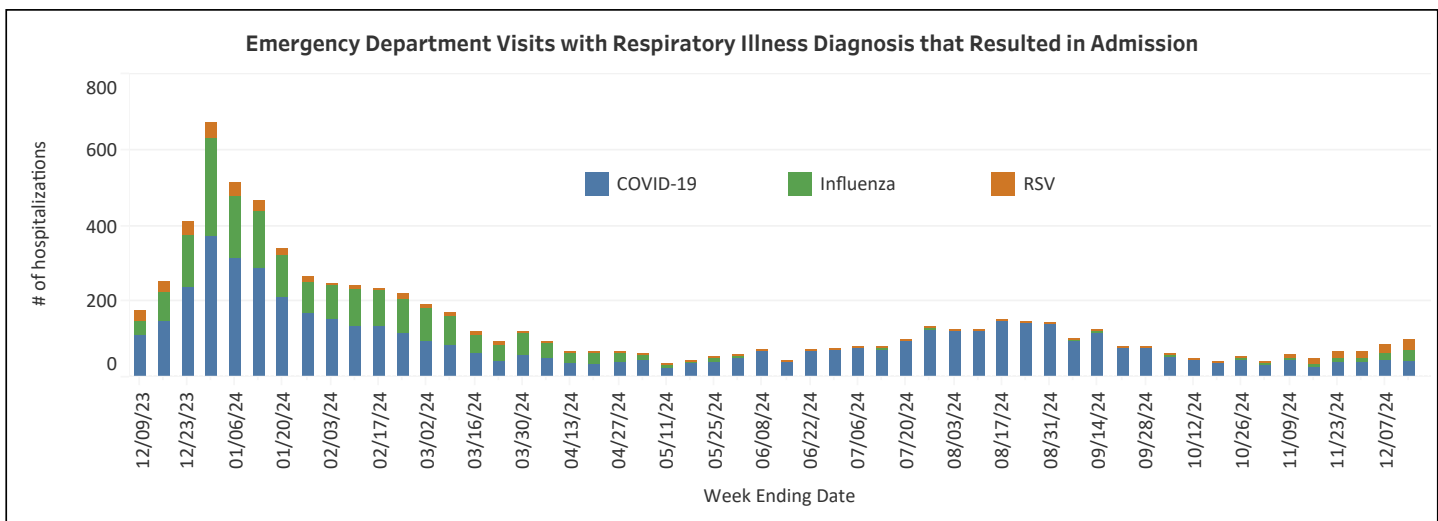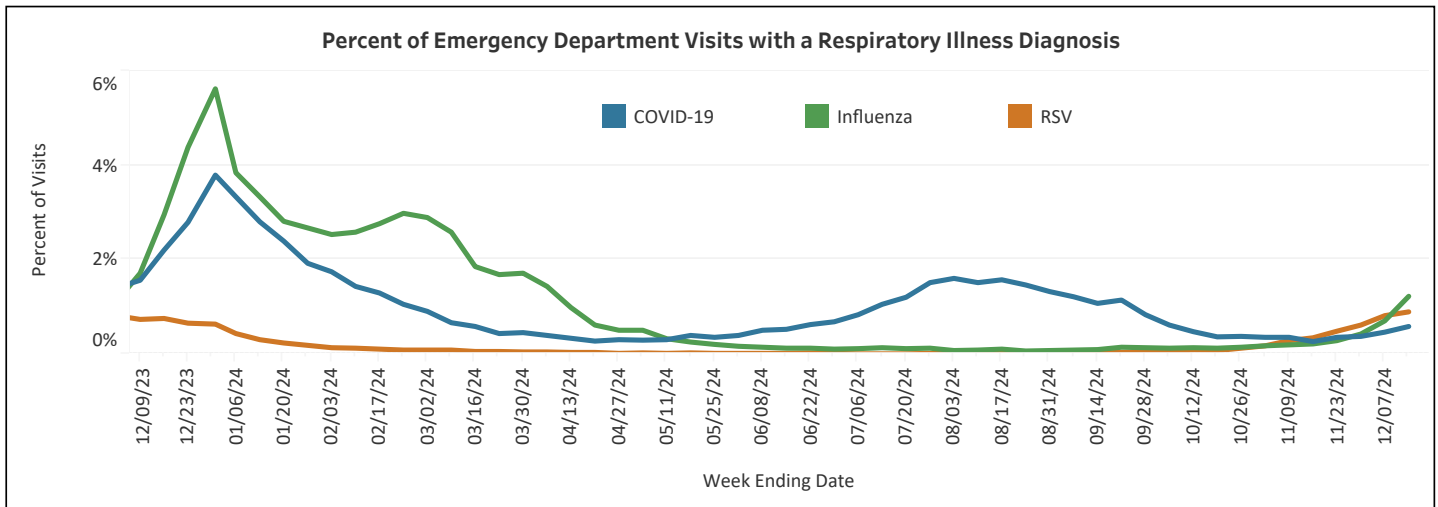# Respiratory Illness Surveillance Report
Week Ending December 14, 2024 (MMWR 50)

Report Highlights

- COVID-19 activity is low, however, there have been increases in test positivity, emergency department visits, and hospital admissions.

- The COVID-19 variant predominantly in circulation is KP.3.1.1. Circulating variants are closely related to fall vaccine formulations.

- Seasonal influenza activity continues to increase. Influenza associated emergency department visits, admissions and influenza like illness among outpatient provider visits are higher compared to last week.

- Among the current circulating influenza viruses, the most frequently reported subtype remains influenza A(H1N1).

- RSV activity is high. There continue to be increases in percent positivity, emergency department visits, hospital admissions, and wastewater viral levels.

- Percent positivity is elevated for adenovirus and rhinovirus/enterovirus.

Respiratory Trends

Data from the NJDOH Syndromic Surveillance System (EpiCenter) shows the weekly percent of emergency department visits and visits that resulted in hospitalizations associated with COVID-19, Influenza, and/or RSV diagnoses codes reported by 79 New Jersey emergency departments.

Percent of Emergency Department Visits with a Respiratory Illness Diagnosis

Emergency Department Visits with Respiratory Illness Diagnosis that Resulted in Admission

Respiratory Virus Test Positivity

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 tests for respiratory viruses, including adenovirus, human metapneumovirus, and parainfluenza. Information about the CDC NREVSS system can be found at:

https://www.cdc.gov/nrevss/php/participating-labs/index.html

COVID-19 — 12/14/2024 4.9%
Influenza — 12/14/2024 4.9%
RSV — 12/14/2024 13.0%
Parainfluenza Virus — 12/14/2024 1.4%
Adenovirus — 12/14/2024 3.9%
Human Metapneumovirus — 12/14/2024 1.1%
Coronaviruses — 12/14/2024 2.4%
Rhinovirus/ Enterovirus — 12/14/2024 20.2%

Week Ending Date
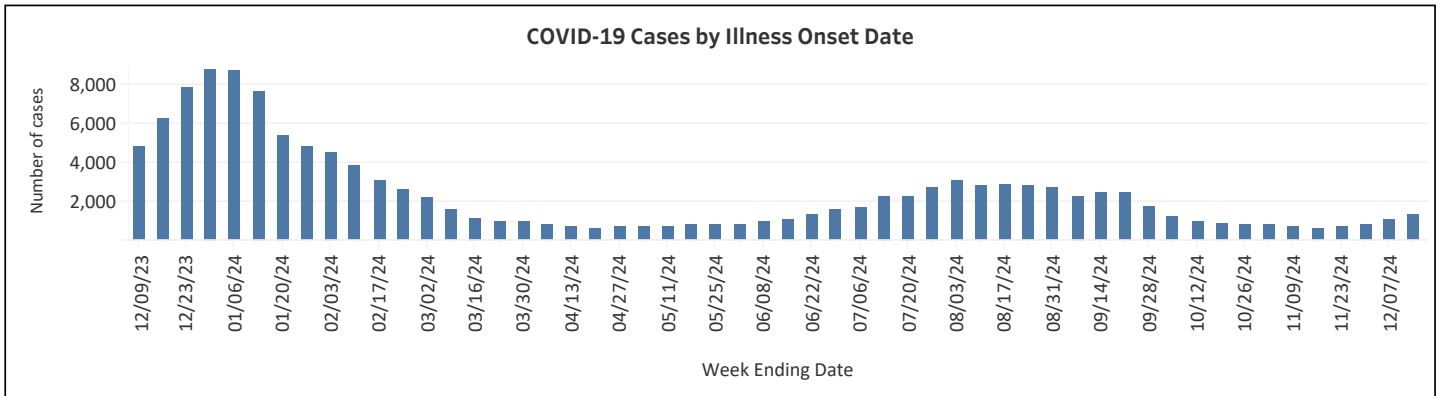
Wastewater Surveillance

Aggregate, state-level, normalized concentrations of SARS-CoV-2, influenza, and RSV charted over time, based on testing from wastewater samples submitted twice weekly from participating sites, provide information on changing levels of disease circulation, and are used as a tool in monitoring respiratory virus trends.

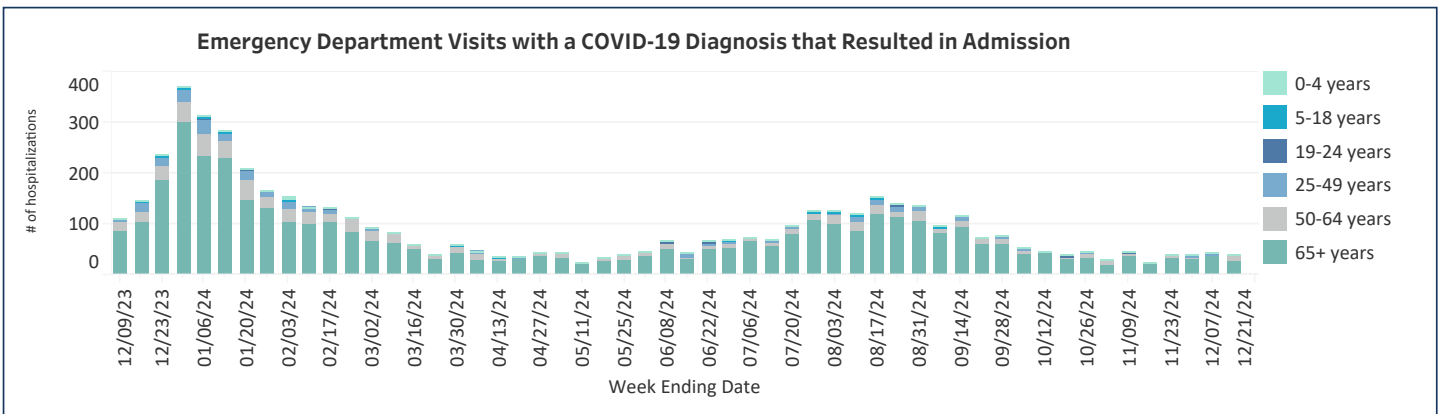### COVID-19

Influenza

RSV
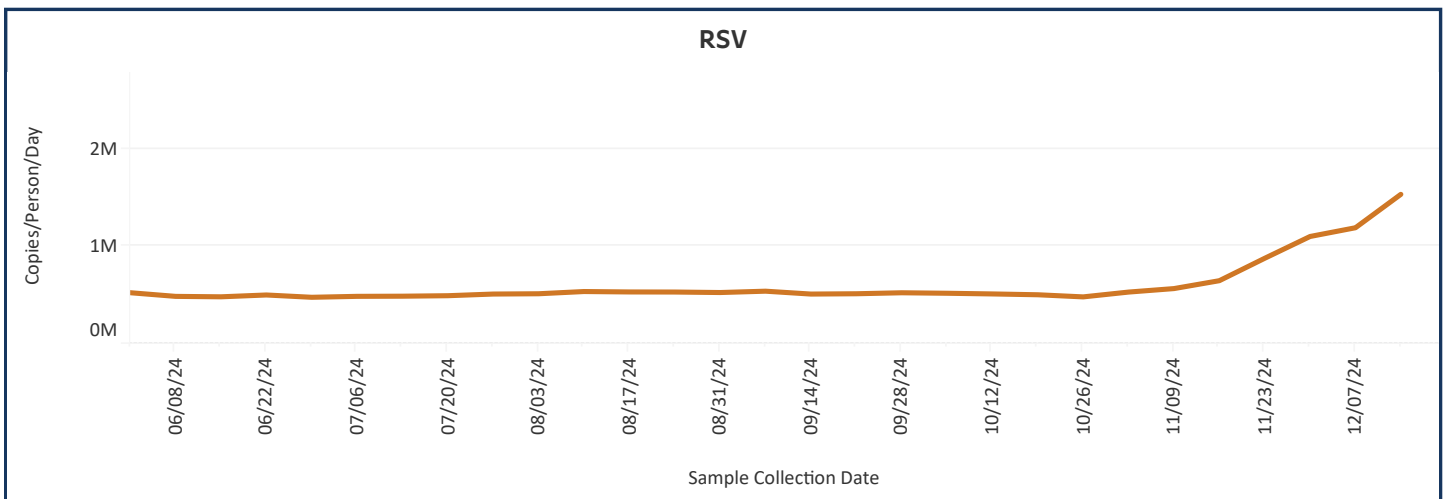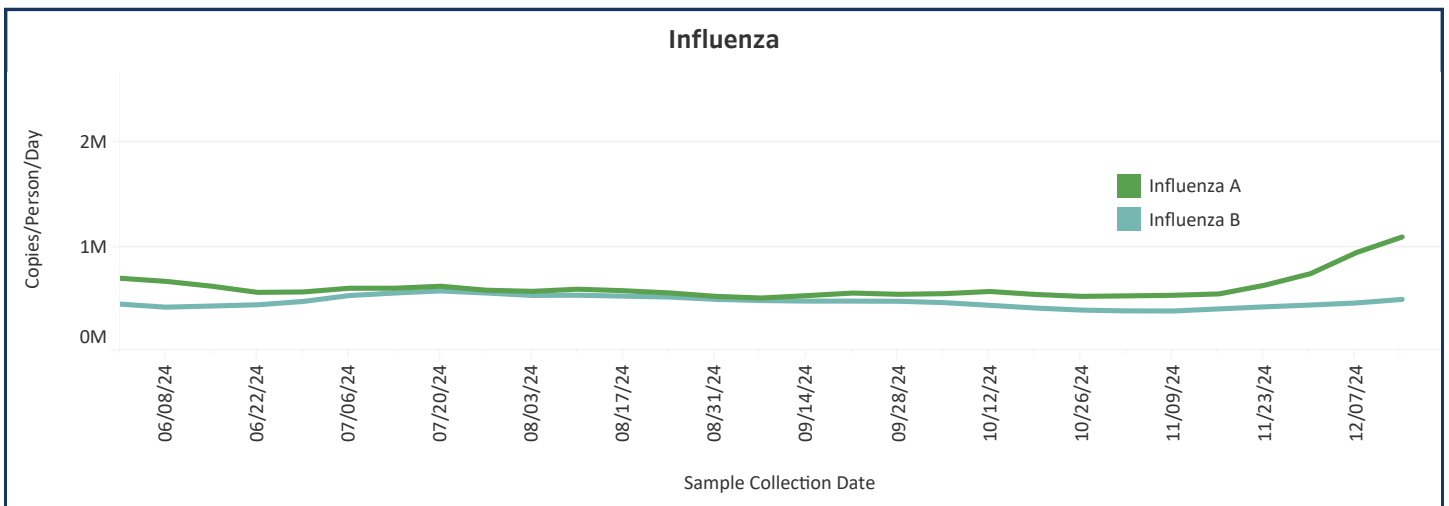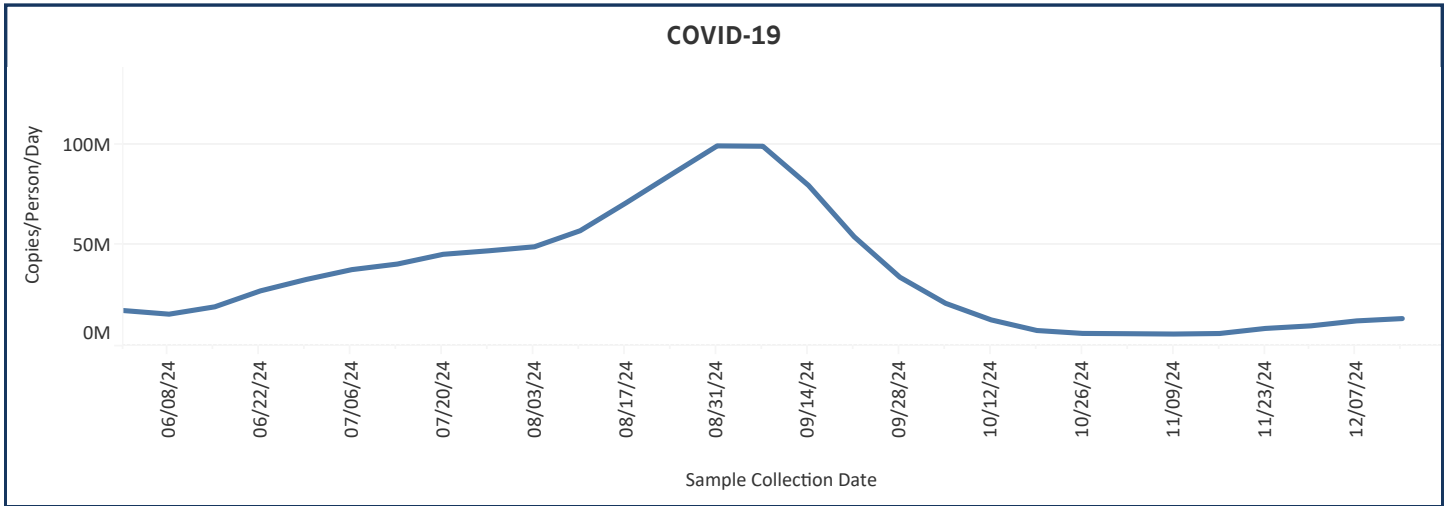
COVID-19: Cases

Data from the NJDOH Communicable Disease Reporting and Surveillance System (CDRSS) is used to report weekly COVID-19 cases. COVID-19 case data is based on PCR and antigen tests.

COVID-19 Cases by Illness Onset Date

Number of cases (y-axis): 2,000 / 4,000 / 6,000 / 8,000

Week Ending Date (x-axis): 12/09/23, 12/23/23, 01/06/24, 01/20/24, 02/03/24, 02/17/24, 03/02/24, 03/16/24, 03/30/24, 04/13/24, 04/27/24, 05/11/24, 05/25/24, 06/08/24, 06/22/24, 07/06/24, 07/20/24, 08/03/24, 08/17/24, 08/31/24, 09/14/24, 09/28/24, 10/12/24, 10/26/24, 11/09/24, 11/23/24, 12/07/24
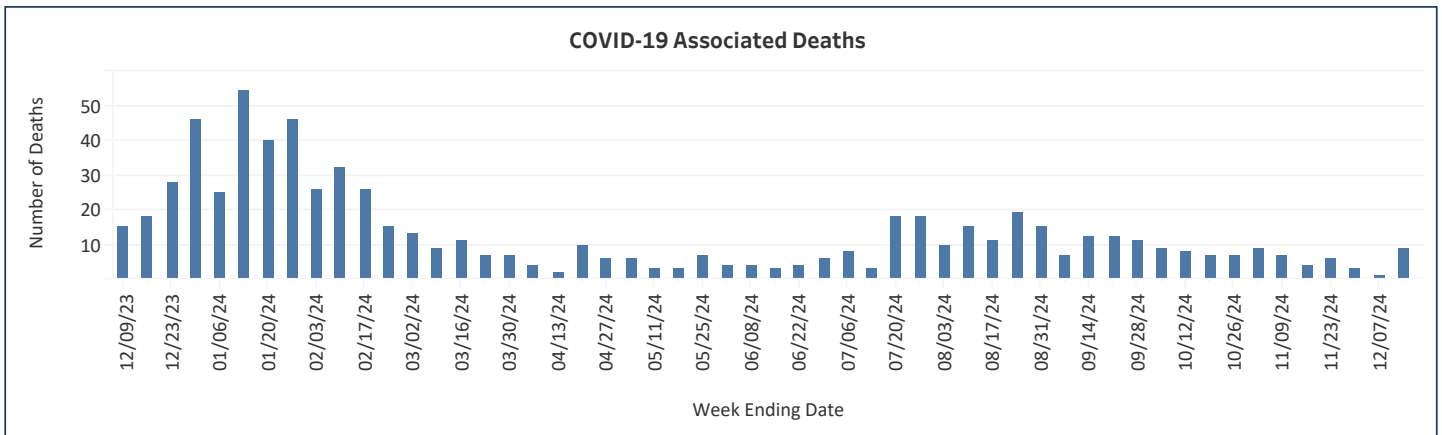
COVID-19: Hospitalizations

NJDOH uses syndromic surveillance data to monitor trends associated with visits to emergency departments for COVID-19. Data shows the number of emergency department visits with a COVID-19 diagnosis that resulted in hospitalizations by age group.

Emergency Department Visits with a COVID-19 Diagnosis that Resulted in Admission

# of hospitalizations (y-axis): 0 / 100 / 200 / 300 / 400

Legend:
- 0-4 years
- 5-18 years
- 19-24 years
- 25-49 years
- 50-64 years
- 65+ years

Week Ending Date (x-axis): 12/09/23, 12/23/23, 01/06/24, 01/20/24, 02/03/24, 02/17/24, 03/02/24, 03/16/24, 03/30/24, 04/13/24, 04/27/24, 05/11/24, 05/25/24, 06/08/24, 06/22/24, 07/06/24, 07/20/24, 08/03/24, 08/17/24, 08/31/24, 09/14/24, 09/28/24, 10/12/24, 10/26/24, 11/09/24, 11/23/24, 12/07/24, 12/21/24
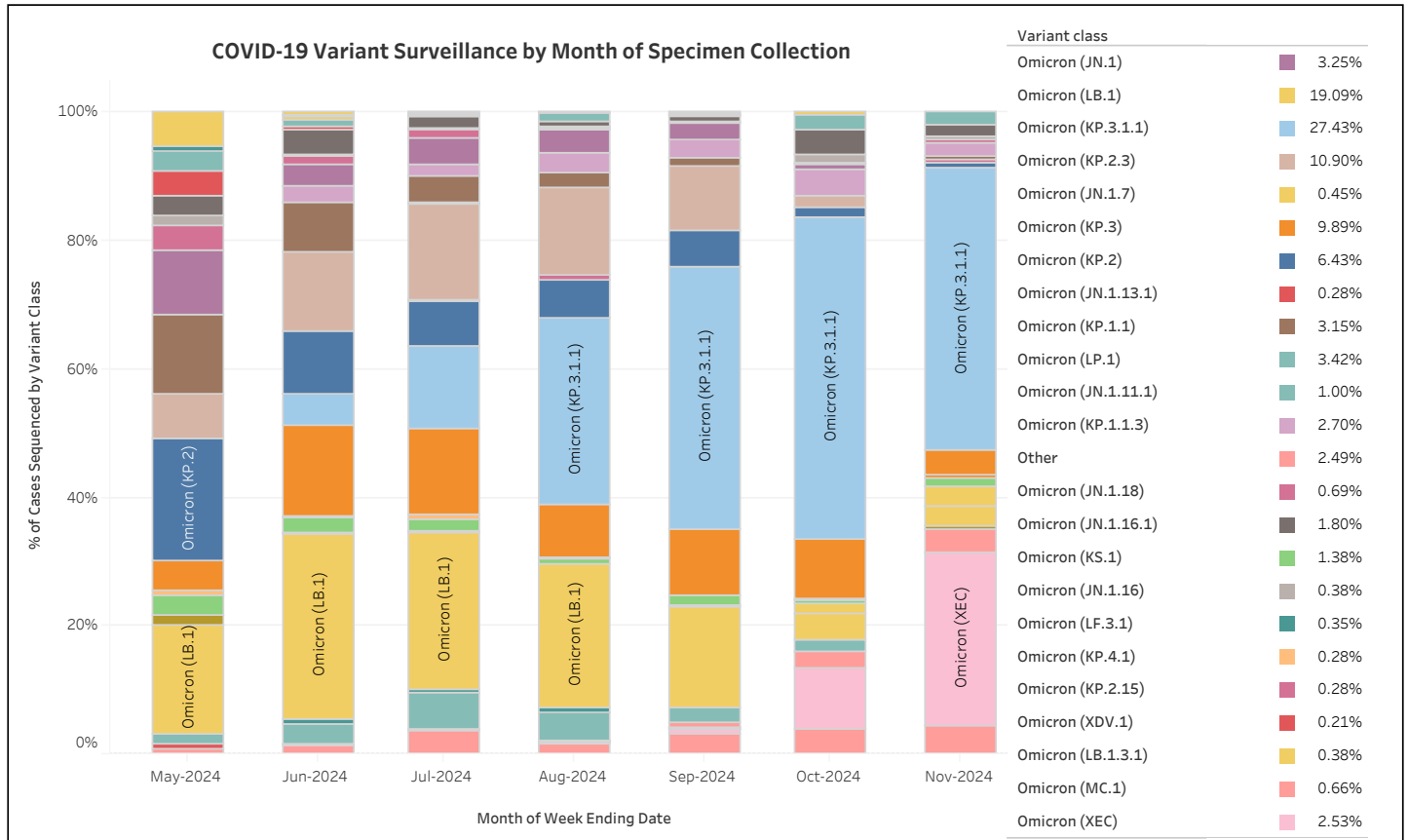
COVID-19: Deaths

Data from CDRSS and the NJ Electronic Death Registration System (EDRS) are used to provide information on the number of COVID-19 associated deaths. COVID-19 associated deaths are based on the CSTE Revised COVID-19 associated Death Classification Guidance for Public Health Surveillance Programs.

COVID-19 Associated Deaths

Number of Deaths (y-axis): 10 / 20 / 30 / 40 / 50

Week Ending Date (x-axis): 12/09/23, 12/23/23, 01/06/24, 01/20/24, 02/03/24, 02/17/24, 03/02/24, 03/16/24, 03/30/24, 04/13/24, 04/27/24, 05/11/24, 05/25/24, 06/08/24, 06/22/24, 07/06/24, 07/20/24, 08/03/24, 08/17/24, 08/31/24, 09/14/24, 09/28/24, 10/12/24, 10/26/24, 11/09/24, 11/23/24, 12/07/24
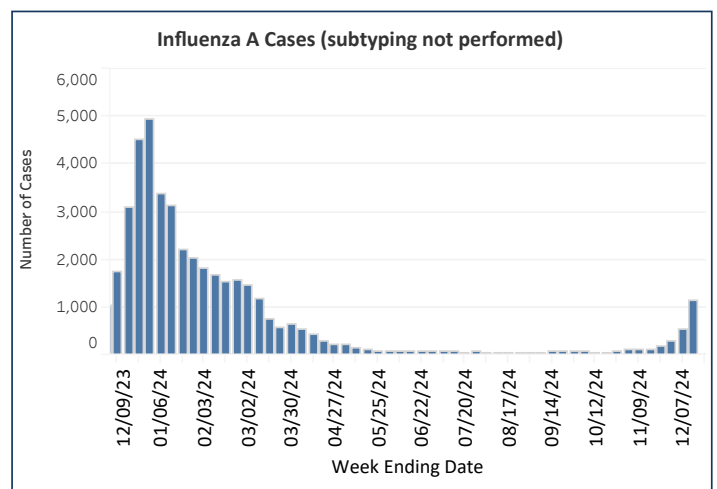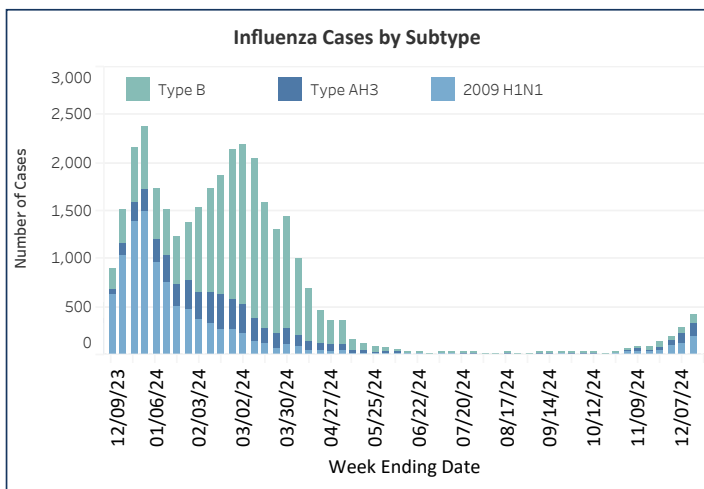
COVID-19: Variants

The chart depicts a summary of COVID-19 variant surveillance by month of specimen collection. Data includes sequencing results reported by selected commercial Labs and the NJ Public Health and Enviromental Laboratories that have been submitted for surveillance purposes. Percentages represent the proportion of specimens sequenced with the specified variant lineage. For additional information on variant classification, see CDC SARS-CoV-2 Variant Classifications and Definitions
https://covid.cdc.gov/covid-data-tracker/#variants-genomic-surveillance

COVID-19 Variant Surveillance by Month of Specimen Collection

Variant class	
Omicron (JN.1)	3.25%
Omicron (LB.1)	19.09%
Omicron (KP.3.1.1)	27.43%
Omicron (KP.2.3)	10.90%
Omicron (JN.1.7)	0.45%
Omicron (KP.3)	9.89%
Omicron (KP.2)	6.43%
Omicron (JN.1.13.1)	0.28%
Omicron (KP.1.1)	3.15%
Omicron (LP.1)	3.42%
Omicron (JN.1.11.1)	1.00%
Omicron (KP.1.1.3)	2.70%
Other	2.49%
Omicron (JN.1.18)	0.69%
Omicron (JN.1.16.1)	1.80%
Omicron (KS.1)	1.38%
Omicron (JN.1.16)	0.38%
Omicron (LF.3.1)	0.35%
Omicron (KP.4.1)	0.28%
Omicron (KP.2.15)	0.28%
Omicron (XDV.1)	0.21%
Omicron (LB.1.3.1)	0.38%
Omicron (MC.1)	0.66%
Omicron (XEC)	2.53%

Influenza: Cases

Data from CDRSS is used to report weekly influenza cases. Influenza case data is based on PCR tests.

Influenza Cases by Subtype

Legend: Type B, Type AH3, 2009 H1N1

Y-axis: Number of Cases
X-axis: Week Ending Date

Influenza A Cases (subtyping not performed)

Y-axis: Number of Cases
X-axis: Week Ending Date

Influenza: Hospitalizations

NJDOH uses syndromic surveillance data to monitor trends associated with visits to emergency departments for influenza. Data shows the number of emergency department visits with an influenza diagnosis that resulted in hospitalization by age group.

Emergency Department Visits with an Influenza Diagnosis that Resulted in Admission
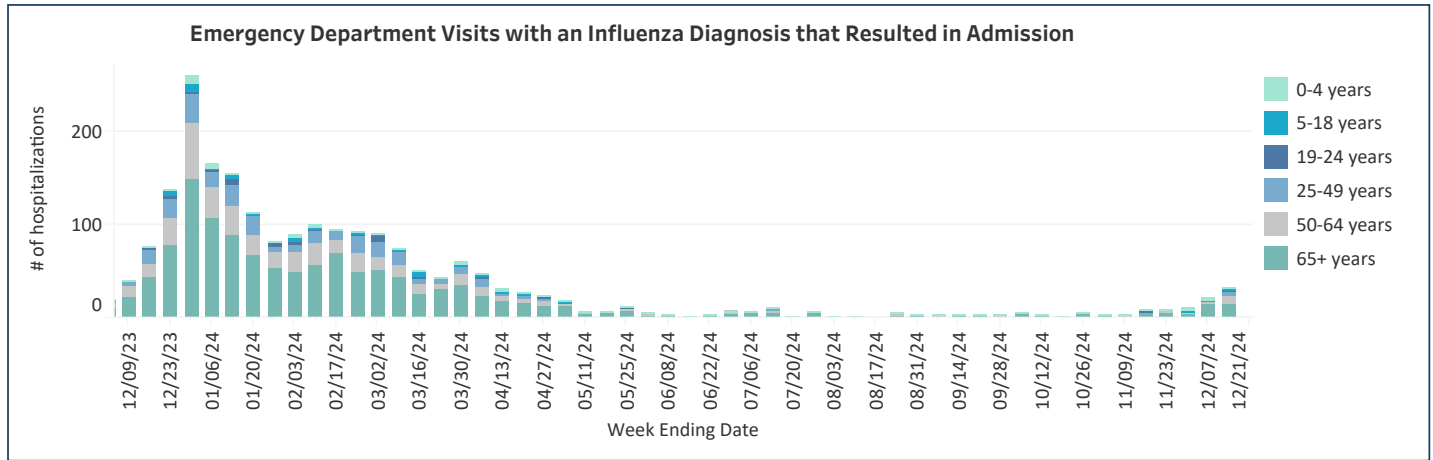
Influenza: Deaths

Data from CDRSS and EDRS is used determine the number of adult influenza-associated deaths reported weekly.

The table includes severe and fatal influenza-associated pediatric cases reported to NJDOH compared to national pediatric influenza deaths for a 5-year period. An influenza-associated pediatric death is defined as a death resulting from a clinically compatible illness with laboratory confirmed influenza. Severe illness is defined as admission to an intensive care unit for an influenza-related illness.

Influenza Associated Deaths
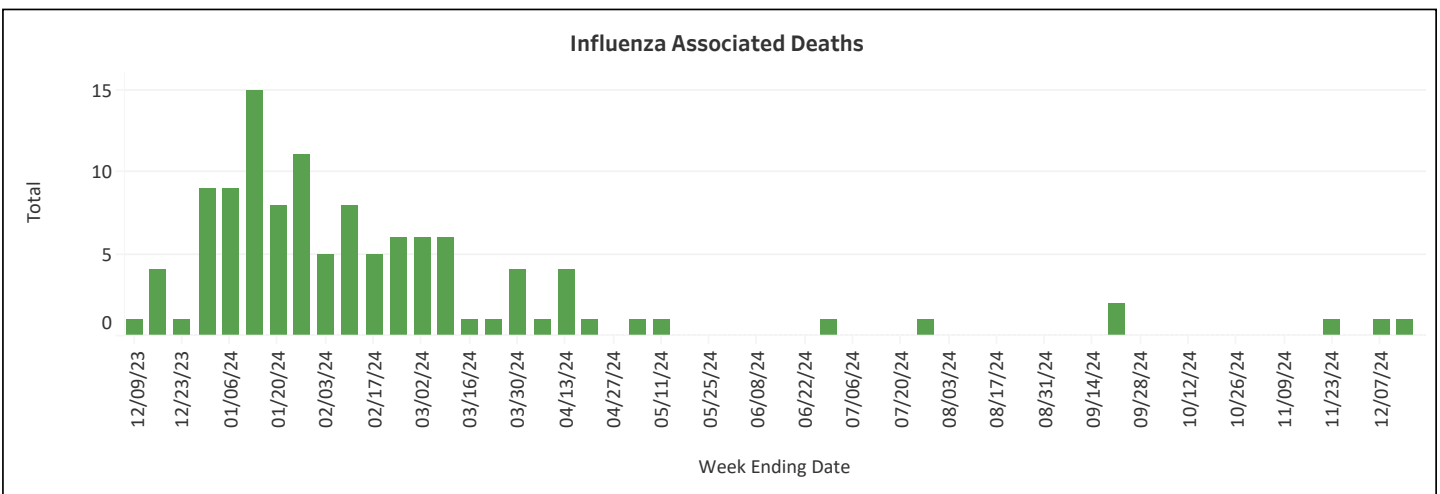
Pediatric Influenza Deaths and Severe Cases

| Influenza Season	US (fatal)	NJ (fatal)	NJ (severe cases)
2020-2021	1	0	1
2021-2022	49	0	19
2022-2023	187	4	95
2023-2024	206	2	99
2024-2025	2	0	4

RSV: Tests Positivity

Data from CDRSS submitted by select acute care facilites is used to report weekly number of respiratory syncytial virus (RSV) tests performed and the test positivity.

**RSV Total Tests Performed and Percent Positivity**
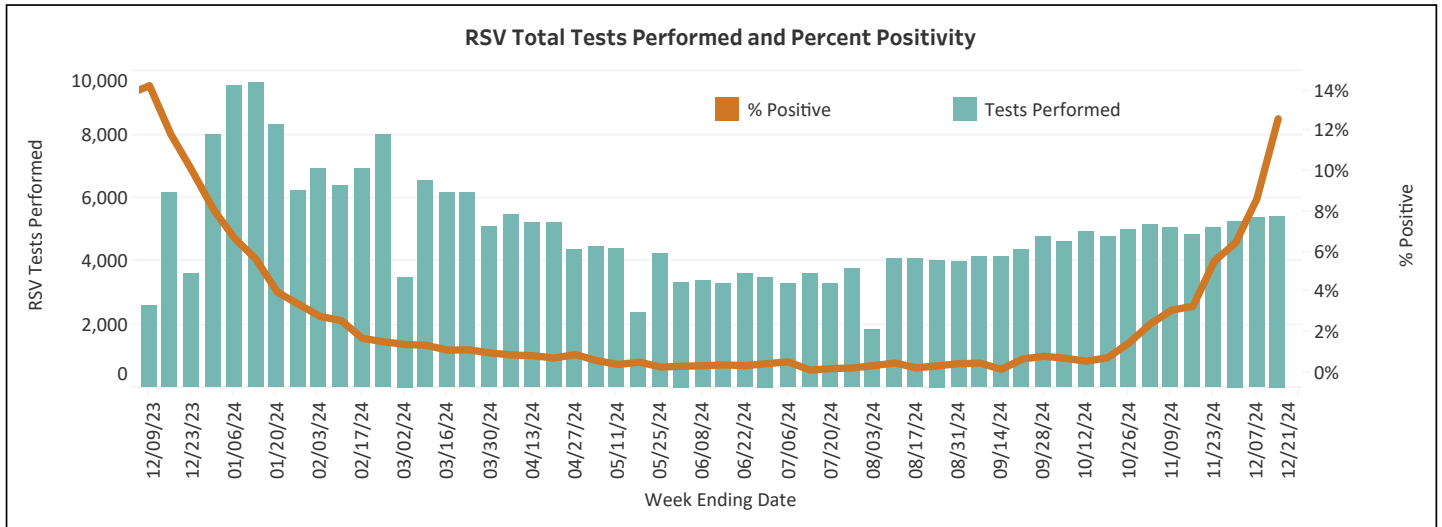
RSV: Hospitalizations

NJDOH uses syndromic surveillance data to monitor trends associated with visits to emergency departments for RSV. Data shows the number of emergency department visits with an RSV diagnosis that resulted in hospitalization by age group.

Emergency Department Visits with an RSV Diagnosis that Resulted in Admission
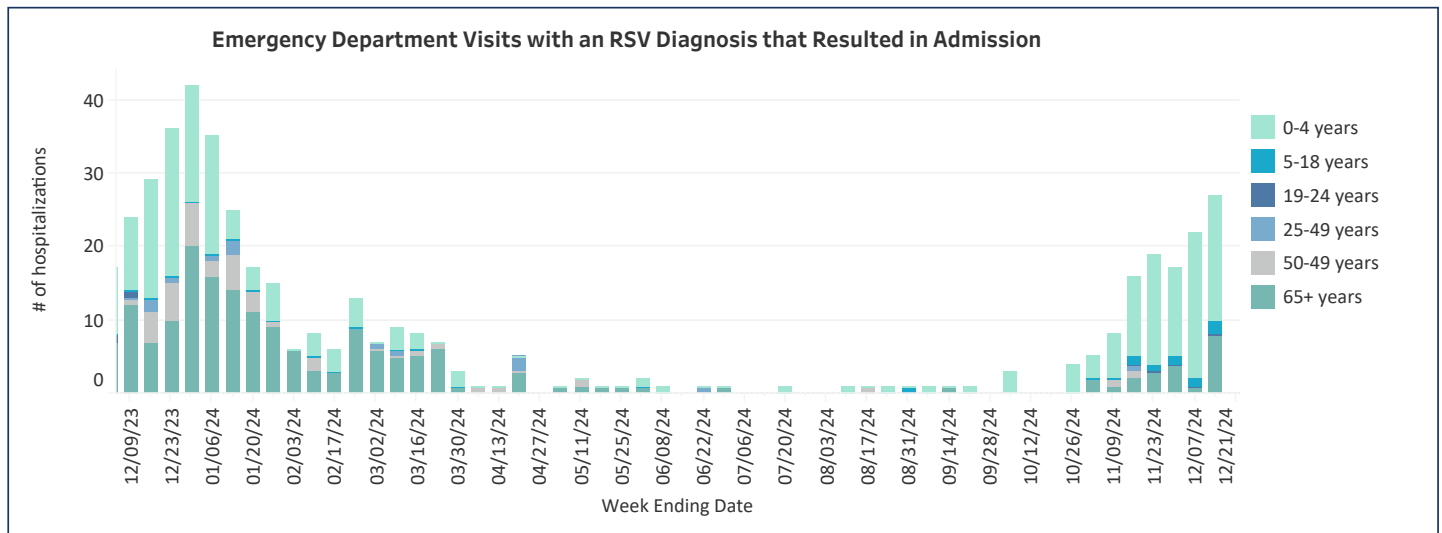
K-12 Schools

Data from CDRSS is used to provide information on COVID-19, influenza, and RSV outbreaks in school settings, including in childcare and early elementary care facilities and to provide information on school-related absenteeism due to COVID-19 and influenza.

K-12 School Outbreaks by Respiratory Illness

K-12 School Absenteeism by Respiratory Illness
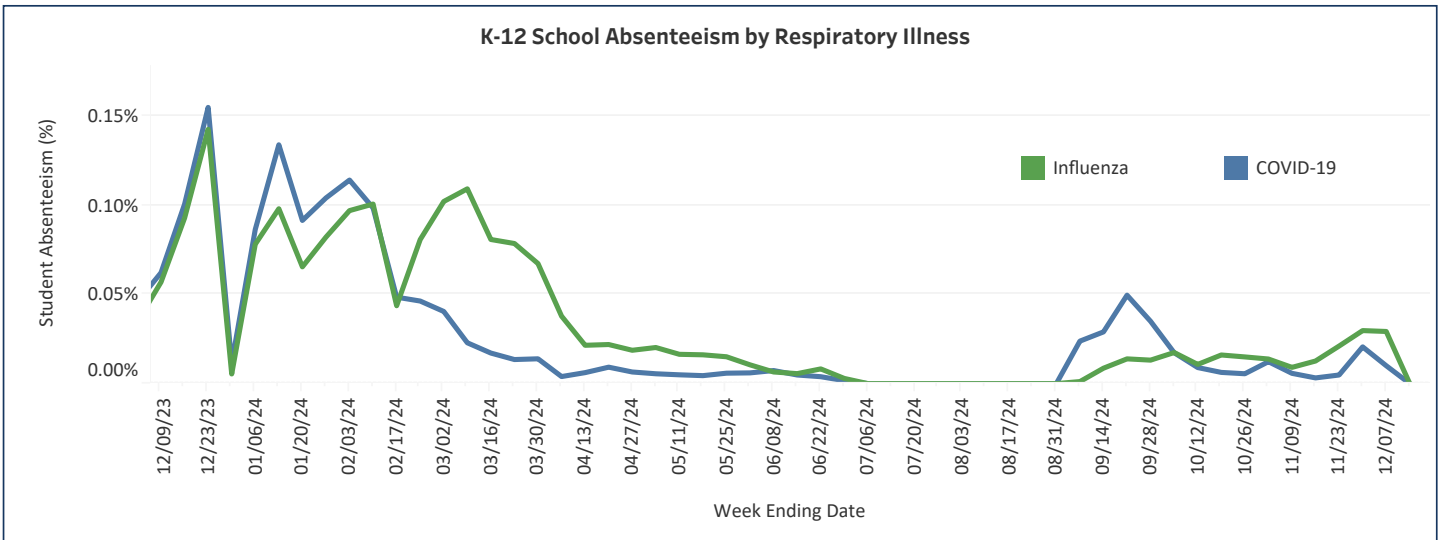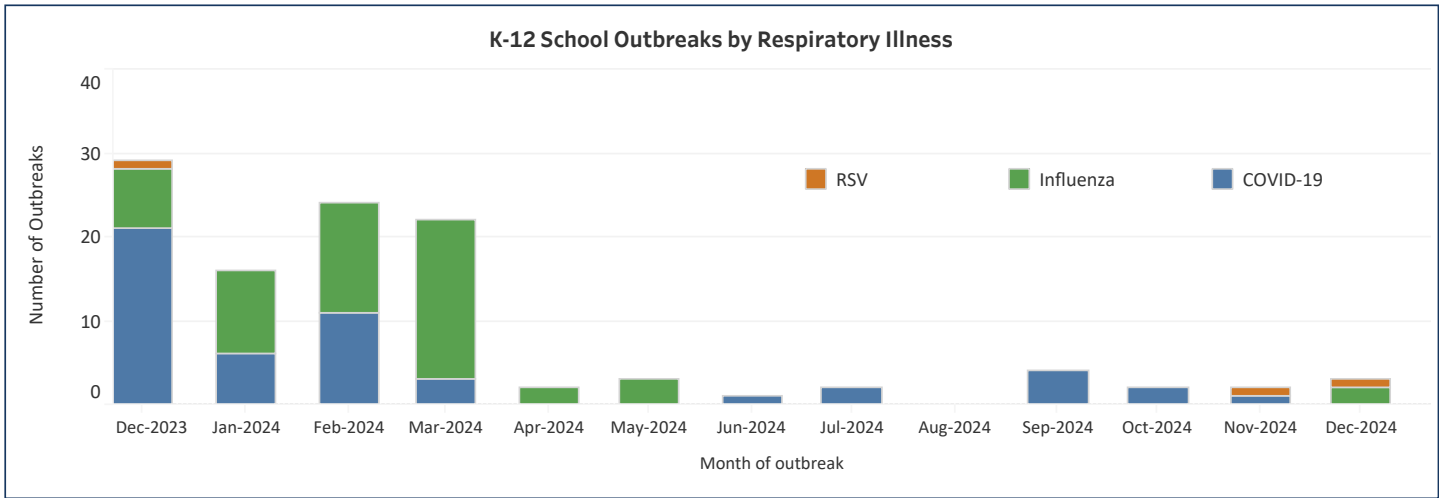
Outbreaks in Long-Term Care

Respiratory outbreaks in long-term care facilities by month of outbreak as reported to NJDOH in the Communicable Disease Surveillance and Reporting System (CDRSS) are plotted below. Counts include COVID-19, influenza and RSV outbreaks.

Long-Term Care Facility Respiratory Outbreaks by Respiratory Illness