

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 10, 2018

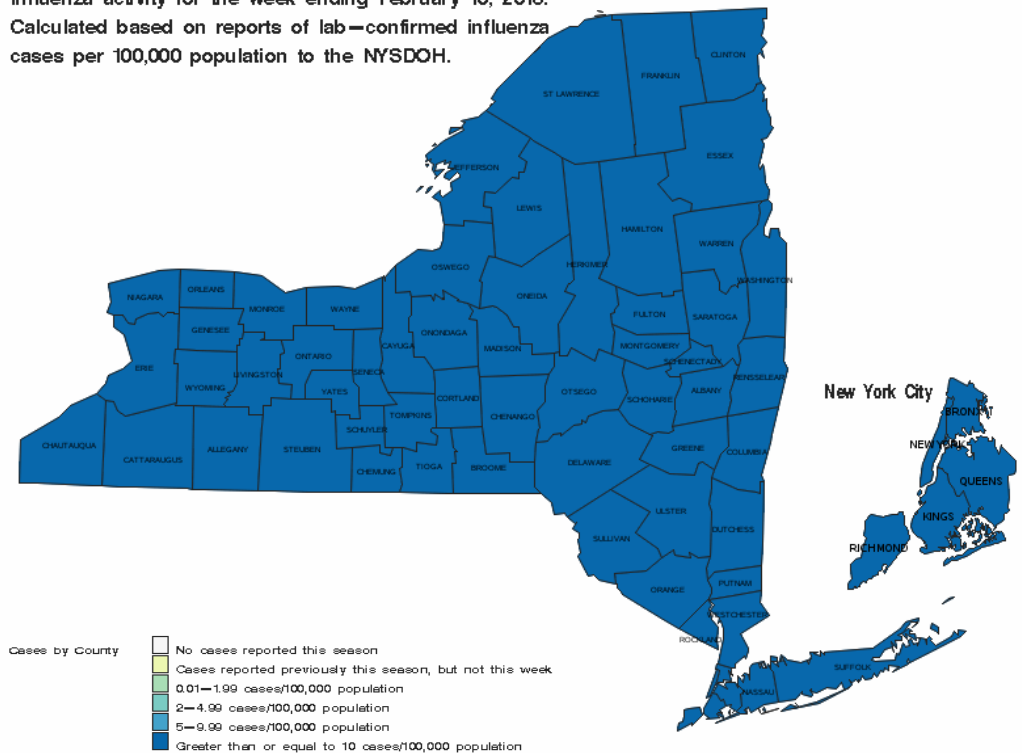
- Influenza activity level was categorized as geographically **widespread**². This is the 10th consecutive week that widespread activity has been reported.
- There were **16,804** laboratory-confirmed influenza reports, a **7% increase** over last week.
- Of the **5,449** specimens submitted to WHO/NREVSS laboratories, **1,665 (30.56%)** were positive for influenza.
- Of the **192** specimens tested at Wadsworth Center, **100** were positive for influenza. **17** were **Influenza A (H1)**, **69** were **influenza A (H3)**, and **14** were **influenza B (Yamagata)**.
- Reports of percent of patient visits for influenza-like illness (ILI)³ from ILINet providers was **11.23%**, which is above the regional baseline of 3.10%.
- The number of patients hospitalized with laboratory-confirmed influenza was **2,409** a **3% decrease** over last week.
- There were **two** 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 16.58-301.51 cases/100,000 population.

Influenza activity for the week ending February 10, 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.

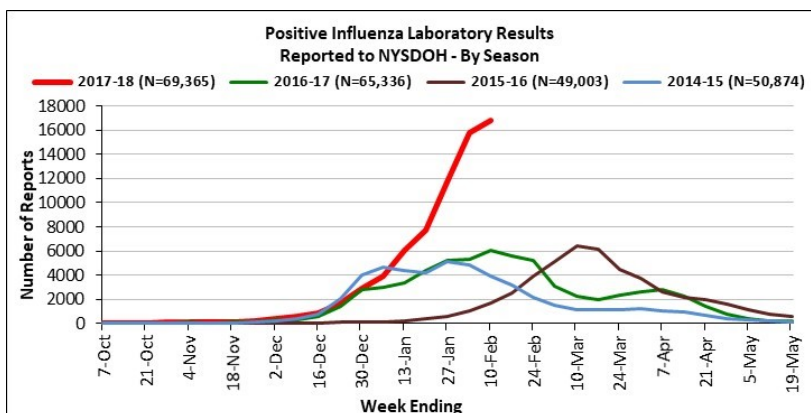
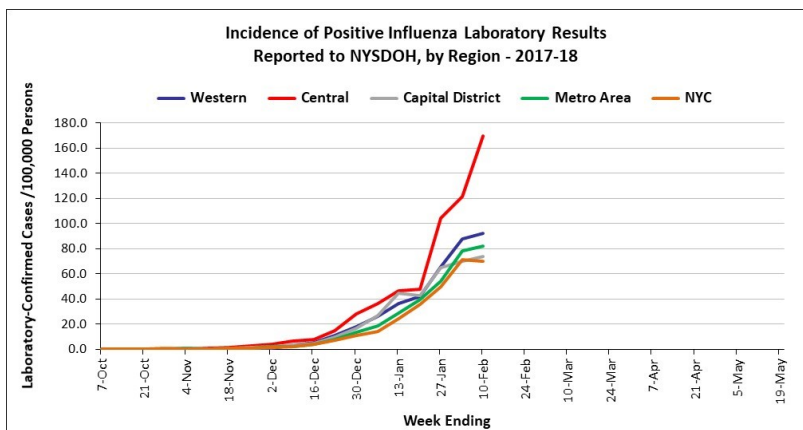
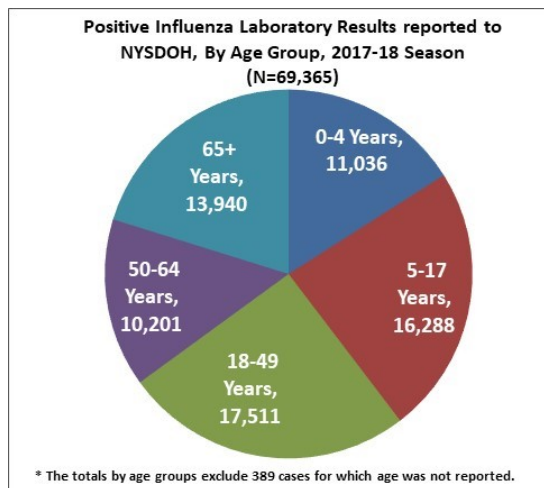
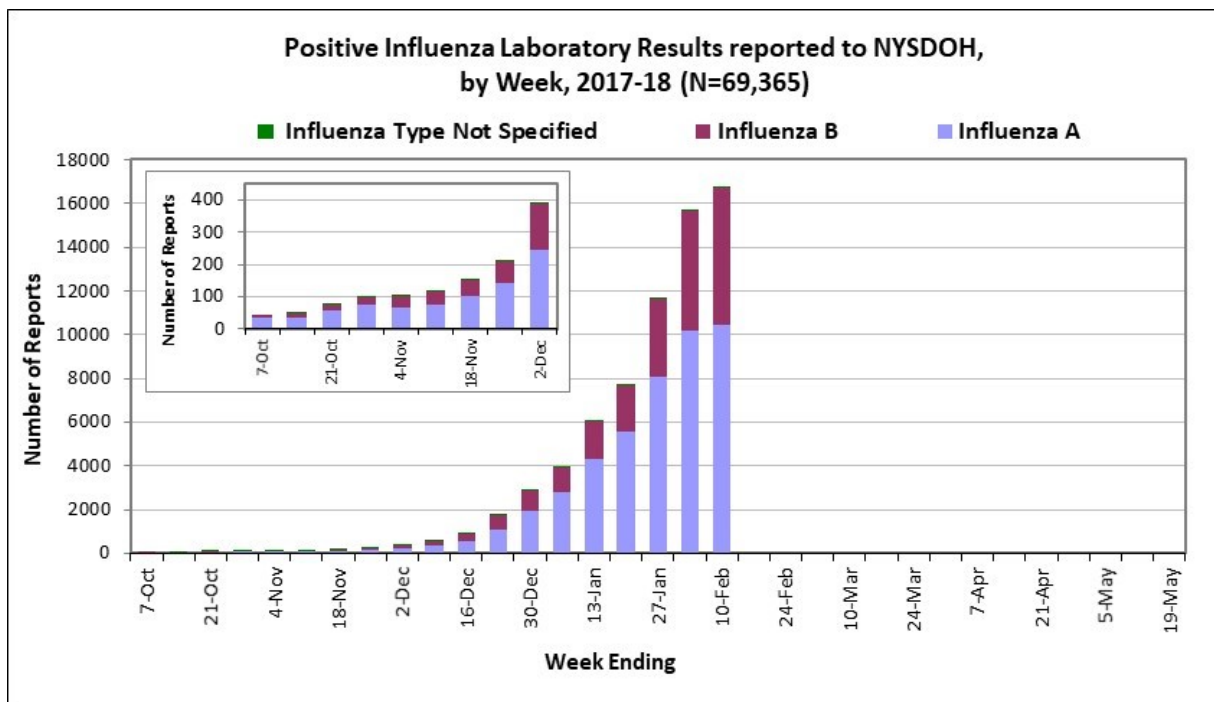
Regional: Increased or sustained numbers of lab-confirmed cases of influenza reported in at least two regions but in fewer than 31 of 62 counties.

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)



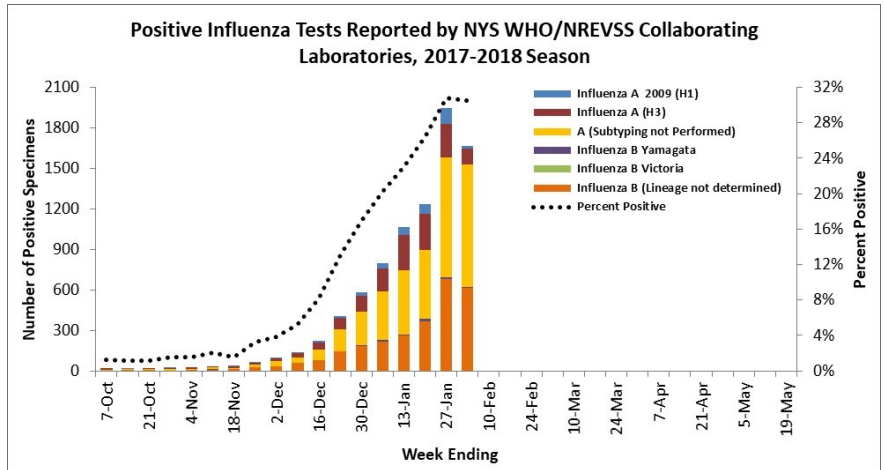
Laboratory Reports of Influenza (including NYC)

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
	27-Jan	3-Feb	10-Feb	
Albany	158	158	182	964
Allegany	36	18	20	92
Broome	378	325	385	1307
Cattaraugus	58	54	70	282
Cayuga	113	139	97	714
Chautauqua	123	117	179	615
Chemung	37	56	56	264
Chenango	72	103	106	338
Clinton	24	35	76	333
Columbia	26	45	38	191
Cortland	41	65	79	315
Delaware	34	34	53	166
Dutchess	149	217	264	991
Erie	471	608	642	2639
Essex	8	13	18	72
Franklin	17	22	14	105
Fulton	29	37	31	181
Genesee	77	98	94	427
Greene	16	19	20	158
Hamilton	7	4	1	20
Herkimer	54	72	103	342
Jefferson	77	137	262	584
Lewis	24	44	81	169
Livingston	57	58	75	273
Madison	57	57	74	331
Monroe	517	665	736	3531
Montgomery	30	44	57	225
Nassau	679	832	1108	4148
Niagara	69	112	118	453
Oneida	339	387	479	1722
Onondaga	229	234	462	1871
Ontario	116	212	210	786
Orange	169	282	228	1111
Orleans	41	54	44	188
Oswego	103	161	195	713
Otsego	45	59	61	212
Putnam	48	114	93	351
Rensselaer	101	92	82	501
Rockland	121	144	176	689
Saratoga	266	198	217	1196
Schenectady	219	284	237	1055
Schoharie	15	21	19	77
Schuyler	6	4	3	19
Seneca	34	56	32	179
St. Lawrence	62	79	201	474
Steuben	37	60	69	254
Suffolk	710	1131	1081	4382
Sullivan	50	48	40	221
Tioga	76	69	95	308
Tompkins	109	150	197	694
Ulster	67	124	67	459
Warren	19	17	24	142
Washington	14	26	37	166
Wayne	124	228	165	751
Westchester	807	1172	1207	5068
Wyoming	19	25	35	119
Yates	17	33	35	123
Upstate Total	7401	9652	10830	44061
Bronx	1170	1610	1843	6742
Kings	963	1526	1404	6271
New York	518	900	702	3553
Queens	1417	1781	1613	7410
Richmond	214	279	412	1328
NYC Total	4282	6096	5974	25304
Total	11683	15748	16804	69365

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.

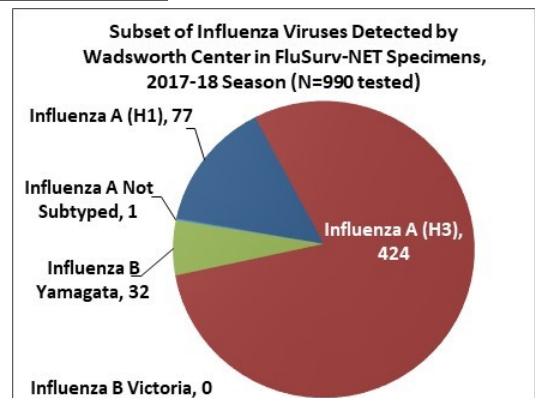
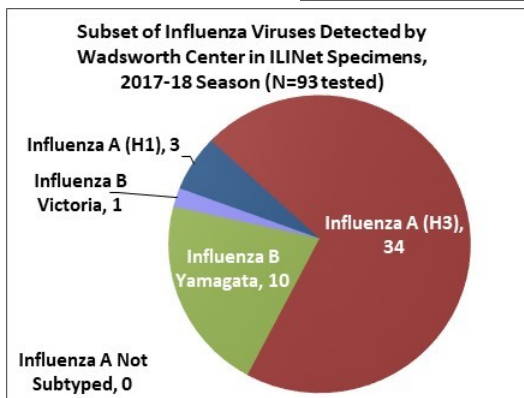
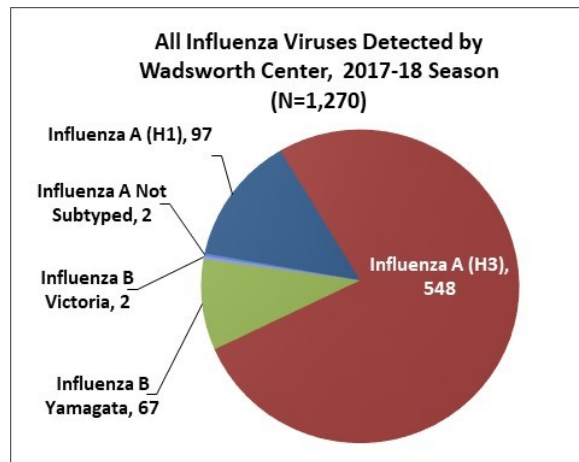


Influenza Virus Types and Subtypes Identified at Wadsworth Center (excluding NYC)

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)

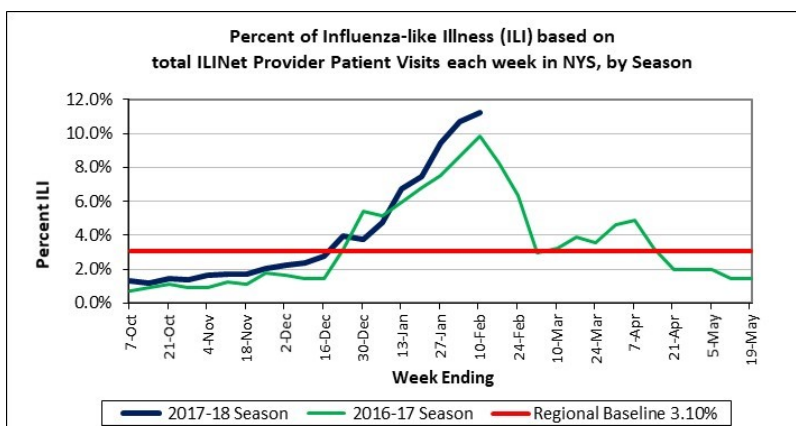
- I. All samples tested by pyrosequencing for the H275Y variant in the neuraminidase gene which confers resistance to oseltamivir, and a subset tested by NA dideoxy sequencing for other variations known to cause, or suspected of causing, resistance to neuraminidase inhibitor drugs including zanamivir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

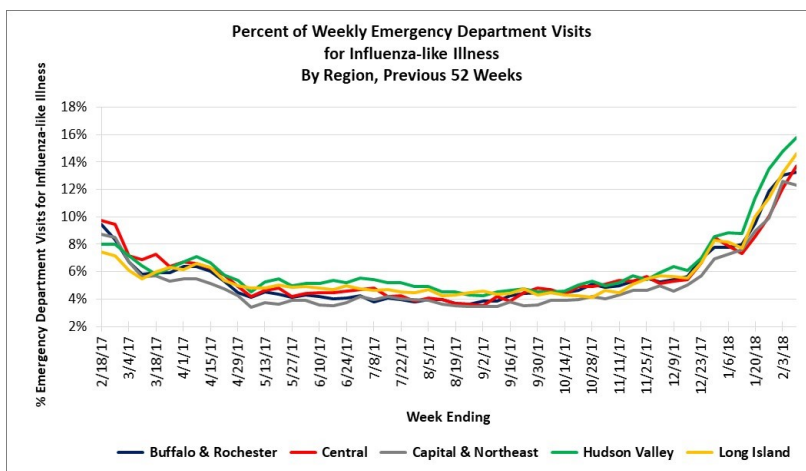


Emergency Department Visits for ILI-Syndromic Surveillance (excluding NYC)

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.

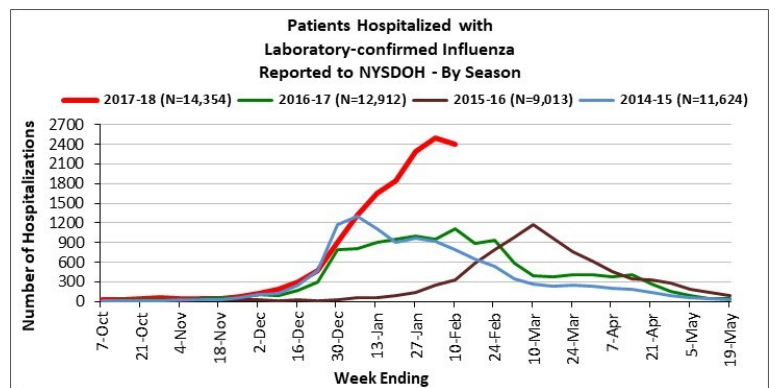
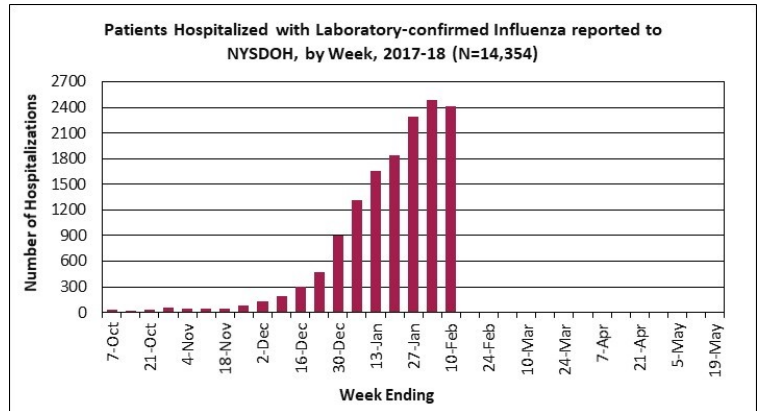
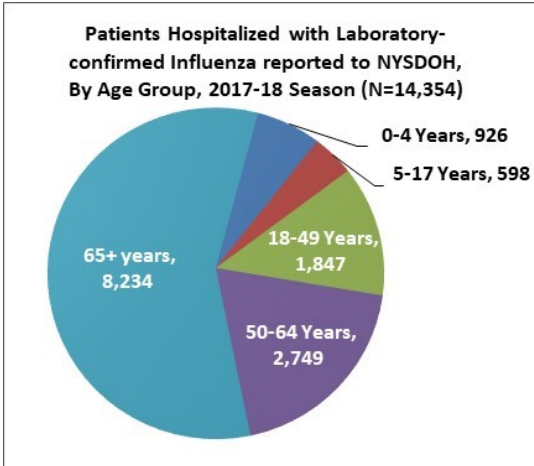
Syndromic surveillance does not reveal the actual cause of illness, but is thought to correlate with emergency department visits for influenza.



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. 178 (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 - 6) 2/4/18 through 2/10/18	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	5	6	2	14	16	34	32	66	2	6	8	39	57	96
# Outbreaks* viral respiratory illness**			0			0			0			0	0	0	0
Total # Outbreaks	1	5	6	2	14	16	34	32	66	2	6	8	39	57	96

Season-to-Date (CDC week - 6) 9/29/17/16 through 2/10/18	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)	25	52	77	13	74	87	263	243	506	22	95	117	323	464	787
# Outbreaks* viral respiratory illness**		7	7		11	11		22	22	1	6	7	1	46	47
Total # Outbreaks	25	59	84	13	85	98	263	265	528	23	101	124	324	510	834

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

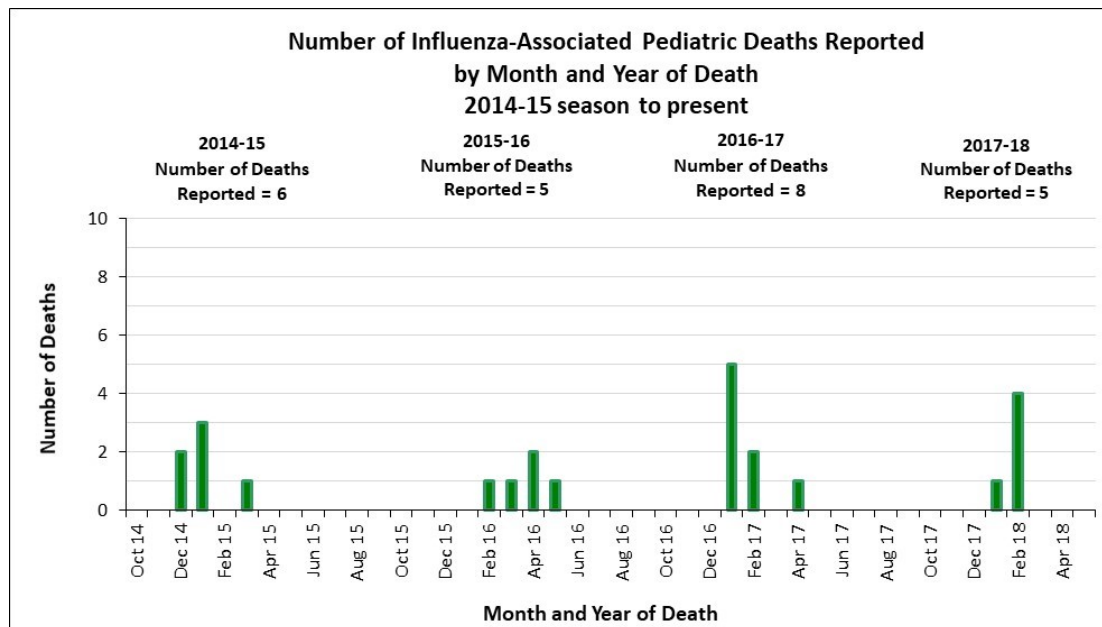
For information about the flu mask regulation and the current status of the Commissioner's declaration, please visit www.health.ny.gov/FluMaskReg

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