

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 February 24, 2018

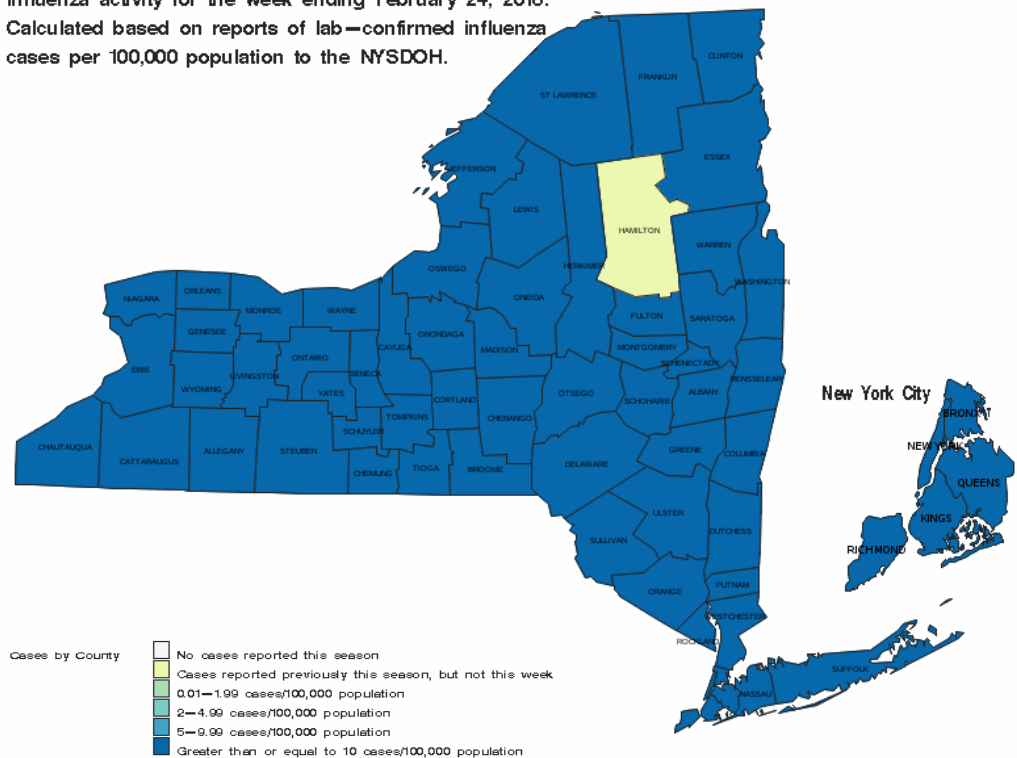
- Influenza activity level was categorized as geographically **widespread**². This is the 12th consecutive week that widespread activity has been reported.
- There were **13,703** laboratory-confirmed influenza reports, a **25% decrease** over last week.
- Of the **3,331** specimens submitted to WHO/NREVSS laboratories, **957 (28.90%)** were positive for influenza.
- Of the **161** specimens tested at Wadsworth Center, **123** were positive for influenza. **12** were **Influenza A (H1)**, **88** were **influenza A (H3)**, and **23** were **influenza B (Yamagata)**.
- Reports of percent of patient visits for influenza-like illness (ILI)³ from ILINet providers was **7.38%**, which is above the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **1,702** a **21% 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 0-197.28 cases/100,000 population.

Influenza activity for the week ending February 24, 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.

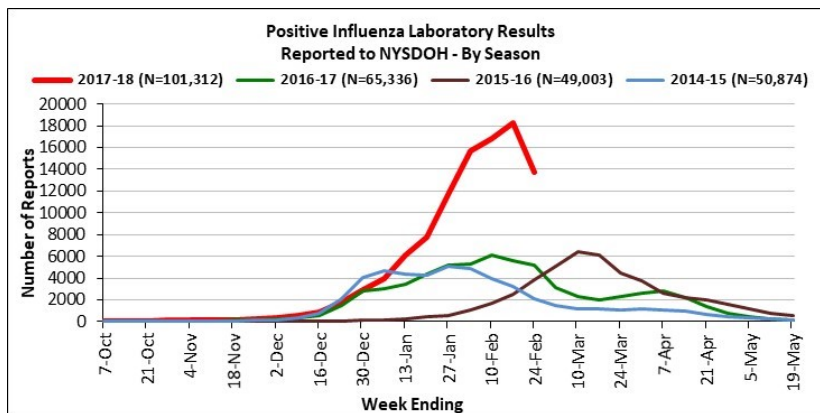
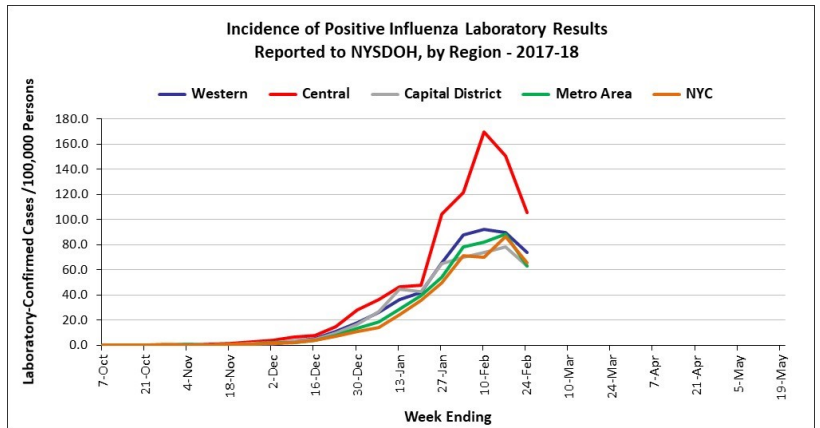
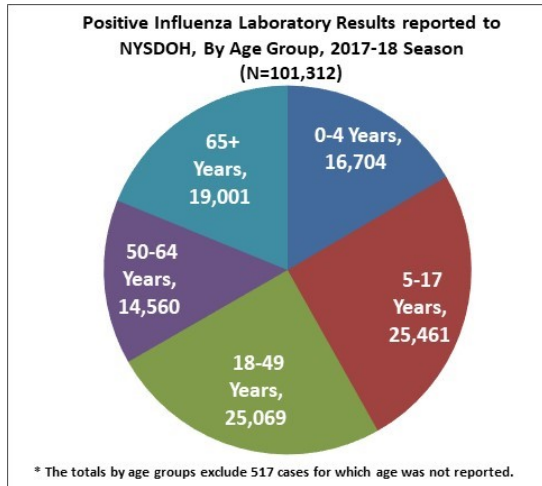
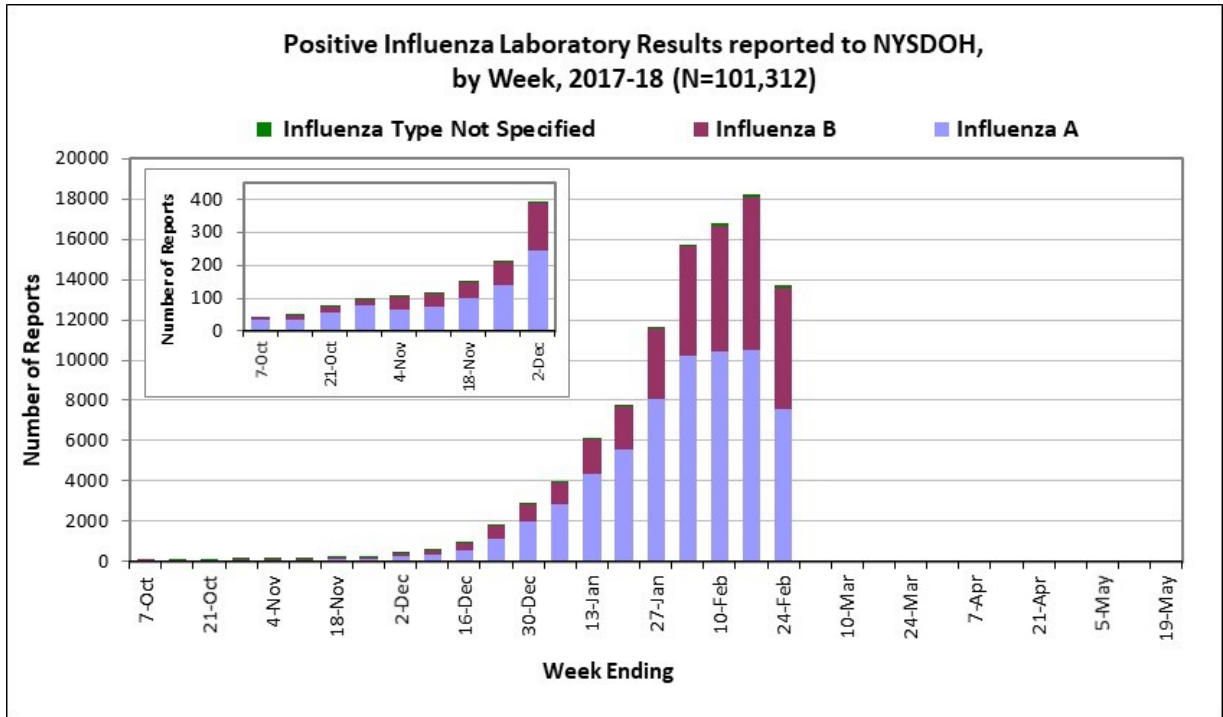
Regional: Increased or sustained numbers of lab-confirmed cases of influenza reported in at least two regions but in fewer than 31 of 62 counties.

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)



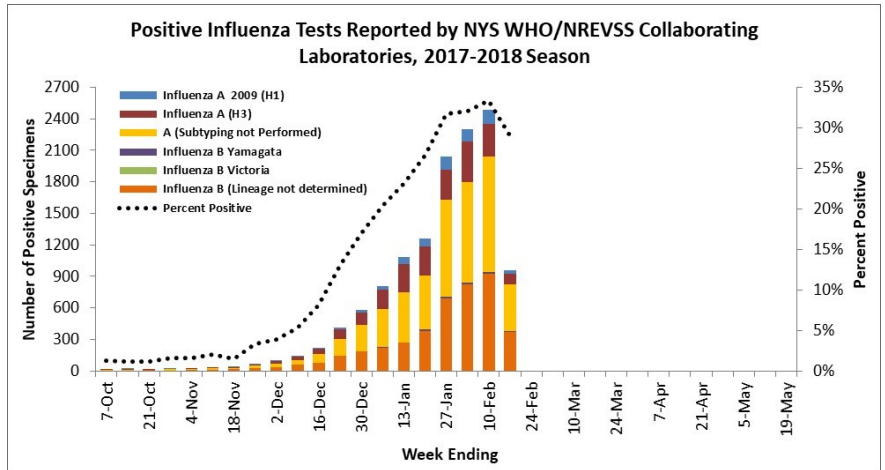
Laboratory Reports of Influenza (including NYC)

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
	10-Feb	17-Feb	24-Feb	
Albany	182	175	159	1298
Allegany	20	16	33	141
Broome	385	339	144	1790
Cattaraugus	70	56	53	391
Cayuga	97	71	65	850
Chautauqua	179	214	158	987
Chemung	56	21	41	326
Chenango	106	85	32	455
Clinton	76	64	52	449
Columbia	38	62	35	285
Cortland	79	84	65	464
Delaware	53	40	28	234
Dutchess	264	241	119	1351
Erie	642	605	561	3805
Essex	18	20	24	116
Franklin	14	20	20	145
Fulton	31	41	32	254
Genesee	94	111	46	584
Greene	20	17	15	189
Hamilton	1	0	0	20
Herkimer	102	118	121	580
Jefferson	262	164	135	883
Lewis	81	73	53	295
Livingston	75	119	66	457
Madison	74	68	59	458
Monroe	736	666	605	4802
Montgomery	57	57	67	349
Nassau	1108	1336	942	6424
Niagara	118	104	108	665
Oneida	479	588	377	2687
Onondaga	462	391	291	2553
Ontario	210	216	109	1111
Orange	228	343	230	1684
Orleans	44	38	39	265
Oswego	195	156	150	1019
Otsego	61	65	45	322
Putnam	93	106	95	552
Rensselaer	81	73	69	642
Rockland	176	144	123	956
Saratoga	217	248	189	1633
Schenectady	237	271	190	1516
Schoharie	19	22	25	124
Schuyler	3	5	10	34
Seneca	32	31	20	230
St. Lawrence	201	132	109	715
Steuben	69	70	44	368
Suffolk	1081	1090	807	6279
Sullivan	40	100	74	395
Tioga	95	96	64	468
Tompkins	197	138	90	922
Ulster	67	64	38	561
Warren	24	30	24	196
Washington	37	34	26	226
Wayne	165	172	121	1044
Westchester	1207	1159	833	7060
Wyoming	35	60	39	218
Yates	35	20	20	163
Upstate Total	10828	10849	8089	62990
Bronx	1843	2078	1236	10056
Kings	1404	1561	2000	9832
New York	702	1049	603	5205
Queens	1613	2400	1555	11364
Richmond	412	317	220	1865
NYC Total	5974	7405	5614	38322
Total	16802	18254	13703	101312

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.

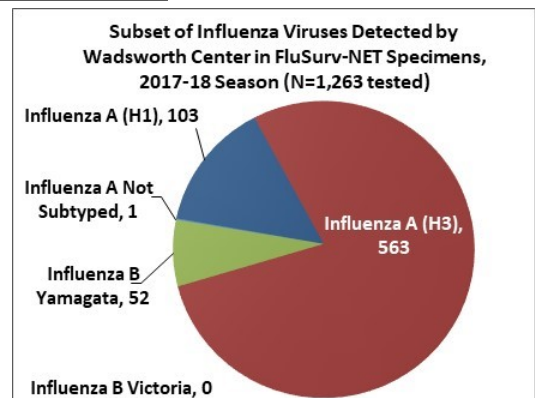
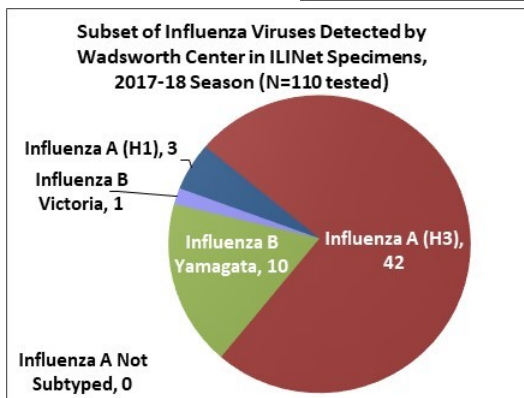
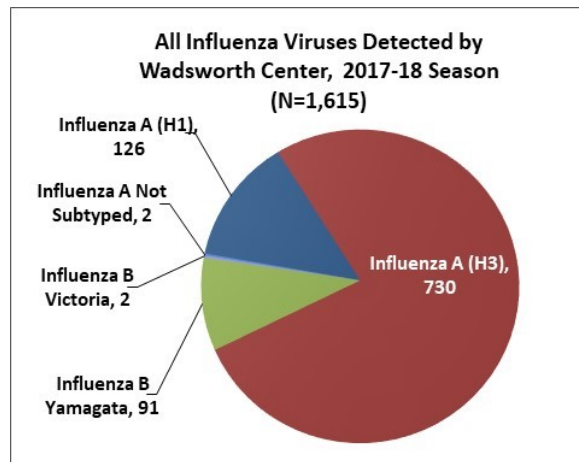


Influenza Virus Types and Subtypes Identified at Wadsworth Center (excluding NYC)

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)

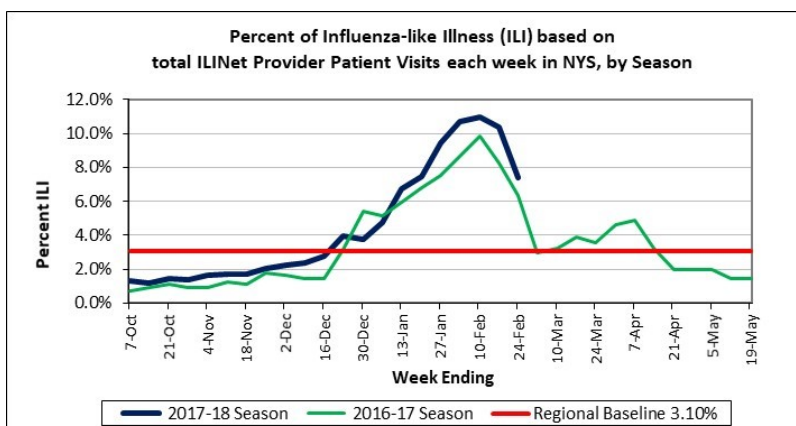
- I. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

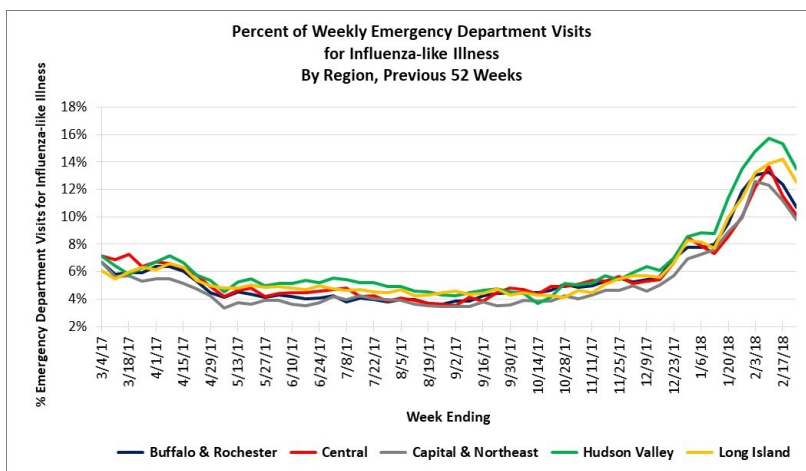


Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

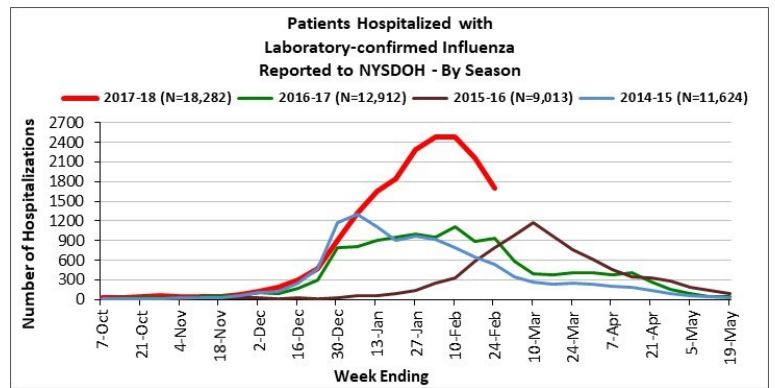
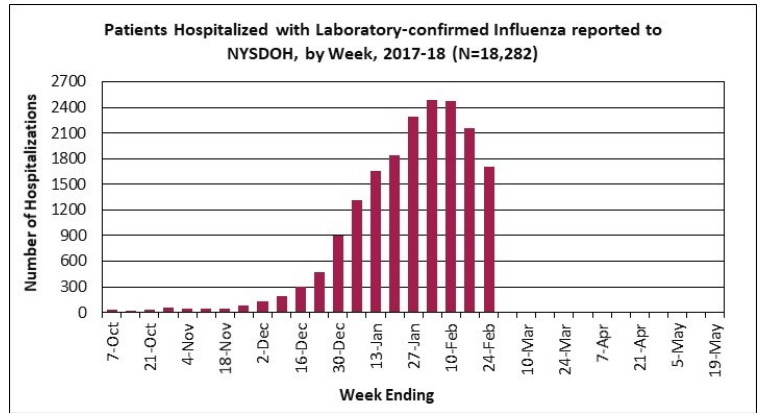
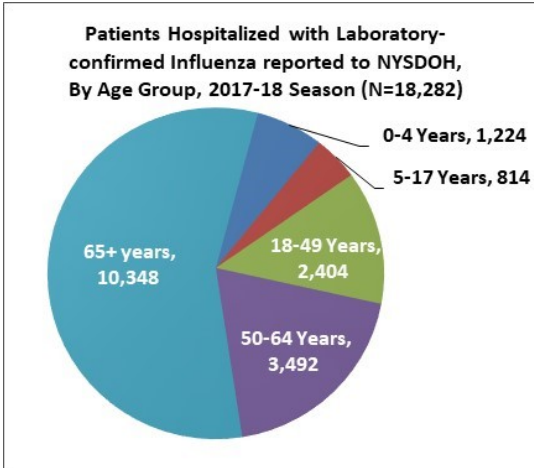
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



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. 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.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

Week-to-Date (CDC week - 8) 2/18/18 through 2/24/18	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	8	9	4	7	11	32	20	52	1	6	7	38	41	79
# Outbreaks* viral respiratory illness**			0		1	1			0			0	0	1	1
Total # Outbreaks	1	8	9	4	8	12	32	20	52	1	6	7	38	42	80

Season-to-Date (CDC week - 8) 9/29/17/16 through 2/24/18	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)	28	66	94	20	92	112	342	302	644	28	114	142	418	574	992
# Outbreaks* viral respiratory illness**		6	6		12	12		23	23		6	6	0	47	47
Total # Outbreaks	28	72	100	20	104	124	342	325	667	28	120	148	418	621	1039

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

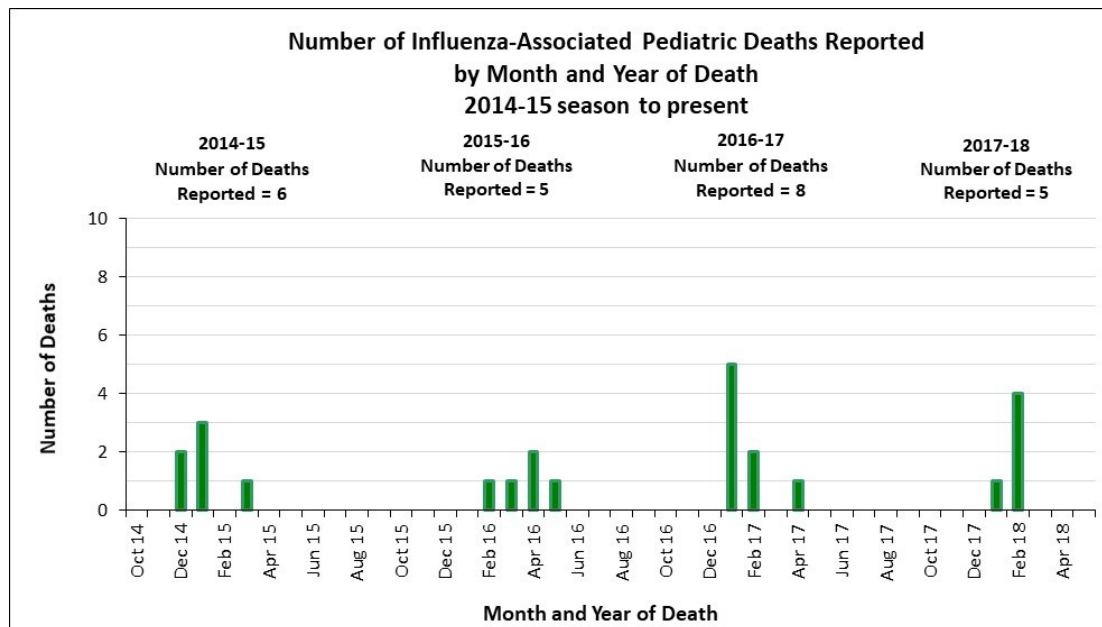
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit www.health.ny.gov/FluMaskReg

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