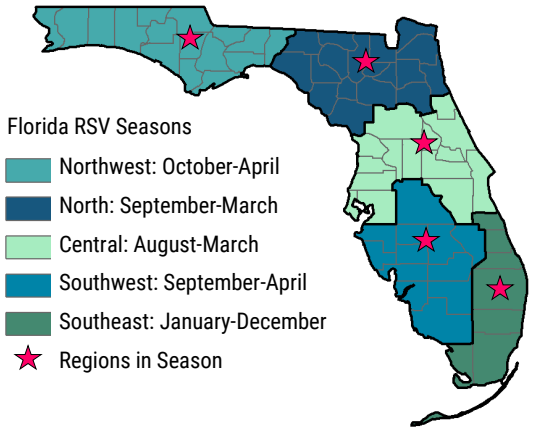
# Respiratory Syncytial Virus Surveillance

## 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.




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

## 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 29). **Currently, all of Florida's regions are in RSV season.**

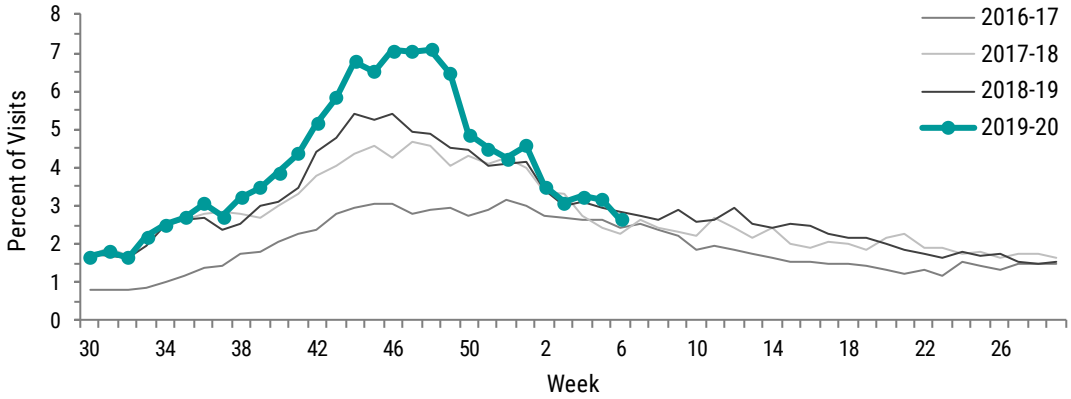
To learn more about RSV in Florida, please visit: FloridaHealth.gov/RSV.

## Week 6 (January 26-February 1, 2020) Activity Summary

**In week 6, RSV activity in children <5 years decreased and was similar to levels observed at this time in 2019.**

One new RSV-associated outbreak was reported in a Pinellas County child daycare. A total of nine RSV-associated outbreaks have been reported since week 30, 2019 (beginning on July 27, 2019).

Figure 30: In week 6, **the percent of emergency department and urgent care center visits for RSV among children <5 years decreased** and was similar to levels observed at this time in past seasons.



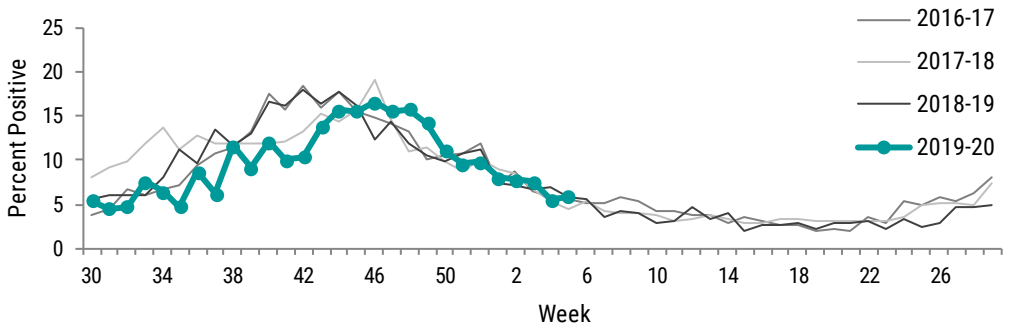

◀ **Figure 30** shows **the percent of emergency department and urgent care center visits with discharge diagnoses that include RSV or RSV-associated illness among children <5 years***, as reported in ESSENCE-FL, week 30, 2016 to week 6, 2020.

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

# RSV Surveillance

Figure 31: In week 6, **the percent of specimens testing positive for RSV increased.** Levels were similar to those observed at this time in previous seasons.

**Figure 31** shows **the percent of specimens testing positive for respiratory syncytial virus (RSV)**, as reported by hospital laboratories (n=7), week 30, 2016 to week 6, 2020. ▶



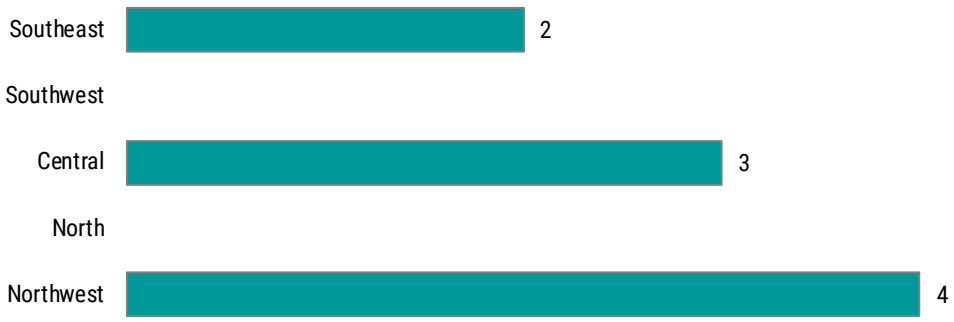

RSV-Associated Outbreaks in Week 6:

## 1 Outbreak

**Summary of RSV-Associated Outbreaks:**

In week 6, one new RSV-associated outbreaks was reported. Since week 30, 2019, nine RSV-associated outbreaks have been reported.

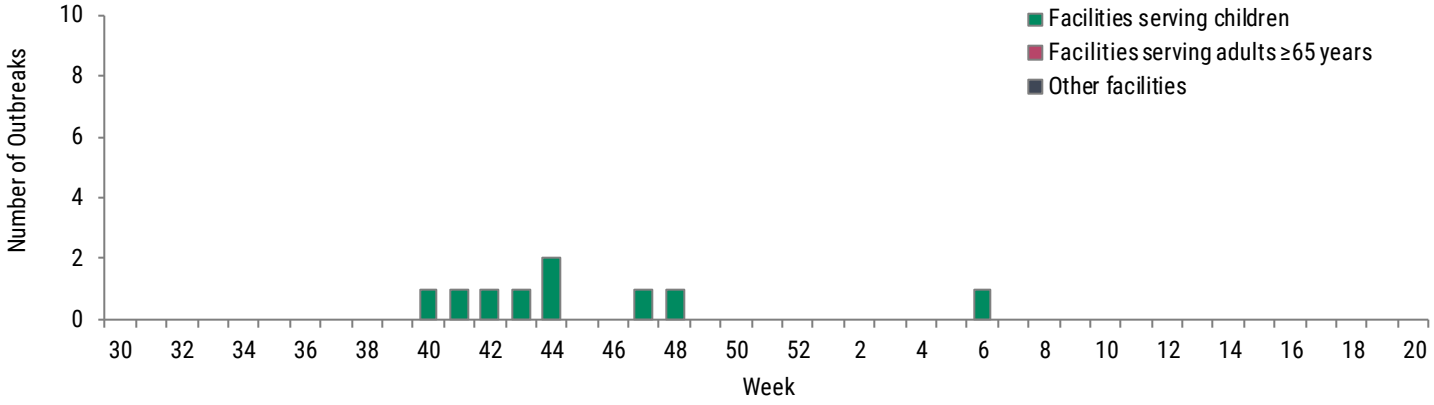
Figure 32: In week 6, **one new RSV-associated outbreak** was reported in Florida's central region. Since week 30, outbreaks have been reported in Florida's southeast, central, and northwest regions.




◀ **Figure 32** shows **a summary of RSV-associated outbreaks by region*** as reported by county health departments in Merlin, week 30, 2019 to week 6, 2020.

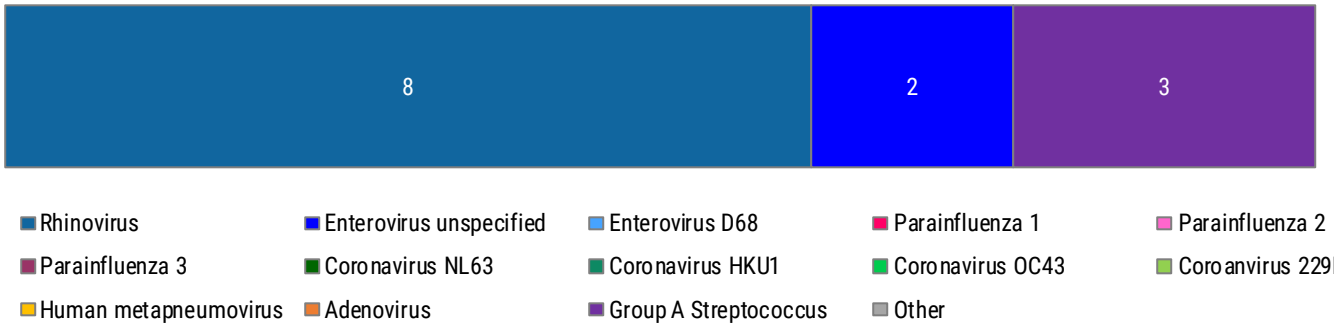
*Regions defined in figure 29.

Figure 33: In week 6, one new RSV-associated outbreaks was reported in a **facility serving children.** All of the outbreaks reported since week 30 have been reported in **facilities serving children.**

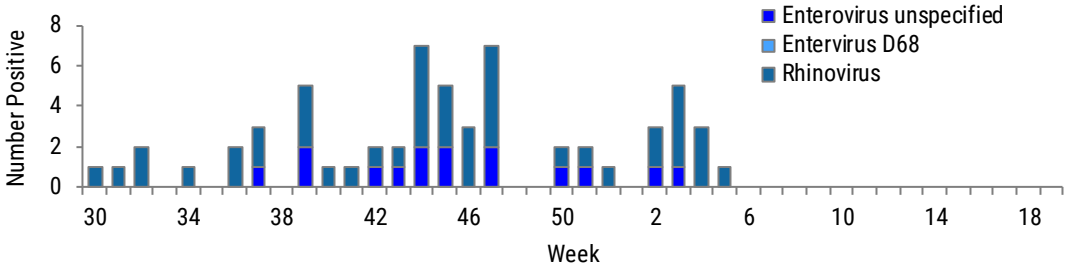



▲ **Figure 33** shows **the number of RSV-associated outbreaks by setting and week** as reported by county health departments in Merlin, week 30, 2019 to week 6, 2020.

# Other Respiratory Virus Surveillance

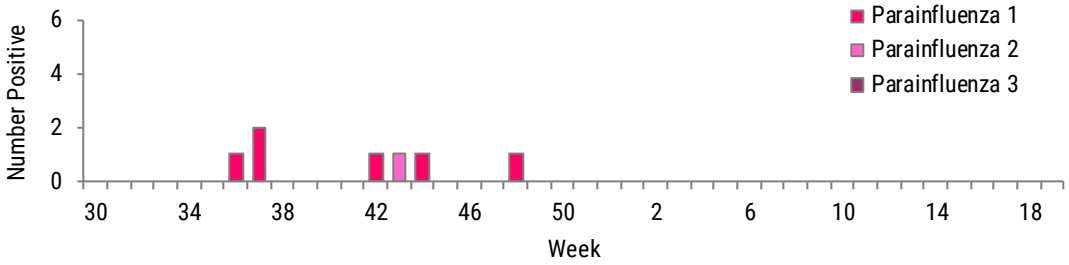


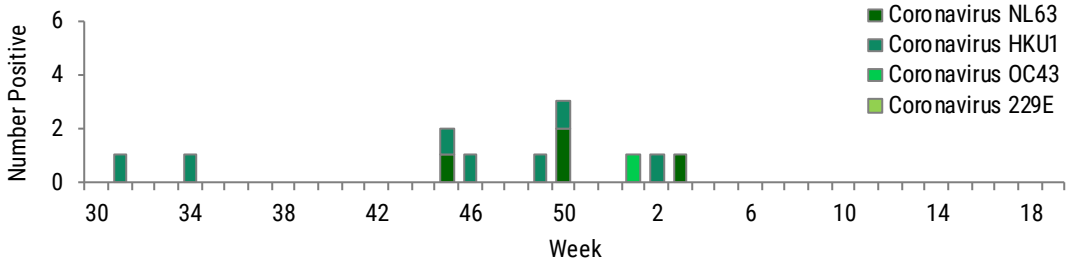

▲ **Figure 34** shows **the number of unique times a pathogen was associated with a respiratory outbreak** for outbreaks reported from week 30, 2019 to week 6, 2020.




◀ **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.

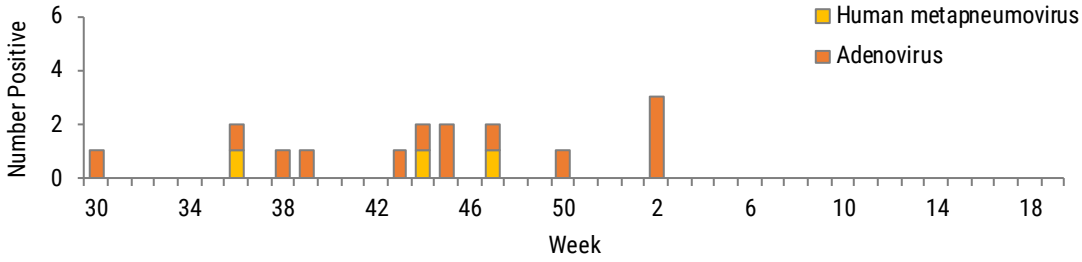
**Figure 36*** shows **the ▶ number of PCR-positive laboratory findings for parainfluenza 1-3** by week** among specimens submitted to BPHL for extended respiratory panel testing.




◀ **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 34-38 include results for specimens submitted by Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) 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 6, 2020**

| Setting | County | Number of Cases | Number of Cases Hospitalized | Number of Cases Died | Outbreak Etiology | Control Measures Recommended to Facility Leadership | Investigation Status |
|---|---|---|---|---|---|---|---|
| Primary or secondary school | Pinellas | 107 | Unknown | Unknown | Unknown | Unknown | Open |
| Correctional facility | Walton | 60 | 0 | 0 | Influenza A unspecified | Yes | Open |
| Correctional facility | Martin | 55 | 0 | 0 | Influenza A 2009 (H1N1) | Yes | Open |
| Primary or secondary school | Lee | 36 | 0 | 0 | Unknown | Unknown | Open |
| Correctional facility | Liberty | 31 | Unknown | 0 | Influenza A 2009 (H1N1) | Yes | Open |
| Nursing facility | Monroe | 5 | 2 | Unknown | Influenza A unspecified and influenza B unspecified | Unknown | Open |
| Assisted living facility | Nassau | 5 | 2 | Unknown | Unknown | Yes | Open |

*For the purposes of this report, notable outbreaks are defined as influenza-associated, RSV-associated, or ILI outbreaks with two or more hospitalizations, one or more deaths, or 30 or more cases. 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 1, 4, 16-24, 27, 28, 30

Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) measures trends in influenza-like illness (ILI) visits from emergency departments (ED) and urgent care clinics (UCC) and influenza mortality by using death certificates from the Bureau of Vital Statistics. Participating EDs and UCCs (n=368) electronically transmit visit data into ESSENCE-FL daily or hourly.

For statewide and regional data on ILI, visits are counted as ED or UCC visits to participating facilities that include the words "influenza" or "flu" in patient chief complaints. Chief complaints with the words "fever" and "cough," or "fever" and "sore throat" are also counted as ILI.

For pneumonia and influenza (P&I) mortality surveillance, death record literals are queried using a free-text query that searches for references to P&I on death certificates. Any mention of P&I in the death certificate literals, with certain exceptions, is counted as a P&I death. Deaths counts are aggregated and presented by date of death.

For respiratory syncytial virus (RSV) surveillance, visits are counted as ED or UCC visits to participating facilities for which RSV or RSV-associated illness is included in the discharge diagnosis.

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

**Florida ILINet** Data source for figures 2 and 3

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 ILI and total visit counts, as well as submit ILI specimens to the Bureau of Public Health Laboratories for virologic surveillance. For healthcare providers interested in enrolling in ILINet, contact your local county health department.

ILINet is also used as a portal in which the Florida Department of Health reports Florida's geographic spread of influenza each week to the Centers for Disease Control and Prevention (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 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.

**County Influenza Activity in EpiGateway** Data source for figure 5 and 6

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 7 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 8-13, 32-34; tables 1 and 2

Outbreak investigations are tracked in Merlin (Florida's reportable disease surveillance system) by investigating county health departments. 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.

Continued on next page.

# Summary of Included Surveillance Systems Continued

- 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, two or more hospitalized cases, or one or more cases who died.
- Household clusters are not counted as outbreaks.

**Bureau of Public Health Laboratories (BPHL)** Data source for figures 14, 15, 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 25 and 26

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 county health departments 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 county health departments in Merlin.

For more information about reportable diseases and conditions, please visit FloridaHealth.gov/DiseaseReporting.