

# 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 April 7, 2018

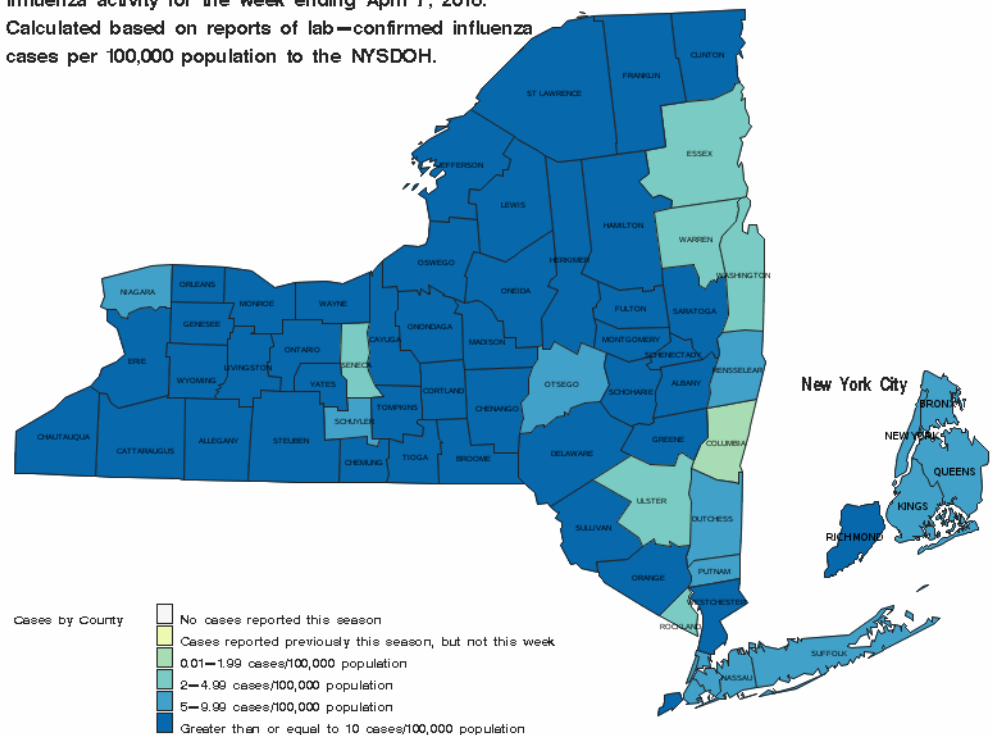
- Influenza activity level was categorized as geographically **widespread**<sup>2</sup>. This is the 18<sup>th</sup> consecutive week that widespread activity has been reported.
- There were **2,287** laboratory-confirmed influenza reports, a **28% decrease** over last week.
- Of the **1,359** specimens submitted to WHO/NREVSS laboratories, **315 (23.18%)** were positive for influenza.
- Of the **38** specimens tested at Wadsworth Center, **36** were positive for influenza. **2** were **influenza A (H1)**, **10** were **influenza A (H3)**, **3** were **influenza A (Not Subtyped)**, **20** were **influenza B (Yamagata)**, and **1** was **influenza B (Victoria)**.
- Reports of percent of patient visits for influenza-like illness (ILI<sup>3</sup>) from ILINet providers was **2.7%**, which is below the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **480**, a **7% 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 1.64-68.07 cases/100,000 population.

Influenza activity for the week ending April 7, 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.

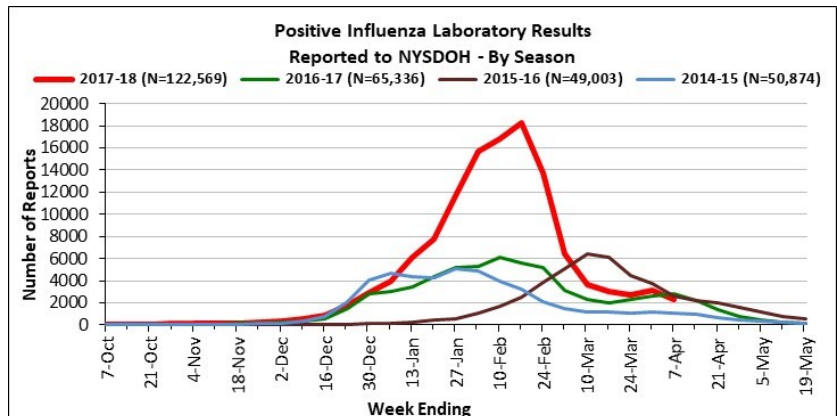
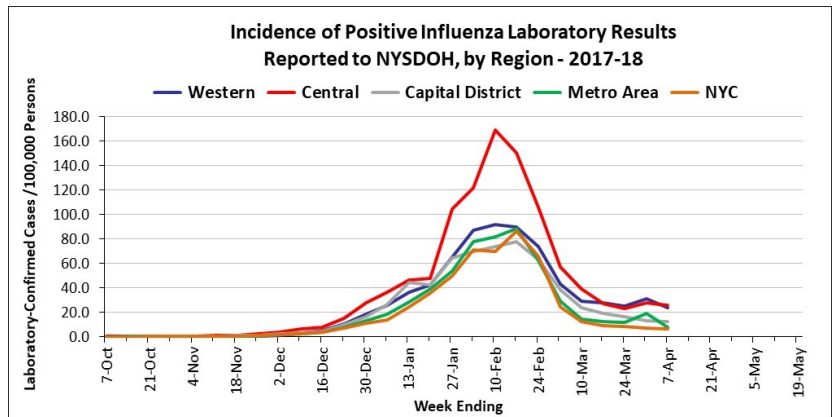
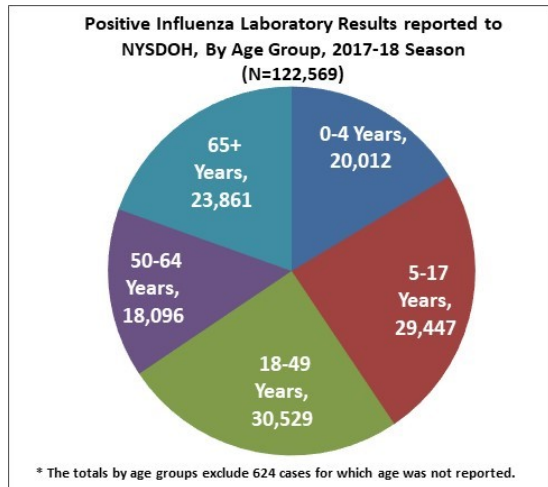
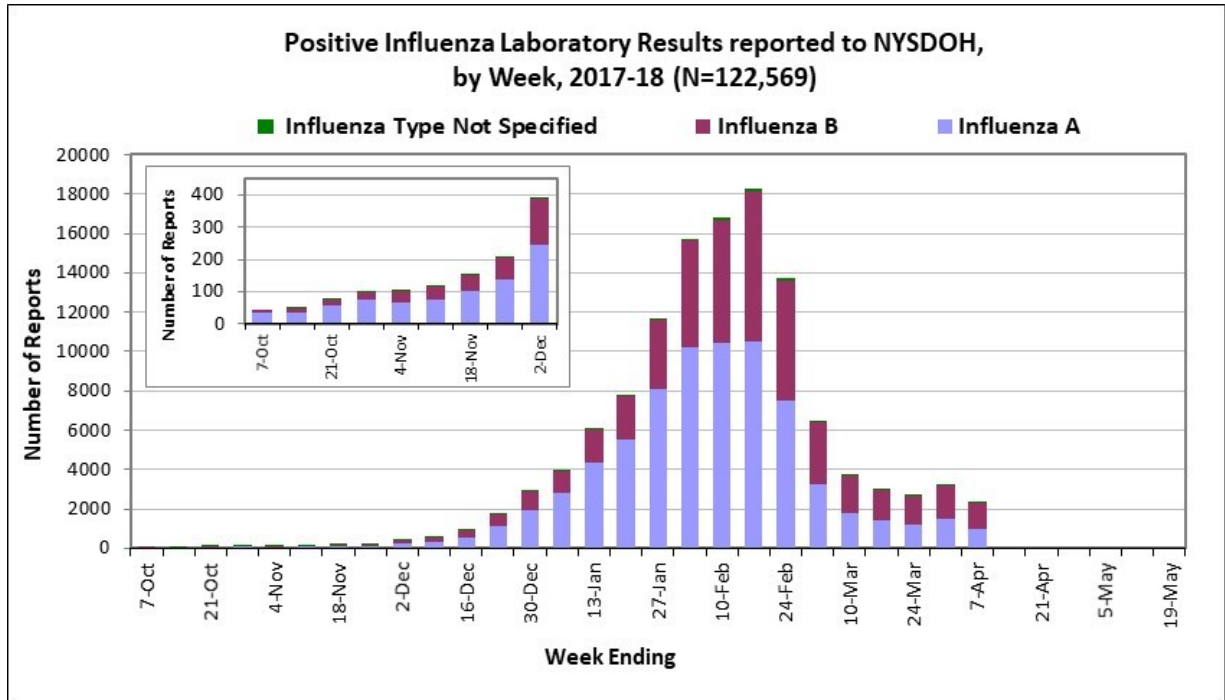
**Widespread:** Increased or sustained numbers of lab-confirmed cases of influenza reported in greater than 31 of the 62 counties.

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).



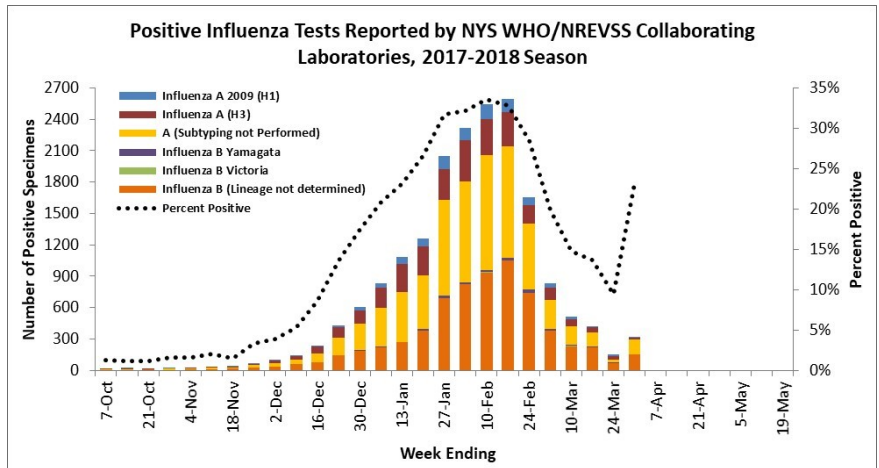
## Laboratory Reports of Influenza (including NYC)

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-Mar	24-Mar	31-Mar	
Albany	35	39	39	1602
Allegany	4	11	9	188
Broome	35	42	45	2106
Cattaraugus	13	8	9	470
Cayuga	19	45	53	1061
Chautauqua	43	48	39	1320
Chemung	19	20	10	443
Chenango	14	10	7	552
Clinton	14	7	13	604
Columbia	9	10	1	328
Cortland	11	12	6	559
Delaware	8	11	10	302
Dutchess	30	16	29	1535
Erie	190	160	136	5019
Essex	4	4	1	162
Franklin	3	9	8	214
Fulton	7	5	12	326
Genesee	13	23	10	693
Greene	7	3	8	223
Hamilton	1	0	1	26
Herkimer	16	17	9	723
Jefferson	40	41	34	1246
Lewis	5	4	4	378
Livingston	30	37	23	646
Madison	12	16	20	583
Monroe	267	402	315	6750
Montgomery	19	10	6	451
Nassau	151	103	105	7529
Niagara	24	15	15	848
Oneida	82	100	101	3392
Onondaga	47	84	92	2987
Ontario	14	23	27	1287
Orange	83	277	44	2326
Orleans	13	13	7	370
Oswego	21	20	20	1216
Otsego	12	3	6	390
Putnam	8	6	6	625
Rensselaer	11	9	10	754
Rockland	34	267	14	1364
Saratoga	65	50	39	2035
Schenectady	53	44	39	1887
Schoharie	8	1	4	160
Schuyler	2	1	1	49
Seneca	1	3	1	277
St. Lawrence	29	28	21	1000
Steuben	33	45	30	563
Suffolk	122	135	80	7322
Sullivan	12	29	9	534
Tioga	17	25	8	580
Tompkins	35	21	14	1086
Ulster	15	19	7	653
Warren	1	3	2	219
Washington	6	3	3	273
Wayne	41	62	37	1302
Westchester	178	136	107	8312
Wyoming	8	10	5	273
Yates	1	4	5	197
<b>Upstate Total</b>	<b>1995</b>	<b>2549</b>	<b>1716</b>	<b>78320</b>
Bronx	186	190	125	11475
Kings	198	160	179	11364
New York	117	117	92	6076
Queens	276	227	196	13184
Richmond	33	20	29	2150
<b>NYC Total</b>	<b>810</b>	<b>714</b>	<b>621</b>	<b>44249</b>
<b>Total</b>	<b>3004</b>	<b>2709</b>	<b>3170</b>	<b>122569</b>

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

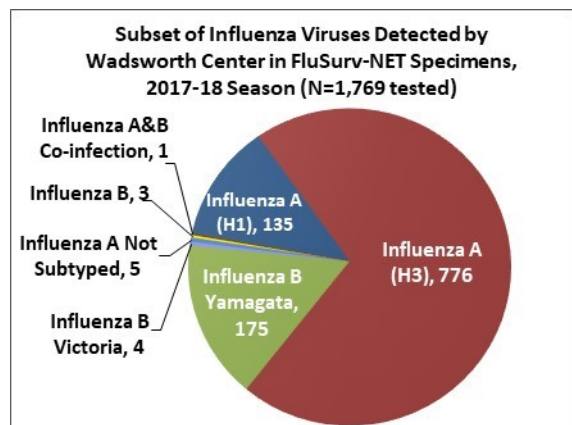
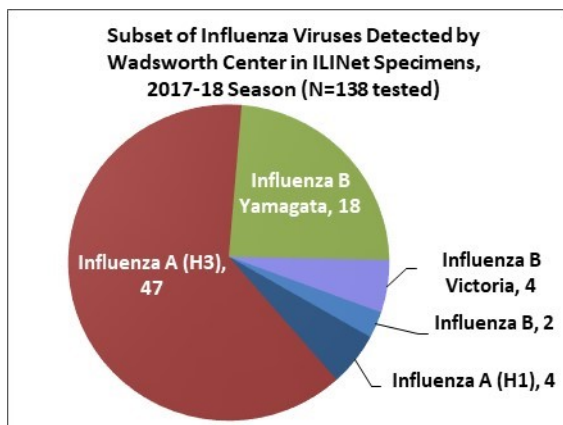
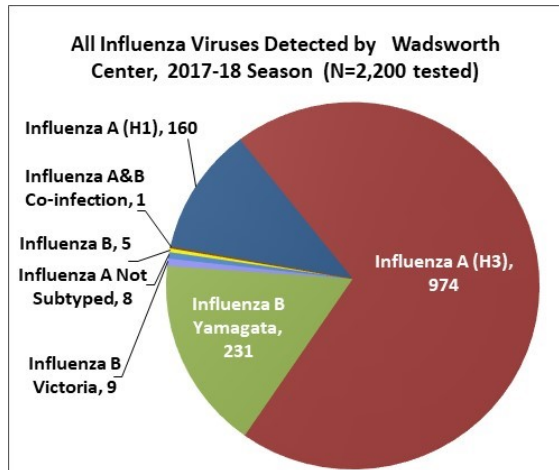
Clinical virology laboratories, including the Wadsworth Center, that are WHO and/or NREVSS collaborating laboratories for influenza surveillance report weekly the number of respiratory specimens tested and the number positive for influenza types A and B to CDC. Some labs also report the influenza A subtype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



## 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)

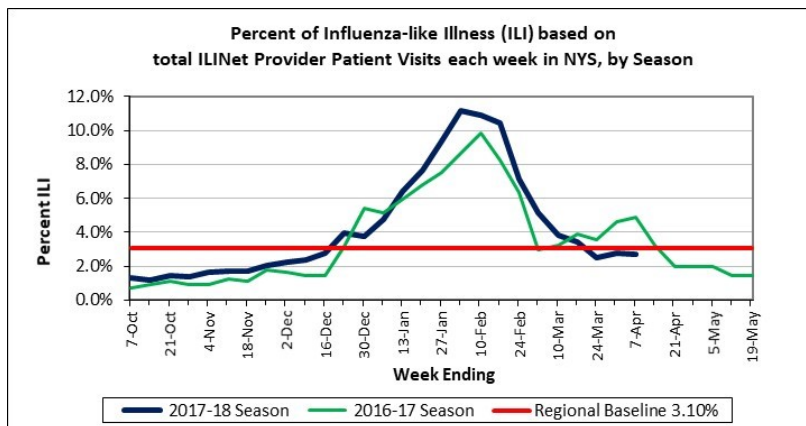
- i. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

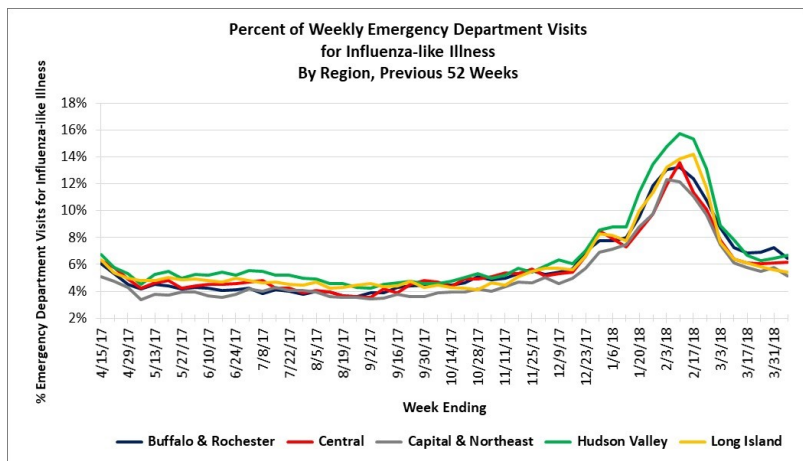


## Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

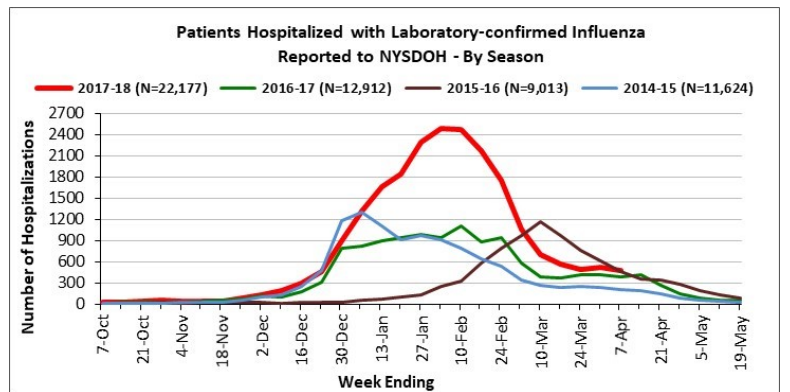
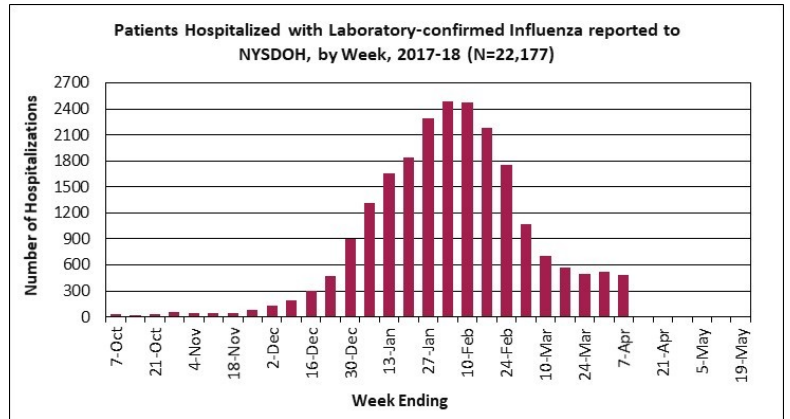
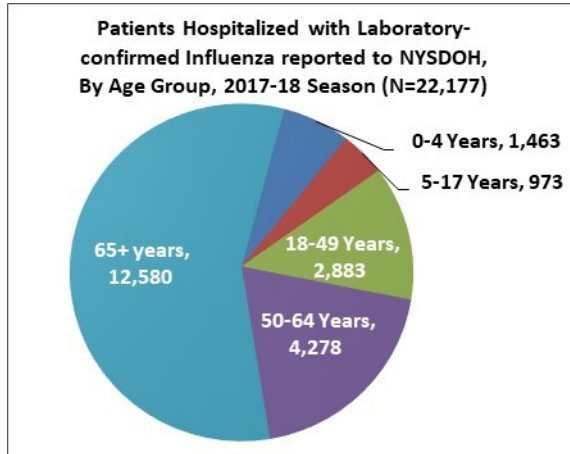
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



<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/>.

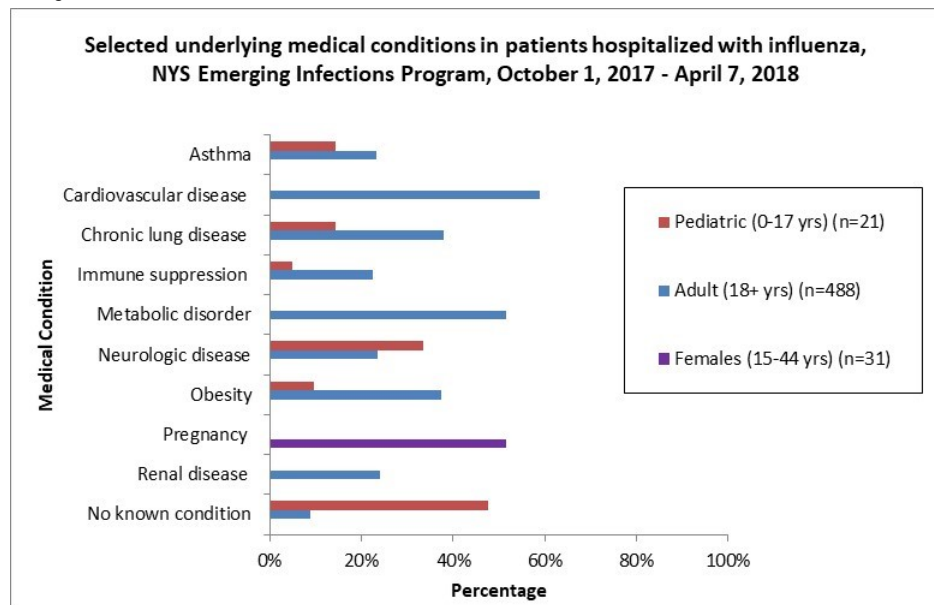
## Patients Hospitalized with Laboratory-Confirmed Influenza (including NYC)

Hospitals in NYS and NYC report the number of hospitalized patients with laboratory-confirmed Influenza to NYSDOH. 177 (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 540 of 3,081 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 - 14) 4/1/18 through 4/7/18	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	1	1	2	11	7	18		4	4	13	14	27
# 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>1</b>	<b>1</b>	<b>2</b>	<b>11</b>	<b>7</b>	<b>18</b>	<b>0</b>	<b>4</b>	<b>4</b>	<b>13</b>	<b>14</b>	<b>27</b>

Season-to-Date (CDC week - 14) 9/29/17 through 4/7/18	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)	33	79	112	29	112	141	408	382	790	37	147	184	507	720	1227
# Outbreaks* viral respiratory illness**		7	7		12	12		23	23		6	6	0	48	48
<b>Total # Outbreaks</b>	<b>33</b>	<b>86</b>	<b>119</b>	<b>29</b>	<b>124</b>	<b>153</b>	<b>408</b>	<b>405</b>	<b>813</b>	<b>37</b>	<b>153</b>	<b>190</b>	<b>507</b>	<b>768</b>	<b>1275</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

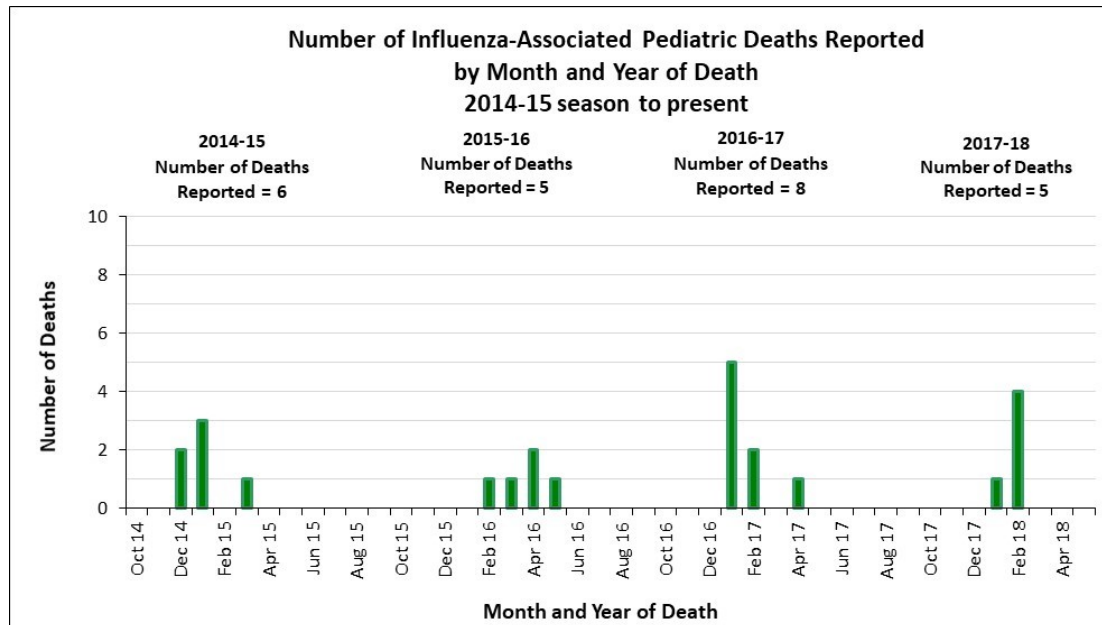
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit [www.health.ny.gov/FluMaskReg](http://www.health.ny.gov/FluMaskReg)

## 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)