

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).¹

During the week ending March 17, 2018

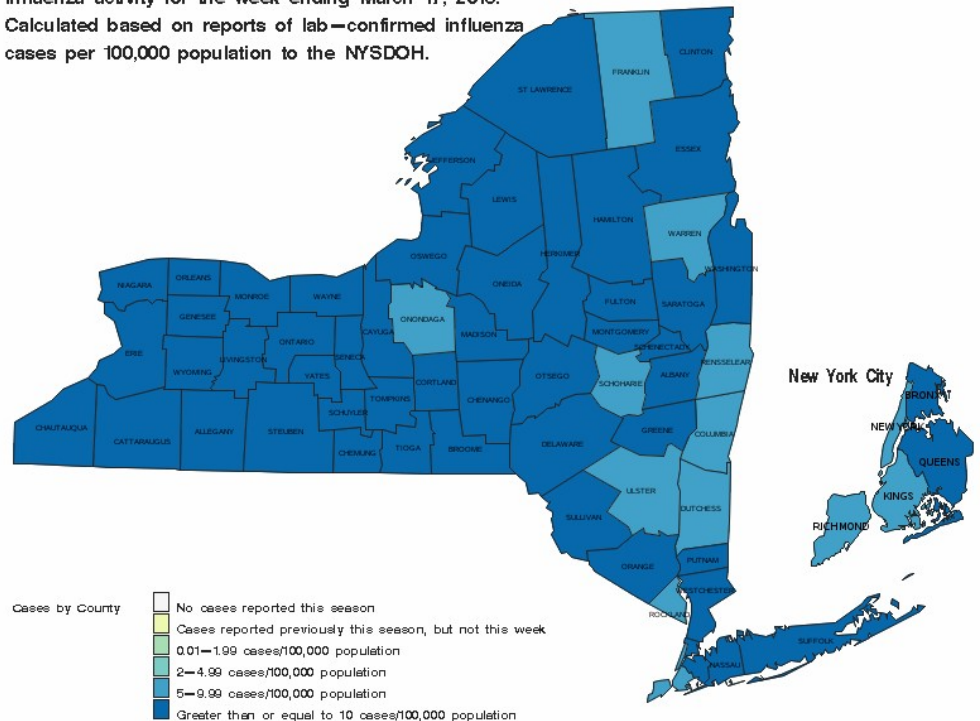
- Influenza activity level was categorized as geographically **widespread**². This is the 15th consecutive week that widespread activity has been reported.
- There were **3,005** laboratory-confirmed influenza reports, a **19% decrease** over last week.
- Of the **2,350** specimens submitted to WHO/NREVSS laboratories, **344 (14.6%)** were positive for influenza.
- Of the **141** specimens tested at Wadsworth Center, **111** were positive for influenza. **7** were **influenza A (H1)**, **67** were **influenza A (H3)**, **2** were **influenza B (Yamagata)**, **0** were **influenza B (Victoria)**, and **33** were **influenza B** pending lineage determination.
- Reports of percent of patient visits for influenza-like illness (ILI)³ from ILINet providers was **1.58%**, which is below the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **493**, a **29% 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.

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 6.43-66.05 cases/100,000 population.

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



¹ 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/>.

² **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.

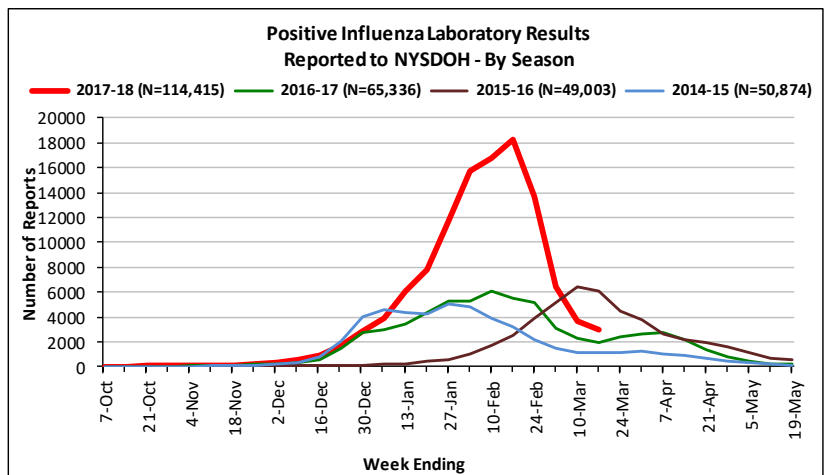
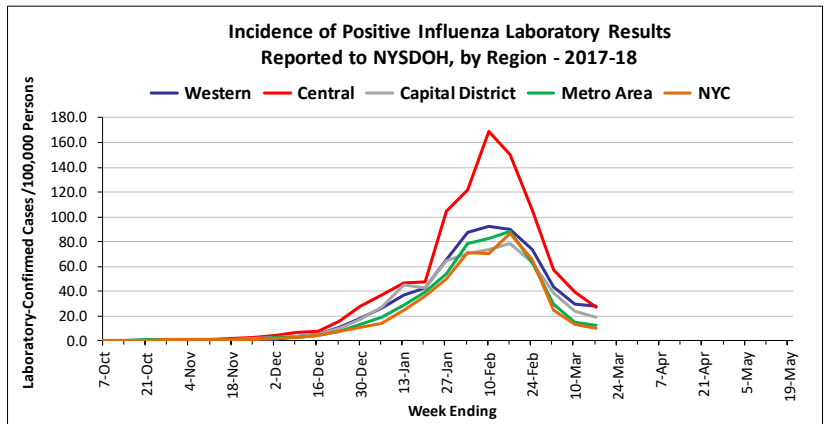
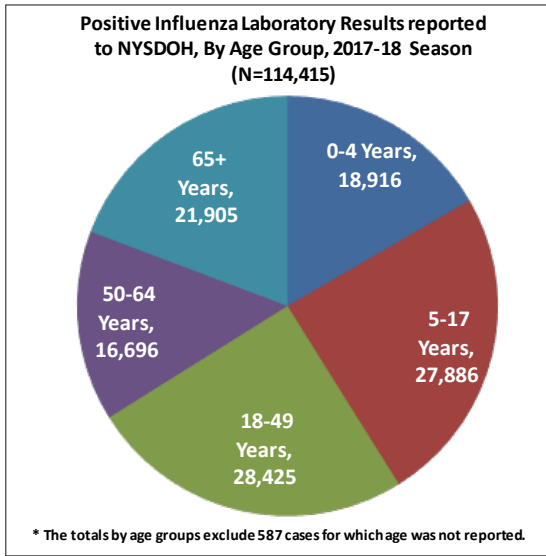
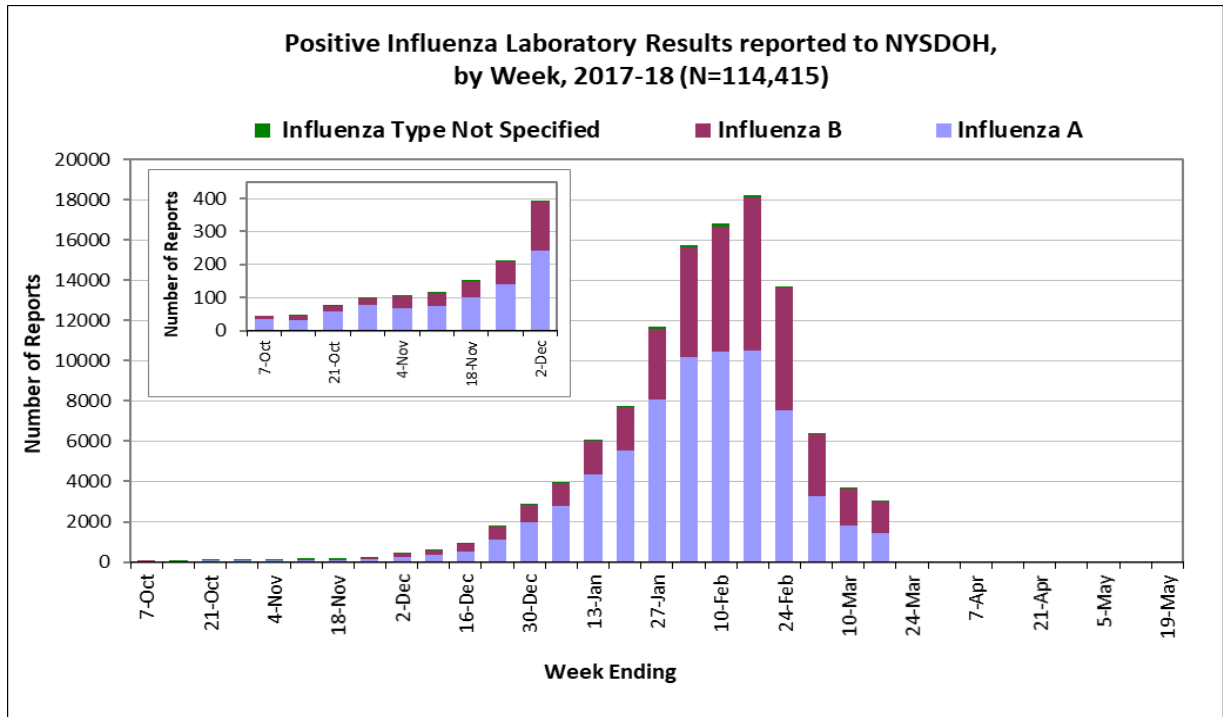
Widespread: Increased or sustained numbers of lab-confirmed cases of influenza reported in greater than 31 of the 62 counties.

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

³ 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).



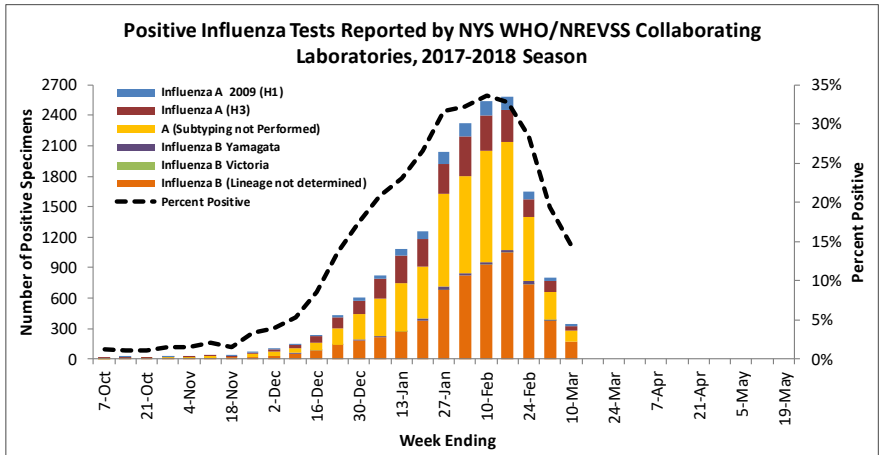
Laboratory Reports of Influenza (including NYC)

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
	3-Mar	10-Mar	17-Mar	
Albany	102	44	46	1490
Allegany	9	4	10	164
Broome	90	47	58	1985
Cattaraugus	30	5	14	440
Cayuga	42	28	24	944
Chautauqua	83	62	58	1190
Chemung	32	25	11	394
Chenango	31	21	14	521
Clinton	41	52	28	570
Columbia	9	9	6	309
Cortland	40	16	10	530
Delaware	10	18	11	273
Dutchess	54	33	22	1460
Erie	336	216	176	4533
Essex	14	12	11	153
Franklin	30	15	4	194
Fulton	23	9	16	302
Genesee	27	21	15	647
Greene	5	4	9	207
Hamilton	0	1	3	24
Herkimer	50	35	16	681
Jefferson	134	60	54	1131
Lewis	40	17	13	365
Livingston	34	27	38	556
Madison	20	33	24	535
Monroe	393	277	295	5766
Montgomery	26	20	21	416
Nassau	410	177	159	7170
Niagara	59	34	36	794
Oneida	188	157	77	3109
Onondaga	100	69	42	2764
Ontario	54	34	25	1223
Orange	135	63	40	1922
Orleans	34	20	18	337
Oswego	55	46	35	1155
Otsego	20	18	9	369
Putnam	34	7	12	605
Rensselaer	51	20	11	724
Rockland	50	22	21	1049
Saratoga	114	68	67	1881
Schenectady	122	71	43	1751
Schoharie	14	6	3	147
Schuyler	5	3	3	45
Seneca	14	18	10	272
St. Lawrence	93	66	48	922
Steuben	38	24	25	455
Suffolk	361	180	165	6985
Sullivan	45	24	20	484
Tioga	33	19	10	530
Tompkins	31	34	29	1016
Ulster	22	12	17	612
Warren	9	5	5	215
Washington	18	8	9	261
Wayne	47	35	36	1162
Westchester	410	227	194	7891
Wyoming	13	6	13	250
Yates	9	9	6	187
Upstate Total	4293	2593	2195	72067
Bronx	525	276	186	11043
Kings	572	283	198	10885
New York	257	165	117	5744
Queens	661	326	276	12627
Richmond	102	49	33	2049
NYC Total	2117	1099	810	42348
Total	6410	3692	3005	114415

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

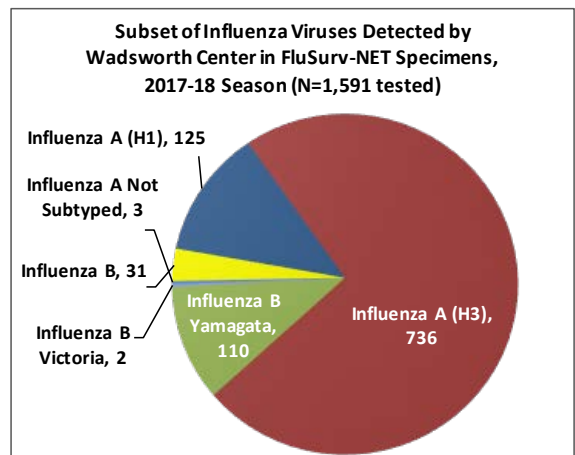
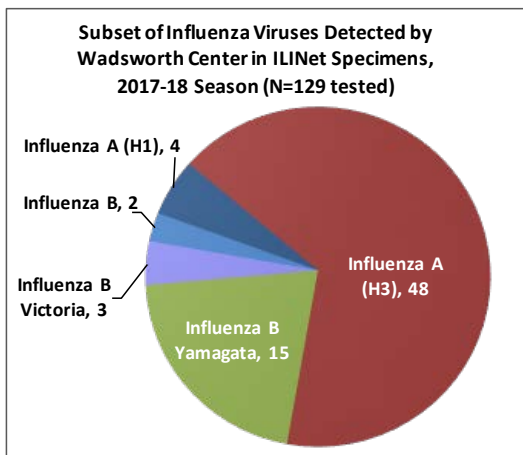
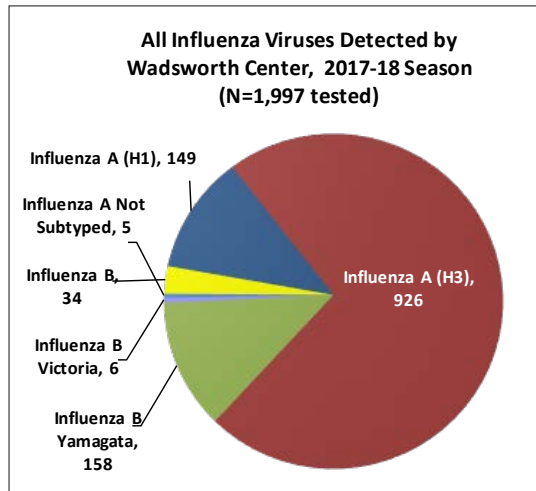
Clinical virology laboratories, including the Wadsworth Center, that are WHO and/or NREVSS collaborating laboratories for influenza surveillance report weekly the number of respiratory specimens tested and the number positive for influenza types A and B to CDC. Some labs also report the influenza A subtype (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. ⁴

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) ⁱ	110	0 (0.0)	0 (0.0)
Influenza A (H3N2) ⁱⁱ	199	1 (0.5)	1 (0.5)
Influenza B ⁱⁱⁱ	0	0 (0.0)	0 (0.0)

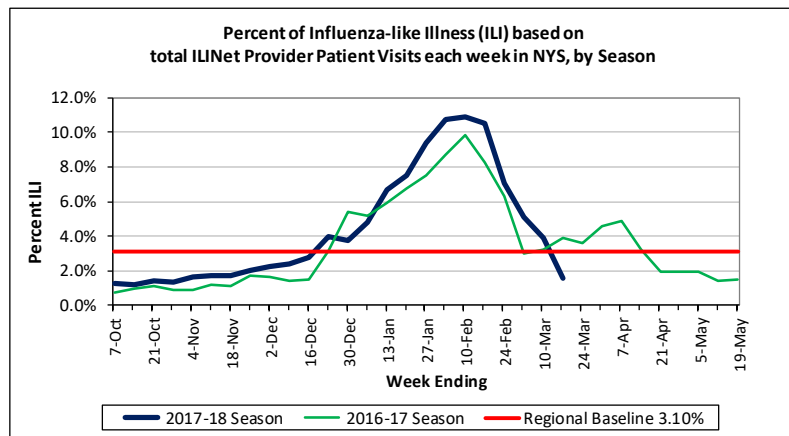
- i. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

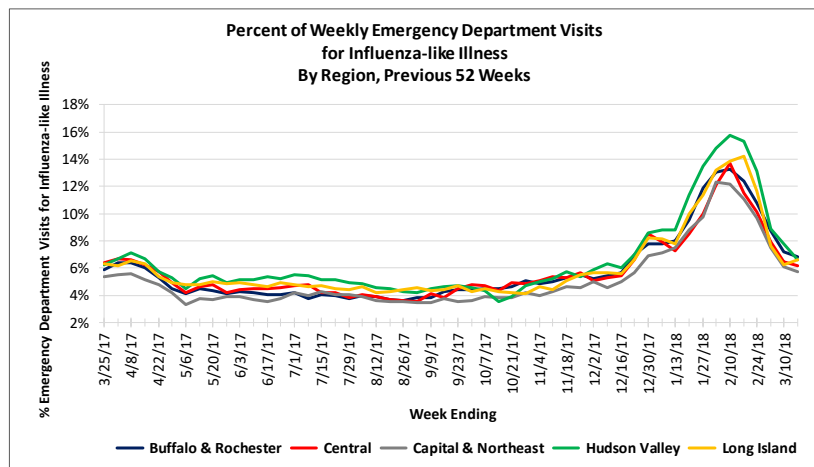


Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

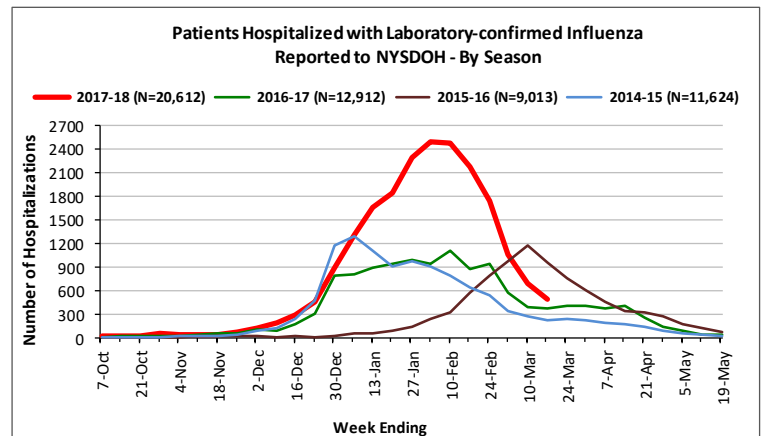
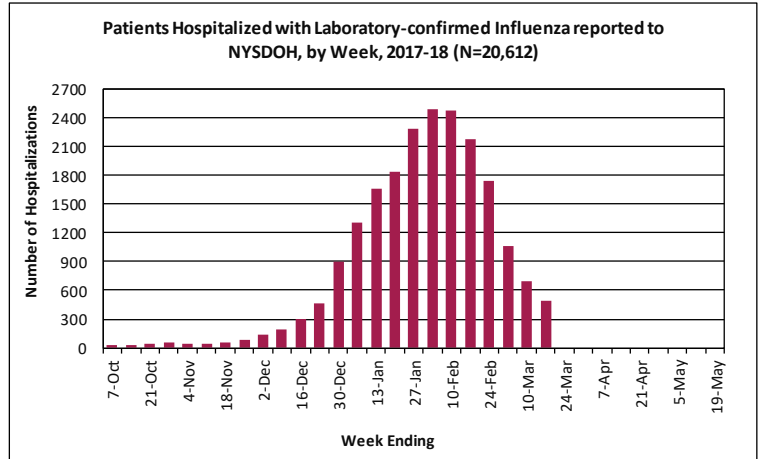
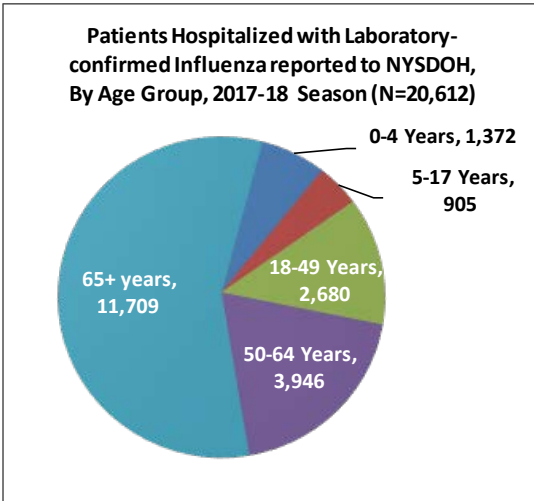
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



⁴Additional 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/>.

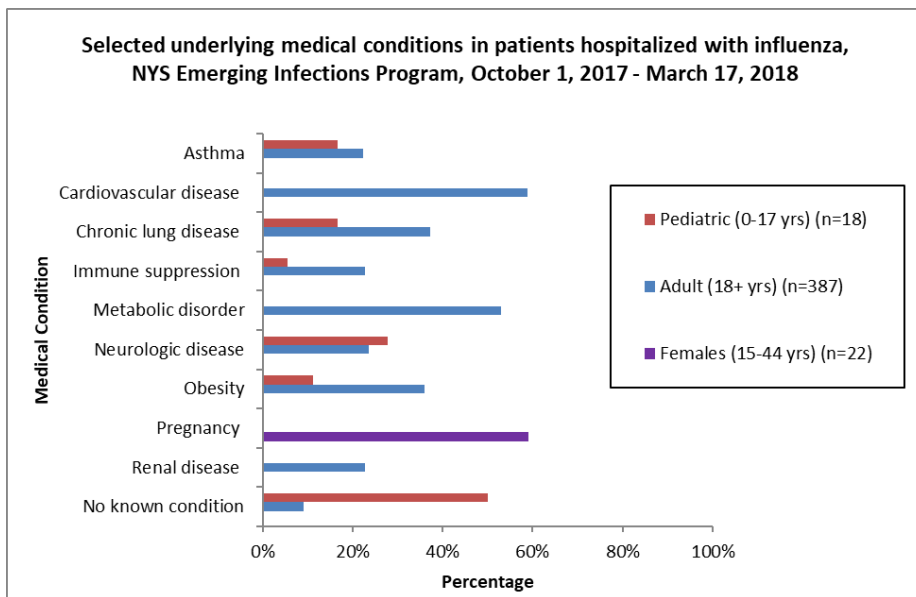
Patients Hospitalized with Laboratory-Confirmed Influenza (including NYC)

Hospitals in NYS and NYC report the number of hospitalized patients with laboratory-confirmed Influenza to NYSDOH. 155 (85%) 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.⁵ Underlying health conditions are assessed through medical chart reviews for cases identified during the season.⁶



⁵Counties 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

⁶Data are based on completed medical chart reviews for 427 of 2,723 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.⁷

Week-to-Date (CDC week - 11) 3/11/18 through 3/17/18	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)	2	5	7		2	2	2	11	13	3	3	6	7	21	28
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
Total # Outbreaks	2	5	7	0	2	2	2	11	13	3	3	6	7	21	28

Season-to-Date (CDC week - 11) 9/29/17 through 3/17/18	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)	31	74	105	25	104	129	383	358	741	36	135	171	475	671	1146
# Outbreaks* viral respiratory illness**		7	7		12	12		23	23		6	6	0	48	48
Total # Outbreaks	31	81	112	25	116	141	383	381	764	36	141	177	475	719	1194

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

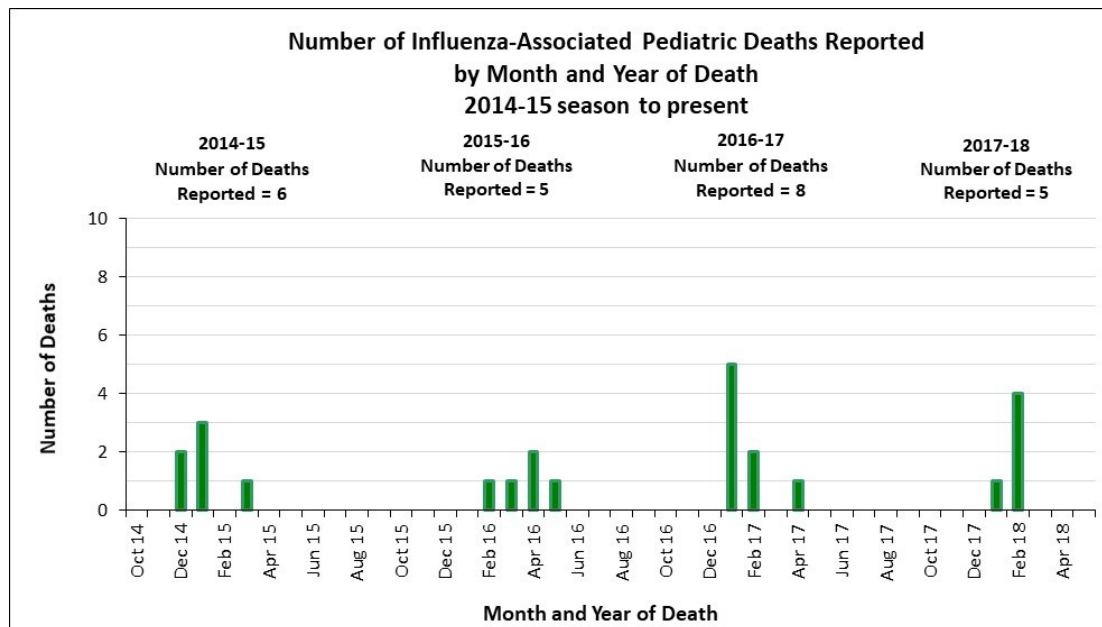
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit www.health.ny.gov/FluMaskReg

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.



⁷For more information on reporting of healthcare-associated influenza, visit http://www.health.ny.gov/diseases/communicable/control/respiratory_disease_checklist.htm