NYC Total</b>	<b>1099</b>	<b>810</b>	<b>714</b>	<b>43060</b>
<b>Total</b>	<b>3691</b>	<b>3005</b>	<b>2711</b>	<b>117121</b>

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

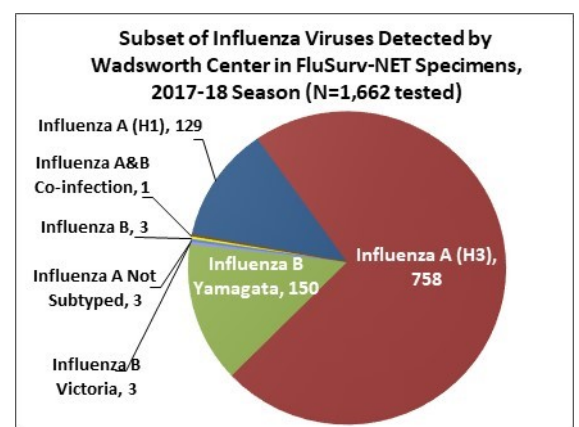
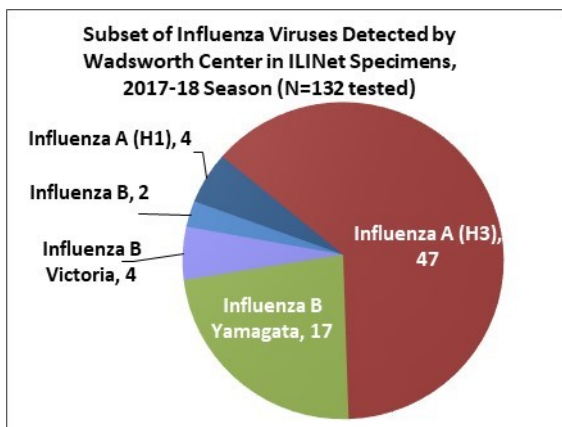
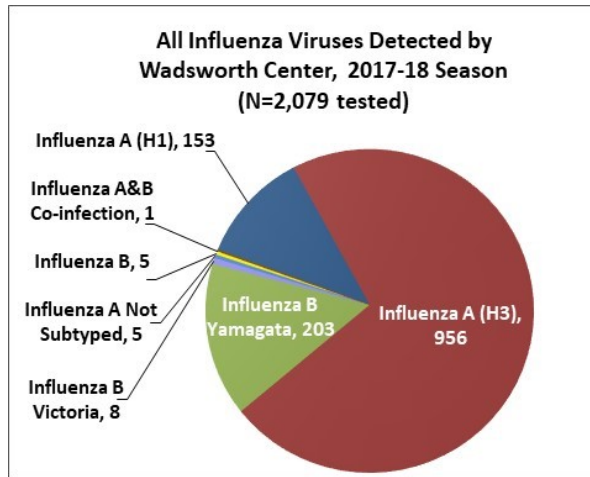
Clinical virology laboratories, including the Wadsworth Center, that are WHO and/or NREVSS collaborating laboratories for influenza surveillance report weekly the number of respiratory specimens tested and the number positive for influenza types A and B to CDC. Some labs also report the influenza A subtype (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.



## 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>	110	0 (0.0)	0 (0.0)
Influenza A (H3N2) <sup>ii</sup>	199	1 (0.5)	1 (0.5)
Influenza B <sup>iii</sup>	0	0 (0.0)	0 (0.0)

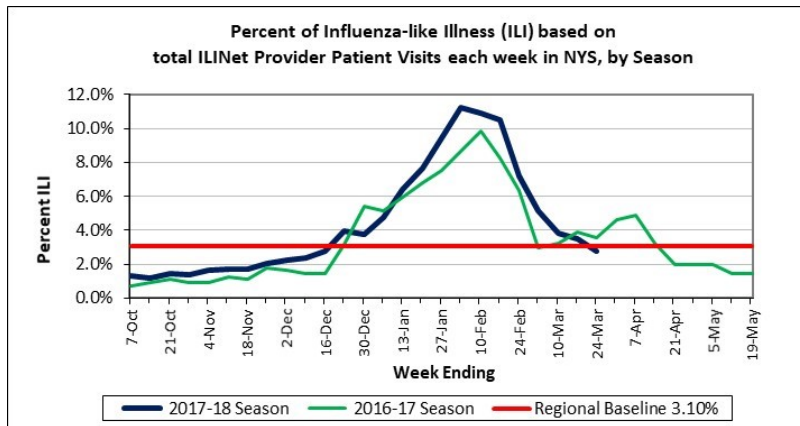
- i. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

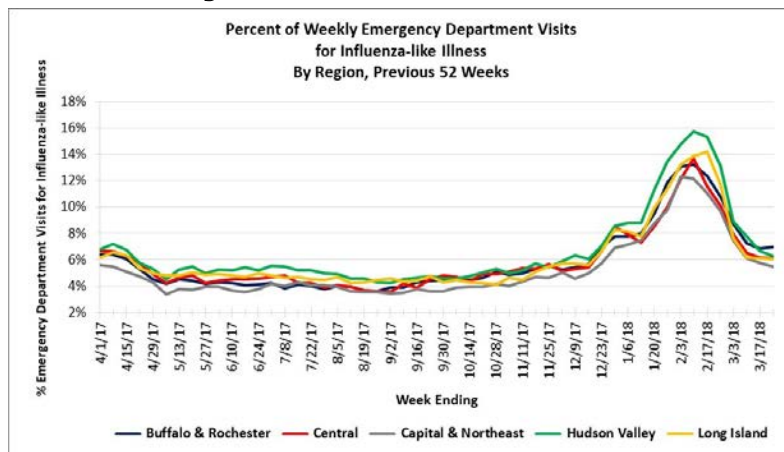


## Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

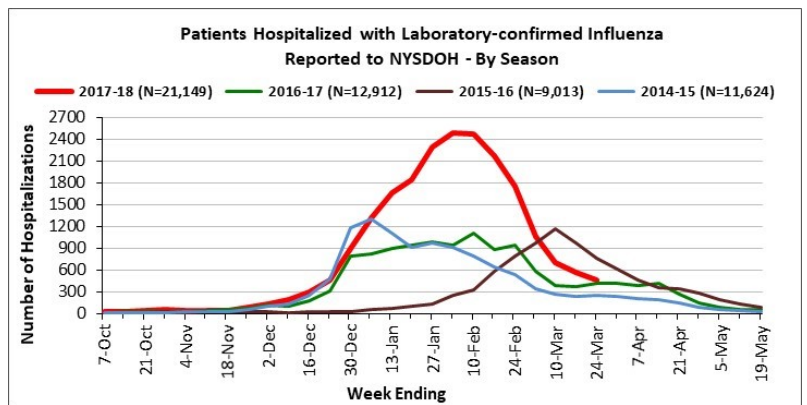
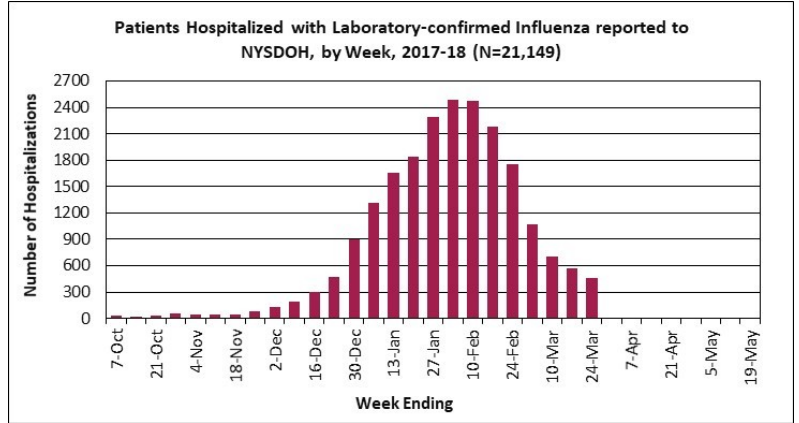
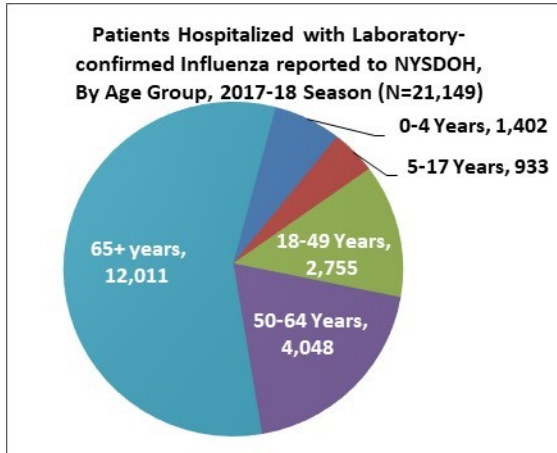
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



<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/>.

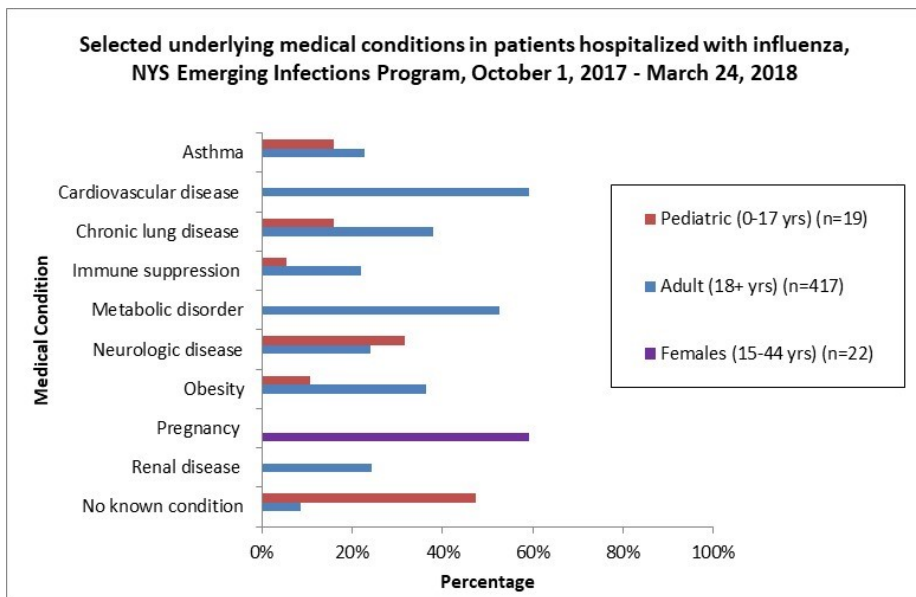
## Patients Hospitalized with Laboratory-Confirmed Influenza (including NYC)

Hospitals in NYS and NYC report the number of hospitalized patients with laboratory-confirmed Influenza to NYSDOH. 170 (93%) 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 458 of 2,819 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 - 12) 3/18/18 through 3/24/18	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)	1	2	3		2	2	3	7	10	1	3	4	5	14	19
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
<b>Total # Outbreaks</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>7</b>	<b>10</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>14</b>	<b>19</b>

Season-to-Date (CDC week - 12) 9/29/17 through 3/24/18	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)	32	76	108	25	106	131	387	366	753	37	139	176	481	687	1168
# Outbreaks* viral respiratory illness**		7	7		12	12		23	23		6	6	0	48	48
<b>Total # Outbreaks</b>	<b>32</b>	<b>83</b>	<b>115</b>	<b>25</b>	<b>118</b>	<b>143</b>	<b>387</b>	<b>389</b>	<b>776</b>	<b>37</b>	<b>145</b>	<b>182</b>	<b>481</b>	<b>735</b>	<b>1216</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

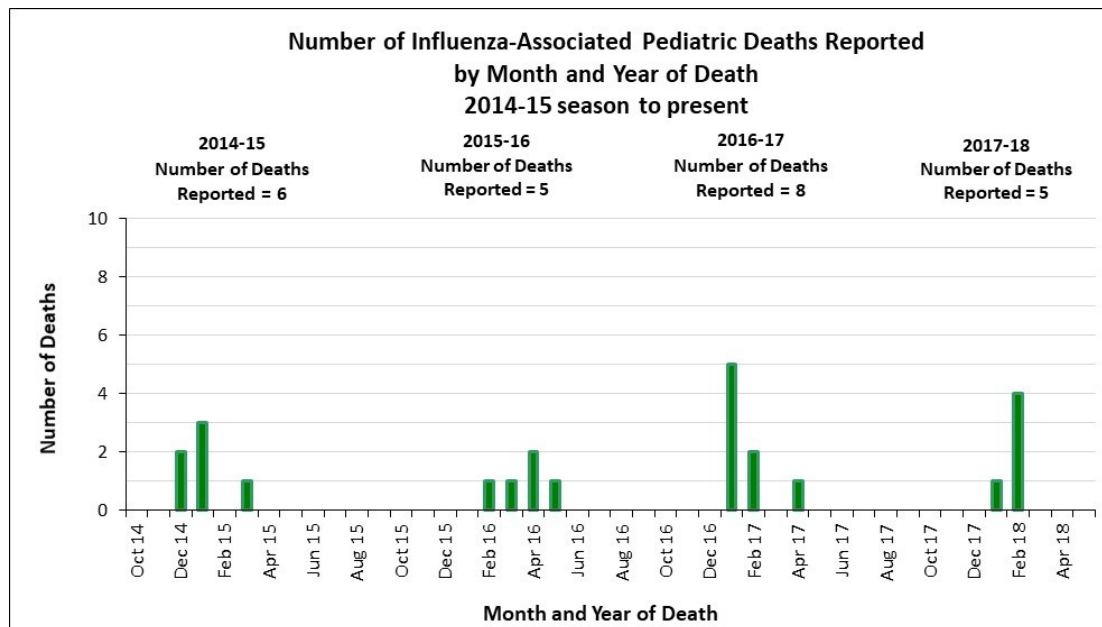
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit [www.health.ny.gov/FluMaskReg](http://www.health.ny.gov/FluMaskReg)

## 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)