

FLU REVIEW

Weeks 23-24, 2019:
6/2/19-6/15/19

State influenza and influenza-like illness (ILI) activity¹:

In weeks 23-24, ILI activity decreased. Levels were similar to those observed at this time in past years. Influenza viruses continued to circulate at low levels.

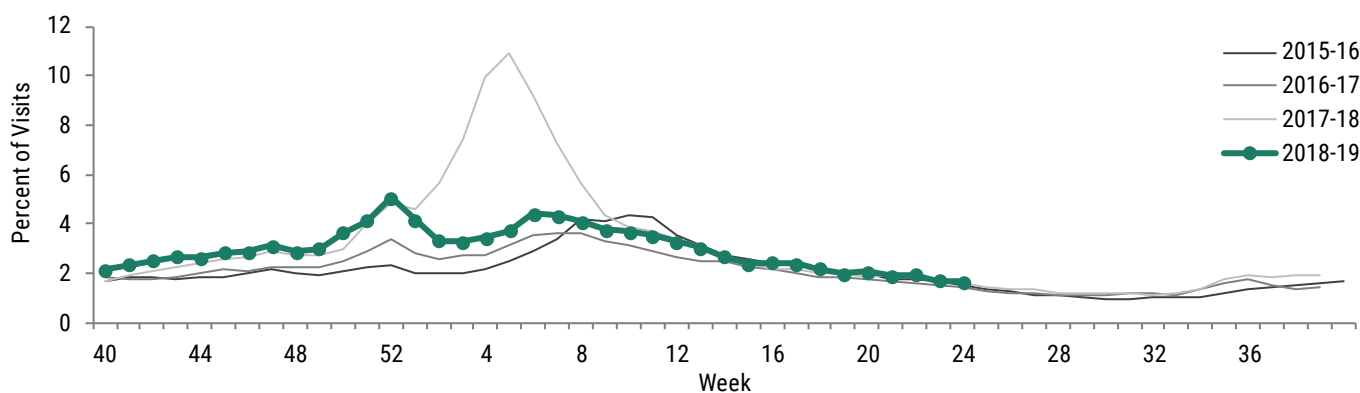
In weeks 23-24, three respiratory outbreaks were reported. Six influenza or other respiratory disease outbreaks have been reported since May 19, 2019 (when the traditional influenza season ended).

One new influenza-associated pediatric death was reported in weeks 23-24 in an unvaccinated child with no known underlying medical conditions. The child tested positive for influenza A (H3) and expired earlier in the season. Five influenza-associated pediatric deaths have been reported since the beginning of the 2018-19 season, all in unvaccinated children. **Annual vaccination is the best way to protect children from influenza.**

In week 23-24, four (44.4%) of the nine specimens submitted to the Bureau of Public Health Laboratories for influenza testing were positive for influenza: one influenza A unspecified and three influenza B unspecified.

Since March 2019, the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance (including influenza). For more information, see page 3.

In weeks 23-24, **the percent of emergency department and urgent care center visits for ILI statewide decreased.** ILI activity over the past few weeks **decreased** overall and was similar to levels observed at this time in previous years.



▲ The figure above shows the percent of visits for influenza-like illness (ILI) for facilities participating in ESSENCE-FL (n=349) statewide for the current year (week 40, 2018 to week 24, 2019) and the last three years (2017-18, 2016-17, and 2015-16). The ESSENCE-FL ILI syndrome captures visits with chief complaints that include the words “influenza” or “flu,” or chief complaints that include the words “fever” and “cough,” or “fever” and “sore throat.” For more information on the use of ESSENCE-FL for influenza and ILI surveillance, see page 4.

¹ In Florida, only influenza-associated pediatric deaths and human cases of novel influenza A infection (any age) are reportable. All outbreaks, including those due to influenza or other respiratory disease are reportable in Florida. The Florida Department of Health uses a variety of different surveillance systems to measure influenza and ILI activity. A summary of the systems used in this report can be found on our website: FloridaHealth.gov/FloridaFlu and on page 4.

² Predominant strain in this context refers to the most common influenza subtype detected at the Bureau of Public Health Laboratories over the last four weeks. The strain reported here may be different to the strain reported as predominant overall during the traditional 2018-19 season (September 30, 2018 through May 18, 2019) in past reports.

Activity at a Glance:

Geographic Spread:  **Sporadic**

Predominant Strain²:  **B Victoria lineage**

ILI Activity Trend:  **Decreasing**

Statewide Off-Season Outbreaks:

In weeks 23-24, three respiratory outbreaks were reported.

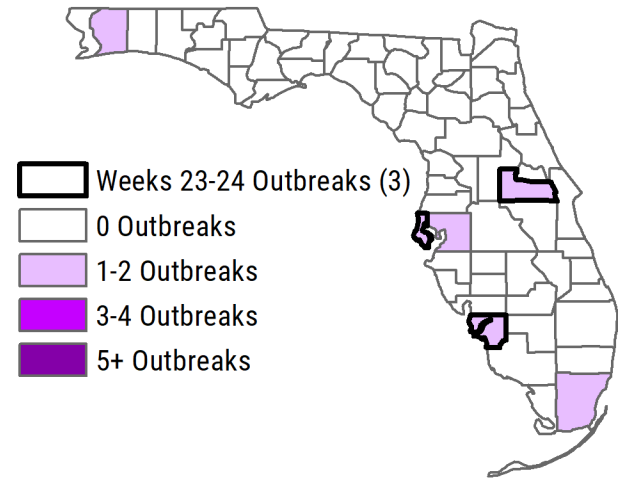
One of these outbreaks had laboratory evidence of influenza.

Six respiratory outbreaks have been reported since May 19, 2019. Of those, four had laboratory evidence of influenza.

Sporadic outbreaks are expected during the summer months, particularly in facilities serving adults aged ≥ 65 years.

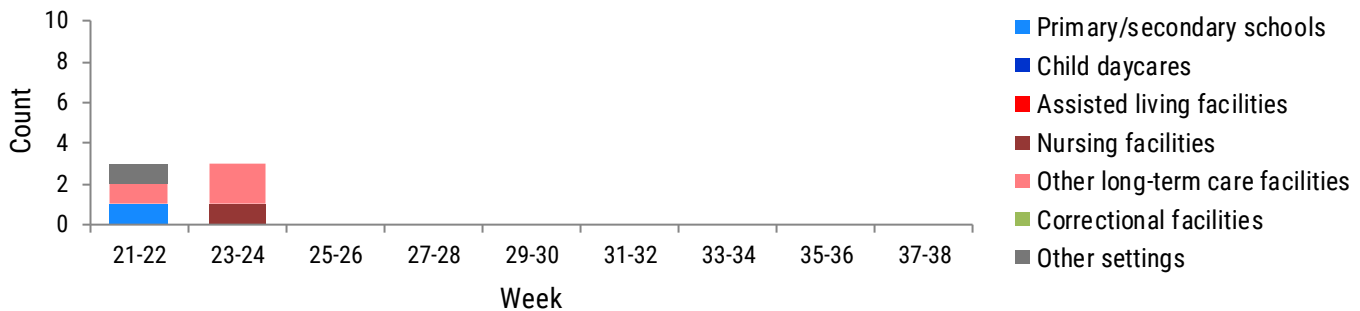
Thus far, specimens have been available for confirmatory testing at the Bureau of Public Health Laboratories for one of these three outbreaks (results pending).

Hospitalization(s) were reported in two of these three outbreaks.



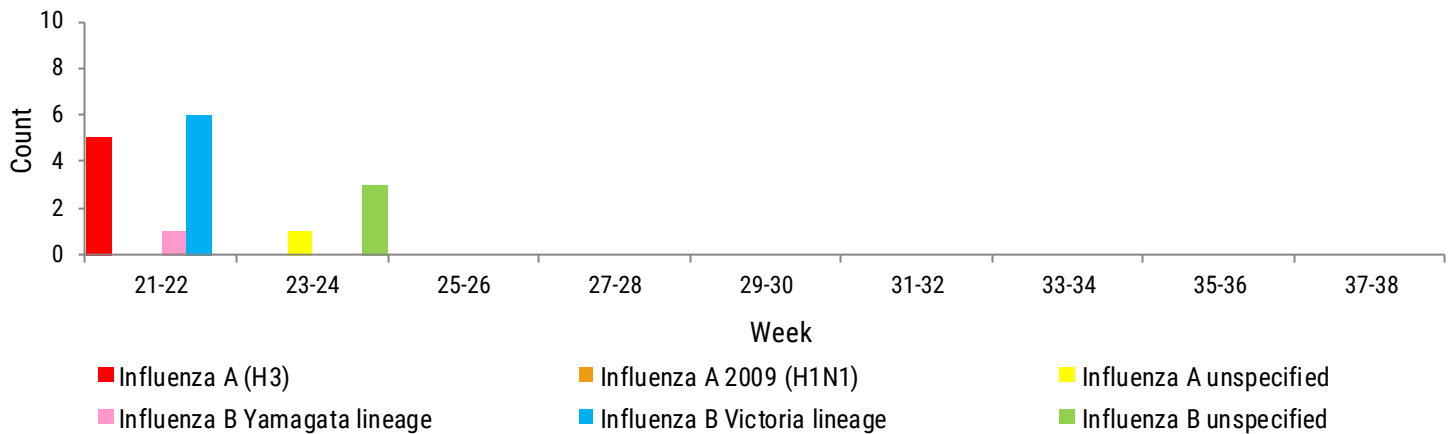
▲ The figure above shows **reported respiratory outbreaks by county since May 19, 2019**. Counties with outbreaks reported in weeks 23-24 are **outlined in bold**.

In weeks 23-24, three outbreaks were reported: **two in long-term care facilities**, and **one in a nursing facility**. The majority of outbreaks reported since May 19, 2019 have been in facilities serving adults aged ≥ 65 years (assisted living facilities, nursing facilities, and long-term care facilities).



▲ The figure above shows the distribution of **respiratory disease outbreaks by facility type** as reported in Merlin, weeks 21-24, 2019.

Over the previous four weeks, **influenza B Victoria lineage** was the **most common influenza subtype detected at BPHL**. A transition to influenza B as the predominant strain type has been observed in previous years and is expected during this time in Florida.



▲ The figure above shows the number of **influenza-positive specimens at the Bureau of Public Health Laboratories (BPHL)** by lab-event date,¹ weeks 21-24, 2019.

¹"Lab event date" is defined as the earliest of the following dates associated with influenza testing at the laboratory: date specimen collected, date received by the laboratory, date reported, or date inserted.

Respiratory Syncytial Virus (RSV) & Other Respiratory Virus Surveillance

Weeks 23-24 (June 2-15, 2019) RSV Activity Summary:

In weeks 23-24, RSV activity in children <5 years old decreased and remained within expected levels for this time.

No new possible RSV-associated pediatric deaths were identified in weeks 23-24. One possible RSV-associated pediatric death has been identified so far in 2019.

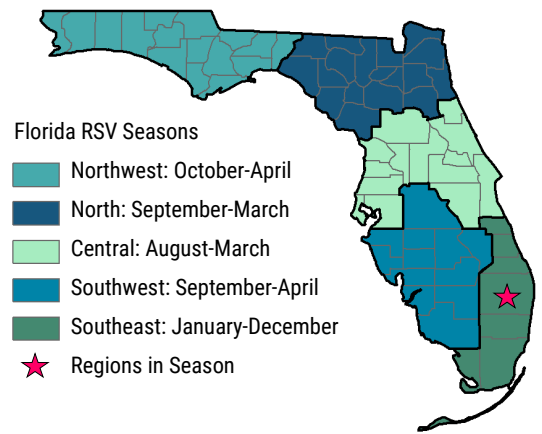
No new outbreaks of RSV were reported in weeks 23-24.

Currently, Florida's southeast region is in RSV season.

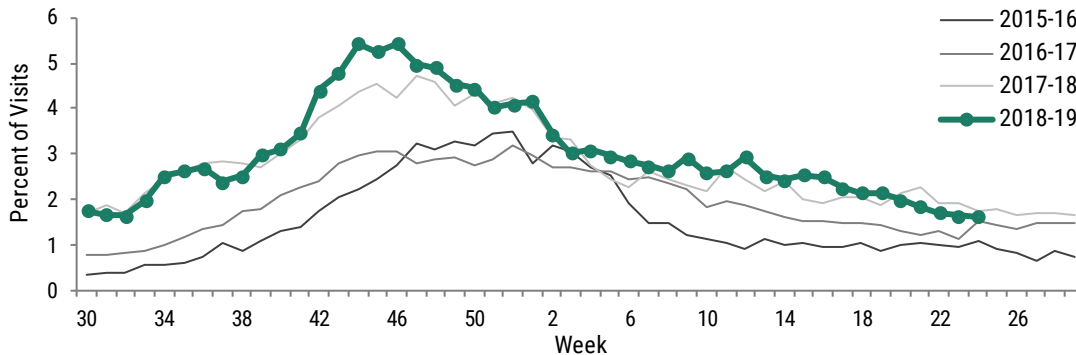
Florida's RSV season is longer than the rest of the nation and has distinct regional patterns. The RSV seasons shown here are based on activity thresholds provided by the Centers for Disease Control and Prevention.

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 for RSV infection. The American Academy of Pediatrics recommends preapproval for prophylactic treatment be made based on state surveillance data.

In weeks 23-24, **the percent of emergency department and urgent care center visits for RSV among children <5 years was stable.** In recent weeks, RSV activity in children <5 years **decreased** overall and remained within levels observed at this time in previous years.



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

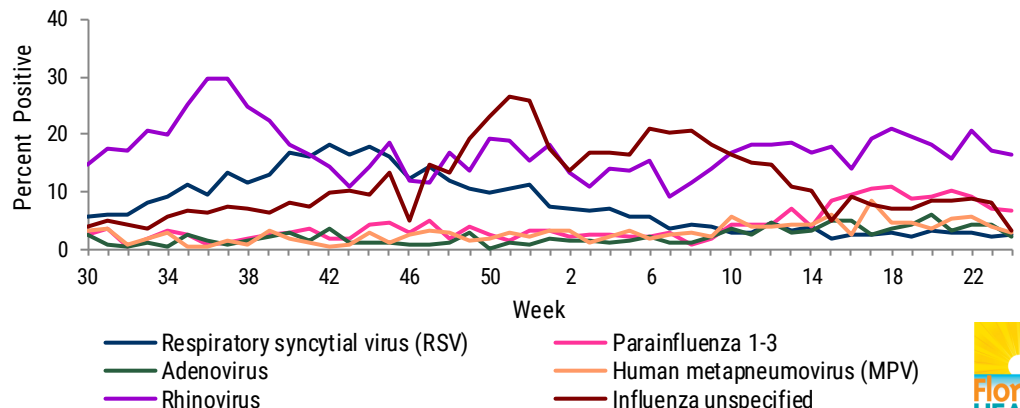


◀ The figure to the left shows the **percent of emergency department and urgent care center visits with discharge diagnoses that include respiratory syncytial virus (RSV) or RSV-associated illness among children <5 years¹**, as reported in ESSENCE-FL, week 30, 2015 to week 24, 2019.

¹ The overall trend displayed in this figure has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

In weeks 23-24, **the percent of specimens testing positive for rhinovirus decreased** but remained higher than other respiratory viruses under surveillance.

The figure to the right shows the **percent positive laboratory results for eight common respiratory viruses**, as reported by laboratories participating in the National Respiratory and Enteric Virus Surveillance System (NREVSS) and laboratories reporting validated respiratory virus data to the Florida Department of Health via electronic laboratory reporting (n=7), week 30, 2018 to week 24, 2019.



Florida Influenza and ILI Surveillance System Summary

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal

Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE-FL) is used by the Florida Department of Health to monitor trends in influenza-like illness (ILI) visits at participating emergency departments (EDs) and urgent care centers (UCCs). Participating EDs and UCCs (n=349) electronically submit visit data into ESSENCE-FL daily or hourly.

ED and UCC visits are counted as ILI if the chief complaints include the words “influenza” or “flu” (with certain exceptions). Chief complaints with the words “fever” and “cough” or the words “fever” and “sore throat” are also counted as ILI.

ED and UCC visits are counted as respiratory syncytial virus (RSV) if the discharge diagnoses include RSV or RSV-associated illness.

For RSV mortality surveillance, a free-text query searches for references to RSV in the causes of death on death certificates. Any mention of “RSV,” “syncytial,” or “bronchiolitis” in the literal causes of death (with certain exceptions) is counted as a possible RSV-associated death. Possible RSV-associated deaths in children <18 years old are investigated to ensure they meet the case definition outlined by the Council of State and Territorial Epidemiologists.

Outbreak Reporting in Merlin

Outbreak investigations are tracked in Merlin (Florida’s reportable disease surveillance system) by investigating county health departments (CHDs). Outbreak reports include implicated viruses or bacteria, the outbreak setting, and recommendations made to mitigate the spread of disease.

- Outbreaks in assisted living facilities, nursing facilities, and long-term care facilities: two or more cases of influenza, ILI, or acute respiratory illness (ARI)
- Outbreaks in facilities serving children (primary/secondary schools and child daycares): three or more epidemiologically linked cases of influenza or ILI
- Household clusters are not counted as outbreaks.
- ILI: fever and cough or fever and sore throat in the absence of another known cause
- ARI: two or more respiratory symptoms in the absence of another known cause

Laboratory Surveillance

The Florida Department of Health, Bureau of Public Health Laboratories (BPHL) performs real-time reverse transcription polymerase chain reaction (RT-PCR) influenza testing (including subtyping for influenza A viruses and lineage determination for influenza B viruses) for specimens submitted from sentinel providers, outbreak investigations, health care providers treating patients with severe or unusual influenza presentations, and medical examiners. BPHL also performs RT-PCR subtyping for influenza A-positive specimens and RT-PCR lineage determination for influenza B-positive specimens.

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

Case-Based Influenza Surveillance

Death in a child whose laboratory-confirmed influenza infection has been identified as contributing to the child’s death is a reportable condition in Florida. Influenza-associated pediatric deaths are investigated by CHDs and reported in Merlin. In turn, the Florida Department of Health reports these deaths to CDC.

In addition, an individual of any age with suspected or laboratory-confirmed novel or pandemic influenza A is reportable in Florida. Suspected or confirmed novel influenza A cases are investigated by CHDs in collaboration with state and national experts. CHDs report cases in Merlin and, in turn, the Florida Department of Health reports these cases to CDC.

Geographic Spread of Influenza

On a weekly basis, the Florida Department of Health evaluates influenza and ILI surveillance data to determine the geographic spread of influenza in Florida and report the weekly determination to 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 outbreak 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