

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 3, 2018

- Influenza activity level was categorized as geographically **widespread**². This is the 13th consecutive week that widespread activity has been reported.
- There were **6,414** laboratory-confirmed influenza reports, a **53% decrease** over last week.
- Of the **5,676** specimens submitted to WHO/NREVSS laboratories, **1,579 (27.82%)** were positive for influenza.
- Of the **94** specimens tested at Wadsworth Center, **87** were positive for influenza. **8** were **Influenza A (H1)**, **43** were **influenza A (H3)**, **1** was **influenza A (Not Subtyped)**, **32** were **influenza B (Yamagata)**, **2** were **influenza B (Victoria)** and **1** was **influenza B (Lineage Not Specified)**.
- Reports of percent of patient visits for influenza-like illness (ILI³) from ILINet providers was **5.21%**, which is above the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **1,026** a **41% 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.

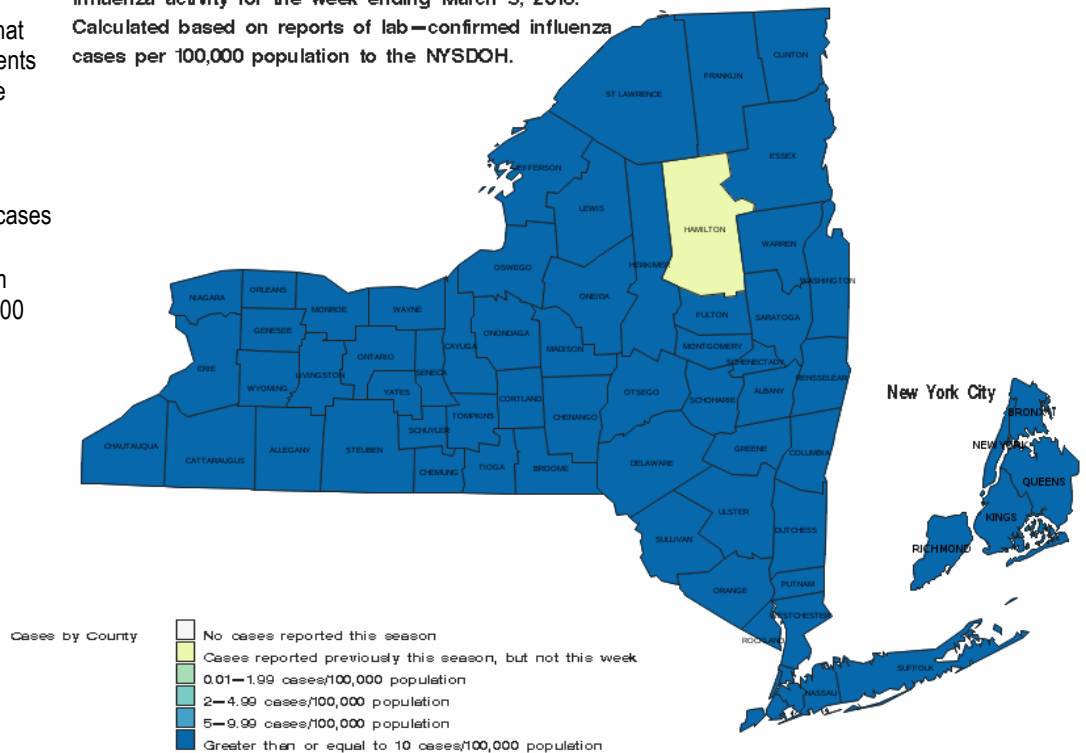
Laboratory Reports of Influenza (including NYC)

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

- 61 counties reported cases this week.
- Incidence ranged from 0-148.89 cases/100,000 population.

Influenza activity for the week ending March 3, 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.

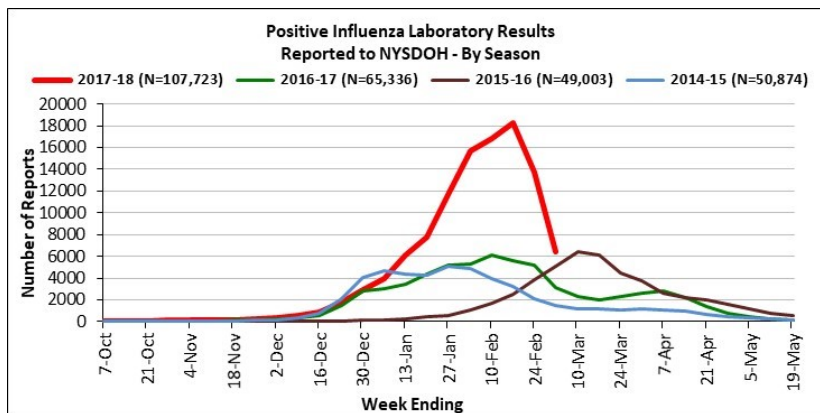
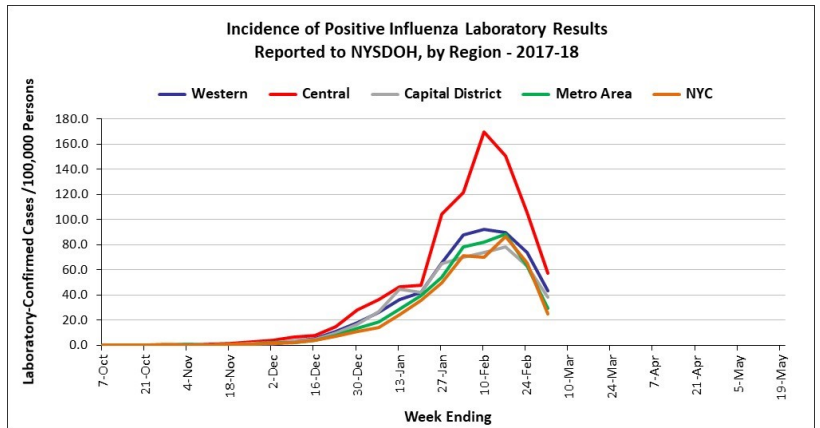
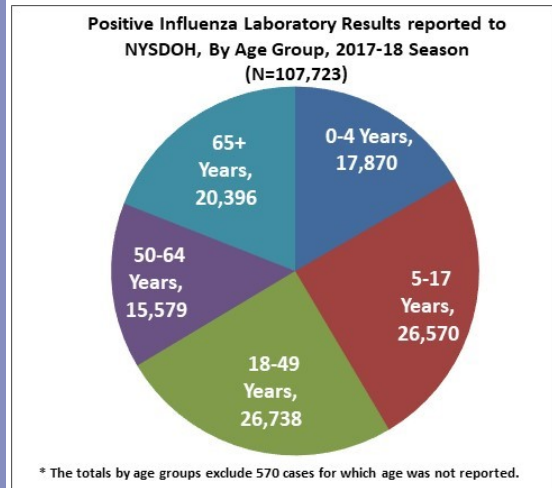
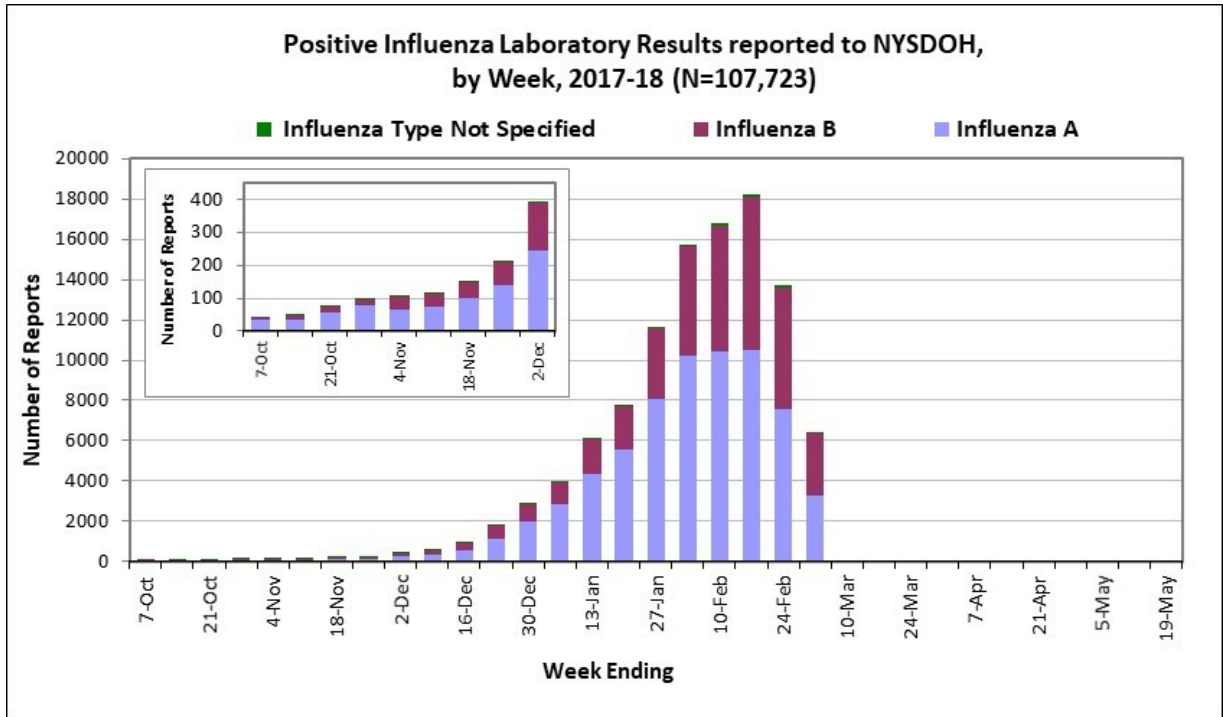
Regional: Increased or sustained numbers of lab-confirmed cases of influenza reported in at least two regions but in fewer than 31 of 62 counties.

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)



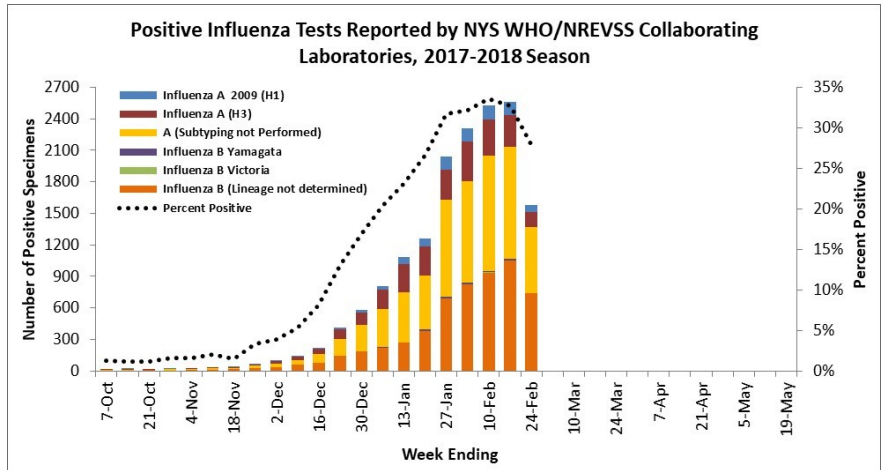
Laboratory Reports of Influenza (including NYC)

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	175	159	102	1400
Allegany	16	33	9	150
Broome	339	144	92	1882
Cattaraugus	56	53	30	421
Cayuga	71	65	42	892
Chautauqua	214	158	83	1070
Chemung	21	41	32	358
Chenango	85	32	31	486
Clinton	64	52	41	490
Columbia	62	35	9	294
Cortland	84	65	40	504
Delaware	40	28	10	244
Dutchess	241	119	54	1405
Erie	605	561	336	4141
Essex	20	24	14	130
Franklin	20	20	30	175
Fulton	41	32	23	277
Genesee	111	46	27	611
Greene	17	15	5	194
Hamilton	0	0	0	20
Herkimer	118	121	50	630
Jefferson	164	135	134	1017
Lewis	73	53	40	335
Livingston	119	66	34	491
Madison	68	59	20	478
Monroe	666	605	394	5196
Montgomery	57	67	26	375
Nassau	1336	942	410	6834
Niagara	104	108	59	724
Oneida	588	377	188	2875
Onondaga	391	291	100	2653
Ontario	216	109	54	1164
Orange	343	230	135	1819
Orleans	38	39	34	299
Oswego	156	150	55	1074
Otsego	65	45	20	342
Putnam	106	95	34	586
Rensselaer	73	69	52	694
Rockland	144	123	50	1006
Saratoga	248	189	114	1746
Schenectady	270	190	122	1637
Schoharie	22	25	14	138
Schuyler	5	10	5	39
Seneca	31	20	14	244
St. Lawrence	132	109	93	808
Steuben	70	44	38	406
Suffolk	1090	807	361	6640
Sullivan	100	74	45	440
Tioga	96	64	33	501
Tompkins	138	90	31	953
Ulster	64	38	22	583
Warren	30	24	9	205
Washington	34	26	18	244
Wayne	172	121	47	1091
Westchester	1159	833	410	7470
Wyoming	60	39	13	231
Yates	20	20	9	172
Upstate Total	10848	8089	4297	67284
Bronx	2078	1236	525	10581
Kings	1561	2000	572	10404
New York	1049	603	257	5462
Queens	2400	1555	661	12025
Richmond	317	220	102	1967
NYC Total	7405	5614	2117	40439
Total	18253	13703	6414	107723

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.

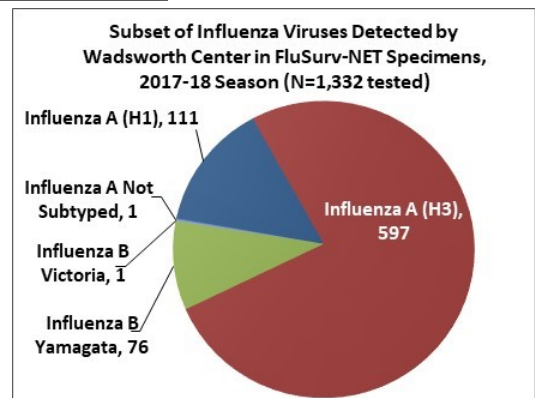
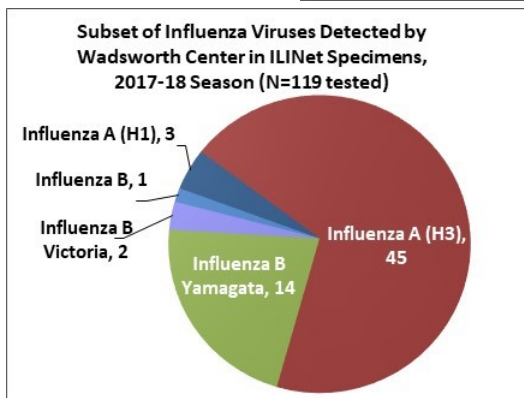
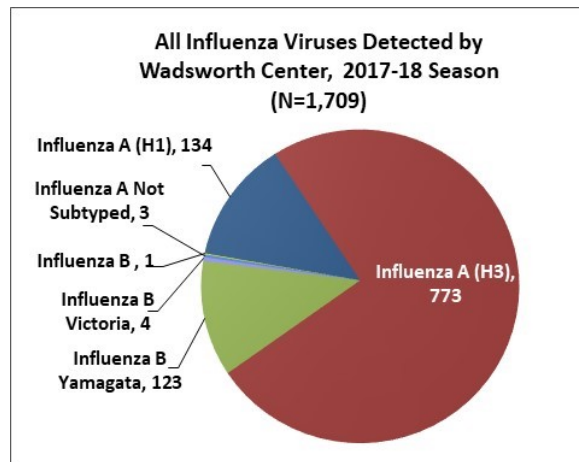


Influenza Virus Types and Subtypes Identified at Wadsworth Center (excluding NYC)

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. 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	34	0 (0.00)	0 (0.00)
Influenza A (H3N2) ⁱⁱ	117	1 (0.85)	1 (0.85)
Influenza B ⁱⁱⁱ	0	0 (0.00)	0 (0.00)

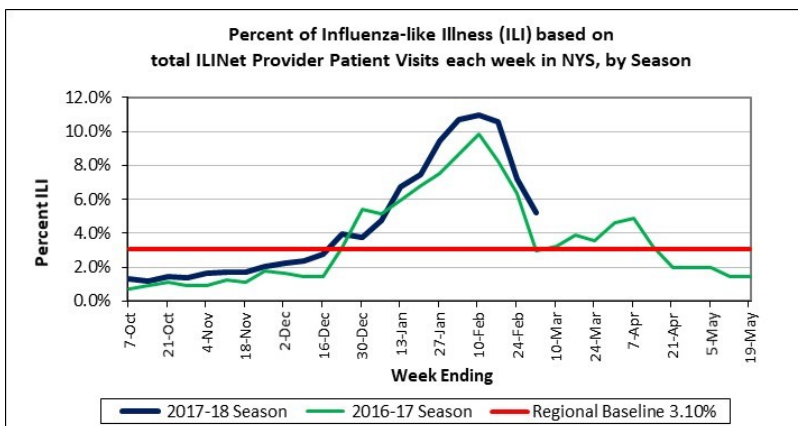
- I. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

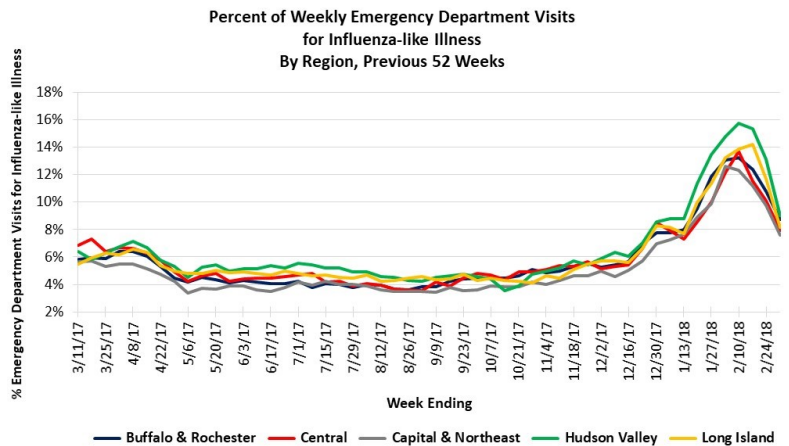


Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

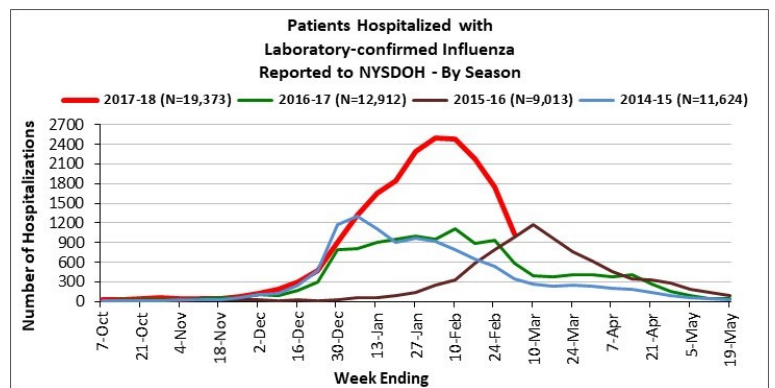
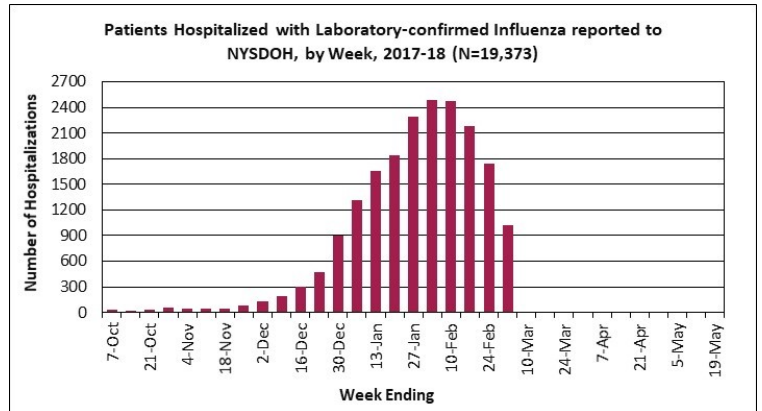
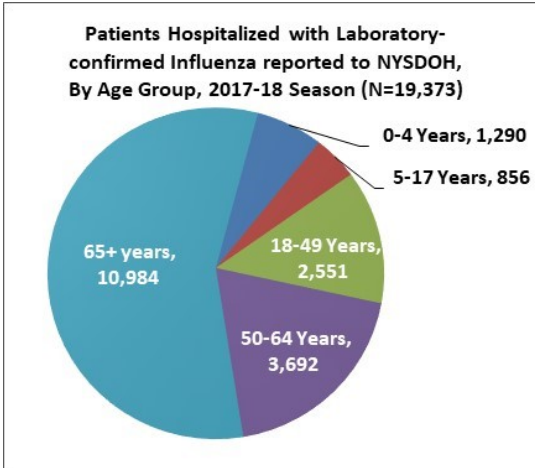
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



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. 175 (96%) 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 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.

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

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.⁶

2/25/18 through 3/3/18	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total	ACF	LTCF	Total
# Outbreaks* Lab-confirmed Influenza (any type)	1	1	2		6	6	16	22	38	1	6	7	18	35	53
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
Total # Outbreaks	1	1	2	0	6	6	16	22	38	1	6	7	18	35	53

Season-to-Date (CDC week - 9) 9/29/17/16 through 3/3/18	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	67	96	22	97	119	361	329	690	29	126	155	441	619	1060
# Outbreaks* viral respiratory illness**		6	6		12	12		23	23		6	6	0	47	47
Total # Outbreaks	29	73	102	22	109	131	361	352	713	29	132	161	441	666	1107

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

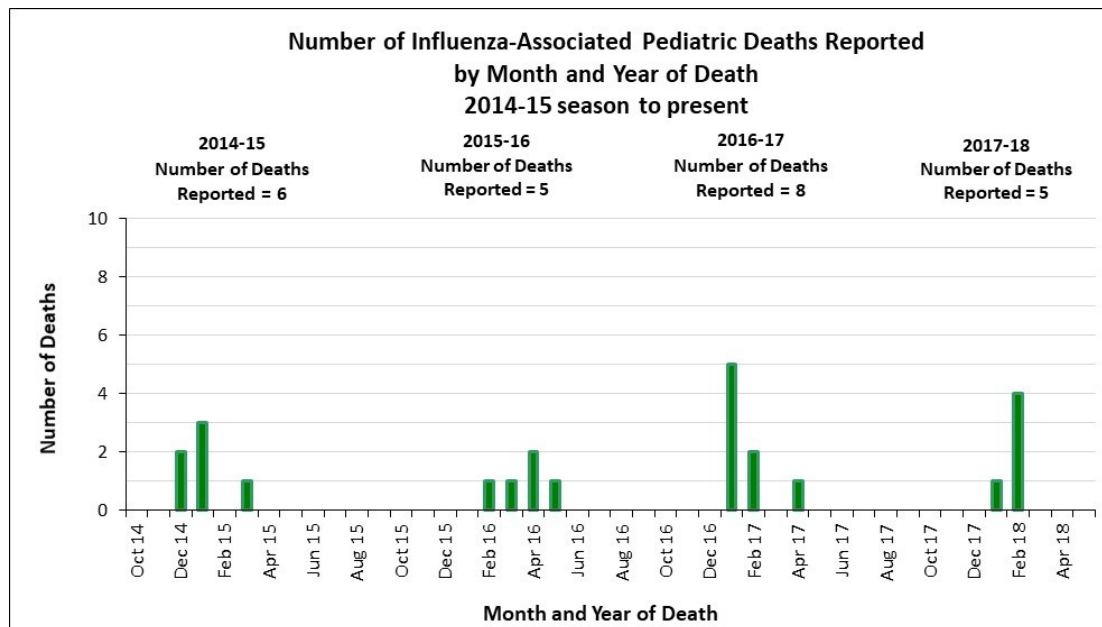
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit www.health.ny.gov/FluMaskReg

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.



⁶For more information on reporting of healthcare-associated influenza, visit http://www.health.ny.gov/diseases/communicable/control/respiratory_disease_checklist.htm