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 preapproval 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 RSV Seasons

- Northwest: October-April
- North: September-March
- Central: August-March
- Southwest: September-April
- Southeast: January-December
- ★ Regions in Season

▲ **Figure 27** shows **Florida's RSV regional season breakdown.** Regions that are currently in RSV season are marked with **orange stars**.

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 27). **Currently, one of Florida's regions is in RSV season.**

To learn more about RSV in Florida, please visit: FloridaHealth.gov/RSV.
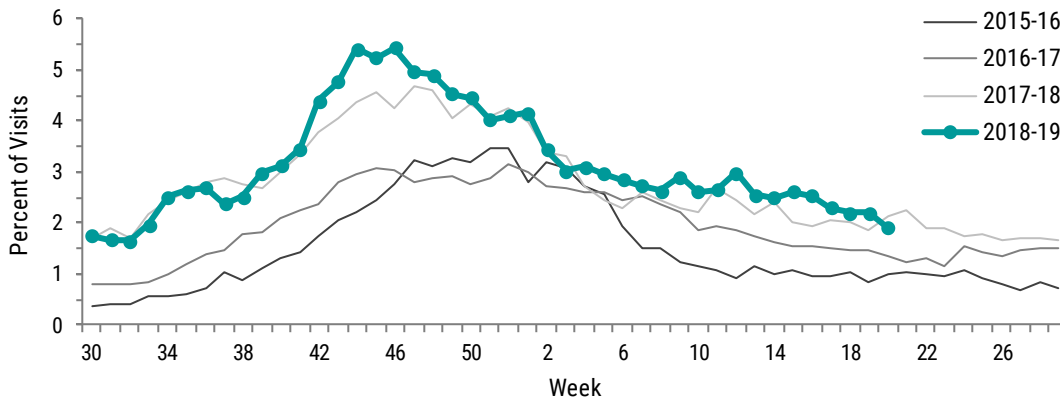
Week 20 (May 12-18, 2019) Activity Summary

In week 20, RSV activity in children <5 years old decreased. Levels were within those observed at this time in previous years.
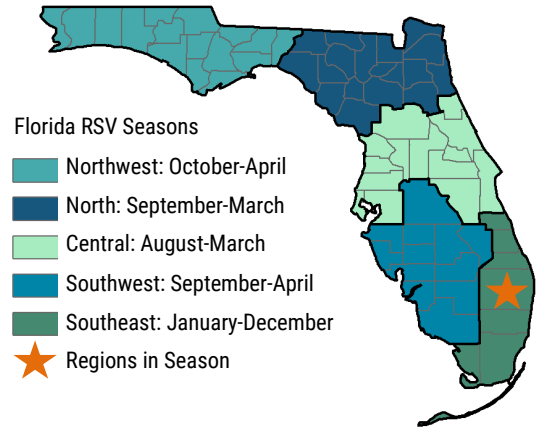
No new possible RSV-associated pediatric deaths were identified in week 20. One possible RSV-associated pediatric death has been identified so far in 2019.

No new outbreaks of RSV were reported in week 20. A total of 11 outbreaks of RSV have been reported since October 2018.

Figure 28: In week 20, **the percent of emergency department and urgent care center visits for RSV among children <5 years** **decreased.** Levels were within those observed at this time in previous years.

◄ **Figure 28** 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 years***, as reported in ESSENCE-FL, week 30, 2015 to week 20, 2019.

*The overall trend displayed in Figure 28 has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

RSV & Other Respiratory Virus Surveillance

Figure 29: In week 20, **the percent of specimens testing positive for RSV** increased. Levels were similar to those observed at this time in previous years.

Figure 29 shows **the percent of specimens testing positive for respiratory syncytial virus (RSV)**, as reported by hospital laboratories (n=7), week 30, 2015 to week 20, 2019. ▶
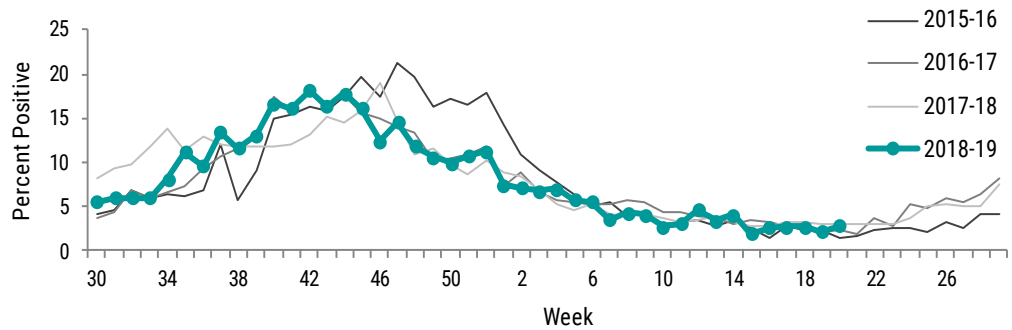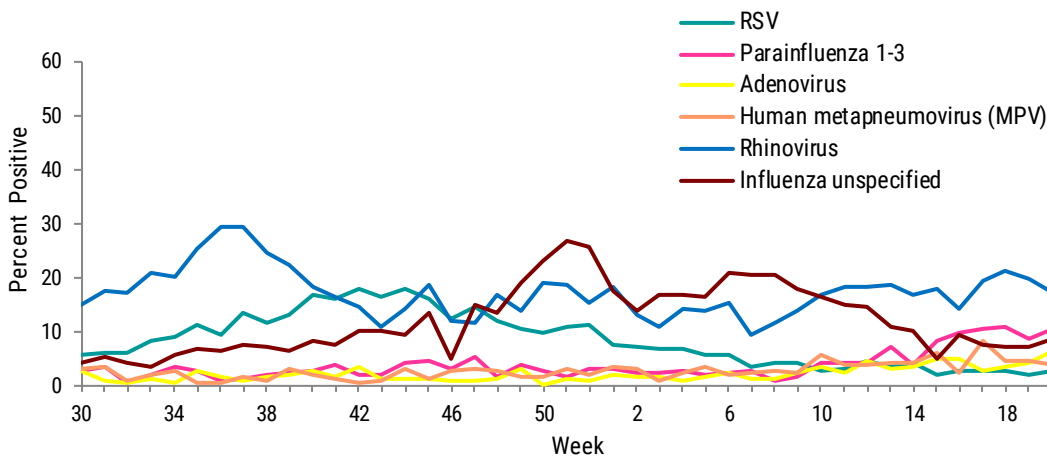

Figure 30: In week 20, the **percent of specimens testing positive for rhinovirus** decreased but remained higher than other respiratory viruses under surveillance.

◄ **Figure 30** shows **the percent of laboratory results testing positive for eight common respiratory viruses**, as reported by laboratories participating in the National Respiratory and Enteric Virus Surveillance System (NRVESS) and laboratories reporting validated respiratory virus data to the Florida Department of Health via electronic laboratory reporting (n=7), week 30, 2018 to week 20, 2019.

Figure 31: Thus far, **MPV** was detected by PCR among specimens collected by ARIES providers in week 19 at BPHL.

Figure 31 shows **the number of specimens submitted by Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) providers (n=4) testing positive for 12 common respiratory viruses** as reported by the Bureau of Public Health Laboratories (BPHL), week 30, 2018 to week 19, 2019 (ending May 11, 2019). ▶
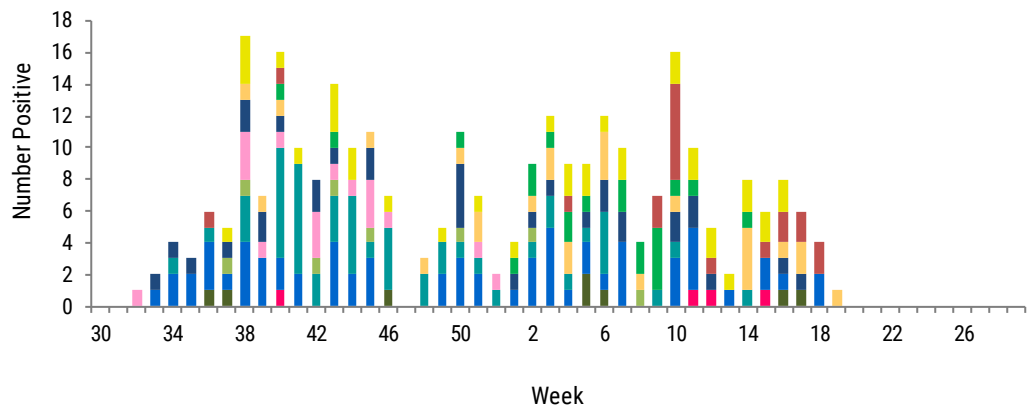
Note: The most recent data available are displayed here. Laboratory results for submitted specimens that have not yet been tested in full will be included in future reports.

Florida ILI Surveillance System Summary

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal Data source for figures 1, 4, 12-20, 23, 24, and 28

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=346) 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).

County Influenza Activity in EpiGateway Data source for figure 5-7

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.

Outbreak Reporting in Merlin Data source for figures 8, 9, 25, and 26; tables 3 and 4

Merlin tracks respiratory outbreak investigations by CHDs. Reports by CHDs include the type of respiratory disease causing the outbreak, settings where outbreaks are occurring, and recommendations made to mitigate the spread of disease. CHD epidemiologists report outbreaks of respiratory disease into Merlin, Florida's reportable disease surveillance system.

For this report, outbreaks in assisted living facilities, nursing facilities, and long-term care facilities are defined as two or more cases of influenza, ILI, or acute respiratory illness (ARI). In schools/camps and child daycares, outbreaks are defined as three or more epidemiologically linked cases of influenza or ILI. The Florida Department of Health does not count household clusters as outbreaks.

Bureau of Public Health Laboratories (BPHL) Data source for figure 10 and table 1

BPHL performs testing and subtyping on surveillance specimens from sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations, and medical examiners.

United States World Health Organization Collaborating Laboratories Influenza Virus Surveillance Data source for figure 11; table 2

The United States World Health Organization Collaborating Laboratories Influenza Virus Surveillance is a system that captures antigenic characterizations results for specimens submitted by BPHL to CDC for testing.

Case-Based Influenza Surveillance Data source for figures 21 and 22

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

In addition, an individual of any age infected with novel or pandemic influenza strain(s) is reportable in Florida. Pandemic strain influenza cases are documented by CHDs in Merlin.

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

Laboratory Viral Respiratory Surveillance Data source for figures 29 and 30

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.

Acute Respiratory Infection Epidemiology and Surveillance (ARIES) Program Data source for figure 31

Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) is a nationwide surveillance system composed of 17 participating jurisdictions. Florida has four sentinel providers enrolled in ARIES who submit weekly ILI counts, as well as submit ILI specimens to BPHL for testing.