

Summary

Weeks 33-34: August 12-25, 2018

State influenza and influenza-like illness (ILI)¹ activity²:

- **Influenza activity remains low statewide.** Modest increases are expected over the coming months as we approach the start of the traditional influenza season.
- Two new outbreaks were reported over the last two weeks (33-34): one ILI and one respiratory syncytial virus; 512 outbreaks of influenza and ILI have been reported since October 2017. Additional sporadic outbreaks are expected in the coming weeks.
- **No new influenza-associated pediatric deaths were reported in weeks 33-34.** Eight influenza-associated pediatric deaths have been confirmed since the start of the 2017-18 influenza season. **Annual vaccination remains the best way to protect children against influenza.**
- In weeks 33-34, 4 (22.2%) of the 18 specimens submitted to the Bureau of Public Health Laboratories (BPHL) for influenza testing was positive by real-time reverse transcription polymerase chain reaction (RT-PCR) for influenza: 3 influenza A 2009 (H1N1) and 1 influenza B unspecified.

National influenza activity:

- Influenza viruses continue to circulate at low levels nationally.
- In week 33, the Centers for Disease Control and Prevention (CDC) reported four more human infections with influenza A (H1N2) variant viruses. Two cases were reported in California and two cases were reported in Ohio. Three of these cases reported exposure to swine at an agricultural event in the week preceding illness onset, but one case reported no contact with swine and did not attend an agricultural fair. According to CDC, it is possible that limited human-to-human transmission occurred, however, no ongoing human-to-human transmission has been identified. A total of 12 influenza A (H1N2) variant virus infections have been reported to CDC as of week 33, 2018. The vast majority occurred in individuals with exposure to swine at agricultural fairs. **No influenza A (H1N2) variant virus cases in humans have been reported in Florida to date.**

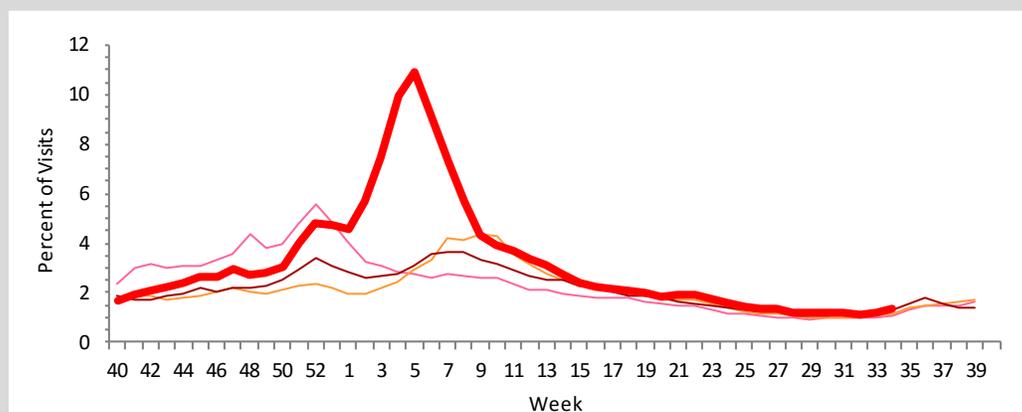
Immunizations:

- On August 24, 2018, CDC published a report with recommendations from the Advisory Committee on Immunization Practices for the prevention and control of seasonal influenza with vaccines for the upcoming 2018-19 influenza season in the United States. For more information, please visit: www.cdc.gov/mmwr/volumes/67/rr/rr6703a1.htm?s_cid=rr6703a1_w.

ED and UCC Visits for ILI by Flu Season

ED = emergency department, UCC = urgent care center, ILI = influenza-like illness

The figure below shows the percent of visits for ILI from ED and UCC chief complaint data for ESSENCE-FL participating facilities (n=327) from week 40, 2014 to week 34, 2018.



In week 34 (ending August 25, 2018), the percent of visits to EDs and UCCs for ILI increased slightly, but remained similar to levels observed at this time in previous years.

— 2017-18 — 2015-16
— 2016-17 — 2014-15

¹ Influenza-like illness (ILI) is defined as a fever $\geq 100^{\circ}\text{F}$ AND sore throat and/or cough in the absence of another known cause.

² In Florida, only influenza-associated pediatric deaths, cases of novel influenza infection, and outbreaks of influenza or ILI are reportable. The Florida Department of Health uses many different surveillance systems to measure influenza activity. A summary of all these systems can be found on our website: www.FloridaHealth.gov/FloridaFlu and on page 4.

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Produced by the Bureau of Epidemiology, Florida Department of Health

Contributors: Heather Rubino, PhD; Julia Munroe, MS; Mwedu Mtenga, MPH; Katie Kendrick, MPH; Amy Bogucki, MPH; Lea Heberlein-Larson, MPH; Valerie Mock, BS; Marshall Cone, MS; Pam Colarusso, MSH; Janet Hamilton, MPH; Leah Eisenstein, MPH.

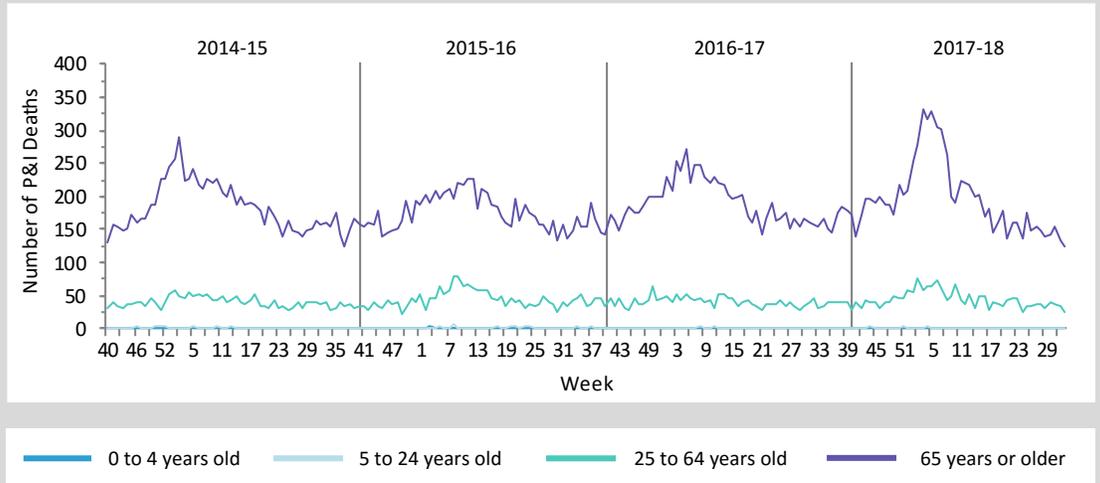
P&I Deaths from Vital Statistics by Age Group

P&I = pneumonia and influenza

The figure below shows the number of preliminary P&I deaths by age group from week 40, 2014 (beginning on October 1, 2014) through week 33, 2018 (ending August 18, 2018) as identified in ESSENCE-FL. Vital statistics death records data are currently considered to be complete through week 33, 2018.

In week 33, the preliminary number of P&I deaths increased slightly in the 0-4 age group, remained the same in the 5-24 age group, and decreased in the 25-64 and ≥65 age groups. In all age groups, levels were similar to or below those observed in previous years at this time.

In week 33, the total preliminary number of P&I deaths decreased statewide and was below levels observed in previous years at this time.

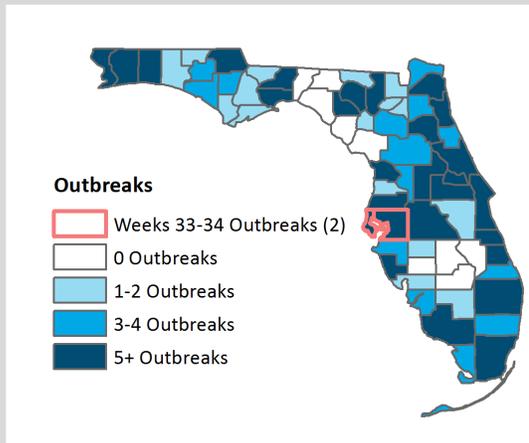


Influenza and ILI Outbreaks

ILI = influenza-like illness

Influenza and ILI Outbreaks by County Week 40, 2017 through Week 34, 2018

The map to the left shows influenza and ILI outbreaks by county from week 40, 2017 through week 34, 2018 (ending on August 25, 2018).



In weeks 33-34, two new outbreaks were reported: one outbreak of ILI in a Pinellas County child daycare and one outbreak of respiratory syncytial virus (RSV) in a Hillsborough County child daycare. A total of 512 outbreaks have been reported since the start of the 2017-18 season. More outbreaks were reported this season than in previous seasons on record. An average of 91 total influenza or ILI outbreaks were reported during the last five influenza seasons.

Since the start of the 2017-18 season, outbreaks occurred in the following settings: 66 (13%) in assisted living facilities, 85 (17%) in nursing facilities, 99 (19%) in other long-term care facilities, 2 (0.4%) in adult daycares, 87 (17%) in child daycares, 133 (26%) in schools/camps, 18 (4%) in correctional facilities/juvenile detention centers, 6 (1%) in hospitals, 2 (0.4%) in shelters, and 14 (3%) in other settings.

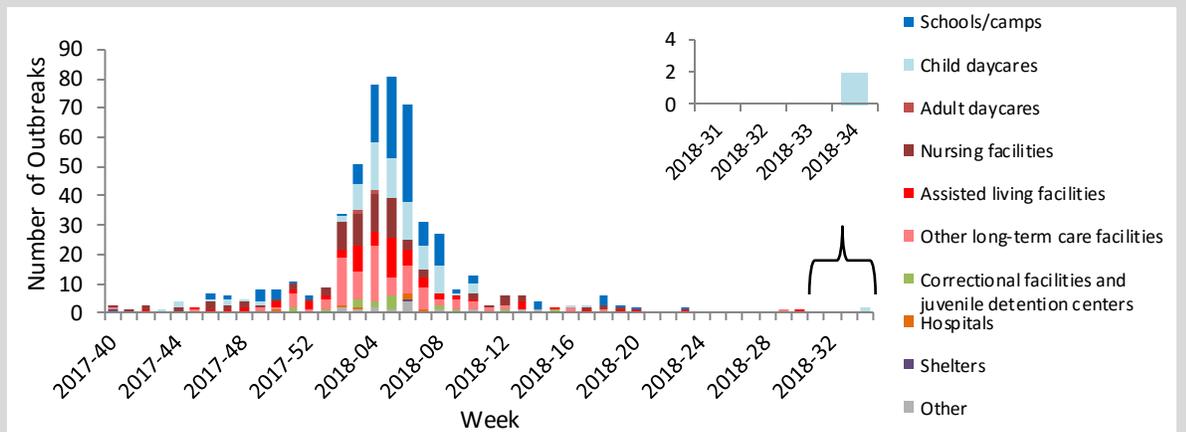
Influenza and ILI Outbreaks by Facility Type

ILI = influenza-like illness

The figure below shows the distribution of influenza and ILI outbreaks by facility type as reported in Merlin, week 40, 2017 through week 34, 2018.

In weeks 33-34, one outbreak of ILI and one outbreak of RSV were reported in child daycares.

Of the 512 total outbreaks reported since the start of the 2017-18 season, 470 (92%) occurred in facilities serving people at higher risk for complications due to influenza infection (children and adults ≥65 years).



RSV and Other Respiratory Virus Surveillance

RSV = respiratory syncytial virus

RSV activity:

- In week 34 (ending August 25, 2018), the percent of children <5 years old diagnosed with RSV at EDs and UCCs statewide increased sharply in recent weeks, but remained similar to levels observed at this time in 2017.
- One RSV outbreak was reported in a Hillsborough County child daycare.
- Florida's southeast and central regions are currently in RSV season.
- No new possible RSV-associated pediatric deaths were identified. Two possible RSV-associated pediatric deaths have been identified so far this year and one of those deaths was ruled out. Investigation will occur to confirm if the remaining death meets case definition. Premature infants and children <2 years with certain underlying medical conditions are at higher risk for complications from RSV infection. **Prophylaxis has been shown to reduce complications among high risk children and is available for those who qualify. For more information, contact your physician.**
- To learn more about RSV in Florida, please visit: www.floridahealth.gov/rsv.

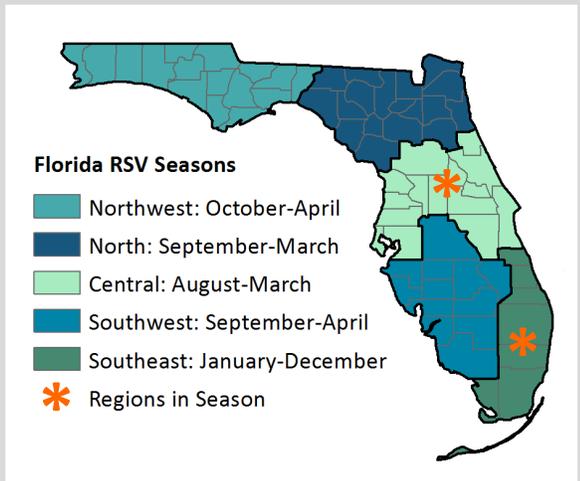
RSV seasonality:

- RSV activity in Florida typically peaks between November and January, though activity can vary dramatically by region. Despite some regions being out of season, RSV continues to circulate at low levels throughout the state.
- Florida's RSV season is longer than the rest of the nation and has distinct regional seasonality. For more information on RSV seasonality in Florida, see the American Academy of Pediatrics' 2015 Red Book.

Other respiratory virus surveillance:

- In weeks 33-34, the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance.

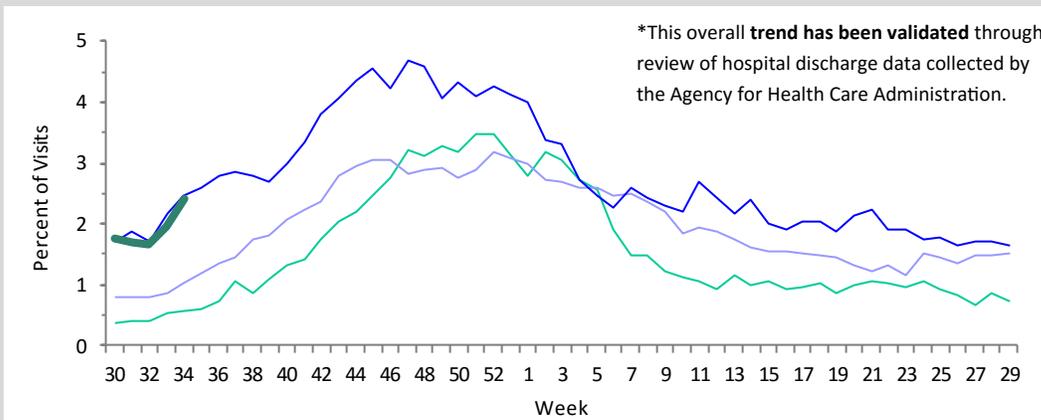
Florida Respiratory Syncytial Virus (RSV) Regional Season Breakdown



ED and UCC Visits for RSV by Children <5 Years Old

ED = emergency department, UCC = urgent care center, RSV = respiratory syncytial virus

The figure below shows the percent of visits to EDs and UCCs with discharge diagnoses that include RSV or RSV-associated illness, as reported by participating ESSENCE-FL facilities (n=327), week 30, 2014 through week 34, 2018.



In week 33, the percent of children diagnosed with RSV at participating EDs and UCCs increased, but remained within levels observed during previous years at this time.

Legend for ED and UCC Visits:

- 2018-19 (dark green)
- 2017-18 (blue)
- 2016-17 (purple)
- 2015-16 (light green)

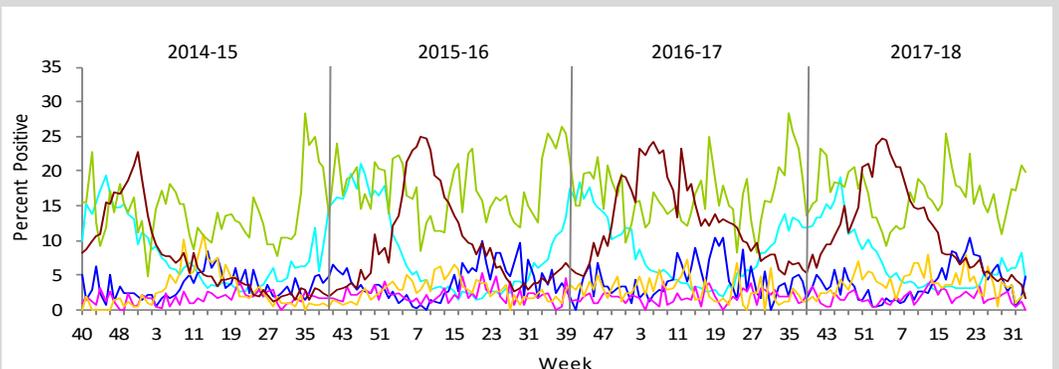
Laboratory Viral Respiratory Surveillance

The figure below shows the percent of laboratory results testing positive for eight common respiratory viruses, as reported laboratories through the National Respiratory and Enteric Virus Surveillance System (NREVSS) and laboratories reporting validated respiratory virus data to DOH via electronic laboratory reporting (n=5 laboratories), week 40, 2014 to week 34, 2018.

In recent weeks, the percent of specimens testing positive for rhinovirus decreased slightly but remained higher than other respiratory viruses under surveillance.

Legend for Laboratory Viral Respiratory Surveillance:

- RSV (cyan)
- Parainfluenza 1-3 (blue)
- Adenovirus (magenta)
- Human metapneumovirus (yellow)
- Rhinovirus (green)
- Influenza (brown)



Florida 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), Florida's statewide syndromic surveillance system, is used to measure trends in influenza-like illness (ILI) visits from emergency departments (EDs) and urgent care clinics (UCCs). Participating EDs and UCCs (n=327) electronically transmit visit data into ESSENCE-FL daily or hourly.
- For statewide and regional data on ILI, ED and UCC visits with chief complaints that include the words "influenza" or "flu" are counted along with chief complaints that include the word "fever" and one or both of the following: "cough" or "sore throat."
- For pneumonia and influenza (P&I) surveillance, death record literal causes of death are examined using a free-text query that searches for references to P&I on death certificates from the Bureau of Vital Statistics. Any mention of P&I in the death certificate literals, with certain exceptions, is counted as a P&I death.
- For respiratory syncytial virus (RSV) surveillance, ED and UCC visits with RSV or RSV-associated illness included in discharge diagnoses are counted. Death record literals are also queried using a free-text query that searches for references to RSV on death certificates for children <18 years old. Any mention of RSV in the death certificate literals, with certain exceptions, is counted as an RSV-associated pediatric death.

Bureau of Public Health Laboratories (BPHL)

- BPHL performs confirmatory testing and subtyping on surveillance specimens from sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations, and medical examiners.
- For county health departments (CHDs) seeking county-specific laboratory data, please refer to the Flu Lab Report in Merlin. For instructions on how to use the Flu Lab Report, please see the Guide to Flu Lab Report on the Bureau of Epidemiology website at www.floridahealth.gov/diseases-and-conditions/influenza/_documents/flulabreportguide.pdf.

Outbreak Reporting in Merlin

- Merlin, Florida's reportable disease surveillance system, is used to track influenza and ILI outbreak investigations by CHDs. CHD epidemiologists document outbreaks of influenza and ILI in Merlin, including type of respiratory disease causing the outbreak and settings where outbreaks occurred.
- Outbreaks are defined as two or more cases of influenza or ILI in a specific setting.

Laboratory Viral Respiratory Surveillance

- National Respiratory and Enteric Virus Surveillance System (NREVSS) is a Centers for Disease Control and Prevention system that collects data eight commonly circulating respiratory viruses from participating laboratories in Florida. NREVSS data are combined with validated electronic laboratory data from Florida laboratories who submit respiratory virus results via electronic laboratory reporting. Together, this information is 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 reportable in Florida. Influenza-associated pediatric deaths are documented by CHDs in Merlin.
- In addition, an individual of any age infected with a 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 www.Floridahealth.gov/diseasereporting.