Influenza and Respiratory Illness Surveillance Report
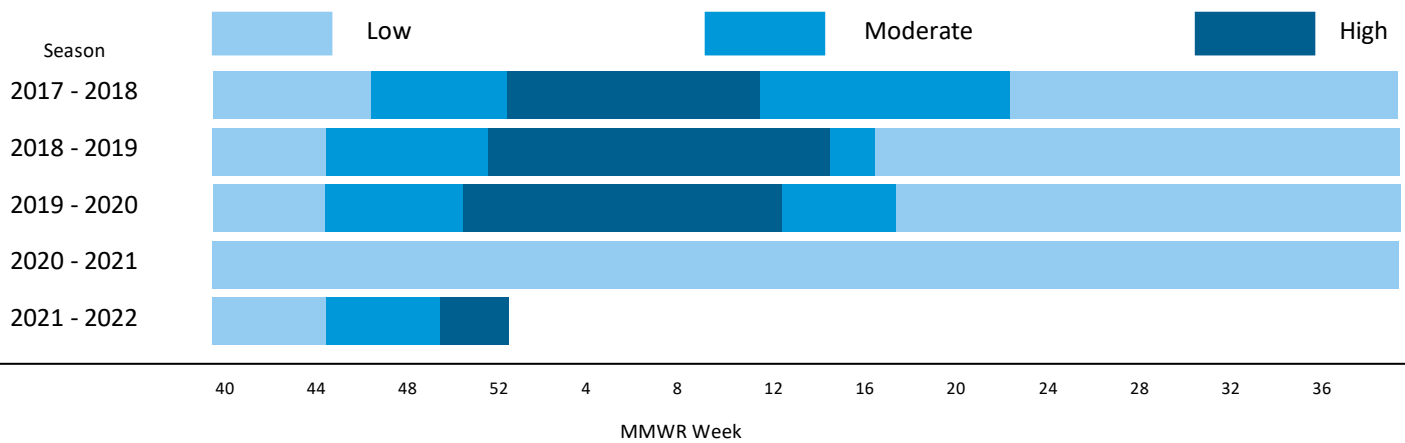## Week ending January 1, 2022 (MMWR Week 52)

Highlights

- *Influenza activity level is high statewide*
- *Emergency Department visits and Outpatient provider visits associated with influenza-like illness are higher than last week and higher than this same week last year*
- *There have been no influenza-associated confirmed pediatric deaths reported this season*
- *There have been 8 outbreaks reported from Long-term Care Facilities this season*
- *Positive results continue to be reported; Influenza A (subtyping not performed) is at 78.43%, followed by A(H3N2) (20.10%), B (1.36%), and A(H1N1)pdm09 (0.11%)*

Influenza Activity Level Comparison

| | Low | Moderate | High |

Season	
2017 - 2018	
2018 - 2019	
2019 - 2020	
2020 - 2021	
2021 - 2022	

MMWR Week: 40, 44, 48, 52, 4, 8, 12, 16, 20, 24, 28, 32, 36

1. Current Influenza Activity Level

This report contains surveillance information for influenza and other viral respiratory illnesses reported to the New Jersey Department of Health (NJDOH); Communicable Disease Service. As per regulation, influenza is a laboratory reportable condition but it is not possible to count every case that occurs since some individuals will not seek medical care or may never get tested. Surveillance is conducted year round and this report is published from October to May. The Morbidity and Mortality Weekly Report (MMWR) week is the year used by the Centers for Disease Control and Prevention (CDC) for disease reporting and can be found at https://www.nj.gov/health/cd/documents/flu/MMWR_weeks.pdf. Activity Levels are defined in the table on page 7 of this report. **Counts displayed below are the cumulative totals reported for the season beginning with MMWR week 40, week ending October 9, 2021.**

State Activity Level
HIGH

Regional Data	
Northwest Morris, Passaic, Sussex, Warren	HIGH
Northeast Bergen, Essex, Hudson	HIGH
Central West Hunterdon, Mercer, Somerset	HIGH
Central East Middlesex, Monmouth, Ocean, Union	HIGH
Southwest Burlington, Camden, Gloucester, Salem	HIGH
Southeast Atlantic, Cape May, Cumberland	HIGH
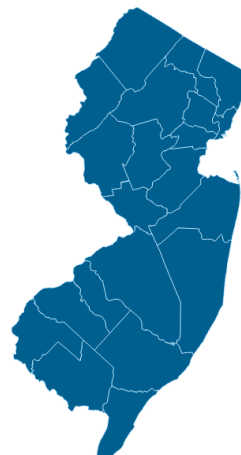
7,213
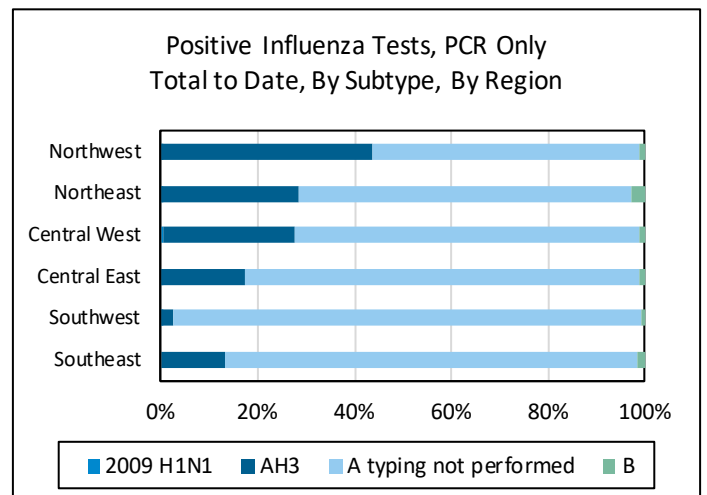Cases reported (PCR & Rapid)

8
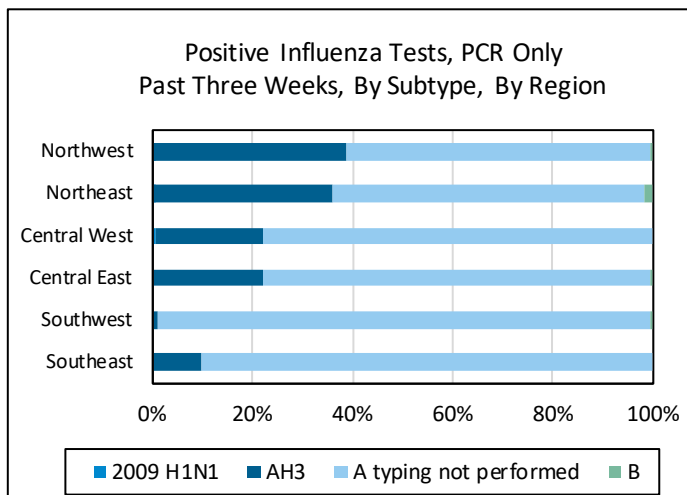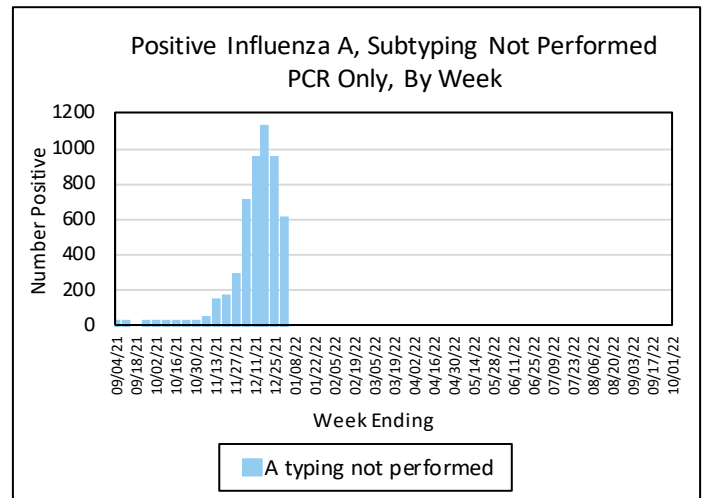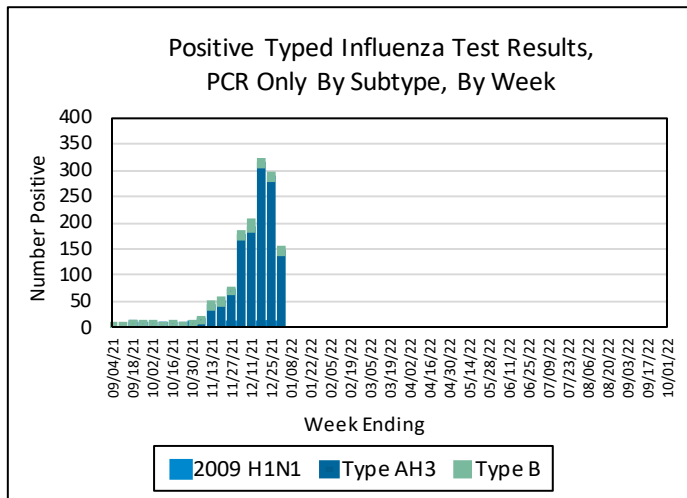Outbreaks (Long Term Care)

0
Pediatric flu deaths (confirmed)

2. Laboratory Testing

Real-time polymerase chain reaction (PCR) results for influenza (AH1N1, AH3N2, A subtyping not performed, and B) are obtained from electronic laboratory transmission submitted by acute care, commercial and public health laboratories. Rapid influenza test data are acquired from facilities reporting via the CDRSS Surveillance for Influenza and COVID-19 (SIC) module. While the cumulative totals begin with MMWR week 40, week ending October 9, 2021, the data represented in charts begin with MMWR week 35, week ending September 4, 2021. Past 3 weeks data includes the current week and two prior weeks starting with MMWR week 40, week ending October 9, 2021.

	Test Type	Current Week	Past 3 Weeks	Cumulative Total
PCR	**Influenza A (H1N1)pdm09**	0	4	7 (0.11%)
	Influenza A H3N2	144	732	1261 (20.10%)
	Influenza A (Subtyping Not Performed)	598	2658	4920 (78.43%)
	Influenza B	6	24	85 (1.36%)
Rapid	**Rapid Influenza**	209	643	940

3. Virologic Surveillance

Positive Typed Influenza Test Results, PCR Only By Subtype, By Week

Positive Influenza A, Subtyping Not Performed PCR Only, By Week

Positive Influenza Tests, PCR Only Past Three Weeks, By Subtype, By Region

Positive Influenza Tests, PCR Only Total to Date, By Subtype, By Region

3. Virologic Surveillance, *continued*

Data presented for rapid influenza testing represents information for the week prior to the current report week. Three year seasonal averages for rapid influenza tests are determined by calculating the average percent positive for each influenza season (October to May) beginning with the 2010-2011 season. These averages were ranked and the three highest and lowest overall season averages were selected. The three highest and lowest numbers were then averaged to obtain a single high and single low value for each week. The seasons which contribute to the high and low value for the rapid influenza chart are as follows: High: 16-17, 17-18, 18 -19; Low: 10-11, 11-12, 14-15. Off season baseline is calculated by taking the average of percent positivity for a 10 year period (2010 through and including 2019) during the months when influenza is less likely to be circulating (May-August). Data from the 19-20, 20-21 seasons were excluded due to the COVID-19 pandemic.


Rapid Influenza Tests: Total Tested and Percent Positive
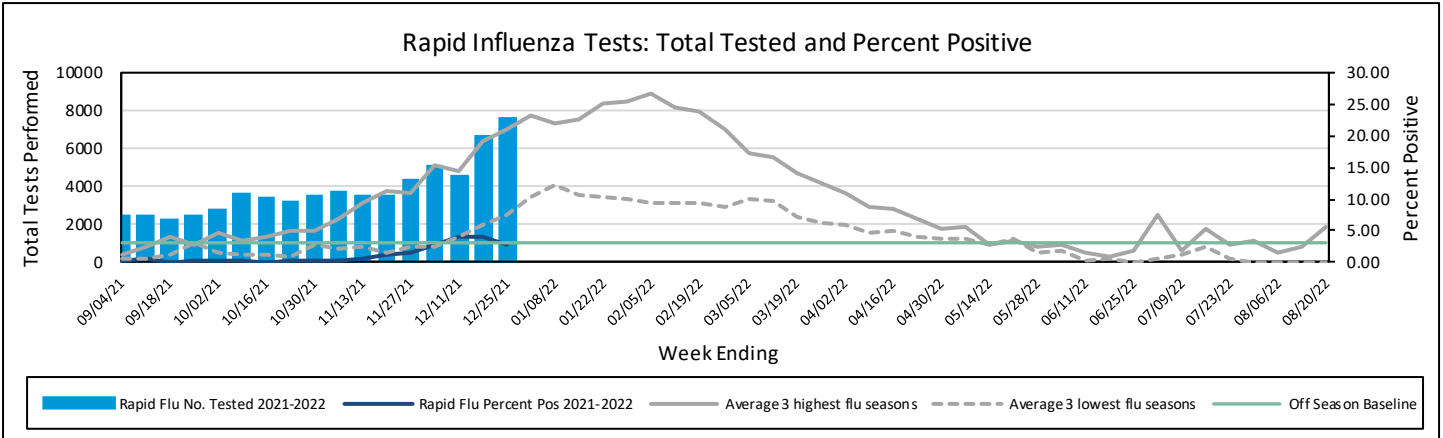
4. Pediatric Influenza Mortality

Influenza-associated pediatric mortality was added to New Jersey's reportable disease list in 2009. The below table includes severe and fatal influenza associated pediatric cases reported to NJDOH. Severe illness is defined as admission to an intensive care unit for an influenza-related illness. An influenza associated pediatric death is defined as a death resulting from a clinically compatible illness with lab confirmed influenza.

Influenza Season	US (fatal)	NJ (severe)	NJ (fatal)
2017-2018	180	61	5
2018-2019	106	51	6
2019-2020	188	57	2
2020-2021	1	1	0
2021-2022	2	6	0

5. Percent of Deaths due to Pneumonia and Influenza

Records of all deaths in New Jersey are maintained by NJDOH, Office of Vital Statistics and Registry and are submitted to the National Center for Health Statistics (NCHS). Pneumonia and influenza (P&I) deaths are identified from these records, compiled by the week of death and percent-ages are calculated. There is a 2-4 week lag period between the week the deaths have occurred and when the data for that week is reported. Because many influenza and COVID-19 deaths have pneumonia included on the death certificate, P&I no longer measures the impact of influenza in the same way as in the past. Additional information is also available at https://gis.cdc.gov/grasp/fluview/mortality.html.

Percent of Deaths Due to Pneumonia and Influenza (P&I)
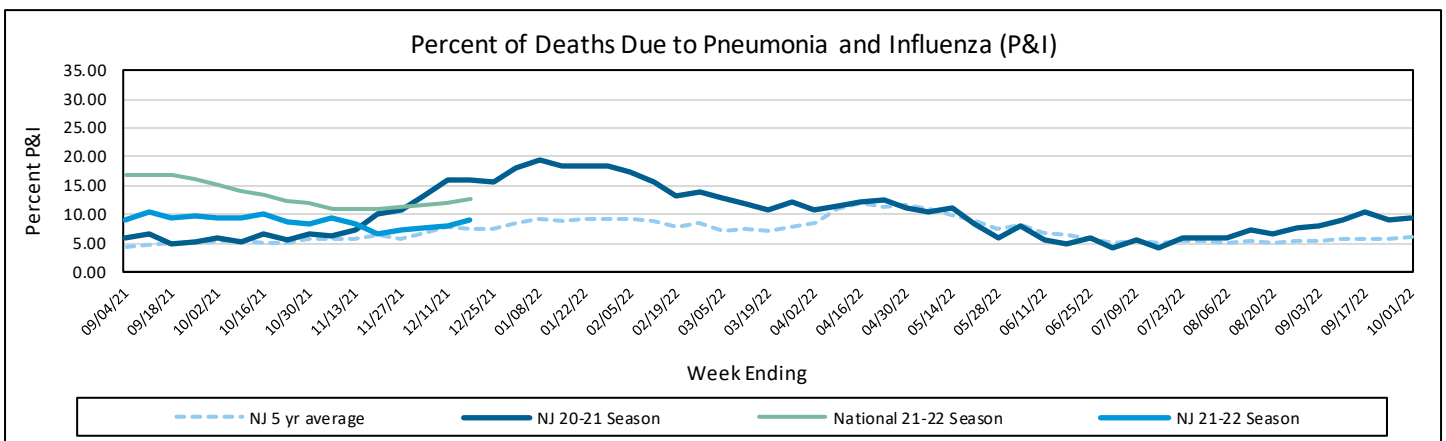
6. ILI Activity

Influenza-like illness (ILI) is defined as fever (> 100°F [37.8°C], oral or equivalent) and cough and/or sore throat. For long term care facilities, fever is defined as 2°F above baseline temperature. ILI Activity from long term care facilities (LTCFs) and absenteeism data from schools is collected in the SIC Module of the Communicable Disease Reporting and Surveillance System (CDRSS). LTCFs and schools report their total census and number ill with ILI or number absent, respectively. Emergency department (ED) data is aggregate weekly totals of syndromic ILI visits and total ED registrations as recorded in EpiCenter (e.g., NJDOH syndromic surveillance system). Off season baseline is calculated by taking the average of statewide percentages of ILI for a 10 year period (2010 through and including 2019) during months when influenza is less likely to be circulating (May-August). Data from the 19-20, 20-21 seasons were excluded due to the COVID-19 pandemic.

	Percent Influenza-like Illness/Absenteeism			Baselines
	Current Week (range by county)	**Last week Current year**	**Current week Last year**	**Off Season (Seasonal Average– low, high)**
Long Term Care Facilities	0.00 (0.00, 0.00)	0.00	0.15	0.47 (0.42, 0.76)
Emergency Departments	9.91 (6.11, 14.67)	8.40	3.16	1.96 (3.16, 4.33)
Schools (Absenteeism)	1.65 (0.00, 14.47)	9.11	4.77	3.25 (4.30, 4.94)

6a. Long Term Care ILI Activity

Long Term Care Facilities: Percent ILI
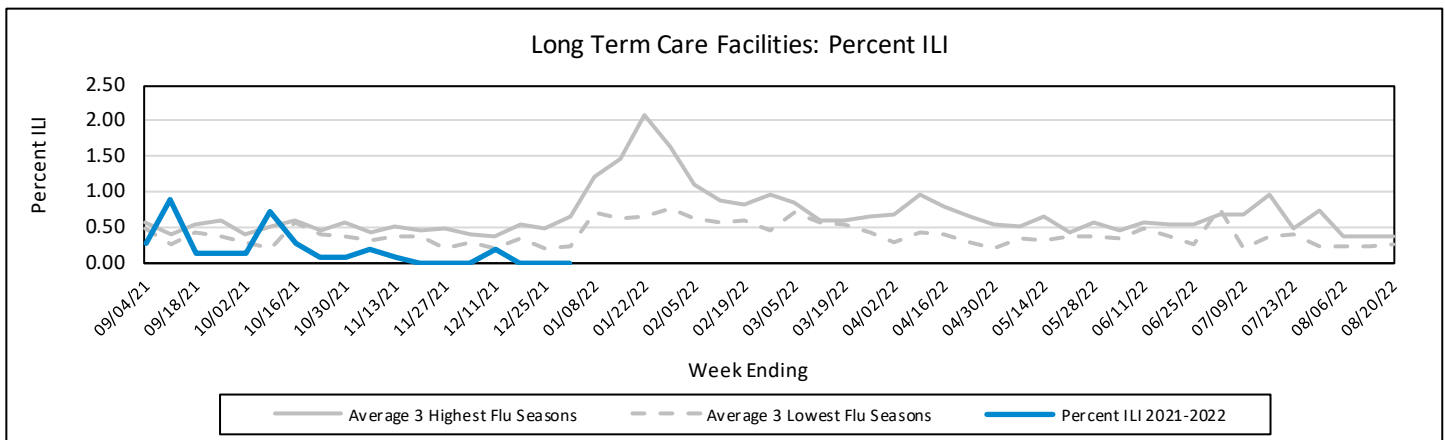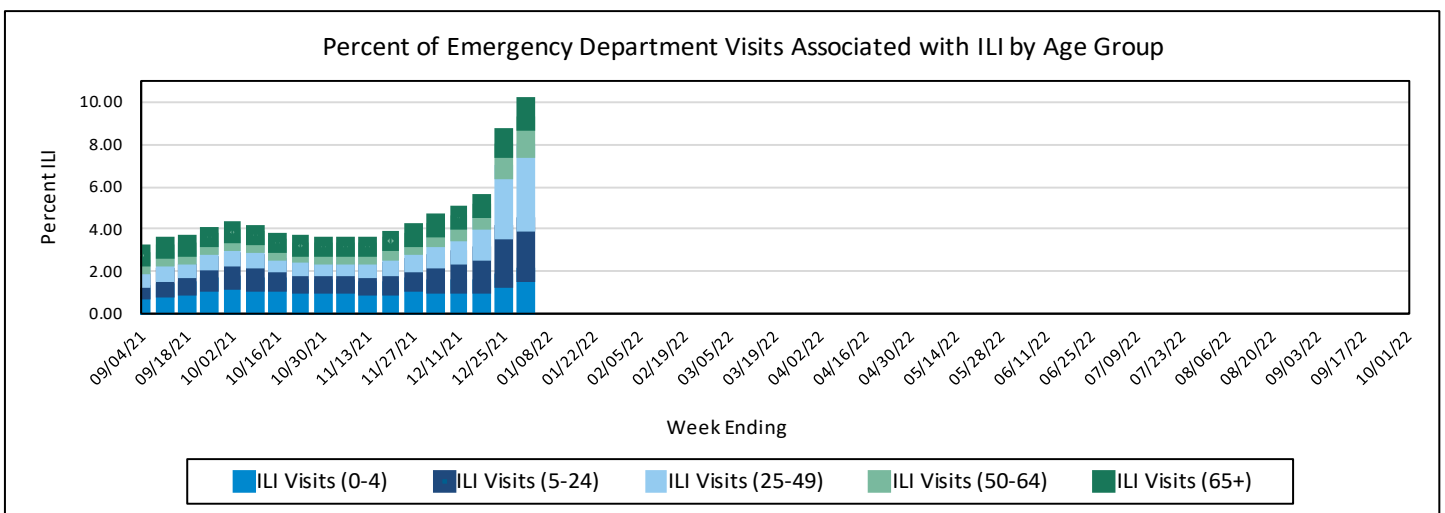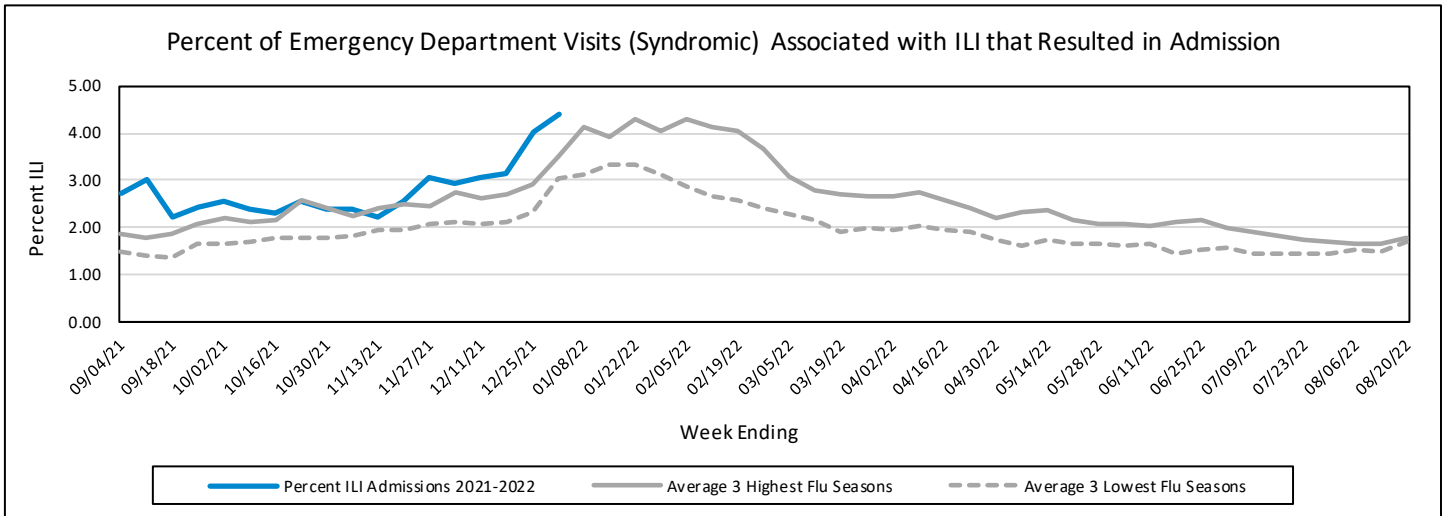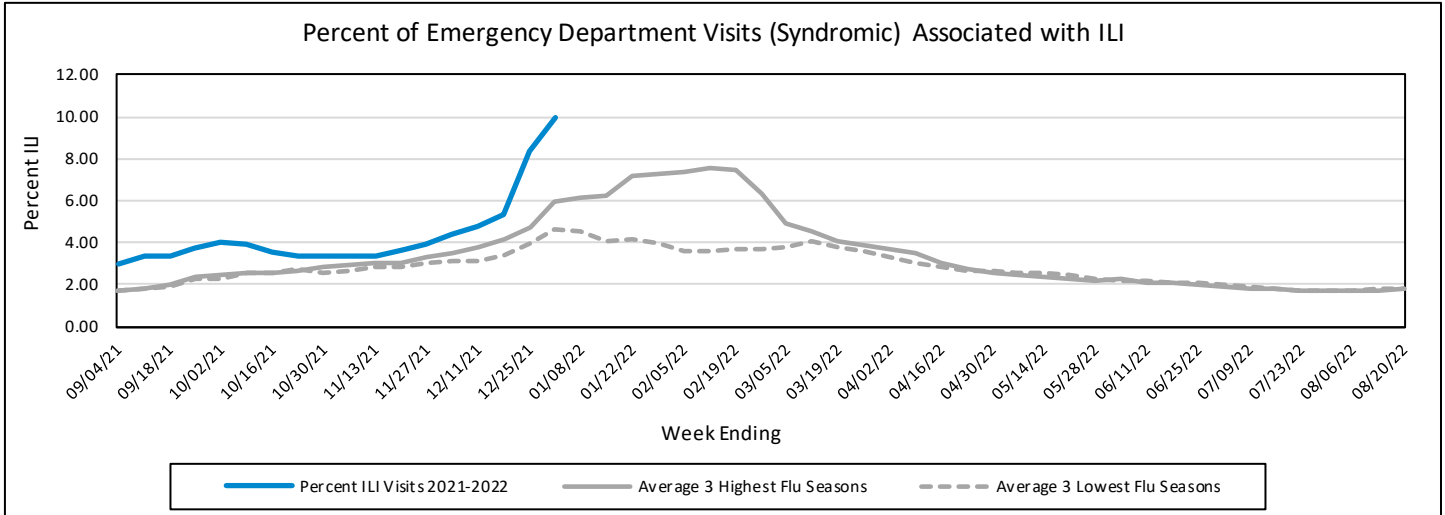
6b. Long Term Care Outbreaks

Only LTCF respiratory virus outbreaks reported to NJDOH that receive an outbreak number are recorded in this report. This does not include outbreaks due to COVID-19.
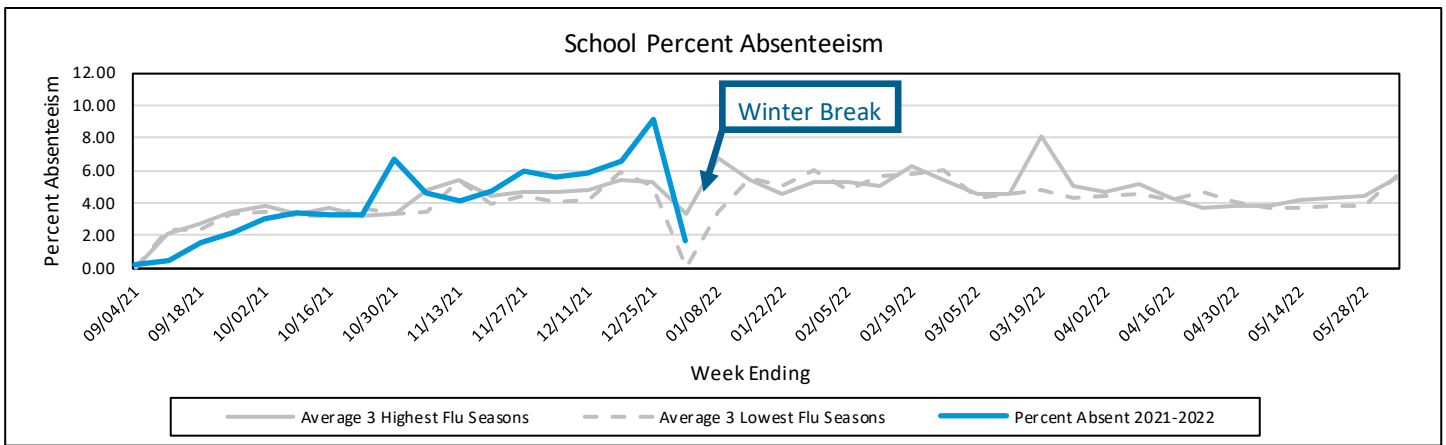
Respiratory Outbreaks in Long Term Care Facilities	
Cumulative Outbreaks 2021-2022 Season	8
No. outbreaks last 3 weeks	4
Regions with recent outbreaks	NW, CW, CE

6c. Emergency Department ILI Activity (Syndromic Surveillance)

Daily visits and admissions associated with Influenza-like Illness (ILI) from emergency department data is collected via EpiCenter (NJDOH syndromic surveillance). Prior to 2017-2018 season, data on ILI visits were only recorded on one day per week usually on Tuesday. Beginning in the 2017-2018 season, weekly aggregate data is being recorded for ILI visits and admissions. Three year seasonal averages for emergency department visits and admissions are determined by calculating the average percent positive for each influenza season (October to May) beginning with the 2011-2012 season. These averages were ranked and the three highest and lowest overall season averages were selected. The three highest and lowest numbers were then averaged to obtain a single high and single low value for each week. The seasons which contribute to the high and low value for Emergency Department Visits chart are as follows: High: 12- 13, 17-18, 18-19; Low: 11-12, 14-15, 15-16. The seasons which contribute to the high and low value for Emergency Department Admissions chart are as follows: High: 13-14, 14-15, 17-18; Low: 11-12, 12-13, 16-17. Data from the 19-20, 20-21 seasons were excluded due to the COVID-19 pandemic. Syndromic surveillance may capture other respiratory pathogens, such as SARS-CoV-2, that present with similar symptoms.

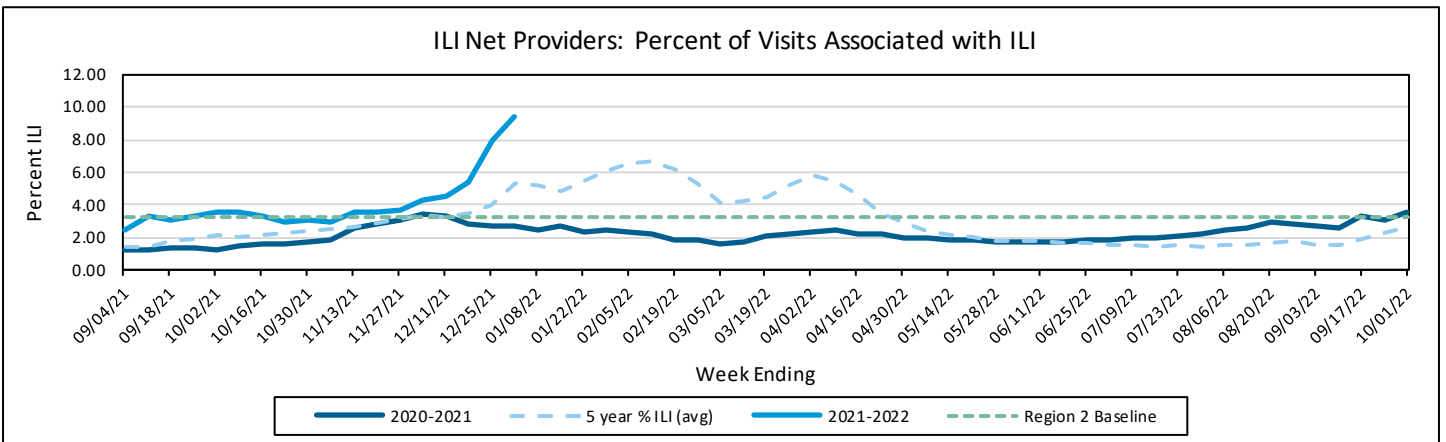
Percent of Emergency Department Visits (Syndromic) Associated with ILI

Percent of Emergency Department Visits (Syndromic) Associated with ILI that Resulted in Admission

Percent of Emergency Department Visits Associated with ILI by Age Group

6d. School Absenteeism

School Percent Absenteeism

Legend: Average 3 Highest Flu Seasons — Average 3 Lowest Flu Seasons — Percent Absent 2021-2022
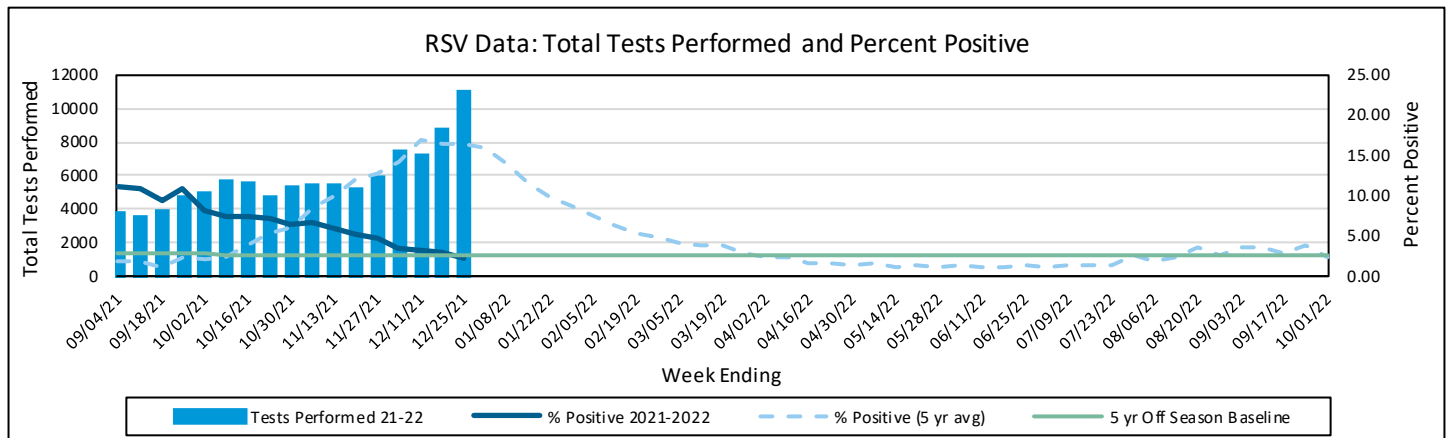
7. ILI Net Providers

The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) monitors outpatient visits for influenza-like illness (ILI), not laboratory-confirmed influenza, and may capture visits due to other respiratory pathogens, such as SARS-CoV-2, that present with similar symptoms.

ILI Net Providers: Percent of Visits Associated with ILI

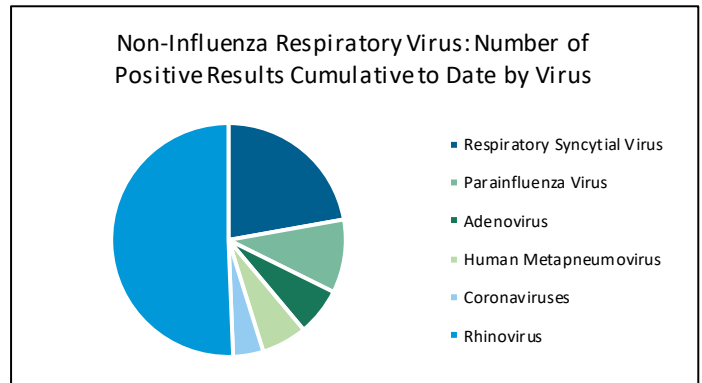Legend: 2020-2021 — 5 year % ILI (avg) — 2021-2022 — Region 2 Baseline

8. Non-Influenza Viral Respiratory Surveillance

The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based surveillance system and participating laboratories report the total number of tests performed and the total positive for a number of non-influenza respiratory viruses. Information about the CDC NREVSS system can be found at: https://www.cdc.gov/surveillance/nrevss/labs/index.html. Respiratory syncytial virus data are acquired from facilities reporting via the National Respiratory and Enteric Virus Surveillance System (NREVSS) or CDRSS ILI module. The RSV season is based upon the 5-year average of percent positivity and runs from the two consecutive weeks where percent positivity is at or above 10% through two consecutive weeks where it is below 10%. Off season for this report is determined to be week 7-45 (February through November) and the baseline is determined by averaging the percent positivity from the 5 year average during those weeks.

RSV Data: Total Tests Performed and Percent Positive

Legend: Tests Performed 21-22 — % Positive 2021-2022 — % Positive (5 yr avg) — 5 yr Off Season Baseline

RSV Percent Positive: NREVSS

Non-Influenza Respiratory Virus Positivity (includes only seasonal coronaviruses)

Non-Influenza Respiratory Virus: Number of Positive Results in the Past Three Weeks by Virus

- Respiratory Syncytial Virus
- Parainfluenza Virus
- Adenovirus
- Human Metapneumovirus
- Coronaviruses
- Rhinovirus

Non-Influenza Respiratory Virus: Number of Positive Results Cumulative to Date by Virus

- Respiratory Syncytial Virus
- Parainfluenza Virus
- Adenovirus
- Human Metapneumovirus
- Coronaviruses
- Rhinovirus

Influenza Activity Level—Definitions for Public Health Regions

NJ Level	Definition		
	ILI Activity/Outbreaks		Lab Activity
Low	Low ILI activity detected OR one lab confirmed outbreak anywhere in the region	AND	Sporadic isolation of laboratory confirmed influenza anywhere in the region
Moderate	Increased ILI activity in less than half of the counties in the region OR two lab confirmed outbreaks in the public health region	AND	Recent (within 3 weeks) laboratory activity in the same counties of the region with increased ILI
High	Increased ILI activity in more than half of the counties in the region OR ≥ 3 lab confirmed outbreaks in the region	AND	Recent (within 3 weeks) laboratory activity in more than half of the counties in the region with increased ILI

For additional information, visit the following websites: http://nj.gov/health/flu/surveillance/shtml and http://www.cdc.gov/flu/

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 12/28/2021

NJ Health — New Jersey Department of Health

COUNTY	Long Term Care			Schools			Hospital Emergency Dept		
	# Enrolled	# Reports Rec'd	% ILI	# Enrolled	# Reports Rec'd	% Absent	# Enrolled	# Reports Rec'd	% ILI
December 28, 2021 12:00 AM MMWR WEEK 52									
ATLANTIC	2	0	0.00	135	20	0.00	4	4	7.46
BERGEN	14	1	0.00	477	170	3.73	6	6	8.51
BURLINGTON	6	0	0.00	264	38	3.66	4	4	7.96
CAMDEN	1	0	0.00	237	82	0.01	7	7	10.08
CAPE MAY	3	0	0.00	50	1	0.00	1	1	8.82
CUMBERLAND	5	1	0.00	68	21	0.29	3	3	6.11
ESSEX	8	0	0.00	354	146	0.76	7	7	9.47
GLOUCESTER	3	0	0.00	117	29	12.75	3	3	11.03
HUDSON	4	0	0.00	257	86	0.68	6	6	13.00
HUNTERDON	4	2	0.00	69	20	0.30	1	1	6.42
MERCER	1	0	0.00	193	18	0.29	5	4	9.95
MIDDLESEX	14	0	0.00	336	90	0.18	6	6	12.31
MONMOUTH	6	0	0.00	342	77	2.41	6	5	9.14
MORRIS	3	0	0.00	241	43	0.38	4	4	10.25
OCEAN	9	1	0.00	316	46	0.09	4	4	6.70
PASSAIC	9	0	0.00	242	34	3.74	3	3	10.27
SALEM	0	0	0.00	40	5	0.00	1	1	9.19
SOMERSET	5	0	0.00	160	30	0.23	1	1	12.50
SUSSEX	3	0	0.00	64	14	0.22	1	1	8.65
UNION	3	0	0.00	315	37	14.47	5	5	11.85
WARREN	6	1	0.00	66	14	0.86	2	2	14.67
NW Region	21	1	0.00	613	105	1.50	10	10	15.43
NE Region	26	1	0.00	1088	402	1.56	19	19	10.00
CW Region	10	2	0.00	422	68	0.27	7	6	10.16
CE Region	32	1	0.00	1309	250	1.90	21	20	10.30
SW Region	10	0	0.00	658	154	2.63	15	15	12.86
SE Region	10	1	0.00	253	42	0.10	8	8	7.25
State Total	109	6	0.00	4343	1021	1.65	80	78	9.91

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 12/28/2021

NJ Health
New Jersey Department of Health

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
December 28, 2021 12:00 AM MMWR WEEK 52				
ATLANTIC	9	723	21	962
BERGEN	20	1381	0	0
BURLINGTON	1	73	1	26
CAMDEN	0	0	0	0
CAPE MAY	0	0	0	0
CUMBERLAND	0	0	0	0
ESSEX	10	231	36	1775
GLOUCESTER	0	0	0	0
HUDSON	0	9	1	61
HUNTERDON	7	475	9	475
MERCER	1	843	8	843
MIDDLESEX	0	0	0	0
MONMOUTH	34	1180	112	2598
MORRIS	13	916	0	0
OCEAN	7	571	21	572
PASSAIC	7	497	0	0
SALEM	0	0	0	0
SOMERSET	114	2521	0	0
SUSSEX	0	0	0	0
UNION	19	1312	0	0
WARREN	0	0	0	0
NW Region	20	1413	0	0
NE Region	30	1621	37	1836
CW Region	122	3839	17	1318
CE Region	60	3063	133	3170
SW Region	1	73	1	26
SE Region	9	723	21	962
State Total	242	10732	209	7312