

FLU REVIEW

Weeks 21-22, 2021:
5/23/21-6/5/21

State influenza and influenza-like illness (ILI) activity¹:

In weeks 21-22, influenza and ILI activity remained low overall and was lower than expected levels for this time of year.

In weeks 21-22, no new ILI or influenza outbreaks were reported. No ILI or influenza outbreaks have been reported since May 22, 2021 (when the traditional influenza season ended).

In weeks 21-22, seven RSV outbreaks were reported. Since week 30, 2020, thirty-two RSV-associated outbreaks have been reported.

No new influenza-associated pediatric deaths were reported in weeks 21-22. No influenza-associated pediatric deaths have been reported since the beginning of the 2020-21 season.

In weeks 21-22, no specimens tested positive for influenza at the Bureau of Public Health Laboratories (BPHL). Of note, the number of specimens that tested positive at BPHL remained low overall throughout the 2020-21 influenza season. No predominant circulating strain has been identified.

In weeks 21-22, the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance (including influenza). For more information, see page 3.

Activity at a Glance:

Geographic Spread:



Sporadic

Predominant Strain²:



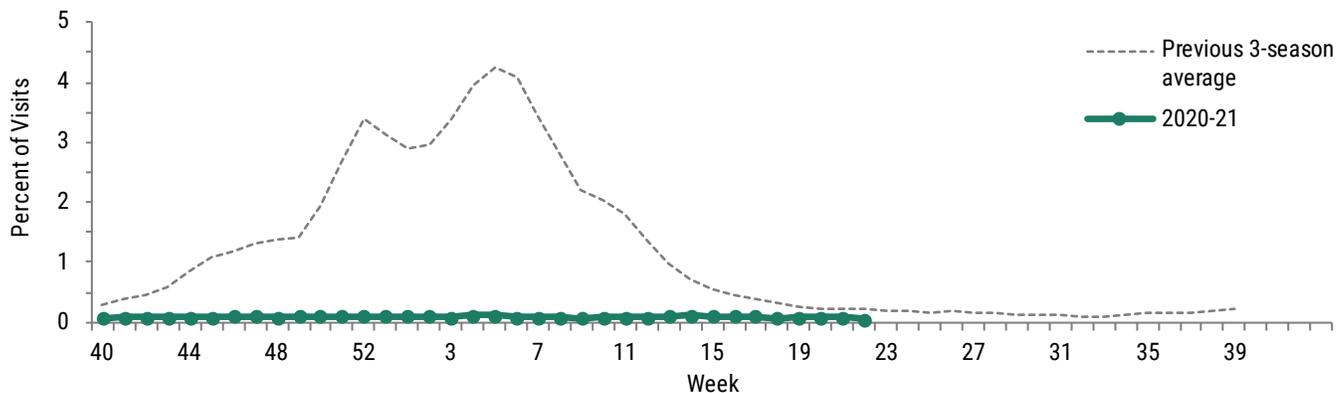
Unknown

ILI Activity Trend:



Stable

In weeks 21-22, **the percent of emergency department and urgent care center visits with a discharge diagnosis of influenza statewide remained stable** and was below the previous three-season average for this time.



▲ The figure above shows **the percent of visits with discharge diagnoses that include influenza** (with certain exceptions) for facilities participating in ESSENCE-FL (n=398) statewide for the current year (week 40, 2020 to week 22, 2021) and the previous three season average (2019-20, 2018-19, and 2017-18). Of note, influenza may not be laboratory-confirmed for all the visits included in this query. For more information on the use of ESSENCE-FL for influenza and ILI surveillance, see page 4.

¹ In Florida, only influenza-associated pediatric deaths and human cases of novel influenza A infection (any age) are reportable. All outbreaks, including those due to influenza or other respiratory disease are reportable in Florida. The Florida Department of Health uses a variety of different surveillance systems to measure influenza and ILI activity. A summary of the systems used in this report can be found on our website: [FloridaHealth.gov/FloridaFlu](https://www.floridahealth.gov/FloridaFlu) and on page 4.

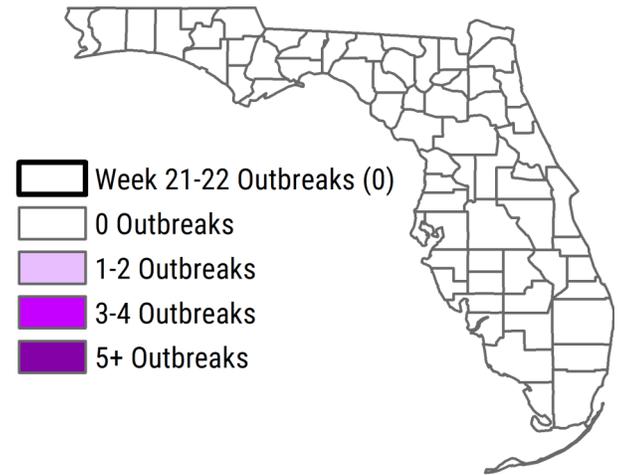
² Predominant strain in this context refers to the most common influenza subtype detected at the Bureau of Public Health Laboratories over the last four weeks. The strain reported here may be different to the strain reported as predominant overall during the traditional 2020-21 season (September 27, 2020 through May 22, 2021) in past reports.

Statewide Off-Season Outbreaks:

In weeks 21-22, no new respiratory disease outbreaks were reported.

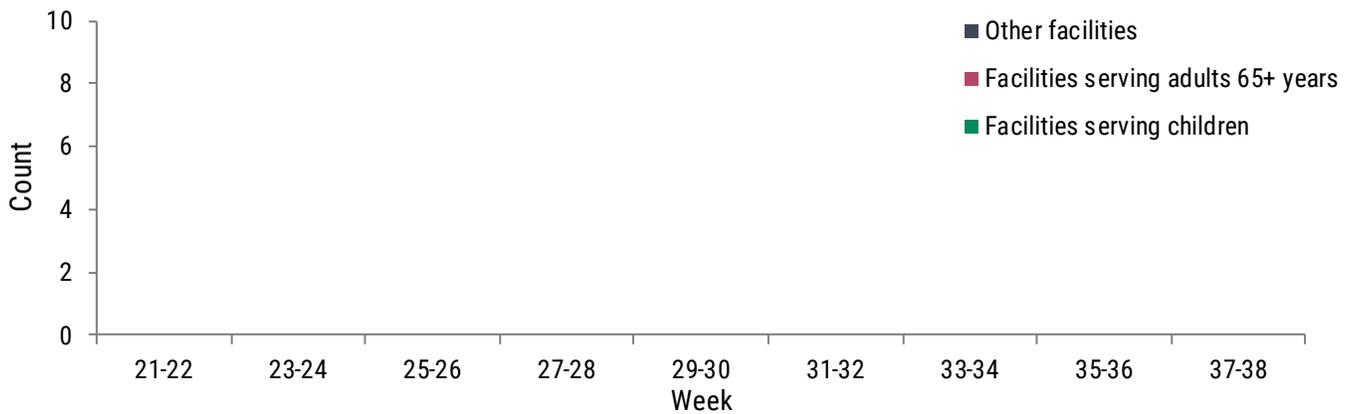
No respiratory outbreaks have been reported since May 22, 2021.

Sporadic outbreak reports are expected during the summer months. The number of reported outbreaks may differ from traditional summer activity due to COVID-19.



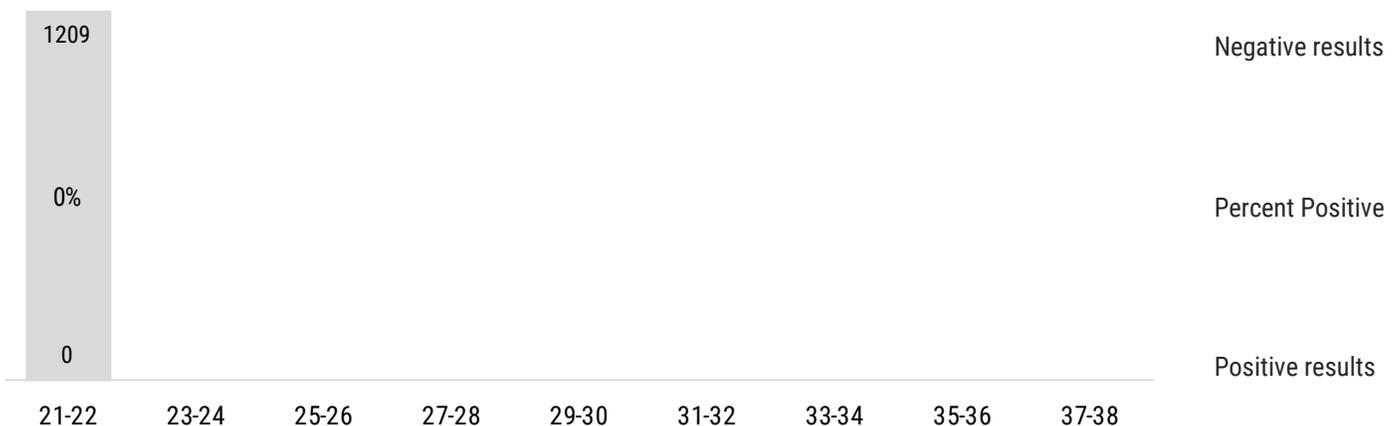
▲ The figure above shows **reported respiratory outbreaks by county since May 22, 2021**. Counties with outbreaks reported in weeks 21-22 are **outlined in bold**.

In weeks 21-22, no ILI or influenza outbreaks were reported.



▲ The figure above shows the distribution of **respiratory disease outbreaks by facility type** as reported in Merlin, weeks 21-22, 2021.

In weeks 21-22, no specimens tested positive for **influenza at BPHL**.



▲ The figure above shows the number of **specimens tested for influenza at the Bureau of Public Health Laboratories (BPHL)** by lab-event date,¹ weeks 21-22, 2021. Specimens are organized by result and percent positivity of results was calculated by dividing positive results over total results.

¹"Lab event date" is defined as the earliest of the following dates associated with influenza testing at the laboratory: date specimen collected, date received by the laboratory, date reported, or date inserted.

Respiratory Syncytial Virus (RSV) & Other Respiratory Virus Surveillance

Weeks 21-22 (May 23– June 5, 2021) RSV Activity

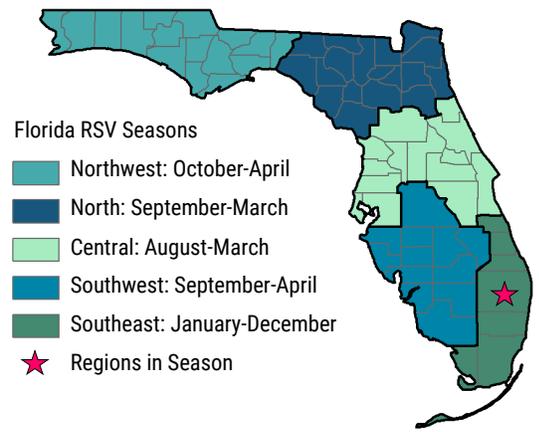
Summary:

In weeks 21-22, RSV activity in children <5 years old decreased. Levels were above those seen at this time in past years.

Currently, one of Florida's five regions are in RSV season.

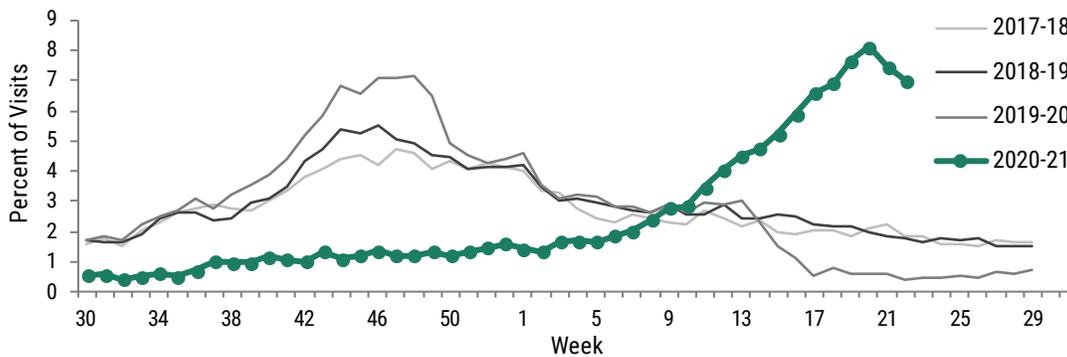
Florida's RSV season is longer than the rest of the nation and has distinct regional patterns. The RSV seasons shown here are based on activity thresholds provided by the Centers for Disease Control and Prevention.

The determination of unique seasonal and geographic trends of RSV activity in Florida has important implications for prescribing patterns for initiating prophylaxis to children at high-risk for RSV infection complications. The American Academy of Pediatrics recommends preapproval for prophylactic treatment be made based on state surveillance data.



▲ The figure above shows **Florida's RSV regional season breakdown**. Regions that are currently in RSV season are marked with **pink stars**.

In weeks 21-22, **the percent of emergency department and urgent care center visits for RSV among children <5 years decreased**. RSV activity in children <5 years was notably above levels observed at this time in previous years.

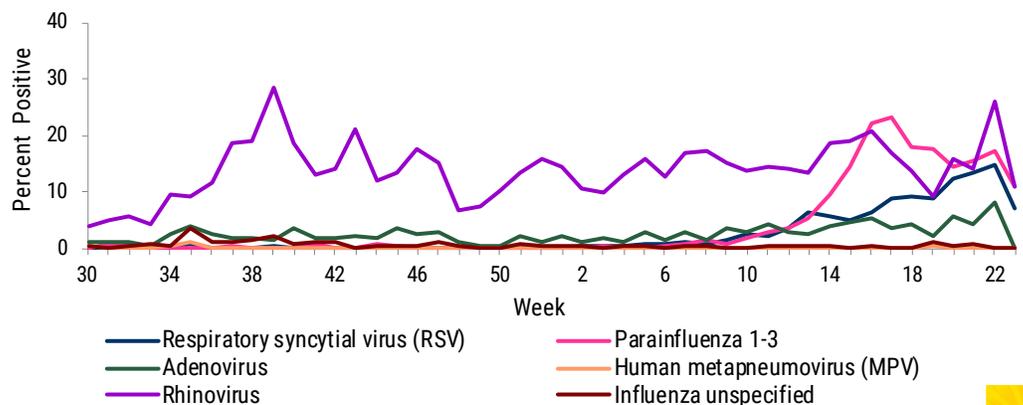


◀ The figure to the left shows **the percent of emergency department and urgent care center visits with discharge diagnoses that include respiratory syncytial virus (RSV) or RSV-associated illness among children <5 years¹**, as reported in ESSENCE-FL, week 30, 2017 to week 22, 2021.

¹ The overall trend displayed in this figure has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

In weeks 21-22, **the percent of specimens testing positive for rhinovirus decreased** to the same level of **positive Parainfluenza 1-3 specimens**, but remained higher than other respiratory viruses under surveillance.

The figure to the right shows **the percent positive laboratory results for eight common respiratory viruses**, as reported by laboratories participating in the National Respiratory and Enteric Virus Surveillance System (NREVSS) and laboratories reporting validated respiratory virus data to the Florida Department of Health via electronic laboratory reporting (n=5), week 30, 2020 to week 22, 2021.



Respiratory Syncytial Virus (RSV) & Other Respiratory Virus Surveillance

RSV-Associated Outbreaks in Weeks 21-22:

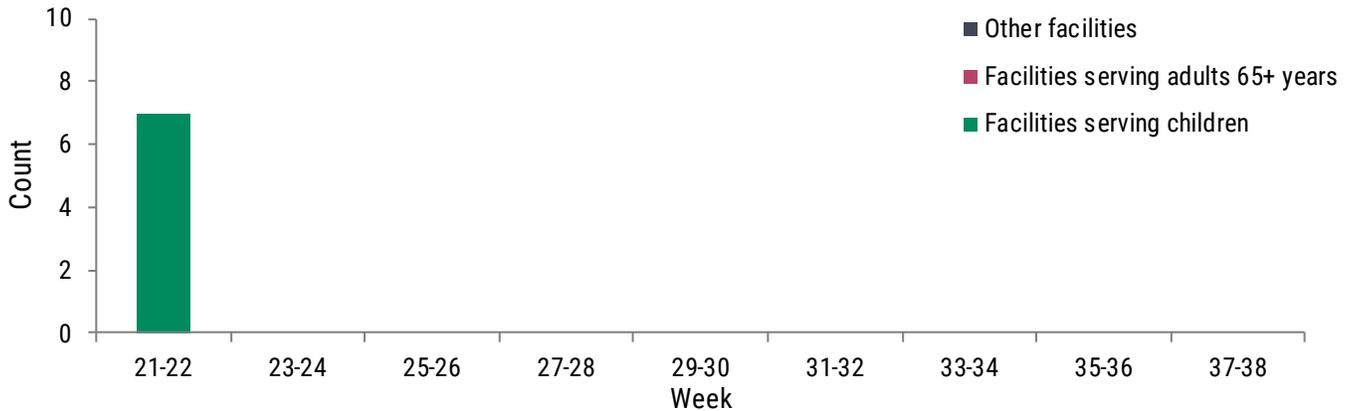


Summary of RSV-Associated Outbreaks:

In weeks 21-22, seven new RSV-associated outbreaks were reported. Since week 30, 2020, thirty-two RSV-associated outbreaks have been reported.

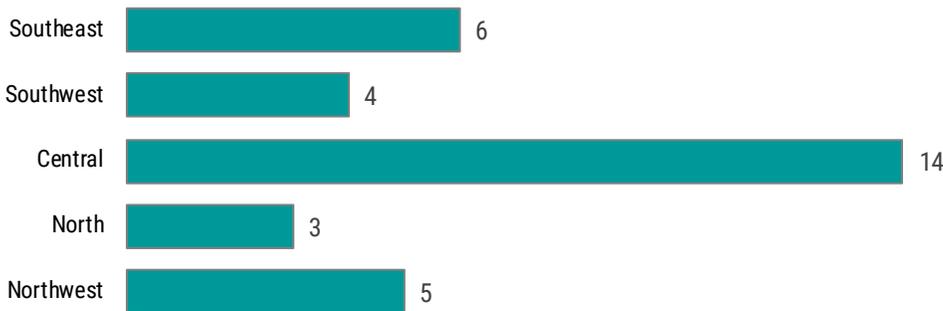
7 Outbreaks

In weeks 21-22, seven new RSV-associated outbreaks were reported in **facilities serving children**.



▲ The figure above shows the number of RSV-associated outbreaks by setting and week as reported by county health departments in Merlin, week 21, 2021 to week 22, 2021.

In weeks 21-22, seven RSV-associated outbreaks were reported. Since week 30, outbreaks have been reported in all of Florida's regions.*



◀ The figure to the left shows a summary of RSV-associated outbreaks by region* as reported by county health departments in Merlin, week 30, 2020 to week 22, 2021.

*Regions defined on page 3.

Since week 30, 2020, **parainfluenza virus 3** has been the most commonly identified pathogen in a respiratory outbreak apart from influenza or RSV.



- Rhinovirus
- Enterovirus unspecified
- Enterovirus D68
- Parainfluenza 1
- Parainfluenza 2
- Parainfluenza 3
- Coronavirus NL63
- Coronavirus HKU1
- Coronavirus OC43
- Coronavirus 229E
- Human metapneumovirus
- Adenovirus
- Group A Streptococcus
- Other

▲ The figure above shows the number of unique times a pathogen was associated with a respiratory outbreak for outbreaks reported from week 30, 2020 to week 22, 2021.



Florida Influenza and ILI Surveillance System Summary

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal

Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE-FL) is used by the Florida Department of Health to monitor trends in influenza-like illness (ILI) visits at participating emergency departments (EDs) and urgent care centers (UCCs). Participating EDs and UCCs (n=398) electronically submit visit data into ESSENCE-FL daily or hourly.

For statewide and regional figures, percentages are calculated as the proportion of overall ED and UCC visits to participating facilities that include the words "influenza" or "flu" in the discharge diagnoses (with certain exceptions).

ED and UCC visits are counted as respiratory syncytial virus (RSV) if the discharge diagnoses include RSV or RSV-associated illness.

For RSV mortality surveillance, a free-text query searches for references to RSV in the causes of death on death certificates. Any mention of "RSV," "syncytial," or "bronchiolitis" in the literal causes of death (with certain exceptions) is counted as a possible RSV-associated death. Possible RSV-associated deaths in children <18 years old are investigated to ensure they meet the case definition outlined by the Council of State and Territorial Epidemiologists.

Outbreak Reporting in Merlin

Outbreak investigations are tracked in Merlin (Florida's reportable disease surveillance system) by investigating county health departments (CHDs). Outbreak reports include implicated viruses or bacteria, the outbreak setting, and recommendations made to mitigate the spread of disease.

- Outbreak definition for assisted living facilities, nursing facilities, and long-term care facilities: two or more cases of influenza, ILI, or acute respiratory illness (ARI)
- Outbreak definition for facilities serving children (primary/secondary schools and child daycares): three or more epidemiologically linked cases of influenza or ILI
- Household clusters are not counted as outbreaks.
- ILI: fever and cough or fever and sore throat in the absence of another known cause
- ARI: two or more respiratory symptoms in the absence of another known cause

Laboratory Surveillance

The Florida Department of Health, Bureau of Public Health Laboratories (BPHL) performs real-time reverse transcription polymerase chain reaction (RT-PCR) influenza testing (including subtyping for influenza A viruses and lineage determination for influenza B viruses) for specimens submitted from sentinel providers, outbreak investigations, health care providers treating patients with severe or unusual influenza presentations, and medical examiners. BPHL also performs RT-PCR subtyping for influenza A-positive specimens and RT-PCR lineage determination for influenza B-positive specimens.

The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a Centers for Disease Control and Prevention (CDC) surveillance system that captures data on eight commonly circulating respiratory viruses as reported by participating laboratories in Florida. Data collected in NREVSS are combined with data from Florida laboratories that submit validated electronic RSV laboratory results to the Florida Department of Health via electronic laboratory reporting. Together, these data are used to monitor the temporal and geographic patterns of these viruses.

Case-Based Influenza Surveillance

Death in a child whose laboratory-confirmed influenza infection has been identified as contributing to the child's death is a reportable condition in Florida. Influenza-associated pediatric deaths are investigated by CHDs and reported in Merlin. In turn, the Florida Department of Health reports these deaths to CDC.

In addition, an individual of any age with suspected or laboratory-confirmed novel or pandemic influenza A is reportable in Florida. Suspected or confirmed novel influenza A cases are investigated by CHDs in collaboration with state and national experts. CHDs report cases in Merlin and, in turn, the Florida Department of Health reports these cases to CDC.

Geographic Spread of Influenza

On a weekly basis, the Florida Department of Health evaluates influenza and ILI surveillance data to determine the geographic spread of influenza in Florida and report the weekly determination to CDC. Geographic spread is not an indication of influenza severity. Geographic spread can be reported as sporadic, local, regional, or widespread.

- Sporadic: small numbers of laboratory-confirmed influenza or a single laboratory-confirmed influenza outbreak has been reported but there is no increase in cases of ILI
- Local: outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions of the state
- Regional: outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions
- Widespread: outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state