

Weekly Influenza Surveillance Report
Week Ending December 18, 2021
MMWR Week 50

The NH Department of Health and Human Services (DHHS) provides weekly influenza surveillance reports during the traditional influenza season, which starts at the beginning of October and continues through mid-May. The 2021–22 influenza season began on 10/03/2021.

Summary for New Hampshire

	Influenza-Like Illness (ILI)	Acute Respiratory Illness (ARI)	Pneumonia and Influenza-Like Illness (ILI) Related Deaths	Respiratory Specimens Submitted to the Laboratory	Flu Activity**
Week 50	1.4% = decrease from previous week	2.4% = increase from previous week	14.2% (above threshold*)	2,077 Total: ▪ 3 positive for A(H3) ▪ 2,074 negative	Regional

*Epidemic threshold = 8.7%

**Flu activity for both week 50 (ending 12/18/21) and week 51 (ending 12/25/21) is 'regional'.

New Hampshire Surveillance

Outpatient Illness Surveillance

The two components of outpatient illness surveillance in New Hampshire are as follows:

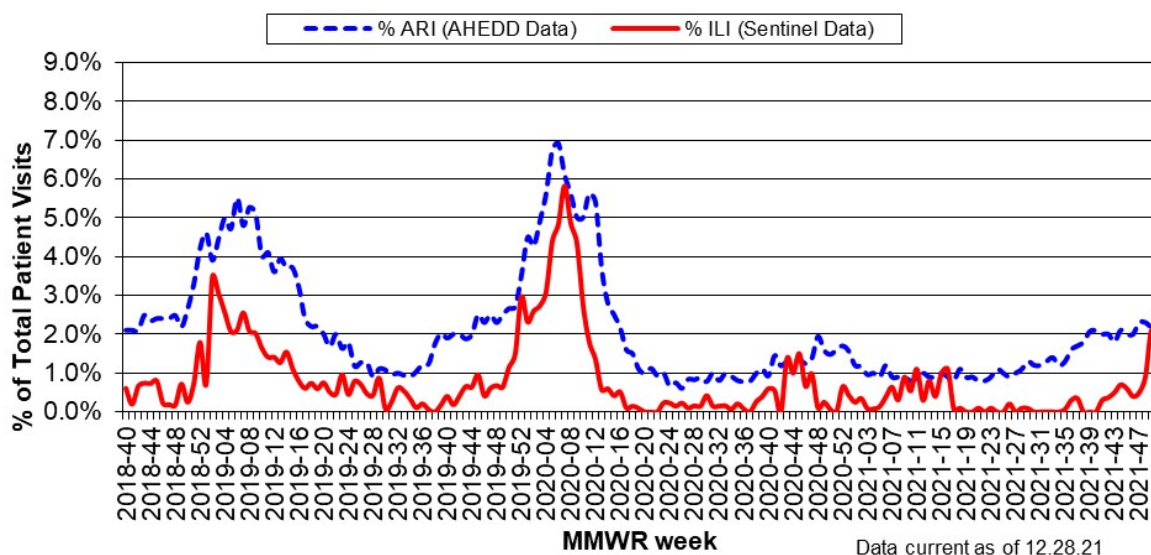
- U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet):** Beginning in 1997, NH has participated in this collaborative effort between the Centers for Disease Control and Prevention, state and local health departments, and health care providers. For the 2021-22 influenza season, 12 NH health care providers are participating. Participating providers report the proportion of patients who present with influenza-like illness (ILI) on a weekly basis. ILI is defined as 1) a fever and 2) cough and/or sore throat. Participating providers are also asked to collect respiratory specimens from select patients and submit them to the PHL for viral subtyping.
- The Automated Hospital Emergency Department Data (AHEDD) system:** This system is a collaborative effort between NH acute care hospitals and the NH DHHS. Currently, 26 hospitals electronically transmit real-time data from emergency department encounters throughout the day to NH DHHS. However, data could only be used in a meaningful way for 21 of the reporting hospitals due to key changes in how some hospitals report chief complaint text into AHEDD (i.e., changes in method of reporting resulted in challenges at comparing to historical data for determining if respiratory illness was elevated). Chief complaint text within the system is queried for complaints of acute respiratory illness (ARI) in patients seen in emergency departments. While ARI includes encounters that fit the definition of ILI above, it also includes encounters for complaints such as acute bronchitis or otitis media.

Because these two systems collect information using different methods and represent different patient populations, it is expected that the proportions of ILI and ARI seen in these systems will differ. However, the overall trend of activity is expected to be similar.

	Patient Visits/Encounters	Reporting Providers/Hospitals	ILI	ARI	Change from Previous Week
ILINet	28/2,001	10	1.4%		Decrease from 2.1%
AHEDD	357/14,841	21		2.4%	Increase from 2.2%

Maps illustrating the degree of ARI activity for each of the ten counties for weeks 50 and 51 are available at <http://www.dhhs.nh.gov/dphs/cdcs/influenza/arisurveillance.htm>

ARI & ILI Reported through AHEDD and by ILINet Participating Providers MMWR Week 40 2018 to MMWR Week 50 2021 (September 30, 2018 to December 18, 2021)



Laboratory Surveillance

The NH Public Health Laboratories (PHL) receives respiratory specimens for influenza testing from health care providers and hospitals throughout the State. During the current influenza season the PHL is testing all specimens submitted for Covid testing for both influenza and for SARS-CoV-2, leading to a substantial

Results of Specimens Received by the PHL and Cumulative Totals for the 2021-22 Influenza Season

Results	Week 50 (12/12/21–12/18/21)		YTD (10/03/21–12/25/21)	
	# specimens	% of total positive	# specimens	% of total positive
Influenza A (H1)	0	0	0	0
Influenza A (H3)	3	100.0	26	96.3
Influenza A (H1N1)pdm09	0	0	0	0
Influenza A, unsubtypeable	0	0	1 ^Ω	3.7
Influenza B	0	0	0	0
Negative for influenza	2,074		21,669	
Total	2,077		21,696	

Ω Unable to be subtyped at PHL due to poor sample quality.

increase in the number of specimens being tested each week. Testing is important to identify circulating influenza viral subtypes and to confirm specimens that test positive by rapid test.

Supplemental Influenza Results

In addition to PHL influenza test results, DHHS is now reporting supplemental influenza test results from participating clinical laboratories throughout the state. Supplemental influenza test results are for specimens collected from patients who present with respiratory illness and may be generated by a variety of assays, including real-time polymerase chain reaction (RT-PCR) or rapid influenza diagnostic tests (RIDT). Currently there are 12 participating clinical laboratories that submit weekly results. Results were reported for 1,175 specimens tested during week 50, and 111 (9.4%) were positive for influenza.

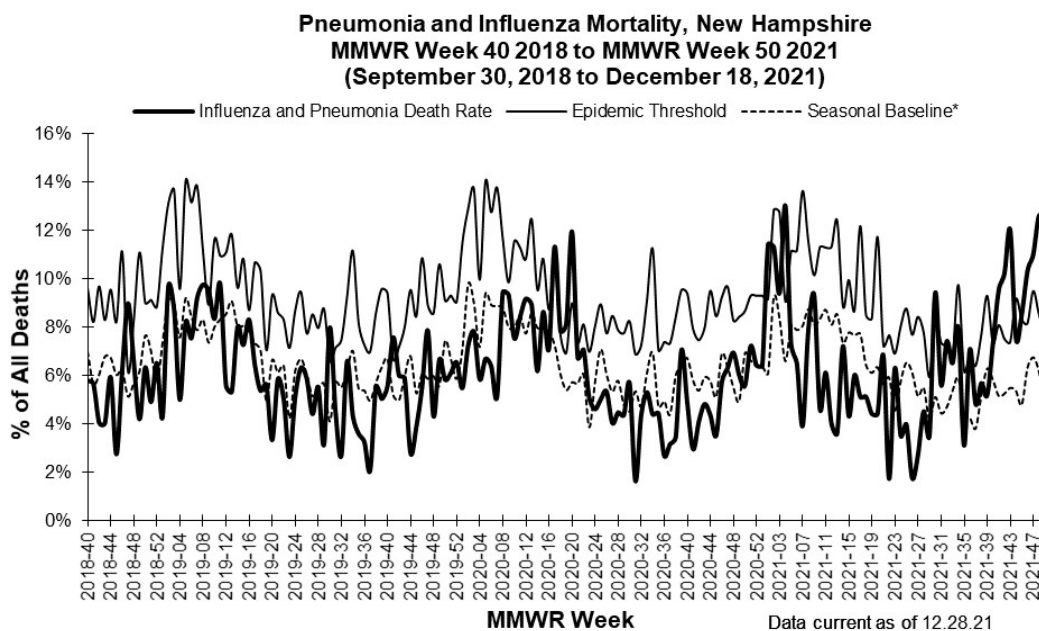
Results of Specimens Tested by Supplemental Clinical Laboratories and Cumulative Totals for the 2021-22 Influenza Season

Results	Week 50 (12/12/21–12/18/21)				YTD (10/03/21–12/25/21)			
	RIDT		PCR-based		RIDT		PCR-based*	
	# specimens	% positive	# specimens	% positive	# specimens	% positive	# specimens	% positive
Influenza A	29	78.4	74	100.0	92	78.6	211	100.0
Influenza B	8	21.6	0	0	25	21.4	0	0
Negative	173		891		1,095		8,621	
Total	210		965		1,212		8,832	

*It is noted that a portion of these specimens with positive influenza A results were shipped to PHL for subtyping, thus some of these results are also reported in the previous PHL table.

Pneumonia and Influenza (P&I) Mortality

Pneumonia and Influenza (P&I) deaths in New Hampshire are identified through review of electronically filed death certificates by looking at the causes of death listed on each death certificate. The following



*Seasonal baseline is calculated using the previous 5 years of data. If the proportion of P&I deaths for a given week exceeds the baseline value for that week by a statistically significant amount (1.645 standard deviations), then P&I deaths are said to be above the epidemic threshold, and the proportion of deaths above threshold are considered attributable to influenza.

graph, which shows the proportion of deaths attributed to P&I, represents all deaths recorded by NH's Division of Vital Records Administration. This includes resident and non-resident deaths that occurred within the State, and may not include deaths of NH residents that occurred out-of-state, or cases being investigated by the Medical Examiner's Office.

- 14.2% of all deaths recorded in NH were reported as due to P&I. This is above the epidemic threshold of 8.7%.
- One adult influenza-related death has been identified so far this influenza season. The county of residence for the person with an identified influenza-related death is Hillsborough. No pediatric influenza-related deaths have been identified this influenza season. Due to delays in electronic filing of death certificates, newly identified deaths in the last week may have occurred at any point during the flu season and not necessarily within the last week.

School Surveillance for Absenteeism

Beginning with the 2009-2010 school year, an influenza-like illness (ILI) web-reporting tool for NH schools was implemented to better evaluate trends of ILI in communities over time. All public schools voluntarily report daily aggregate counts for student absenteeism and those absent for ILI. Total absenteeism and absenteeism due to ILI in the student population are calculated each week during the influenza season.

Student Absenteeism	Current Week's Overall Rate	Percentage of Schools Reporting	Previous Week's Overall Rate
Total Absenteeism	13.0%	8.3%	12.7%
Influenza-Like-Illness	3.1%	8.3%	3.0%

Over-the-Counter Pharmaceuticals

An OTC surveillance tool referred to as Real-time Outbreak and Disease Surveillance (RODS) reports daily sales for OTC medications. DHHS receives automated data for daily OTC medications from 155 pharmacies statewide. Sales are categorized into 18 specific categories based on UPC codes, including total sales for cough and cold remedies. Examples of other OTC categories reported include antidiarrheal, antifever and rash treatment medications.

RODS - Weekly OTC Sales

Medication Category	Sales Current Week Count/Weekly Total* (%)	Sales Previous Week Count/Weekly Total* (%)
Cough/Cold Remedies	22,978 /40,194 (57%)	23,078 /40,550 (57%)

*Total = total sales of the 18 categories for this reporting period

Influenza Activity in New Hampshire as Assessed by the State Epidemiologist

The weekly reporting to the CDC of Geographic Spread of influenza Activity has been discontinued for the 2021-22 influenza season. Although the flu activity level will not be reported weekly to CDC as it normally would, the DHHS will continue to characterize this variable and include it in these NH weekly influenza reports.

- Overall influenza activity in NH for week 50 was **regional**.
- Influenza activity in NH for week 51 was **regional**.

Reported flu activity level is based on ILI reported by the participating providers and AHEDD surveillance systems, reported outbreaks in facilities, and reports of laboratory confirmed influenza.

Influenza activity levels are defined by CDC as follows:

- **No Activity:** Low ILI activity and no laboratory-confirmed cases of influenza.
- **Sporadic:** Low ILI activity and isolated laboratory-confirmed influenza cases or a single influenza outbreak has been reported.
- **Local:** Increased ILI activity or influenza outbreaks in a single region of the state, and recent laboratory-confirmed influenza in that region.
- **Regional:** Increased ILI activity or influenza outbreaks in ≥ 2 , but less than half of state regions, and recent laboratory-confirmed influenza in affected regions.
- **Widespread:** Increased ILI activity or influenza outbreaks in at least half of state regions, and recent laboratory-confirmed influenza in the state.

National Surveillance

- ❑ Influenza activity in the United States is increasing, including indicators that track hospitalizations. The amount of activity varies by region.
- ❑ The majority of influenza viruses detected in the U.S. are A(H3N2). Most influenza A(H3N2) infections have occurred among children and young adults 5-24 years of age; however, the proportion of infections occurring among adults age 25 years and older has been increasing.
- ❑ Virus antigenic and antiviral susceptibility data will be reported later this season when a sufficient number of specimens have been tested.
- ❑ The proportion of outpatient visits for influenza-like illness (ILI) was 3.1%, which is above the national baseline of 2.5%. Regions 1 (New England), 2, 3, 4, 5, and 7 are above their region-specific baselines; Region 10 is at baseline, and all other regions are below their baselines.
- ❑ The percentage of deaths due to pneumonia, influenza, and/or COVID-19 (PIC) in the National Center for Health Statistics (NCHS) Mortality Surveillance System for MMWR week 50 was reported at 18.8%, which is above the epidemic threshold (6.7%). An assessment of underlying or contributing cause of death on the death certificates indicates that current PIC mortality is due primarily to COVID-19 and not influenza.
- ❑ Two influenza-associated pediatric deaths occurring during the 2021-2022 season were reported to CDC during week 50. One death was associated with influenza A(H3) and the other was associated with an influenza A virus for which no subtyping was performed.

Laboratory Surveillance

Public Health laboratories located in all 50 states and Washington D.C. reported specimens testing positive during week 50 for influenza viruses, as follows:

Flu Season	Influenza A (H1N1) pdm09	Influenza A (H3N2)	Influenza A Subtyping not performed	Influenza B – Yamagata lineage	Influenza B – Victoria lineage	Influenza B – lineage not performed	Percentage of Specimens Testing Positive
Week 50 2021-22	0 (0%)	364 (52.7%)	327 (47.3%)	0 (0%)	0 (0%)	0 (0%)	691/27,560 (2.5%)

Antigenic Characterization

Virus antigenic characterization data will be updated weekly starting later this season when sufficient numbers of specimens have been tested.

Antiviral Resistance

CDC tests susceptibility of influenza viruses to antiviral medications including the neuraminidase inhibitors (oseltamivir, zanamivir, and peramivir) and the PA endonuclease inhibitor baloxavir. Data for antiviral resistance will be presented later this season when sufficient numbers of specimens have been tested.

- An annual flu vaccine is the best way to protect against flu and its potentially serious complications. CDC recommends everyone 6 months of age or older who does not have a medical contraindication to get a flu vaccine.
- Antiviral treatment is recommended as early as possible for patients with confirmed or suspected influenza who have severe, complicated, or progressive illness; who require hospitalization; or who are at greater risk for influenza-related complications.
- Additional information on recommendations for treatment and chemoprophylaxis of influenza virus infection with antiviral agents is available at (<https://www.cdc.gov/flu/treatment/index.html>).
- To prevent the spread of antiviral resistant virus strains, CDC reminds clinicians and the public of the need to continue hand and cough hygiene measures for the duration of any symptoms of influenza, even while taking antiviral medications. Additional information on influenza topics is available from CDC at <http://www.cdc.gov/flu>.

Report Date: 12/28/21

Prepared by: John Dreisig, MPH

John.Dreisig@dhhs.nh.gov / 603-271-6585

All data in this report are based upon information provided to the New Hampshire Department of Health and Human Services under specific legislative authority. The numbers reported may represent an underestimate of the true absolute number and incidence rate of cases in the state. The unauthorized disclosure of any confidential medical or scientific data is a misdemeanor under New Hampshire law. The department is not responsible for any duplication or misrepresentation of surveillance data released in accordance with this guideline.