Influenza and Respiratory Illness Surveillance Report
## Week ending February 25, 2023 (MMWR Week 8)

Highlights

- *Influenza activity level is low 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 lower than last week & higher than this week last year*

- *There have been four confirmed influenza-associated pediatric deaths reported this season*

- *Respiratory outbreaks continue to be reported in all settings*

- *Positive results continue to be reported; influenza A (subtyping not performed) is at 72.15%, followed by A(H3N2) 22.12%, A(H1N1)pdm09 4.43%, and B 1.30%*

## Influenza Activity Level Comparison
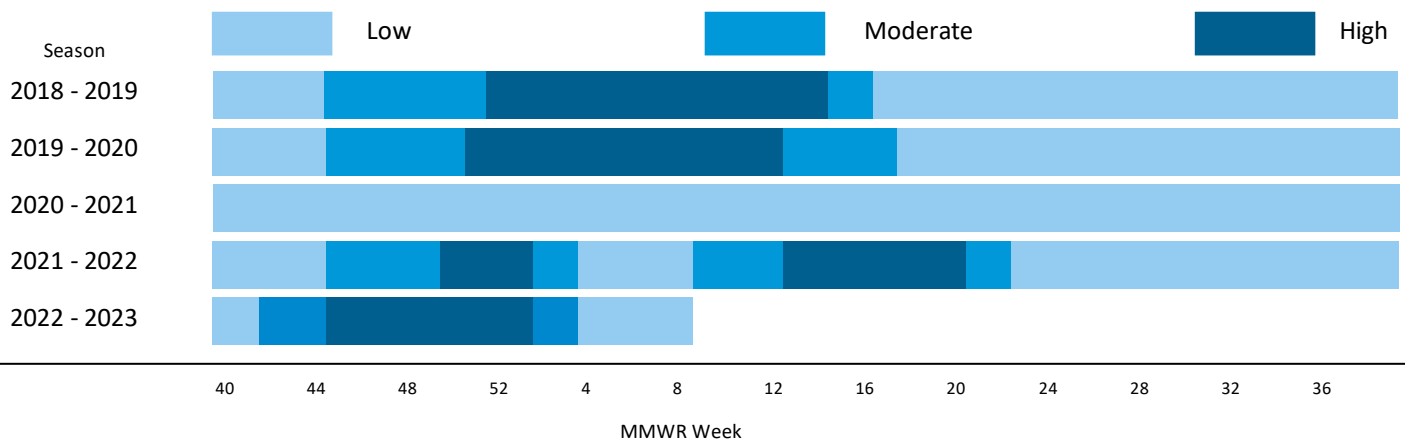
1. Current Influenza Activity Level

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
LOW

Regional Data	
Northwest Morris, Passaic, Sussex, Warren	LOW
Northeast Bergen, Essex, Hudson	LOW
Central West Hunterdon, Mercer, Somerset	LOW
Central East Middlesex, Monmouth, Ocean, Union	LOW
Southwest Burlington, Camden, Gloucester, Salem	LOW
Southeast Atlantic, Cape May, Cumberland	LOW
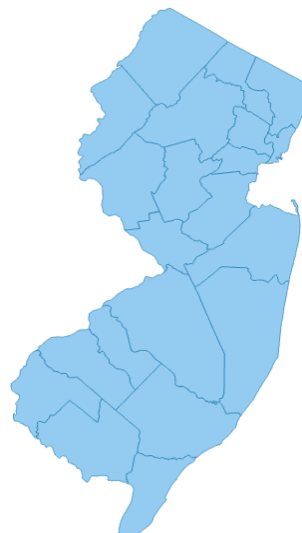
83,169
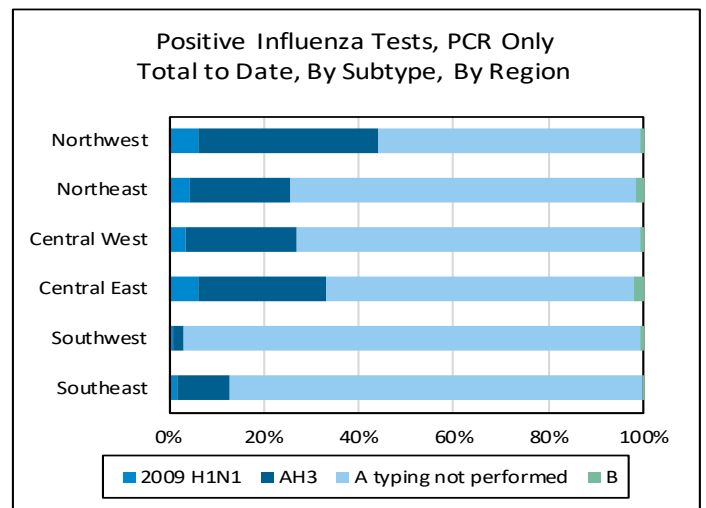Cases reported (PCR & Rapid)

75
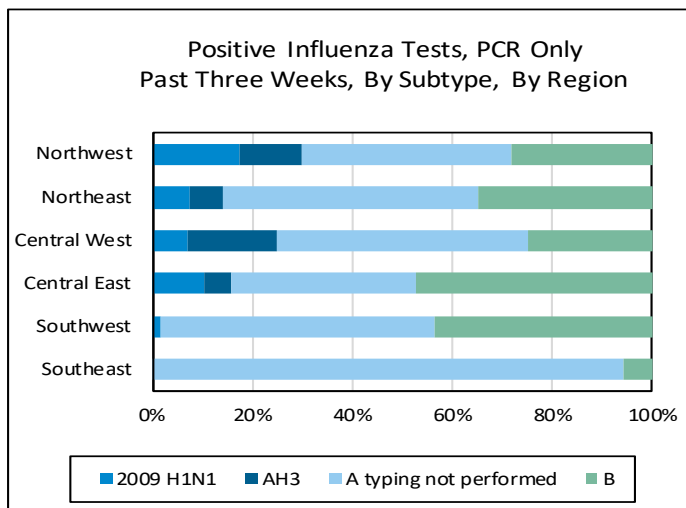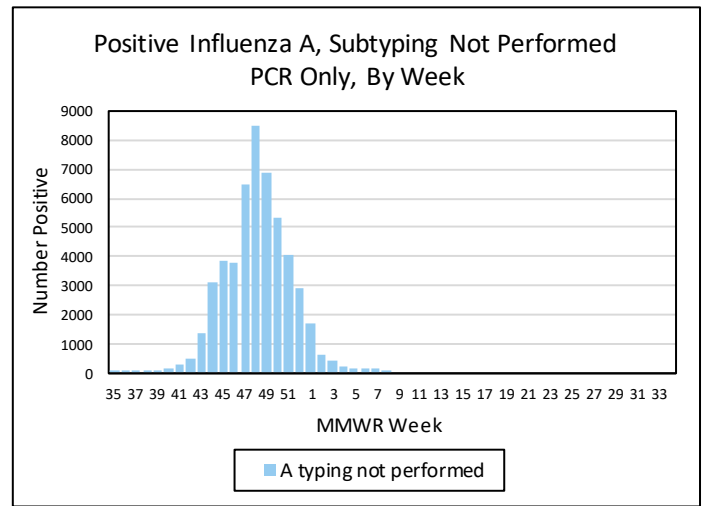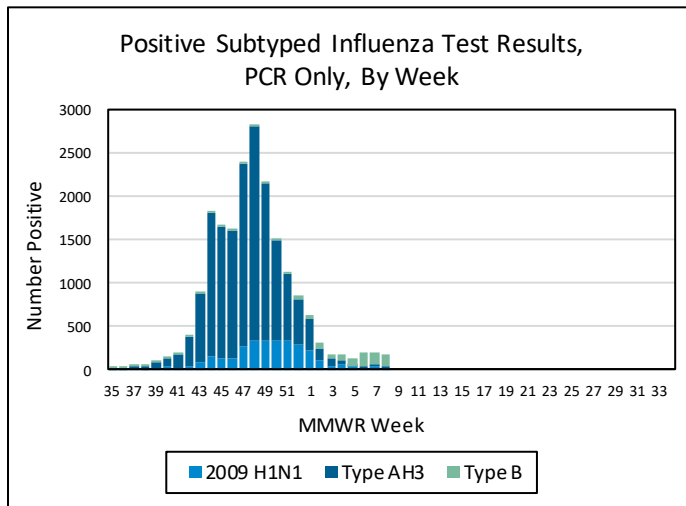Outbreaks (Long Term Care)

4
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	32	95	3128 (4.43%)
	Influenza A H3N2	15	68	15622 (22.12%)
	Influenza A (Subtyping Not Performed)	108	444	50956 (72.15%)
	Influenza B	123	398	920 (1.30%)
Rapid	Rapid Influenza	108	313	12543

3. Virologic Surveillance

Positive Subtyped Influenza Test Results, PCR Only, 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 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.


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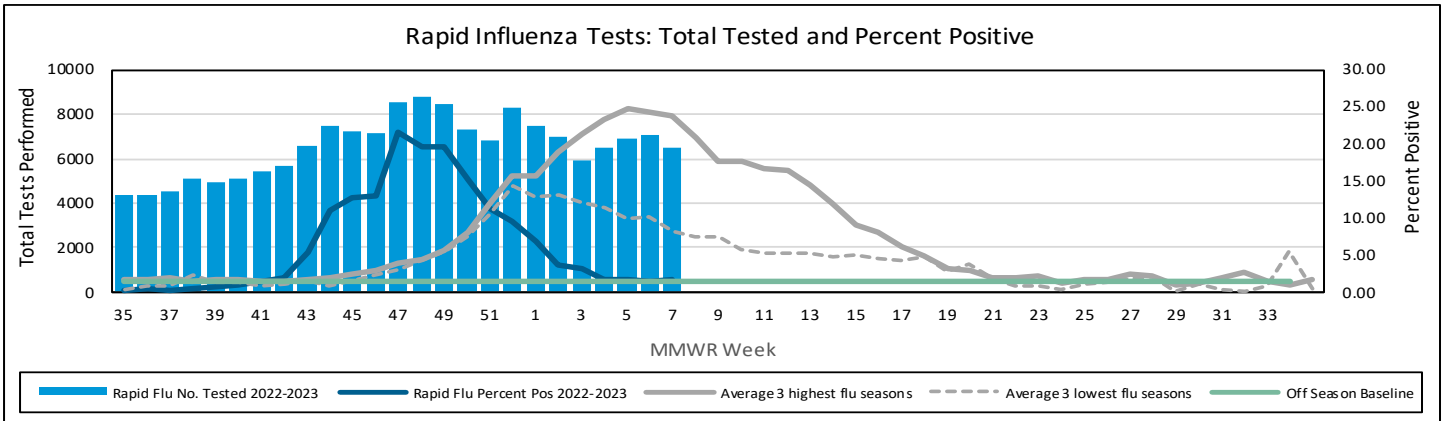
4. Pediatric Influenza Mortality

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)
2018-2019	106	51	6
2019-2020	188	57	2
2020-2021	1	1	0
2021-2022	43	19	0
2022-2023	115	80	4

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 percentages 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)
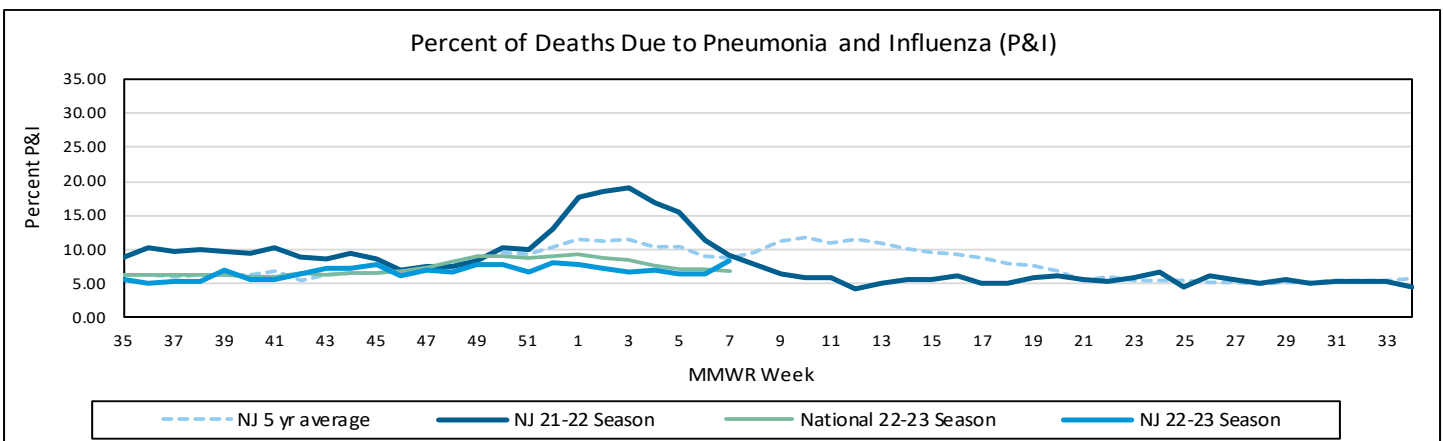
6. ILI Activity

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 (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	0.07 (0.00, 0.27)	1.17	0.00	0.42 (0.30, 0.75)
Emergency Departments	4.10 (1.32, 6.17)	4.04	2.18	2.09 (3.52, 4.30)
Schools (Absenteeism)	5.50 (2.86, 8.34)	4.72	5.01	3.98 (4.33, 4.93)

6a. Long-term Care Facility ILI Activity

Long-term Care Facilities: Percent ILI
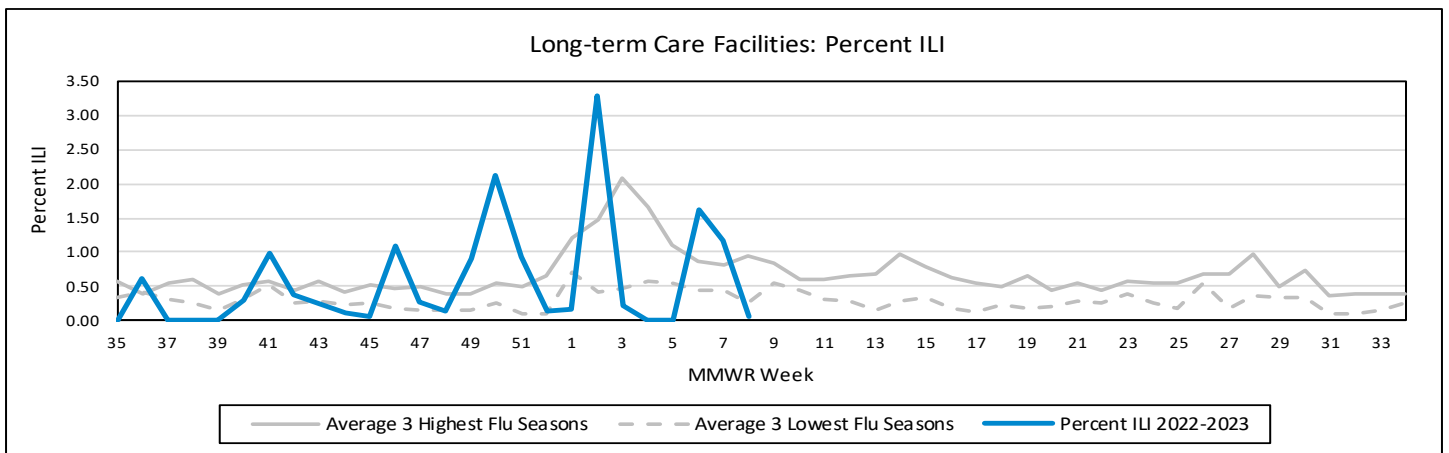
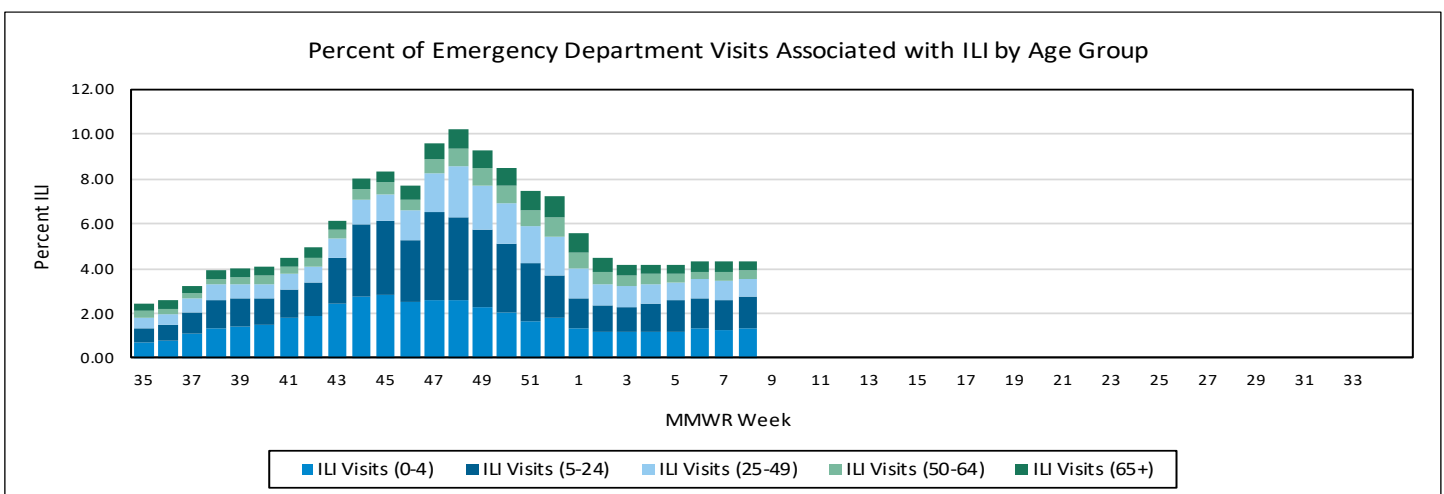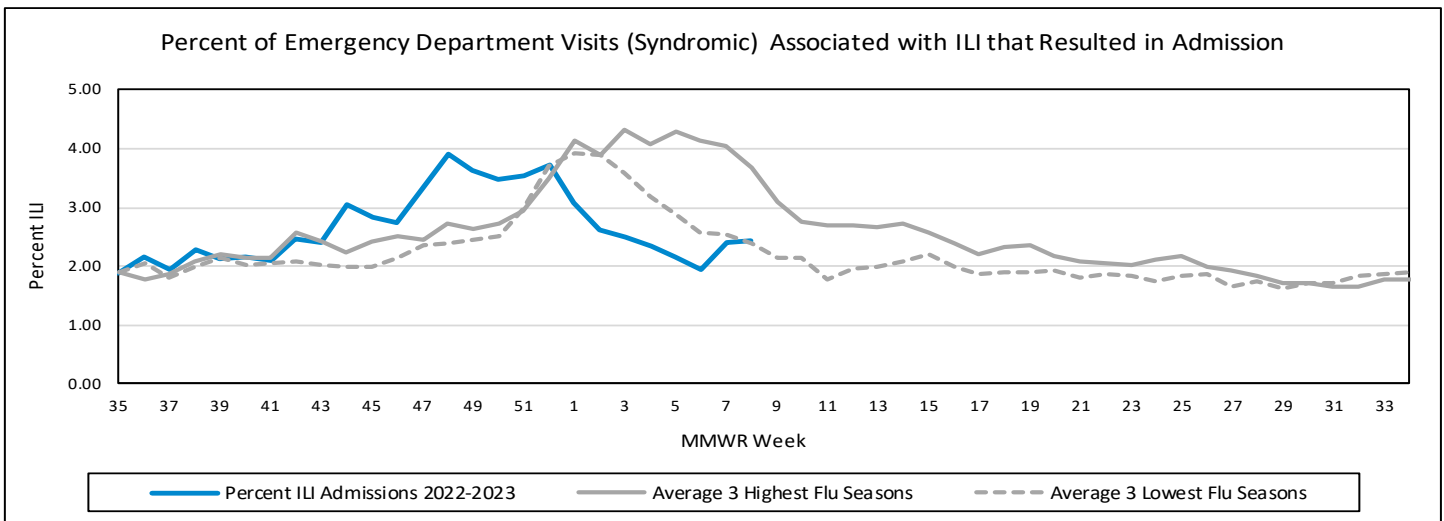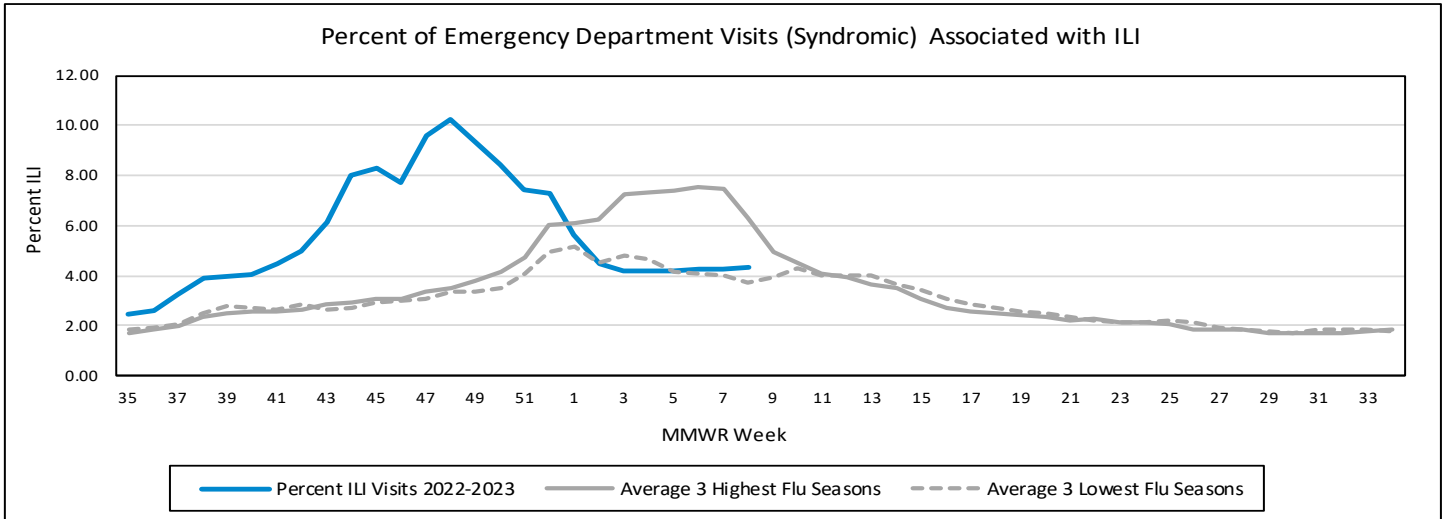## 6b. Long-term Care Facility Outbreaks

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.
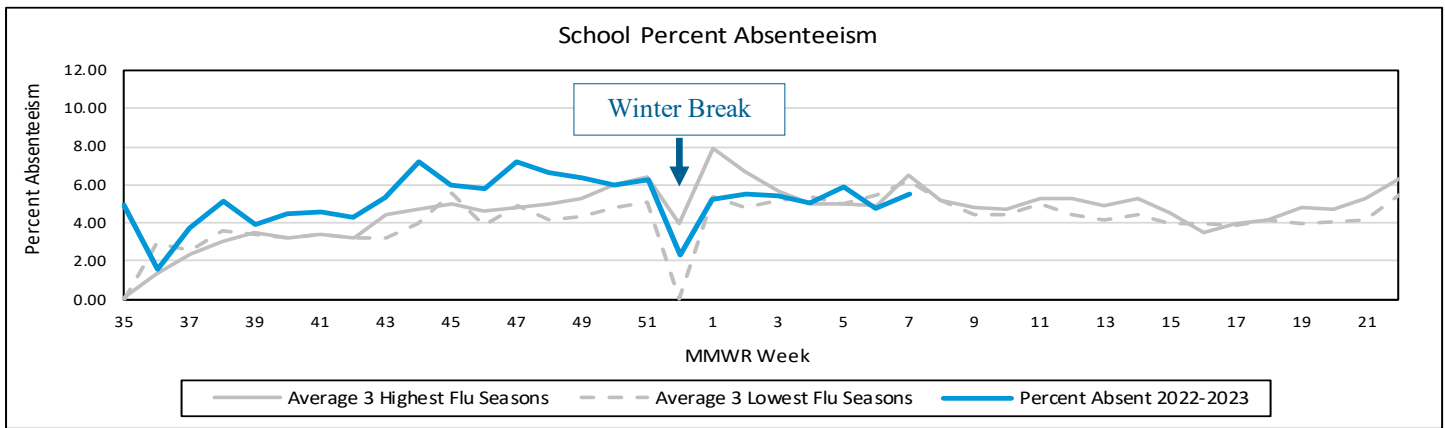
Respiratory Outbreaks in Long-term Care Facilities	
Cumulative Outbreaks 2022-2023 Season	75
No. outbreaks last 3 weeks	4
Regions with recent outbreaks	NW, NE, CE, SE

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.

Percent of Emergency Department Visits (Syndromic) Associated with ILI

Legend: Percent ILI Visits 2022-2023 — Average 3 Highest Flu Seasons — Average 3 Lowest Flu Seasons

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

Legend: Percent ILI Admissions 2022-2023 — Average 3 Highest Flu Seasons — Average 3 Lowest Flu Seasons

Percent of Emergency Department Visits Associated with ILI by Age Group

Legend: ILI Visits (0-4), ILI Visits (5-24), ILI Visits (25-49), ILI Visits (50-64), ILI Visits (65+)

6d. School Absenteeism
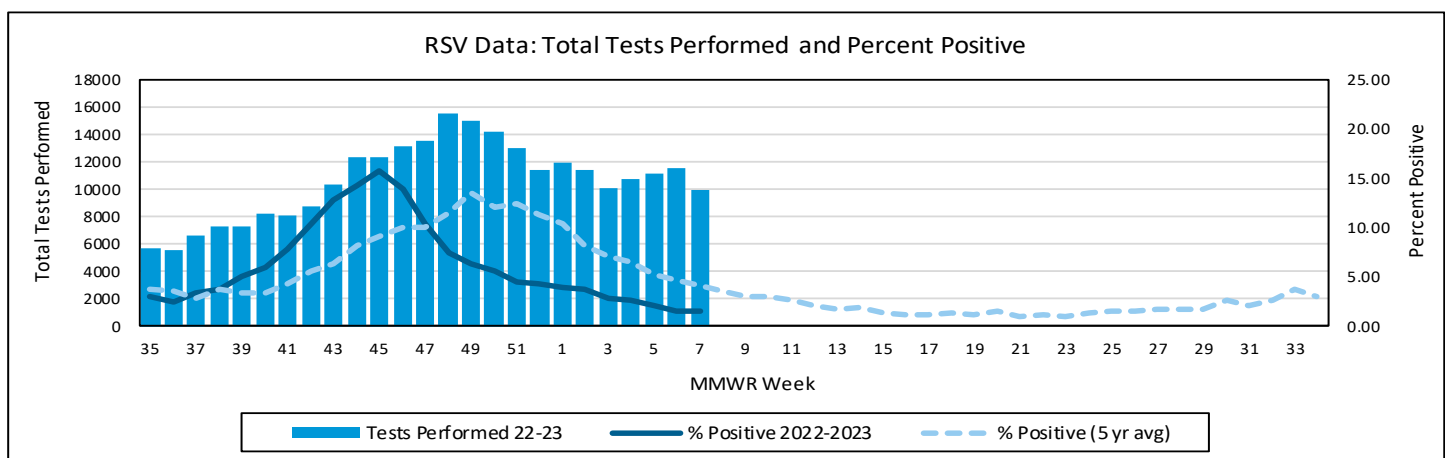
School Percent Absenteeism

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.

ILI Net Providers: Percent of Visits Associated with ILI
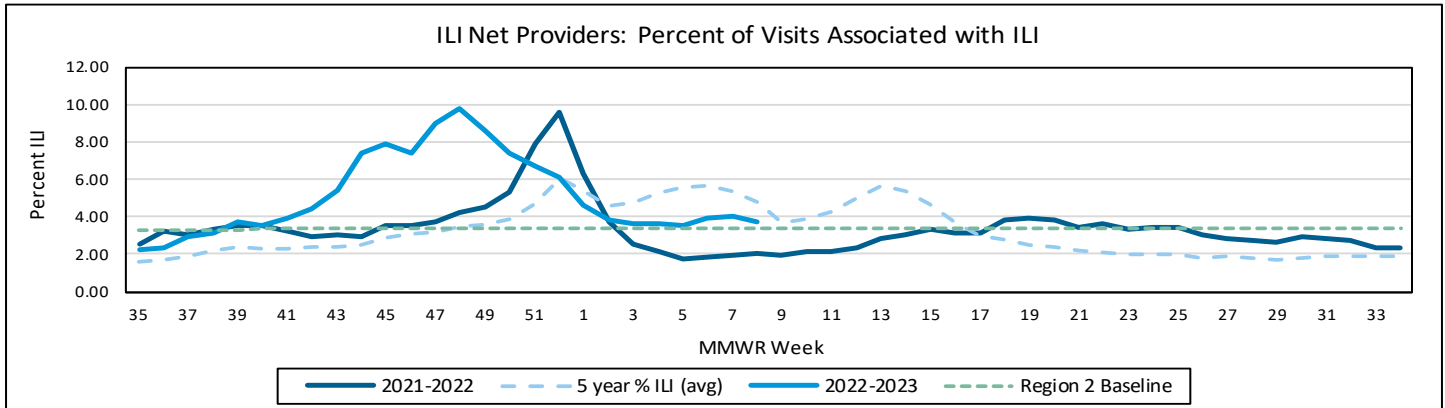
8. Non-Influenza Viral Respiratory Surveillance

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%.

RSV Data: Total Tests Performed and Percent Positive

RSV Percent Positive

Legend: 17-18, 18-19, 19-20, 20-21, 21-22, 22-23

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

Legend: % Parainfluenza Virus, % Adenovirus, % Human Metapneumovirus, % Coronavirus, % Rhinovirus/Enterovirus

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/Enterovirus

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

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

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: 02/21/2023

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
February 21, 2023 12:00 AM MMWR WEEK 8									
ATLANTIC	2	0	0.00	136	53	7.33	4	4	3.13
BERGEN	13	0	0.00	471	155	2.86	6	6	3.04
BURLINGTON	6	2	0.00	265	104	6.29	4	4	2.85
CAMDEN	1	0	0.00	238	113	5.82	7	7	4.32
CAPE MAY	3	0	0.00	50	29	7.49	1	1	4.49
CUMBERLAND	5	4	0.00	69	41	8.34	3	3	4.16
ESSEX	9	1	0.00	356	166	5.15	7	7	4.43
GLOUCESTER	3	0	0.00	117	79	5.14	3	3	5.43
HUDSON	4	0	0.00	259	92	6.04	6	6	5.21
HUNTERDON	4	3	0.27	68	41	6.52	1	1	1.32
MERCER	1	0	0.00	193	94	4.55	4	4	4.55
MIDDLESEX	14	0	0.00	337	154	6.30	6	6	5.20
MONMOUTH	6	0	0.00	342	123	6.02	5	5	3.25
MORRIS	3	0	0.00	239	110	5.63	4	4	2.76
OCEAN	9	1	0.00	316	59	6.15	4	4	2.44
PASSAIC	9	0	0.00	253	78	3.87	3	3	2.76
SALEM	0	0	0.00	41	22	7.16	1	1	1.98
SOMERSET	5	0	0.00	164	77	4.58	1	1	2.73
SUSSEX	3	0	0.00	64	39	7.17	1	1	3.35
UNION	3	0	0.00	312	121	5.59	5	5	6.17
WARREN	6	1	0.00	65	32	5.92	2	2	6.09
NW Region	21	1	0.00	621	259	5.20	10	10	6.26
NE Region	26	1	0.00	1086	413	4.74	19	19	4.18
CW Region	10	3	0.27	425	212	4.82	6	6	3.82
CE Region	32	1	0.00	1307	457	6.03	20	20	4.49
SW Region	10	2	0.00	661	318	5.77	15	15	5.79
SE Region	10	4	0.00	255	123	7.71	8	8	3.67
State Total	109	12	0.07	4355	1782	5.50	78	78	4.10

NJ ACTIVE INFLUENZA-LIKE ILLNESS SURVEILLANCE STATISTICS
SURVEILLANCE DATE: 02/21/2023

NJ Health — New Jersey Department of Health

County	RSV Tests		Rapid Flu Tests	
	# Positive	Total Tests Performed	# Positive	Total Tests Performed
February 21, 2023 12:00 AM MMWR WEEK 8				
ATLANTIC	5	868	15	1013
BERGEN	12	822	10	232
BURLINGTON	0	0	0	21
CAMDEN	1	83	0	0
CAPE MAY	0	0	0	0
CUMBERLAND	1	897	0	0
ESSEX	7	321	15	1355
GLOUCESTER	0	0	0	0
HUDSON	0	7	0	41
HUNTERDON	4	421	2	421
MERCER	0	106	1	106
MIDDLESEX	3	742	6	742
MONMOUTH	23	899	53	1683
MORRIS	12	1000	0	0
OCEAN	0	8	4	261
PASSAIC	8	673	0	26
SALEM	0	0	0	0
SOMERSET	68	2593	0	0
SUSSEX	4	339	1	339
UNION	0	0	0	0
WARREN	1	244	1	244
NW Region	25	2256	2	609
NE Region	19	1150	25	1628
CW Region	72	3120	3	527
CE Region	26	1649	63	2686
SW Region	1	83	0	21
SE Region	6	1765	15	1013
State Total	149	10023	108	6484