

# Respiratory Syncytial Virus Surveillance

## Background

**Respiratory syncytial virus (RSV)** is a common respiratory virus that usually causes mild, cold-like symptoms. Young children and older adults, especially those with certain underlying health conditions, are at higher risk for severe illness from RSV. Prophylaxis is available for children who qualify. For more information, contact your health care provider.

## RSV Surveillance

A statewide RSV surveillance system was implemented in Florida to support clinical decision-making for prophylaxis of premature infants.

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 complications from RSV infection. The American Academy of Pediatrics currently recommends pre-approval for prophylactic treatment be made based on state surveillance data. For more information on RSV surveillance systems used in Florida, see the last page of this report.

**Florida's RSV season is longer than the rest of the nation and has distinct regional patterns.** The Florida Department of Health established regional RSV seasons based on activity thresholds provided by the Centers for Disease Control and Prevention (see Figure 26). **Currently, all of Florida's five regions is in RSV season.**

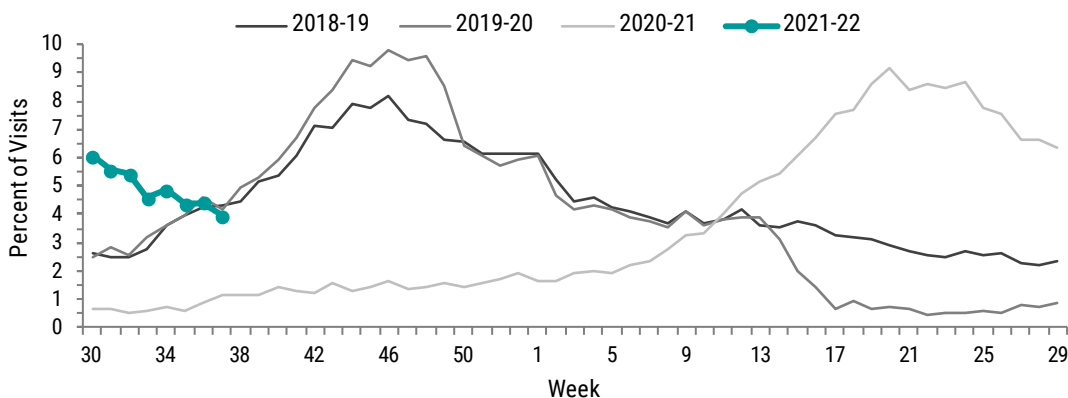
To learn more about RSV in Florida, please visit: [FloridaHealth.gov/RSV](https://www.floridahealth.gov/RSV).

## Week 40 (October 3–9, 2021) Activity Summary

**In week 40, RSV activity in children <5 years decreased and was below levels observed at this time during typical seasonal activity.**

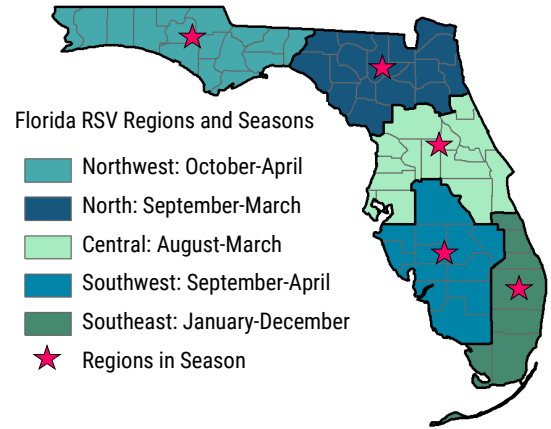
No new RSV-associated outbreaks were reported in week 40. A total of 6 RSV-associated outbreaks have been reported since week 30, 2021 (beginning on July 25, 2021).

Figure 30: In week 40, **the percent of emergency department visits for RSV among children <5 years decreased** and was below levels observed at this time during typical seasonal activity.



◀ **Figure 30 shows the percent of emergency department visits with discharge diagnoses that indicate RSV or RSV-associated illness among children <5 years\***, as reported in ESSENCE-FL, week 30, 2018 to week 40, 2021.

\*The overall trend displayed in Figure 30 has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

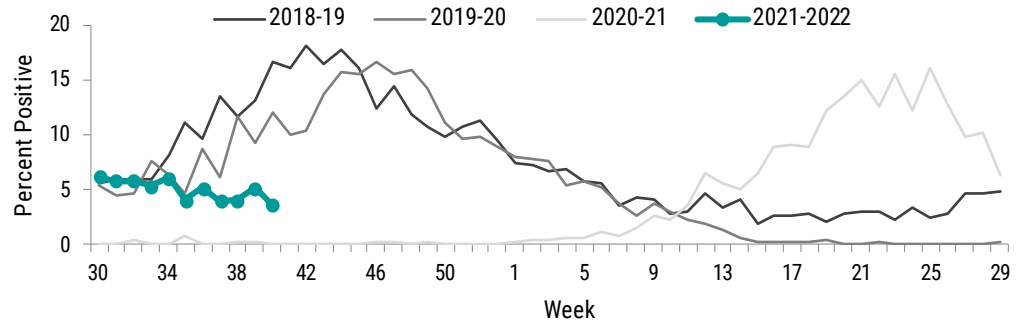


▲ **Figure 29 shows Florida's RSV regional season breakdown.** Regions that are currently in RSV season are marked with **pink stars**.

# RSV Surveillance

Figure 31: In week 40, **the percent of specimens testing positive for RSV decreased**. Levels were below those observed at this time during typical seasonal activity.

Figure 31 shows the percent of specimens testing positive for respiratory syncytial virus (RSV), as reported by hospital laboratories (n=4), week 30, 2018 to week 40, 2021. ▶



RSV-Associated Outbreaks in Week 40:

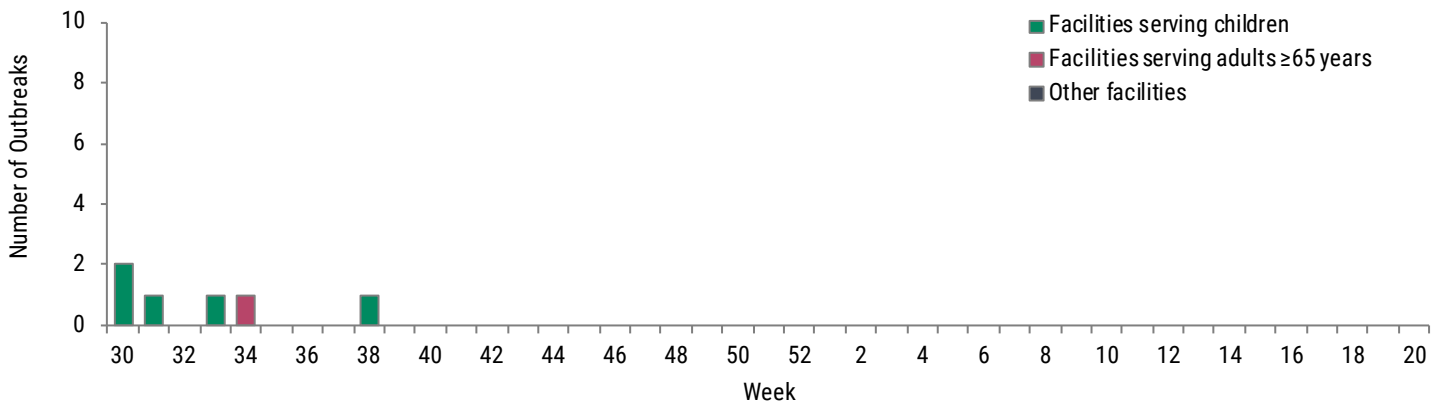


### Summary of RSV-Associated Outbreaks:

Since week 30, 2021, 6 RSV-associated outbreaks have been reported. For RSV outbreak definitions, see page 16.

**0 Outbreaks**

Figure 32: In week 40, no new RSV-associated outbreaks were reported. The majority of outbreaks reported since week 30 have been reported in **facilities serving children**.



▲ Figure 32 shows the number of RSV-associated outbreaks by setting and week as reported by county health departments in Merlin, week 30, 2021 to week 40, 2021.

Figure 33: In week 40, no RSV-associated outbreaks were reported. Since week 30, outbreaks have been reported in Florida’s southeast, central, and north regions.\*



◀ Figure 33 shows a summary of RSV-associated outbreaks by region\* as reported by county health departments in Merlin, week 30, 2021 to week 40, 2021.

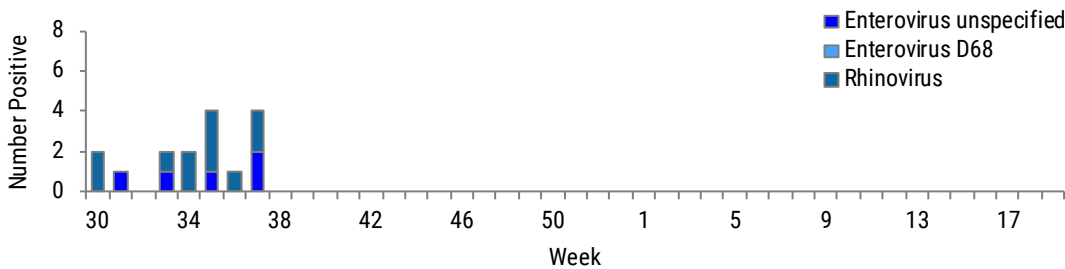
\*Regions defined in figure 29.

# Other Respiratory Virus Surveillance

No unique pathogens identified as of week 40, 2021.

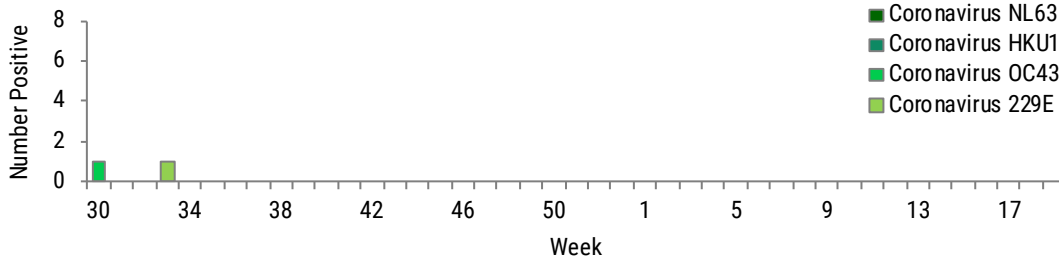
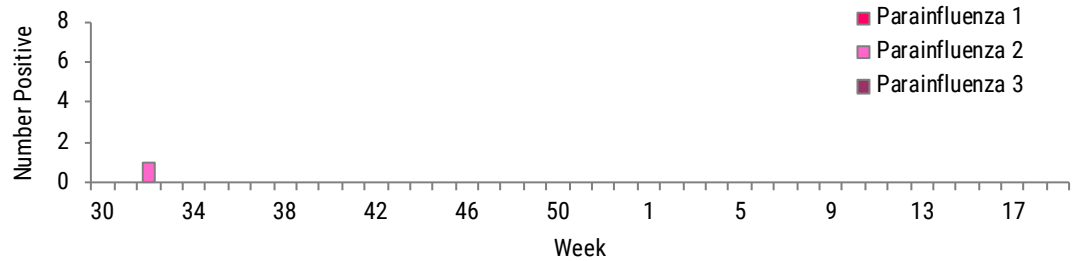
- Rhinovirus
- Parainfluenza 3
- Human metapneumovirus
- Enterovirus unspecified
- Coronavirus NL63
- Adenovirus
- Enterovirus D68
- Coronavirus HKU1
- Group A Streptococcus
- Parainfluenza 1
- Coronavirus OC43
- Other
- Parainfluenza 2
- Coronavirus 229E

▲ **Figure 34** shows the number of unique times a pathogen was associated with a respiratory outbreak for outbreaks reported from week 30, 2021 to week 40, 2021.



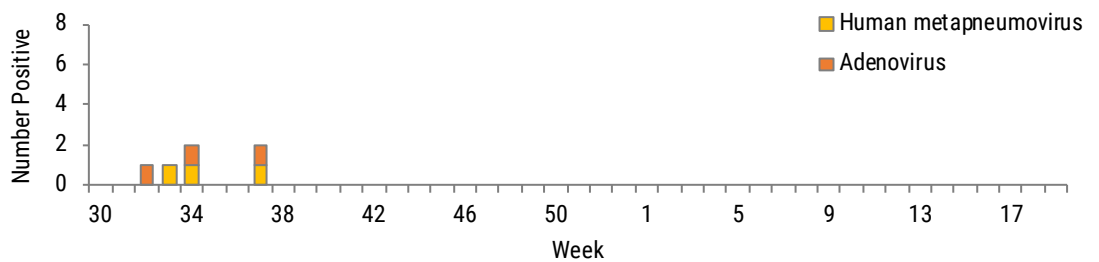
◀ **Figure 35\*** shows the number of PCR-positive laboratory findings for enterovirus unspecified, enterovirus D68, and rhinovirus by week\*\* among specimens submitted to the Bureau of Public Health Laboratories (BPHL) for extended respiratory panel testing.

► **Figure 36\*** shows the number of PCR-positive laboratory findings for parainfluenza 1-3 by week\*\* among specimens submitted to BPHL for extended respiratory panel testing.



◀ **Figure 37\*** shows the number of PCR-positive laboratory findings for seasonal coronaviruses NL63, HKU1, OC43, and 229E by week\*\* among specimens submitted to BPHL for extended respiratory panel testing.

► **Figure 38\*** shows the number of PCR-positive laboratory findings for human metapneumovirus and adenovirus by week\*\* among specimens submitted to BPHL for extended respiratory panel testing.



\*Data shown in figures 35–38 include results for specimens submitted by Optional Influenza Surveillance Enhancements Program (OISE) providers (n=4) as reported by BPHL.

\*\*Results are organized by week based on “lab event date” (defined as the earliest of the following dates associated with testing at the laboratory: date specimen collected, date received by the laboratory, date reported or date inserted).

# Summary of Notable Outbreaks

**Table 2: Summary of Notable\* Influenza-Associated, Respiratory Syncytial Virus (RSV)-Associated and Influenza-like Illness (ILI) Outbreaks Reported in Week 40, 2021**

<b>Setting</b>	<b>County</b>	<b>Number of Cases</b>	<b>Number of Cases Died</b>	<b>Number of Cases Hospitalized</b>	<b>Outbreak Etiology</b>	<b>Estimated Percent Vaccinated for Influenza</b>	<b>Investigation Status</b>
No notable outbreaks were reported in week 40, 2021.							

\*For the purposes of this report, notable outbreaks are defined as influenza-associated, RSV-associated or ILI outbreaks with one or more deaths, or 30 or more cases. Outbreaks with COVID-19 identified as an additional etiology to influenza or RSV will also be included here. For more information on how outbreaks are defined, see page 16.

# Summary of Included Surveillance Systems

## **ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal** Data source for figures 3–8, 17–25, 27–28, 30

Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) is useful for measuring trends in influenza and flu-related visits from emergency departments (ED), free-standing emergency departments (FSEDs) and urgent care clinics (UC) and influenza mortality using death certificates from the Bureau of Vital Statistics. Participating EDs (n=204), FSEDs (n=95) and UCs (n=91) electronically transmit visit data into ESSENCE-FL daily or hourly.

Percentages are calculated as the proportion of ED and FSED visits to participating facilities that include the specific pathogen (see query descriptions below) over the total number visits with a discharge diagnosis available for that week. Facilities are continually onboarded in ESSENCE-FL meaning the denominator updates with the most available data by influenza season.

For pneumonia and influenza (P&I) mortality surveillance, death record literal cause of death is queried using a free-text query that searches for P&I deaths as listed on the death certificate. Deaths counts are aggregated and presented by date of death.

For RSV mortality surveillance, death record literals are queried using a free-text query that searches for indications of RSV on death certificates. Any mention of RSV, syncytial and bronchiolitis in the death certificate literals is counted as a RSV death. These deaths are also investigated to ensure they meet the case definition.

### Query Descriptions:

ILI: Chief complaints that include the words “influenza” or “flu.” Also searches for the words “fever” and (“cough” or “sore throat”). Defined syndrome within ESSENCE-FL.

Influenza: Discharge diagnosis history that includes “influenza” or influenza related ICD-10 codes ([www.icd10data.com/](http://www.icd10data.com/)). Includes exclusions for vaccination, parainfluenza, and *haemophilus influenzae*. Florida developed query.

RSV: Discharge diagnosis history that includes “RSV”, “bronchiolitis” or “syncytial” or RSV related ICD-10 codes. Florida developed query.

COVID-19: Discharge diagnosis that includes COVID-19 related ICD-10 codes. CDC developed query.

## **Florida ILINet** Data source for figure 9

ILINet is a nationwide surveillance system composed of sentinel providers, predominately outpatient health care providers. Florida has 118 sentinel providers enrolled in ILINet who submit weekly influenza-like illness (ILI) and total visit counts, as well as submit ILI specimens to the Bureau of Public Health Laboratories for virologic surveillance. For health care providers interested in enrolling in ILINet, contact your local county health department.

## **County Influenza Activity in EpiGateway** Data source for figure 1 and 2

County health department (CHD) epidemiologists report their county’s influenza and ILI surveillance data weekly into The Florida Department of Health’s EpiGateway website. Data from these reports is used to classify influenza activity as: no activity, mild, moderate or elevated. Setting-specific influenza activity and influenza trend information is also reported by CHDs as available. EpiGateway data provided by CHDs creates a county-by-county breakdown of influenza and ILI activity around the state.

## **Laboratory Viral Respiratory Surveillance** Data source for figures 10 and 31

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

## **Outbreak Reporting in Merlin** Data source for figures 11–14, 32–34; table 1 and 2

Outbreak investigations are tracked in Merlin (Florida’s reportable disease surveillance system) by investigating CHDs. Outbreak reports include implicated viruses or bacteria, the outbreak setting and recommendations made to mitigate the spread of disease (among other data elements). All outbreak data are considered preliminary and subject to change. As such, outbreak counts may increase or decrease as additional information is received.

- ILI outbreaks in facilities serving adults aged ≥65 years (assisted living facilities, nursing facilities and long-term care facilities) are defined as two or more individuals with ILI (fever and cough or fever and sore throat in the absence of positive laboratory results). ILI outbreaks in facilities serving children (primary/secondary schools and child daycares) are defined as three or more epidemiologically linked individuals with ILI.
- Influenza-associated outbreaks in facilities serving adults aged ≥65 years are defined as two or more individuals with respiratory symptoms, where at least one individual tests positive for influenza. Influenza-associated outbreaks in facilities serving children are defined as three or more epidemiologically linked individuals with respiratory symptoms, where at least one individual tests positive for influenza. Testing may be conducted by the Bureau of Public Health Laboratories (BPHL), commercial laboratories, hospitals or private health care providers.
- RSV-associated outbreaks in facilities serving adults aged ≥65 years are defined as two or more individuals with respiratory symptoms, where at least one individual tests positive for RSV. RSV-associated outbreaks in facilities serving children are defined as three or more epidemiologically linked individuals with respiratory symptoms, where at least one individual tests positive for RSV. Testing may be conducted by BPHL, commercial laboratories, hospitals or private health care providers.
- Notable outbreaks include influenza-associated, RSV-associated or ILI outbreaks in any setting with 30 or more cases, or one or more cases who died. Outbreaks with COVID-19 identified as an additional etiology to influenza or RSV are also included as notable.
- Household clusters are not counted as outbreaks.

Continued on next page.

# Summary of Included Surveillance Systems Continued

**Bureau of Public Health Laboratories (BPHL)** Data source for figures 15, 16, and 35–38.

BPHL performs testing and subtyping on surveillance specimens from sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations and medical examiners. Sentinel providers include both ILINet and Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) providers. Some laboratories also routinely submit pre-screened influenza-positive specimens for testing at BPHL for surveillance purposes.

**Case-Based Influenza Surveillance** Data source for figures 26 and 27

Death in a child whose laboratory-confirmed influenza infection has been identified as a contributing to the child's death is a reportable condition in Florida. Influenza-associated pediatric deaths are documented by CHDs in Merlin.

In addition, an individual of any age suspected as being infected with non-seasonal or pandemic influenza A is reportable condition in Florida. Such cases are referred to as cases of 'novel influenza A.' Novel influenza A cases are documented by CHDs in Merlin.

For more information about reportable diseases and conditions, please visit [FloridaHealth.gov/DiseaseReporting](https://www.floridahealth.gov/disease-reporting).