

# Section 5

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## Non-Reportable Diseases and Conditions of Significance



# Section 5: Non-Reportable Diseases and Conditions

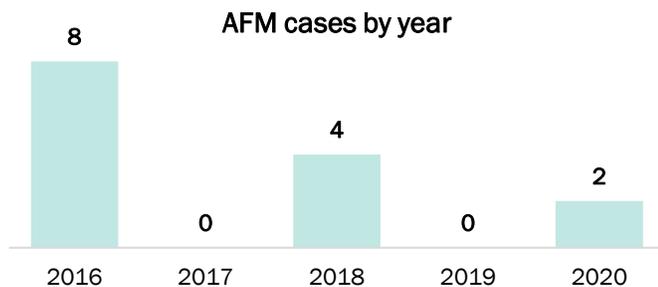
## Acute Flaccid Myelitis

### Background

Acute flaccid myelitis (AFM) is characterized by rapid onset of flaccid weakness in one or more limbs and distinct abnormalities of the spinal cord gray matter on magnetic resonance imaging. AFM is a subtype of acute flaccid paralysis (AFP), which includes paralytic poliomyelitis, acute transverse myelitis, Guillain-Barré syndrome and muscle disorders. More than 90% of AFM cases classified at the national level by the Centers for Disease Control and Prevention (CDC) had a mild respiratory illness or fever consistent with a viral infection before the onset of limb weakness.

### Surveillance

Florida has conducted enhanced surveillance for AFM since 2014 when an increase in cases was noted. Surveillance was established in 2015 to monitor this syndrome after the Council of State and Territorial Epidemiologists adopted a standardized case definition. Hospitals report potential persons under investigation (PUIs) to their county health departments, who notify the state health department. Medical records are reviewed at the state health department by a physician and forwarded to the CDC for classification if there is no alternate diagnosis and if disease presentation is consistent with AFM. Due to the complexity of the syndrome, AFM PUIs are reviewed and classified by an expert panel of neurologists at the CDC.



### Laboratory Testing

When specimens are available, enterovirus testing is performed for AFM PUIs at the Florida Department of Health's Bureau of Public Health Laboratories, the CDC and through the individual's provider. Of the 14 AFM cases from 2016–2020, enterovirus testing was completed on 12 cases. Of the 12 cases tested, 3 were positive for enteroviruses. Although AFM PUI specimens are tested for enteroviruses, to date there are no confirmed causal links between enteroviruses and AFM.

### Disease Facts

-  **Causes** remain largely unknown although it is thought to be caused by infections with different types of viruses, including enteroviruses
-  **Neurologic syndrome** with sudden onset of arm or leg weakness, loss of muscle tone and loss of reflexes
-  **Transmission** can be viral and more than 90% of patients have mild respiratory symptoms or fever prior to AFM
-  **Under surveillance** to detect increases in this condition, better define the etiologic agent(s) and pathogenesis and improve tracking of local and national trends

Summary	2016–2020
Number of cases	14
5-year trend	
Case Classification	
Confirmed	12
Probable*	2
Sex	
Male	7
Female	7
Unknown	0
Race	
White	9
Black	4
Other	1
Ethnicity	
Non-Hispanic	10
Hispanic	3
Unknown	1

\*Probable case classification first implemented in 2017

For more information on AFM, visit the CDC's AFM Web page at [cdc.gov/acute-flaccid-myelitis/index.html](https://cdc.gov/acute-flaccid-myelitis/index.html). For national case data, visit [cdc.gov/acute-flaccid-myelitis/cases-in-us.html](https://cdc.gov/acute-flaccid-myelitis/cases-in-us.html).

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## Multisystem Inflammatory Syndrome In Children

### Background

Multisystem inflammatory syndrome in children (MIS-C) is a rare and serious condition temporally associated with COVID-19 in persons <21 years old. MIS-C can cause inflammation of multiple body parts including heart, lungs, kidneys, brain, skin, eyes and gastrointestinal organs. Some of the most common symptoms of MIS-C include fever, rash, diarrhea, vomiting, bloodshot eyes, stomach pain and dizziness.

MIS-C was first described in 2020 and represents a severe or mild complication of COVID-19 in children and adolescents. The exact cause of MIS-C is currently unknown, but children who develop MIS-C have had an exposure to COVID-19 within the four weeks prior to the onset of symptoms. MIS-C is not transmissible, but preventive measures must be taken in order to prevent the spread of the virus that causes COVID-19 if the child is currently infected with the virus.

### Surveillance

The Florida Department of Health has been conducting regular surveillance of MIS-C cases as of May 2020. Since then, health care providers have been reporting MIS-C cases to the county health departments along with medical records to document each element of the case definition. Medical records are reviewed at the state health department to determine if the case meets this definition. Once MIS-C case status is determined, a note is entered in the case to document the findings. During May 2020–September 2021, **138 MIS-C cases** were reported to the Florida Department of Health.

### Disease Facts



**Cause** unknown, but possible linked to previous exposure to COVID-19



**Illness** is an inflammatory syndrome, including fever, rash, diarrhea, vomiting, bloodshot eyes, stomach pain, dizziness



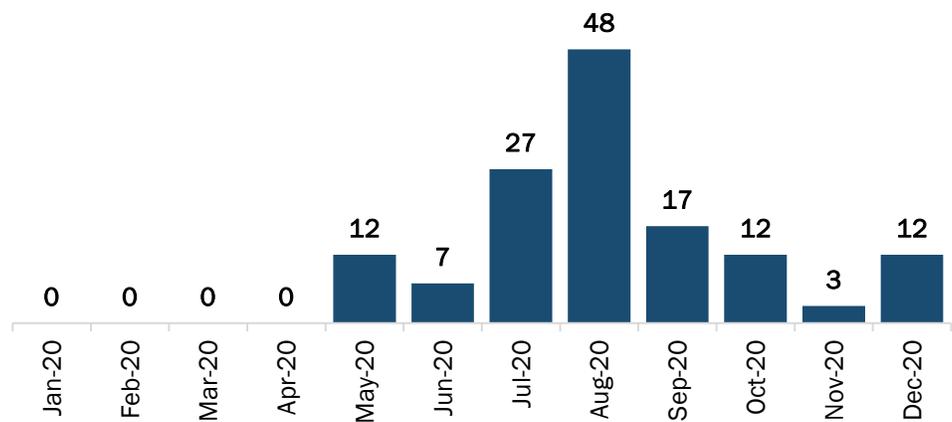
**Transmitted** MIS-C is not transmissible



**Under surveillance** to detect confirmed and presumptive cases of MIS-C, detect deaths, understand disease trends related to seasonal patterns and specified populations; determine the onset, peak, and wane of MIS-C cases, assist with MIS-C prevention

Gender	Cases
Male	78
Female	60
Race	Cases
White	59
Black	59
Other	15
Unknown	5
Ethnicity	Cases
Non-Hispanic	78
Hispanic	58
Unknown	2

Total cases by month



# Section 5: Non-Reportable Diseases and Conditions

## Influenza and Influenza-Like Illness

### Background

Influenza activity can vary widely from season to season, underscoring the importance of robust influenza surveillance. Influenza causes an estimated 9.3–49 million illnesses annually in the U.S., with 140,00–960,000 of those resulting in hospitalization and 12,000–79,000 resulting in death.

### Surveillance

The Florida Department of Health conducts regular surveillance of influenza and influenza-like illness (ILI) using a variety of surveillance systems, including laboratory-based surveillance and syndromic surveillance. Florida’s syndromic surveillance system, ESSENCE-FL, collects chief complaint and discharge diagnosis data from emergency departments, free-standing emergency departments and urgent care centers. Individual cases of influenza are not reportable in Florida, except for novel influenza (a new subtype of influenza) and influenza-associated pediatric deaths. All outbreaks, including those due to influenza or ILI, are reportable in Florida.

The COVID-19 pandemic affected health care-seeking behavior for the latter part of the 2019–20 influenza season and during the entire 2020–21 season, which may have impacted ILI and influenza activity trends used to conduct surveillance for influenza/ILI during the season. An overall reduction in the number of emergency department and urgent care center visits was observed beginning in March 2020, along with changes in the reasons for seeking care at these facilities. Due to this fact, surveillance methods for influenza and ILI were updated in an effort to distinguish between influenza and ILI and COVID-19.

### Data

During the 2019–20 season, early influenza circulation was predominantly influenza B Victoria lineage, but a switch was observed in December 2019 to influenza A 2009 (H1N1), which became the predominant strain circulating for the rest of the season. During the 2020–21 season, influenza activity remained low throughout, and no predominant strain was determined.

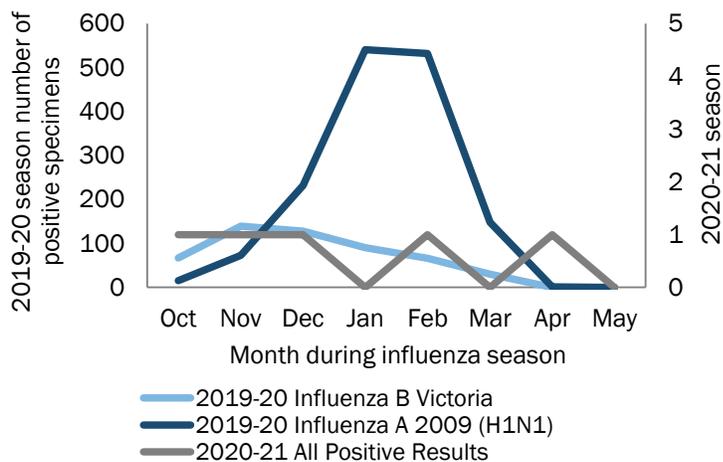
2010–11 Season	2011–12 Season	2012–13 Season
2013–14 Season	2014–15 Season	2015–16 Season
2016–17 Season	2017–18 Season	2018–19 Season
2019–20 Season	2020–21 Season	

- Influenza A (H3)
- Influenza A 2009 (H1N1)
- Influenza A (H3) & 2009 (H1N1)
- Unknown

### Disease Facts

- Caused** by influenza viruses
- Illness** is respiratory, including fever, cough, sore throat, runny or stuffy nose, muscle/body aches, headache, fatigue
- Transmitted** person-to-person by direct contact with respiratory droplets from nose or throat of infected person
- Monitored** to detect changes in influenza virus to inform vaccine composition, identify unusually severe presentations of influenza, detect outbreaks, and determine the onset, peak and wane of the influenza season to assist with influenza prevention

**Two notable waves in influenza activity were observed in Florida during the 2019–20 season:** influenza B Victoria circulated October to January and influenza A 2009 (H1N1) circulated from December through the start of the COVID-19 pandemic in March 2020. During the 2020–21 season, there were minimal influenza positive specimens overall.



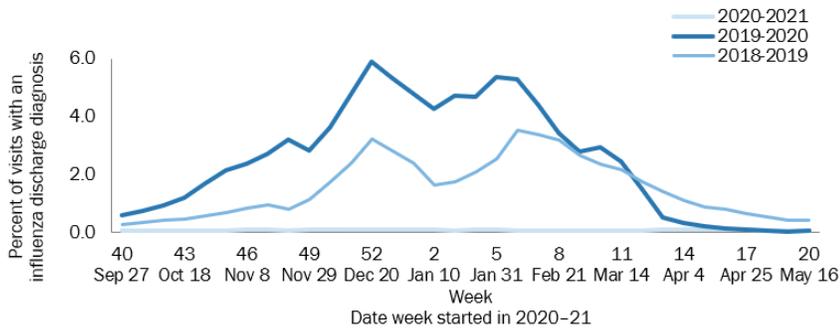
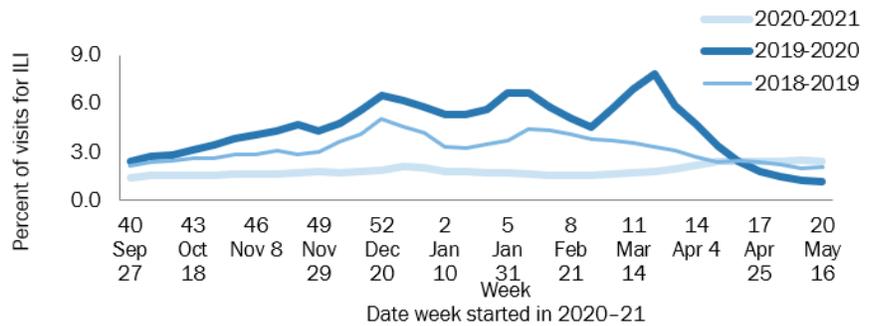
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A predominant strain is typically identified during most influenza seasons; during the 2019–20 season in Florida, influenza A 2009 (H1N1) virus circulated predominantly. The COVID-19 pandemic impacted circulation of influenza viruses and no predominant strain was determined for the 2020–21 season. Below, these seasons are compared to the 2018–19 season, which had nearly equal circulation of influenza A (H3) and influenza A 2009 (H1N1) viruses.

Influenza activity is typically monitored using ILI, which is predominantly symptom-based and the most timely data available in ESSENCE-FL. In March 2020, surveillance was updated to include discharge diagnoses data for influenza. These data lag in the system for up to 10 days but are more indicative of an influenza infection.

**ILI activity was greatly impacted by the COVID-19 pandemic beginning in week 10, 2020 (starting March 1, 2020).**

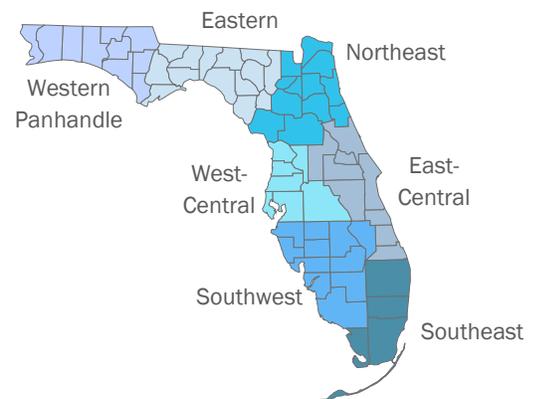
Activity increased at the end of the 2019–20 season, and was minimal with no defined seasonality through the 2020–21 season.



Health care-seeking behavior also impacted visits for all respiratory diseases. Activity was minimal throughout the 2020–21 season.

**Minimal differences within Florida’s 7 surveillance regions were observed during both the 2019–20 and 2020–21 influenza seasons.** Influenza A 2009 (H1N1) viruses predominated in 6 regions and an even split in influenza A 2009 (H1N1) and influenza B Victoria circulation was observed in the southeast region during the 2019–20 season. Due to low circulation of influenza viruses during the 2020–21 season, no predominant circulating strain or peak activity was observed in any region.

Region	2019–20 Predominant strain	2019–20 Peak week	2020–21 Predominant strain	2020–21 Peak week
Western Panhandle	A 2009 (H1N1)	52	Unknown	None
Eastern Panhandle	A 2009 (H1N1)	52	Unknown	None
Northeast	A 2009 (H1N1)	52	Unknown	None
West-Central	A 2009 (H1N1)	52	Unknown	None
East-Central	A 2009 (H1N1)	52	Unknown	None
Southwest	A 2009 (H1N1)	5	Unknown	None
Southeast	A 2009 (H1N1) and B Victoria	52	Unknown	None



The influenza reporting year is defined by standard weeks outlined by the Centers for Disease Control and Prevention (CDC), where every year has 52 or 53 weeks; there were 52 weeks in the 2018–19 and 2019–20 seasons, and 53 weeks in the 2020–21 season. In Florida, the influenza season begins in week 40 and ends in week 20 of the following year. The 2019–20 season began on September 29, 2019 and ended on May 16, 2020. The 2020–21 season began on September 27, 2020 and ended on May 22, 2021.

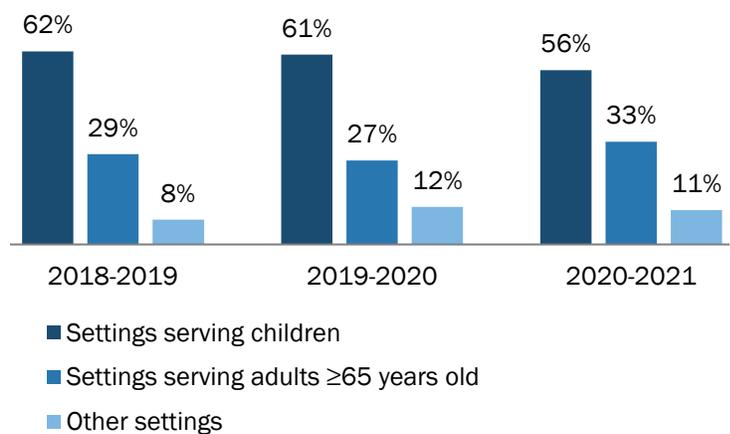
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## Outbreaks

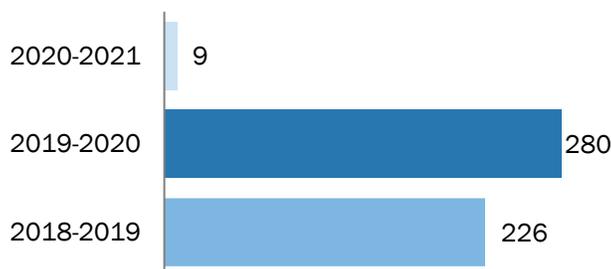
More outbreaks were reported during the 2019–20 season (280) compared to the previous season. Fewer outbreaks were reported during the 2020–21 season, as influenza activity was impacted by the COVID-19 pandemic. Outbreaks are counted if an influenza etiology is identified or the symptoms of the ill individuals within the setting include fever and cough or sore throat. The number of outbreaks reported and the types of outbreak settings vary each season and often serve as indicators of disease severity and population affected. During the previous two seasons, the majority of outbreaks were reported in facilities serving people at higher risk for complications from influenza infection (children and adults ≥65 years old), which is consistent with past seasons. Settings that serve these groups include child day cares, school/camps, assisted living facilities, nursing facilities and other long-term care facilities.

The largest proportion of the influenza or ILI outbreaks reported during the 2019–20 and 2020–21 seasons occurred in facilities serving children (61% and 56%, respectively). This is consistent with the previous season where most outbreaks were also reported in facilities serving children. Four respiratory disease outbreaks with an etiology besides influenza, COVID-19 or respiratory syncytial virus were also reported during the 2019–20 season and one during the 2020–21 season.

Percentage of outbreaks by type of setting



Number of Outbreaks



## Influenza-associated intensive care unit admissions

In response to sharp increases in influenza activity in February 2018 during the 2017–18 influenza season, the Florida Department of Health requested that hospitals report all influenza-associated intensive care unit (ICU) admissions in Florida residents aged <65 years to identify unusually severe presentations of influenza. This enhanced surveillance was continued during the 2019–20 and 2020–21 influenza seasons on an optional basis for county health departments.

Influenza season	Number of counties reporting (%)	Number influenza-associated ICU admissions reported	Number admitted with underlying medical conditions (%)	Number admitted who did not receive the current influenza vaccine, or status was unknown
2019–20	35 (52%)	302	252 (83%)	265 (88%)
2020–21	3 (4%)	4	4 (100%)	4 (100%)

## Deaths

Influenza-associated deaths in children <18 years old are reportable in Florida. In past seasons, the number of deaths reported ranged from 2 to 14. Influenza-positive specimens collected from children who die frequently go untyped, and given the small number of deaths each year, it is difficult to interpret how pediatric mortality might be affected by strain.

Influenza season	Number of deaths reported	Number with known underlying medical conditions (%)	Number who did not receive the current influenza vaccine (%)
2019–20	14	7 (50%)	11 (79%)
2020–21	0	N/A	N/A

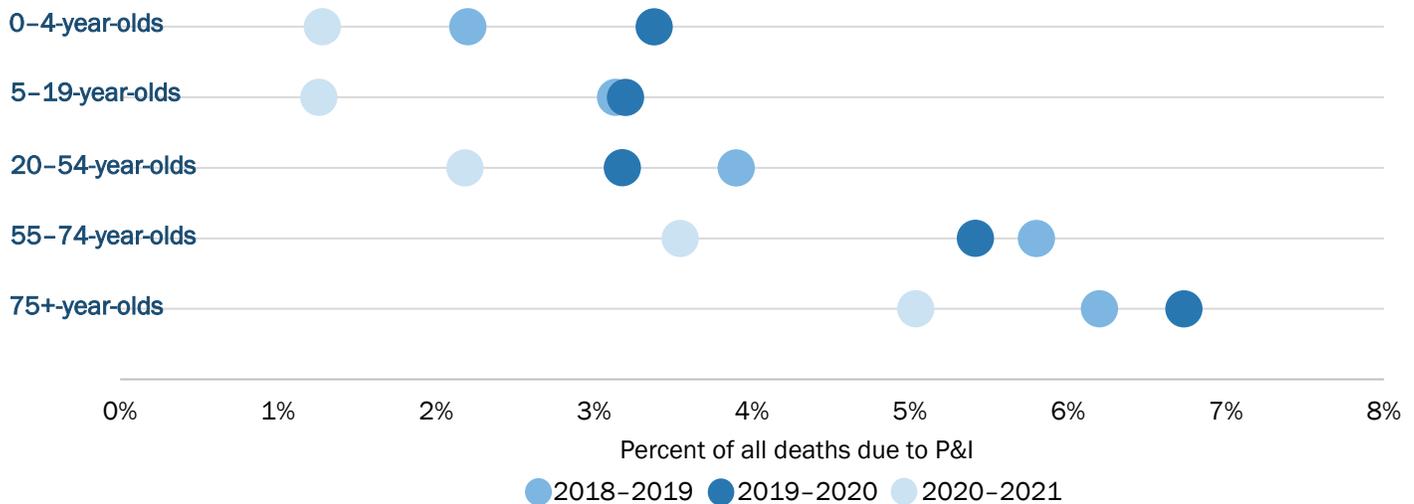
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Although not individually reportable, pneumonia and influenza (P&I) deaths in people of all ages are monitored by reviewing death certificate data. Estimating the number of deaths due to influenza is challenging because:

- Influenza is not frequently listed on the death certificates of persons who die from influenza-related complications.
- Many influenza-related deaths occur 1–2 weeks after a person’s initial infection, often due to development of secondary bacterial infection (e.g., pneumonia) or because infection aggravated an existing chronic illness (e.g., congestive heart failure, chronic obstructive pulmonary disease).
- Many people who die from influenza are never tested.

For these reasons, influenza deaths are estimated using P&I deaths. Beginning in March 2020, COVID-19 deaths impacted surveillance for P&I deaths. Deaths with COVID-19 mentioned on the death certificate are removed from P&I death counts.

During the 2019–20 influenza season, deaths due to P&I were higher than previous seasons in children and young adults (≤19 years old). During the 2020–21 influenza season, deaths due to P&I were lower in all age groups compared to previous seasons.



### References:

- Centers for Disease Control and Prevention. Disease Burden of Influenza. [cdc.gov/flu/about/burden/index.html](https://cdc.gov/flu/about/burden/index.html)  
Accessed October 16, 2021.
- Grohskopf LA, Alyanak E, Broder KR, et al. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2020–21 Influenza Season. *MMWR Recomm Rep* 2020;69(No. RR-8):1–24. DOI: <http://dx.doi.org/10.15585/mmwr.rr6908a1>
- Grohskopf LA, Alyanak E, Broder KR, Walter EB, Fry AM, Jernigan DB. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices—United States, 2019–20 Influenza Season. *MMWR Recomm Rep* 2019;68(No. RR-3):1–21. DOI: <http://dx.doi.org/10.15585/mmwr.rr6803a1>
- Xiyang X, Blanton L, Abd Elal AI, Alabi N, Barnes J, Biggerstaff M, et al. Update: Influenza activity in the United States during the 2018–19 season and composition of the 2019–20 influenza vaccine. *Morbidity and Mortality Weekly Report*. 2019; 68 (24):544–551. doi: 10.15585/mmwr.mm6824a3. Available at [cdc.gov/mmwr/volumes/68/wr/mm6824a3.htm](https://cdc.gov/mmwr/volumes/68/wr/mm6824a3.htm).

# Section 5: Non-Reportable Diseases and Conditions

## Respiratory Syncytial Virus

### 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 58,000 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.

### 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
-  **Monitored** to support clinical decision-making for prophylaxis of at-risk children

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.

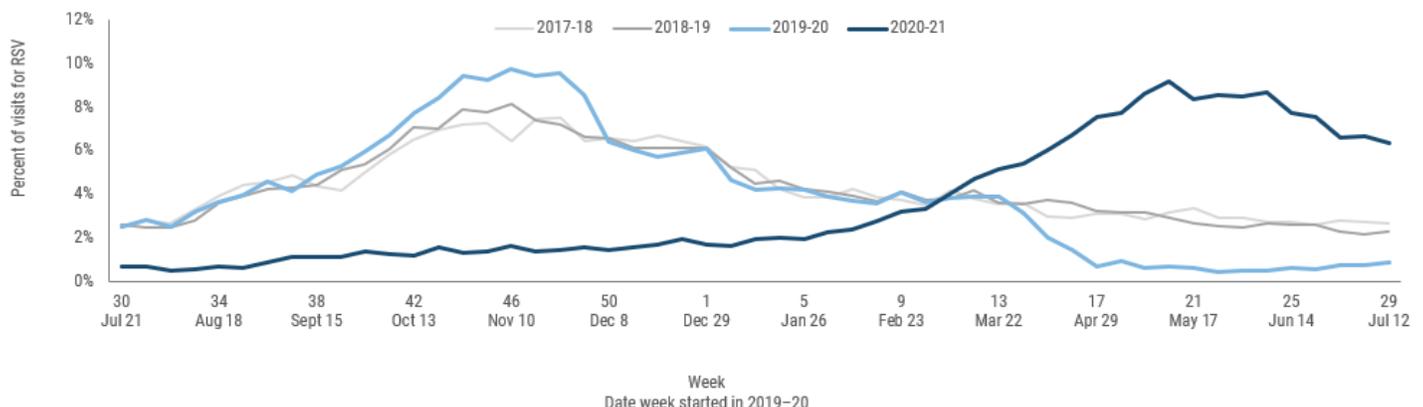
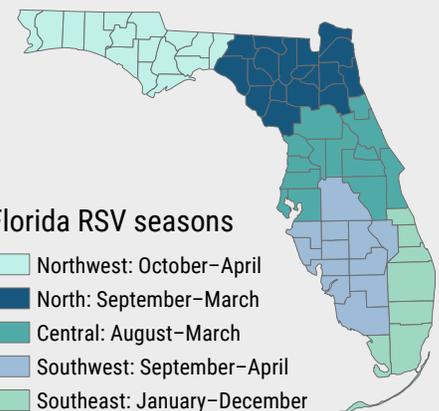
### Surveillance

Florida's syndromic surveillance system, ESSENCE-FL, collects chief complaint and discharge diagnosis data from nearly all of Florida's emergency departments (EDs) and some urgent care centers (UCCs). These data are used to monitor trends in visits to EDs and UCCs where RSV or RSV-associated illness are 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.

### General Trends

During the 2019–20 season, the percent of children <5 years old diagnosed with RSV in ESSENCE-FL increased steadily starting in September, peaked in November and remained elevated through March. The COVID-19 pandemic affected health care-seeking behavior during the early part of the 2020–21 season, which may have impacted RSV activity trends. Activity remained unseasonably low throughout 2020, increased steadily starting in January, peaked in May and remained elevated through July.

The Florida Department of Health established regular RSV seasons based on the first 2 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 year-round.



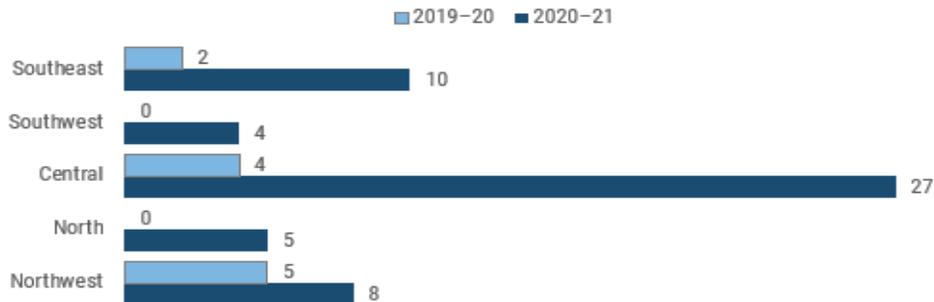
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During the 2019–20 season, laboratory surveillance data for RSV (percent of specimens testing positive for RSV) peaked in mid-November and began to decrease steadily in December. During the 2020–21 season, laboratory surveillance data remained low throughout 2020. Data began increasing in January, peaked in May and June, and began to decrease in late June. Laboratory data include results for people of all ages, whereas the ED and UCC RSV diagnosis data are limited to children <5 years old. This likely accounts for the difference in patterns observed between these two data sources.



### Outbreaks

During the 2019–20 season, no RSV-associated outbreaks were reported in Florida’s southwest and north regions. More outbreaks were reported during the 2020–21 season compared to the 2019–20 season, with the greatest increase occurring in the central region. During both the 2019–20 and 2020–21 seasons, all RSV-associated outbreaks occurred in either child day care or school settings. These data include outbreaks with RSV identified in the etiology and may not match data presented in the Florida Flu Review or previous reports.



The RSV year is defined by standard reporting weeks as outlined by the Centers for Disease Control and Prevention, where every season has either 52 or 53 weeks; there were 52 weeks in 2019 and 53 weeks in 2020. In Florida, surveillance for RSV is conducted year-round, beginning in week 30 and ending in week 29 of the following year. The 2019–20 season began on July 21, 2019 and ended on July 18, 2020. The 2020–21 season began on July 19, 2020, and ended on July 24, 2021.

### References:

- American Academy of Pediatrics. Respiratory Syncytial Virus. In: eds. *Red Book: 2021–2024 Report of the Committee on Infectious Diseases*. American Academy of Pediatrics; 2021; 628-636
- Centers for Disease Control and Prevention. RSV in Infants and Young Children. [cdc.gov/rsv/high-risk/infants-young-children.html](https://www.cdc.gov/rsv/high-risk/infants-young-children.html). Accessed October 8, 2021.