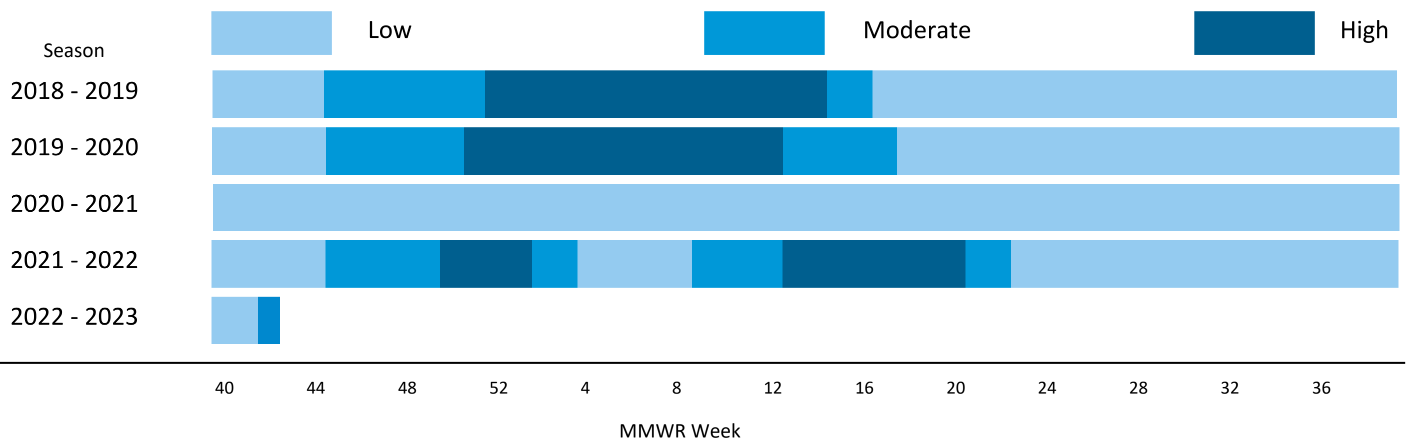
Influenza and Respiratory Illness Surveillance Report

Week ending October 22, 2022 (MMWR Week 42)

Highlights

- ***Influenza activity level is moderate statewide***
- ***Emergency Department visits associated with influenza-like illness are higher than last week & higher than this week last year***
- ***Outpatient provider visits associated with influenza-like illness are higher than last week & higher than this week last year***
- ***There have been no confirmed influenza-associated pediatric deaths reported this season***
- ***There has been 1 outbreak (influenza) reported from Long-term Care Facilities this season***
- ***Positive results continue to be reported; influenza A (subtyping not performed) is at 61.41%, followed by A(H3N2) (31.51%), A (H1N1)pdm09 (5.76%), and B (1.32%)***

Influenza Activity Level Comparison

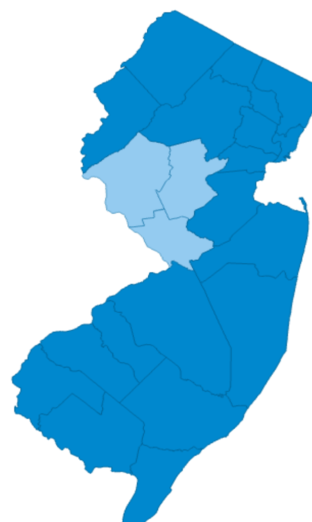


1. Current Influenza Activity Level

This report summarizes 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 time frame used by the Centers for Disease Control and Prevention (CDC) for disease reporting and 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 8, 2022.**

State Activity Level
MODERATE

Regional Data	
Northwest Morris, Passaic, Sussex, Warren	MODERATE
Northeast Bergen, Essex, Hudson	MODERATE
Central West Hunterdon, Mercer, Somerset	LOW
Central East Middlesex, Monmouth, Ocean, Union	MODERATE
Southwest Burlington, Camden, Gloucester, Salem	MODERATE
Southeast Atlantic, Cape May, Cumberland	MODERATE



1862
Cases reported (PCR & Rapid)

1
Outbreaks (Long Term Care)

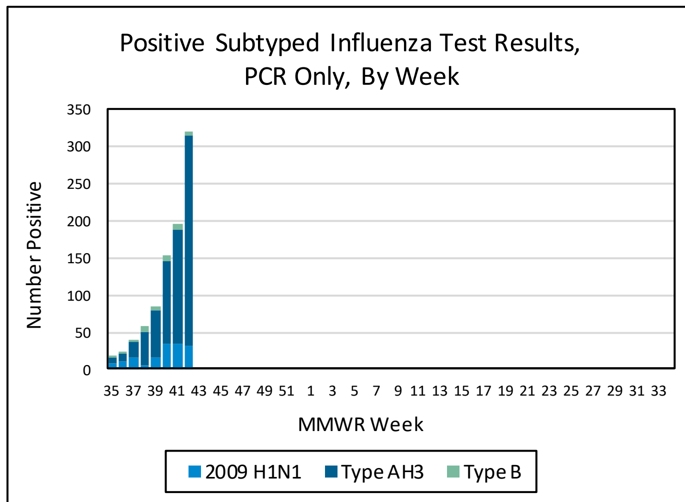
0
Pediatric flu deaths (confirmed)

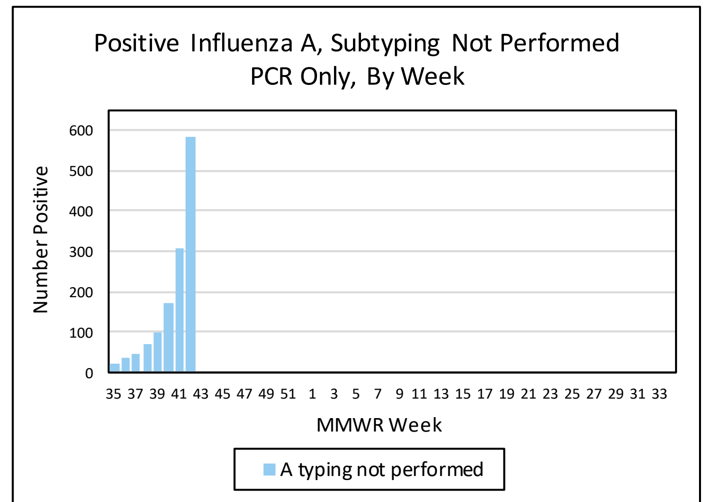
2. Laboratory Testing

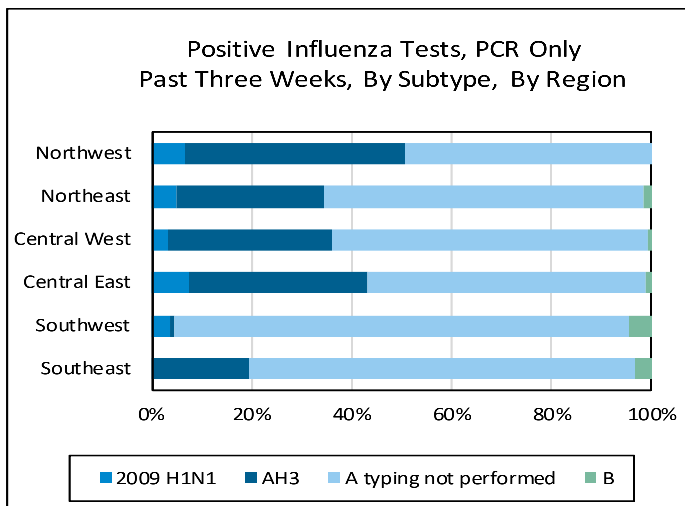
Real-time polymerase chain reaction (PCR) results for influenza (AH1N1, AH3N2, A subtyping not performed, and B) are obtained from electronic laboratory transmission submitted by acute care, commercial and public health laboratories. Rapid influenza test data are acquired from facilities reporting via the CDRSS Surveillance for Infectious Conditions (SIC) module. While the cumulative totals begin with MMWR week 40, week ending October 8, 2022, the data represented in charts begin with MMWR week 35, week ending September 3, 2022. Past 3 weeks data includes the current week and two prior weeks starting with MMWR week 40, week ending October 8, 2022.

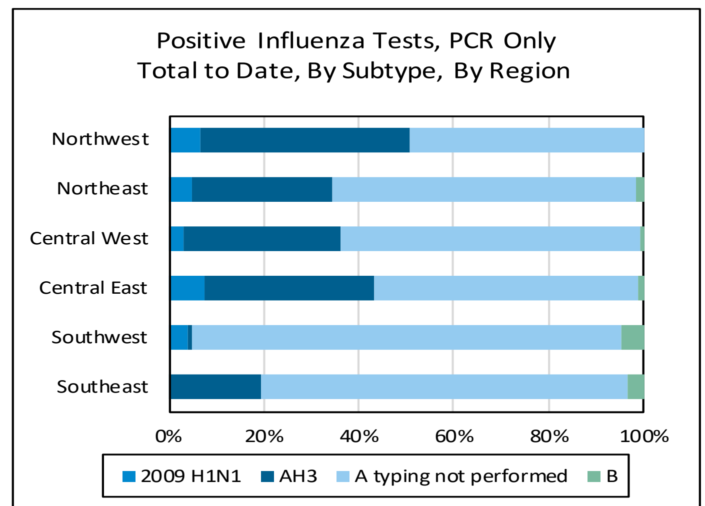
	Test Type	Current Week	Past 3 Weeks	Cumulative Total
PCR	**Influenza A (H1N1)pdm09**	31	100	100 (5.76%)
	Influenza A H3N2	283	547	547 (31.51%)
	Influenza A (Subtyping Not Performed)	586	1066	1066 (61.41%)
	Influenza B	5	23	23 (1.32%)
Rapid	**Rapid Influenza**	82	126	126

3. Virologic Surveillance



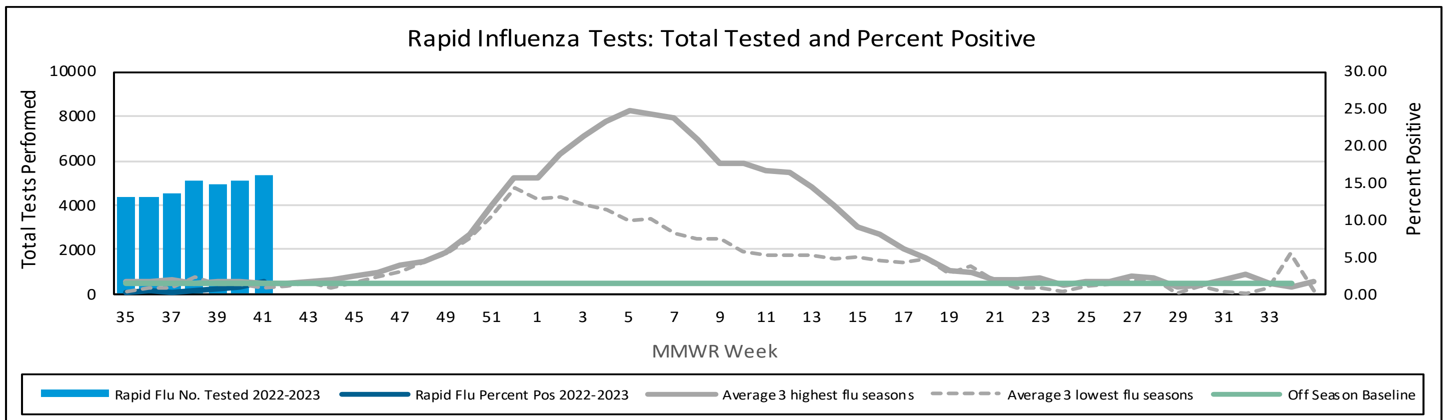






3. Virologic Surveillance, *continued*

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 2012-2013 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: 12-13, 14-15, 21-22. Off season baseline is calculated by taking the average of percent positivity for a 10 year period (2012 through and including 2022) during the months when influenza is less likely to be circulating (May to September). Data from the 19-20 and 20-21 seasons were excluded due to the COVID-19 pandemic.



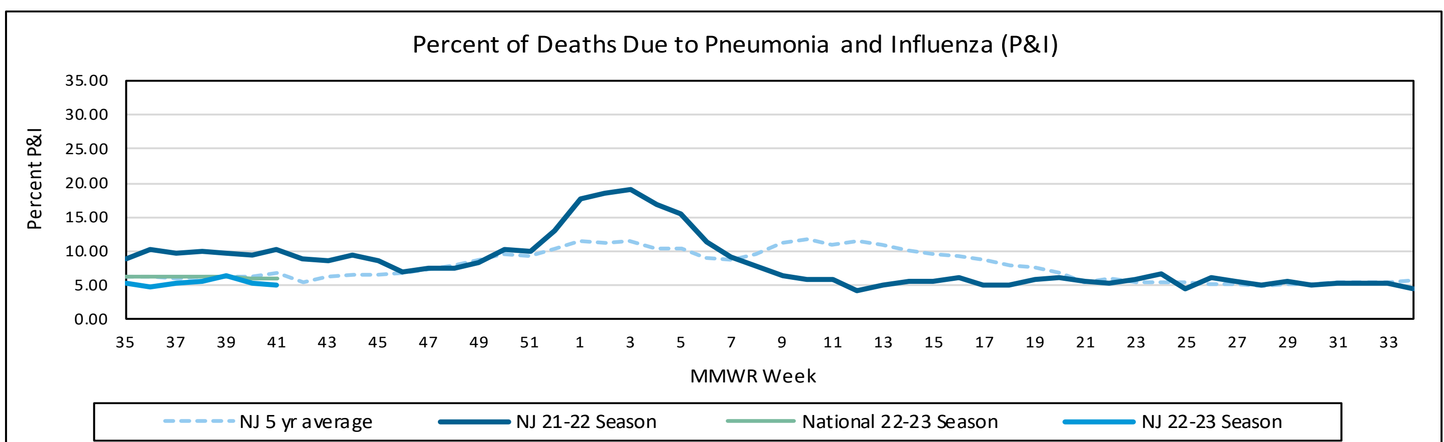
4. Pediatric Influenza Mortality

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)
2018-2019	106	51	6
2019-2020	188	57	2
2020-2021	1	1	0
2021-2022	43	19	0
2022-2023	0	0	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.

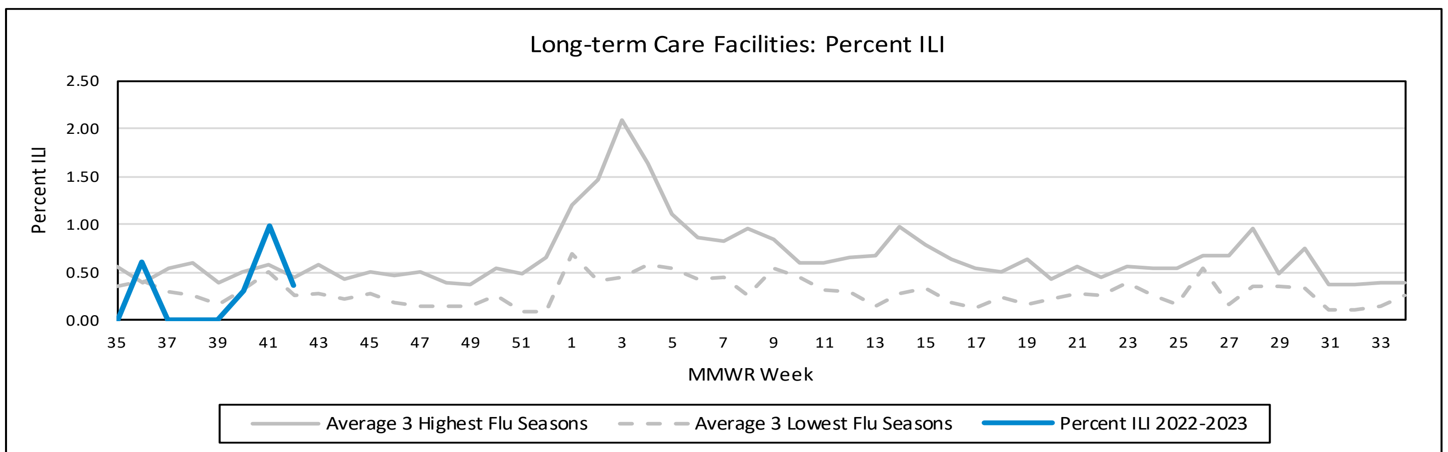


6. ILI Activity

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 (LTCFs), fever is defined as 2°F above baseline temperature. ILI Activity from 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 the aggregate weekly total 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 (2012 through and including 2022) during months when influenza is less likely to be circulating (May to September). Data from the 19-20 and 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	0.37 (0.00, 1.30)	0.99	0.07	0.42 (0.30, 0.75)
Emergency Departments	4.78 (2.59, 6.79)	4.37	3.37	2.09 (3.52, 4.30)
Schools (Absenteeism)	4.31 (1.74, 7.95)	4.58	3.29	3.98 (4.33, 4.93)

6a. Long-term Care Facility ILI Activity



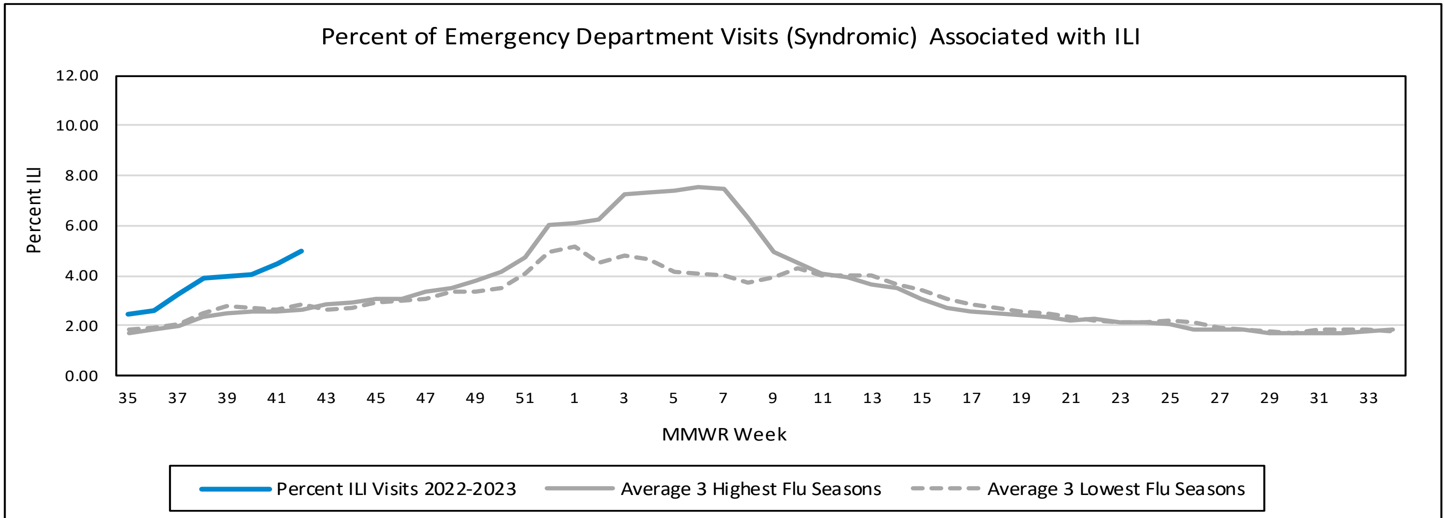
6b. Long-term Care Facility Outbreaks

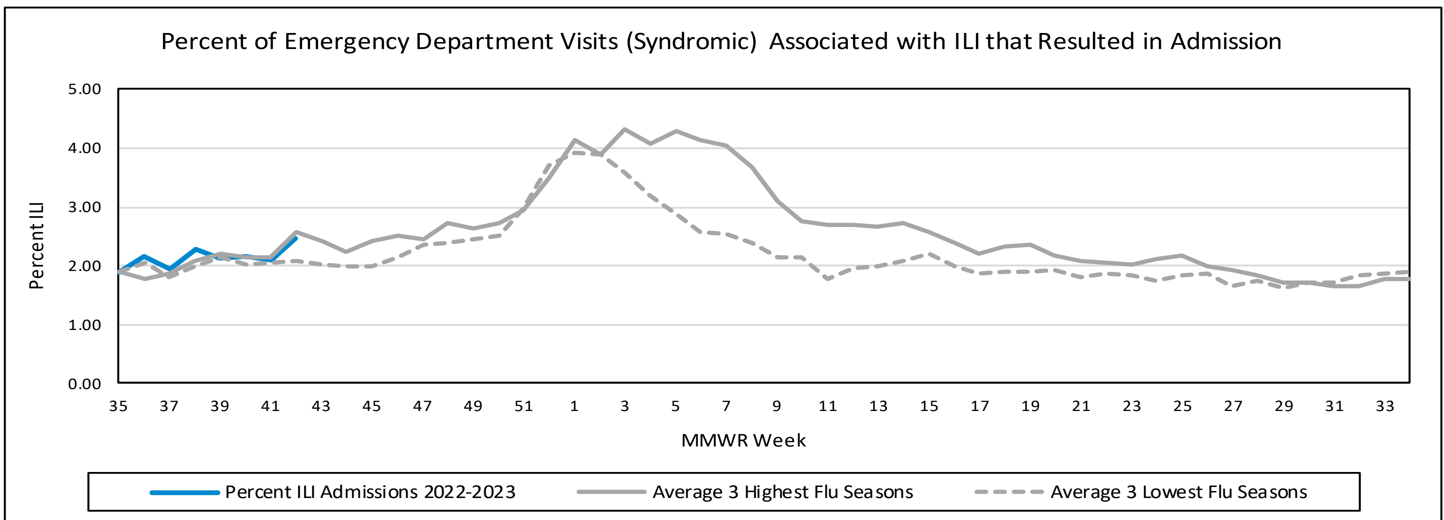
Only LTCF respiratory virus outbreaks reported to NJDOH that receive an outbreak number are recorded in this report. This does not include outbreaks due to COVID-19.

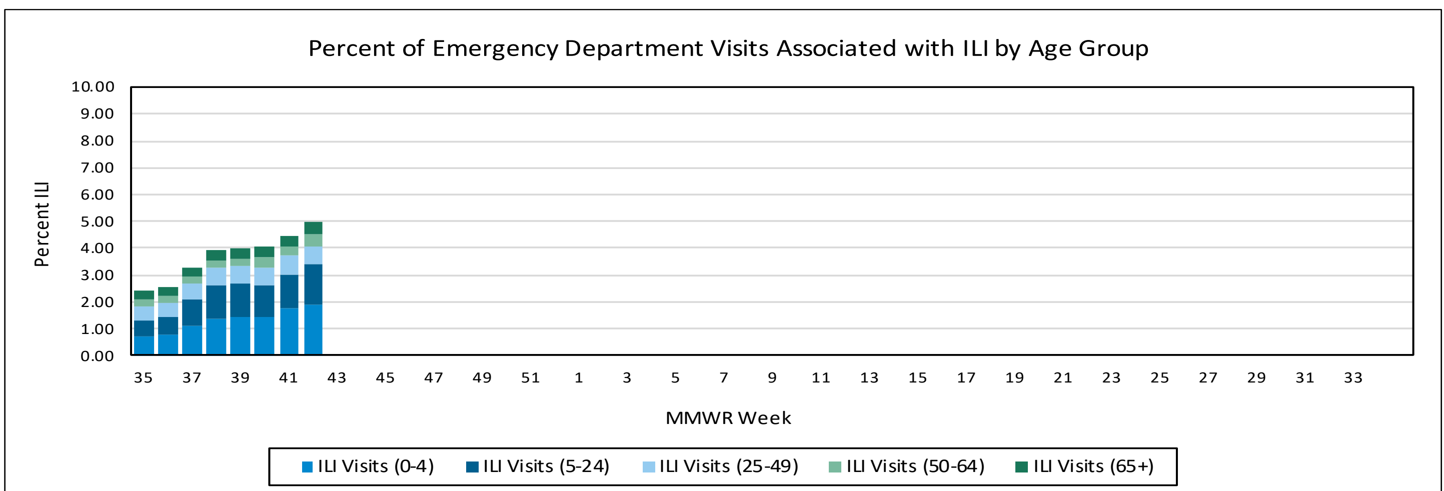
Respiratory Outbreaks in Long-term Care Facilities	
Cumulative Outbreaks 2022-2023 Season	1
No. outbreaks last 3 weeks	1
Regions with recent outbreaks	SW

6c. Emergency Department ILI Activity (Syndromic Surveillance)

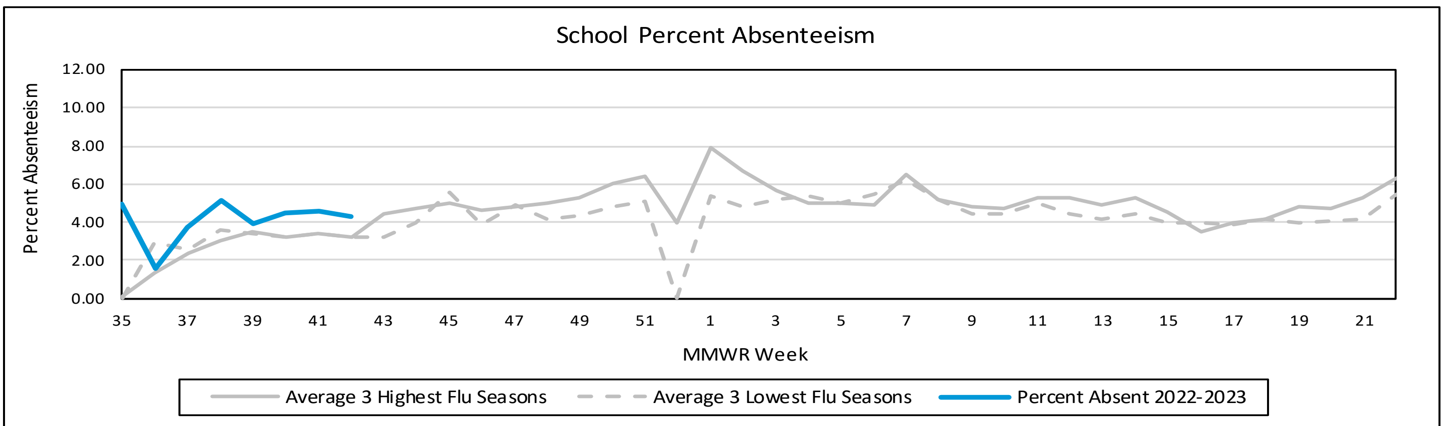
Daily visits and admissions associated with ILI from emergency department data are collected via EpiCenter (NJDOH syndromic surveillance). Prior to the 2017-2018 season, data on ILI visits were only recorded on one day per week usually on Tuesday. Beginning in the 2017-2018 season, weekly aggregate data 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 positivity for each influenza season (October to May) beginning with the 2012-2013 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: 13-14, 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: 12-13, 16-17, 21-22. Data from the 19-20 and 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.





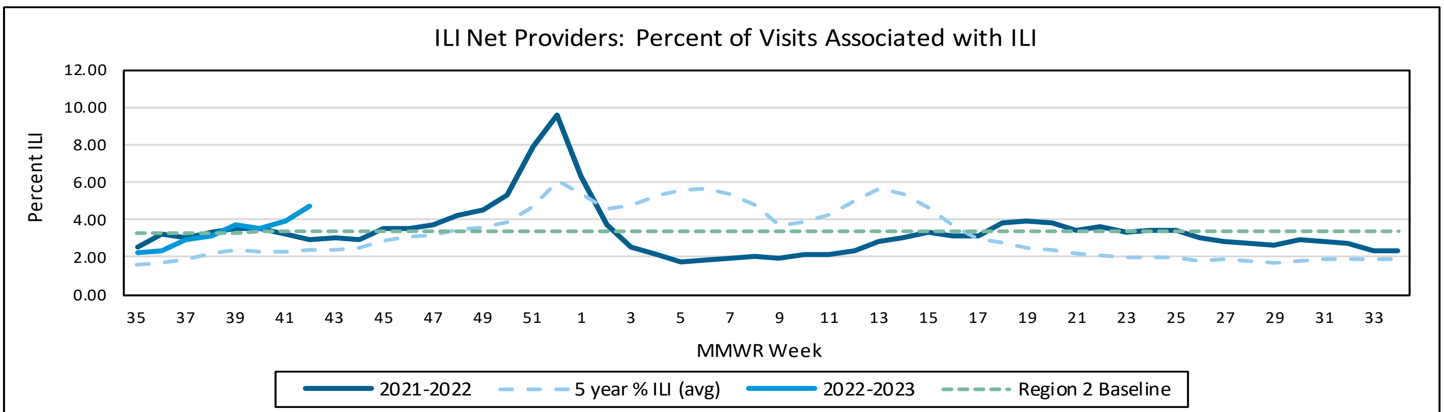


6d. School Absenteeism



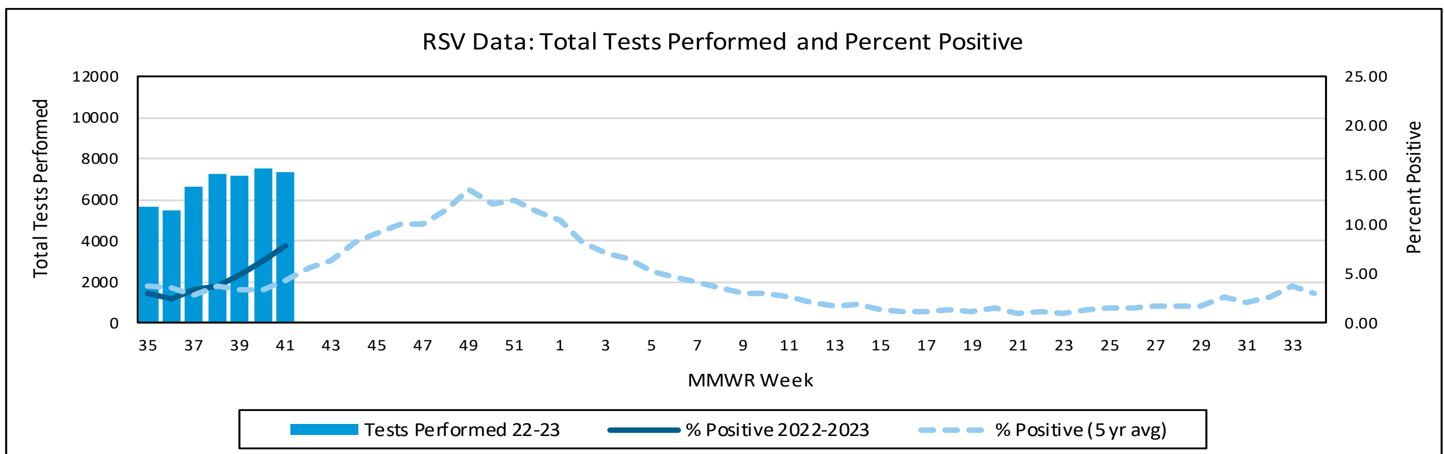
7. ILI Net Providers

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.

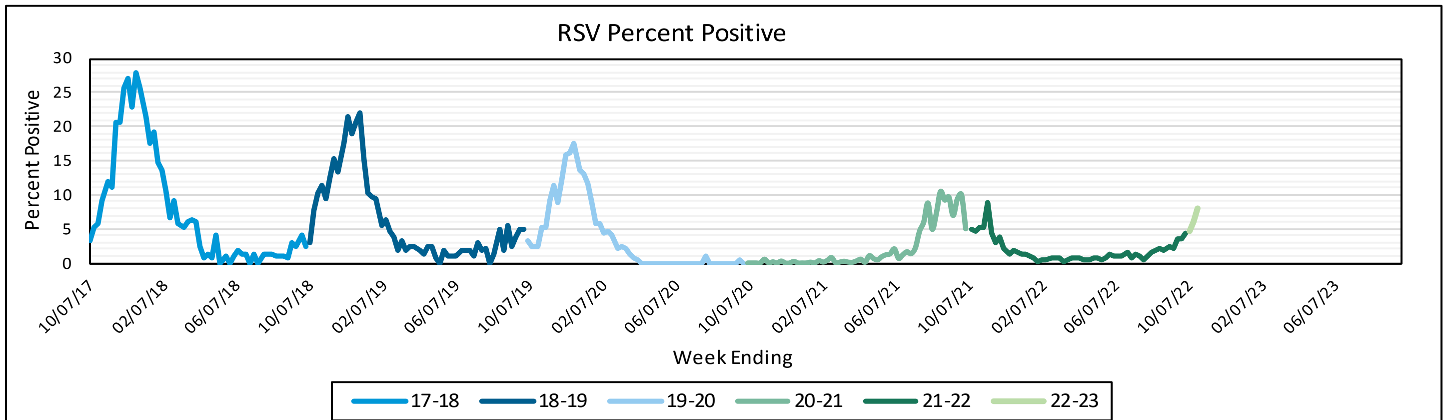


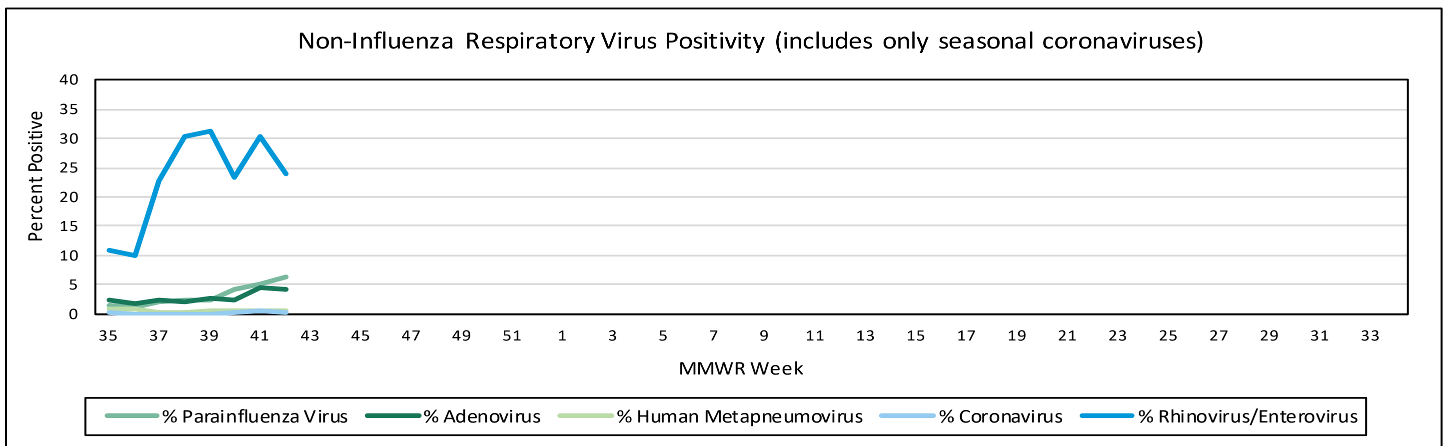
8. Non-Influenza Viral Respiratory Surveillance

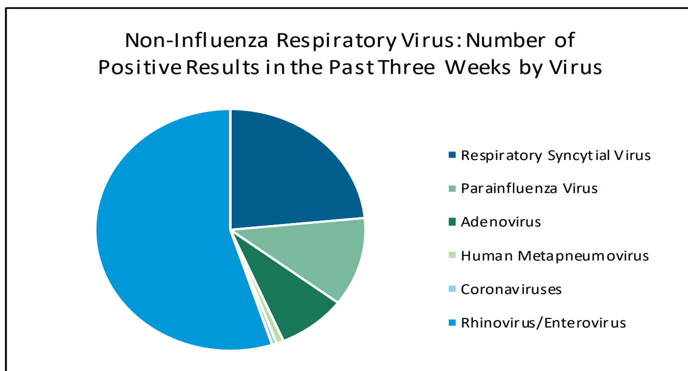
The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based surveillance system and participating laboratories report the total number of tests performed and the total positive for a number of non-influenza respiratory viruses. Information about the CDC NREVSS system can be found at: https://www.cdc.gov/surveillance/nrevss/labs/index.html. Respiratory syncytial virus (RSV) data are acquired from facilities reporting via NREVSS or CDRSS SIC 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 weeks 2-46 (January to November) and the baseline is determined by averaging the percent positivity from the 5 year average during those weeks.

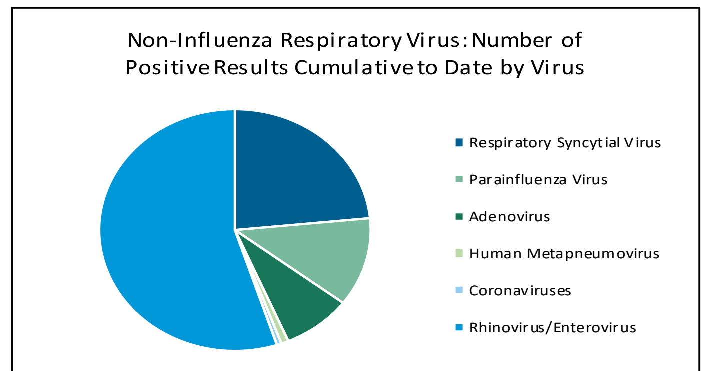


8. Non-Influenza Viral Respiratory Surveillance *(continued)*









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: 10/18/2022

COUNTY	Long Term Care # Enrolled	Long Term Care # Reports Rec'd	Long Term Care % ILI	Schools # Enrolled	Schools # Reports Rec'd	Schools % Absent	Hospital Emergency Dept # Enrolled	Hospital Emergency Dept # Reports Rec'd	Hospital Emergency Dept % ILI
October 18, 2022 12:00 AM MMWR WEEK 42									
ATLANTIC	2	0	0.00	137	60	5.23	4	4	2.98
BERGEN	13	0	0.00	480	281	4.27	6	6	3.53
BURLINGTON	6	1	0.00	264	118	5.62	4	4	4.87
CAMDEN	1	0	0.00	239	117	5.85	7	7	5.46
CAPE MAY	3	0	0.00	50	17	7.95	1	1	2.96
CUMBERLAND	5	4	0.00	70	37	6.71	3	3	4.19
ESSEX	9	1	0.00	359	103	1.74	8	7	5.52
GLOUCESTER	3	0	0.00	117	68	3.58	3	3	5.09
HUDSON	4	0	0.00	256	106	5.00	6	5	6.79
HUNTERDON	4	3	1.30	69	36	4.69	1	1	2.59
MERCER	1	0	0.00	194	82	2.38	4	4	5.25
MIDDLESEX	14	0	0.00	337	139	3.84	6	6	6.03
MONMOUTH	6	0	0.00	346	132	5.21	5	5	3.78
MORRIS	3	0	0.00	240	92	4.48	4	4	4.64
OCEAN	9	1	0.00	315	58	5.82	4	4	2.77
PASSAIC	9	0	0.00	246	57	4.05	3	3	4.59
SALEM	0	0	0.00	40	27	5.66	1	1	5.23
SOMERSET	5	0	0.00	161	74	4.08	1	1	4.51
SUSSEX	3	0	0.00	63	35	5.80	1	1	4.02
UNION	3	0	0.00	315	88	4.08	5	5	4.22
WARREN	6	1	0.00	65	33	4.89	2	2	6.07
NW Region	21	1	0.00	614	217	4.63	10	10	7.51
NE Region	26	1	0.00	1095	490	3.69	20	18	5.17
CW Region	10	3	1.30	424	192	3.31	6	6	4.79
CE Region	32	1	0.00	1313	417	4.43	20	20	4.49
SW Region	10	1	0.00	660	330	5.10	15	15	6.77
SE Region	10	4	0.00	257	114	5.89	8	8	3.43
State Total	109	11	0.37	4363	1760	4.31	79	77	4.78

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 10/18/2022

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
October 18, 2022 12:00 AM MMWR WEEK 42				
ATLANTIC	13	834	14	980
BERGEN	34	760	9	185
BURLINGTON	0	0	0	0
CAMDEN	14	96	0	0
CAPE MAY	0	0	0	0
CUMBERLAND	0	0	0	0
ESSEX	38	256	29	1234
GLOUCESTER	0	0	0	0
HUDSON	0	4	5	34
HUNTERDON	0	0	0	0
MERCER	3	36	1	36
MIDDLESEX	24	123	9	142
MONMOUTH	31	1095	10	2180
MORRIS	68	909	0	0
OCEAN	0	0	0	0
PASSAIC	0	0	0	0
SALEM	0	0	0	0
SOMERSET	279	1607	0	0
SUSSEX	12	384	3	384
UNION	53	1045	0	0
WARREN	4	203	2	203
NW Region	84	1496	5	587
NE Region	72	1020	43	1453
CW Region	282	1643	1	36
CE Region	108	2263	19	2322
SW Region	14	96	0	0
SE Region	13	834	14	980
State Total	573	7352	82	5378