



# Section 6: Respiratory Syncytial Virus (RSV)



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### **Key Points for RSV**



Overall RSV activity in Florida typically peaks between November and January.



RSV activity varies by region; southeast Florida has a year-round season.



RSV in children <5 years old was higher in 2017–18 season than previous three seasons.



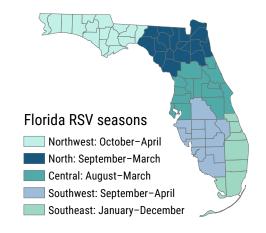
RSV surveillance data indicated peak activity in mid-November for 2017–18

### **Background**

Respiratory syncytial virus (RSV) is a common respiratory virus that primarily infects young children. Children <5 years old and older adults are at increased risk of hospitalization for complications due to RSV infection. An estimated 57,000 children in the U.S. will be hospitalized within their first 5 years of life due to RSV infection. RSV infection is the most common cause of bronchiolitis (inflammation of small airways in the lungs) and pneumonia in infants <1 year old.

In the U.S., RSV activity is most common during the fall, winter, and spring months, though activity varies in timing and duration regionally. RSV activity in Florida typically peaks between November and January, with an overall decrease in activity during the summer months. Although summer months typically have less RSV activity overall, RSV season in southeast Florida is considered year-round based on laboratory data.

The Florida Department of Health established regular RSV seasons based on the first two consecutive weeks during which the average percent of specimens that test positive for RSV at hospital laboratories is 10% or higher. Southeast Florida's season is yearround.



#### **Disease Facts**



Caused by respiratory syncytial virus



**Illness** is respiratory, including fever, cough, and runny nose; can cause severe symptoms like wheezing or difficulty breathing, especially in children with underlying health conditions



**Transmitted** person-to-person by direct contact with respiratory droplets from nose or throat of infected person



**Under surveillance** to support clinical decision-making for prophylaxis of at-risk children

The determination of unique seasonal and geographic trends of RSV activity has important implications for prescribing patterns for initiating prophylaxis in children considered at high risk for complications due to RSV infection. The 2018 American Academy of Pediatrics *Red Book* currently recommends that preapproval for prophylactic treatment for these children be made based on state surveillance data. This recommendation, in conjunction with Florida's unique RSV seasons, led to the implementation of statewide surveillance for RSV to support clinical decision-making for prophylaxis of at-risk children. Palivizumab is an antibody used as prophylaxis to reduce the risk of RSV infection, but it is not a treatment for current infection. Palivizumab is administered in five monthly doses and provides protection for six months, beginning at the time of the first administered dose. The timing of RSV season in Florida influences the timing of palivizumab administration and the pre-approval of prophylactic treatment, underscoring the importance of RSV surveillance in Florida.

Florida's syndromic surveillance system, ESSENCE-FL, collects chief complaint and discharge diagnosis data from 331 emergency departments (EDs) and urgent care centers (UCCs). These data are used to monitor trends in visits to EDs and UCCs where RSV or RSV-associated illness is included in the discharge diagnosis. The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a voluntary, laboratory-based surveillance system through which participating laboratories report RSV test results. Data from NREVSS and validated electronic laboratory reporting data are also used to monitor temporal patterns of RSV.

Florida produces a weekly RSV report as part of a larger respiratory disease report during the influenza season (October through May) and a biweekly report during the other months that summarizes RSV surveillance data. These reports are available at FloridaHealth.gov/RSV.

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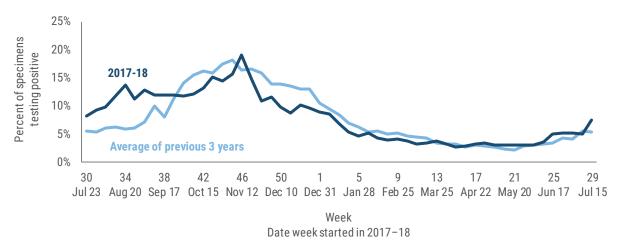
## **General Trends**

During the 2017–18 RSV season in Florida, the percent of children <5 years old diagnosed with RSV at emergency department and urgent care centers in ESSENCE-FL increased from October to January and peaked in mid-November. The percent for 2017–18 season was greater than the average of the previous three seasons every week.



Week
Date week started in 2017-18

Laboratory surveillance data for RSV (percent of specimens testing positive for RSV) also peaked in November. Laboratory data include results for people of all ages, whereas the emergency department and urgent care center RSV diagnosis data are limited to children <5 years old. This likely accounts for the difference in patterns observed between these two data sources.



The RSV reporting year is defined by standard reporting weeks as outlined by the Centers for Disease Control and Prevention, where every year has either 52 or 53 reporting weeks; there were 52 weeks in 2017. In Florida, surveillance for RSV is conducted year-round, beginning in week 30 (July 23, 2017) and ending in week 29 of the following year (July 21, 2018).

#### References

Centers for Disease Control and Prevention. RSV in Infants and Young Children. www.cdc.gov/rsv/high-risk/infants-young-children.html. Accessed September 28, 2018.

American Academy of Pediatrics. Respiratory Syncytial Virus. In: Kimberlin DW, Brady MT, Jackson MA, Long SS, eds. Red Book: 2018 Report of the Committee on Infectious Diseases. 31st ed. Itasca, IL: American Academy of Pediatrics; 2018:682-692.