Florida FLU REVIEW

Summer 2018

Summary

Weeks 35-36: August 26–September 8, 2018

State influenza and influenza-like illness (ILI)[1] activity[2]:

- **Influenza activity remains low statewide**. Modest increases are expected over the coming weeks as we approach the start of the traditional influenza season.
- No new outbreaks were reported over the last two weeks (35-36); 512 outbreaks of influenza and ILI have been reported since October 2017. Additional outbreaks are expected in the coming weeks.
- **No new influenza-associated pediatric deaths were reported in weeks 35-36.** 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 35-36, 6 (31.6%) of the 19 specimens submitted to the Bureau of Public Health Laboratories for influenza testing were positive by real-time reverse transcription polymerase chain reaction (RT-PCR) for influenza: 3 influenza A 2009 (H1N1), 1 influenza B Yamagata lineage, 1 influenza A unspecified, and 1 influenza B unspecified.

National influenza activity:

- The Centers for Disease Control and Prevention (CDC) continues to report influenza viruses circulating at low levels nationally. Consistent with trends observed in Florida, influenza A viruses have continued to predominate since early July, with the majority of the subtyped influenza A viruses being influenza A 2009 (H1N1). CDC has received reports of localized outbreaks across the United States, which is expected for this time of year. The majority of these outbreaks were caused by influenza A 2009 (H1N1).

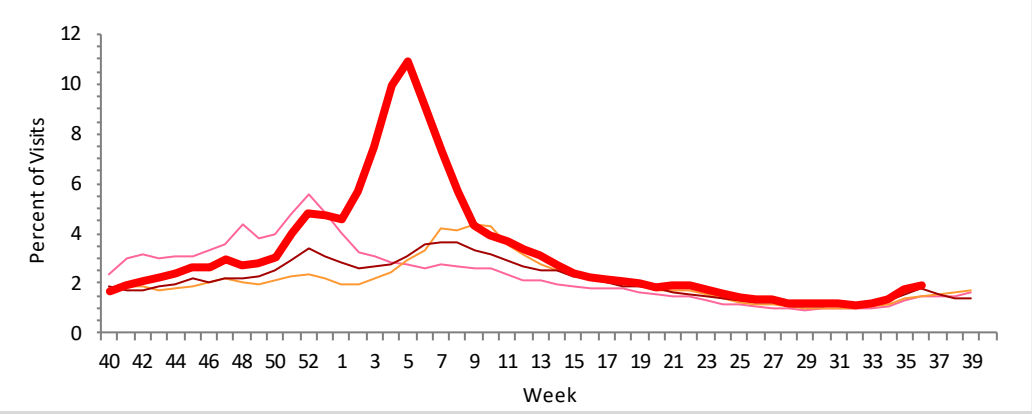
Immunizations:

- 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.
- Influenza vaccines protect against the three or four influenza viruses that research suggest will be most common. It is expected that influenza A 2009 (H1N1), influenza A (H3N2), and influenza B viruses will co-circulate during the upcoming season; influenza vaccines are designed to protect against all of these viruses.
- **The Florida Department of Health recommends you get vaccinated for influenza by the end of October.**

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 36, 2018.



In week 36 (ending September 8, 2018), the percent of visits to EDs and UCCs for ILI increased, but remained similar to levels observed at this time in previous years.

[1] Influenza-like illness (ILI) is defined as a fever ≥ 100°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.

Posted September 12, 2018 on the Bureau of Epidemiology website: www.FloridaHealth.gov/FloridaFlu
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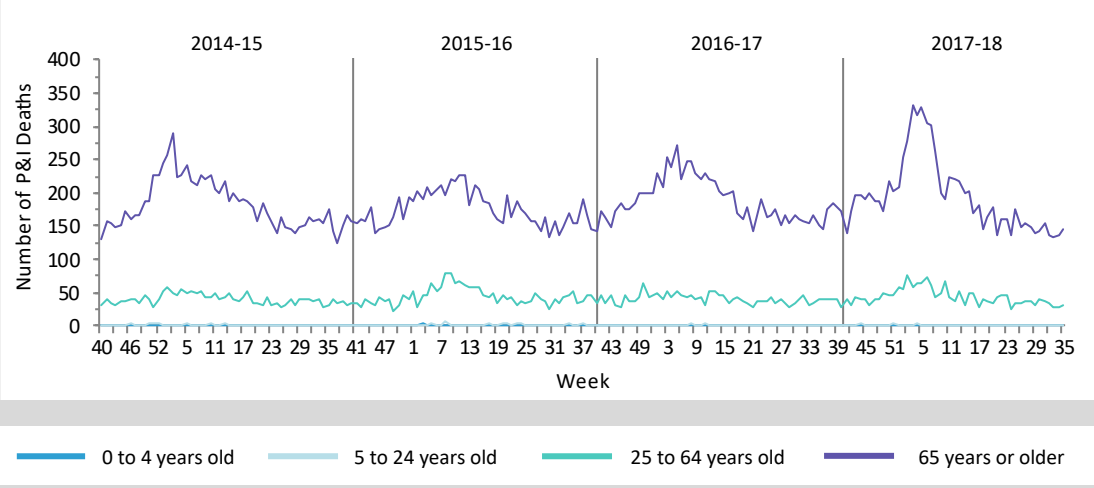
P&I Deaths from Vital Statistics by Age Group

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 35, 2018 (ending September 1, 2018) as identified in ESSENCE-FL. Vital statistics death records data are currently considered to be complete through week 35, 2018.

In week 35, the preliminary number of P&I deaths increased in the 25-64 and ≥65 age groups. P&I deaths decreased slightly in the 5-24 age group and remained the same in the 0-4 age group. In all age groups, levels were similar to or below those observed in previous years at this time.

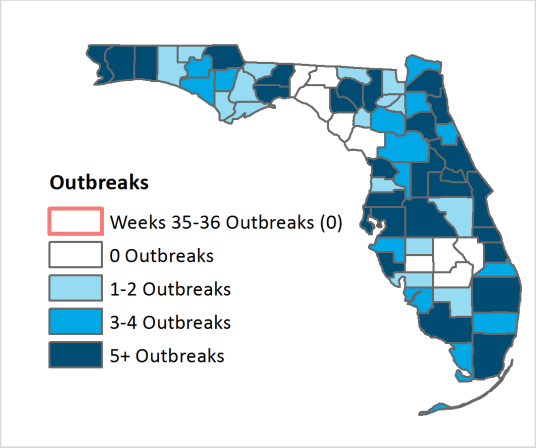
In week 35, the total preliminary number of P&I deaths decreased statewide and was below levels observed in previous years at this time.



Influenza and ILI Outbreaks

ILI = influenza-like illness

Influenza and ILI Outbreaks by County
Week 40, 2017 through Week 36, 2018



The map to the left shows influenza and ILI outbreaks by county from week 40, 2017 through week 36, 2018 (ending on September 8, 2018).

In weeks 35-36, no new outbreaks of influenza or ILI were reported. 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.

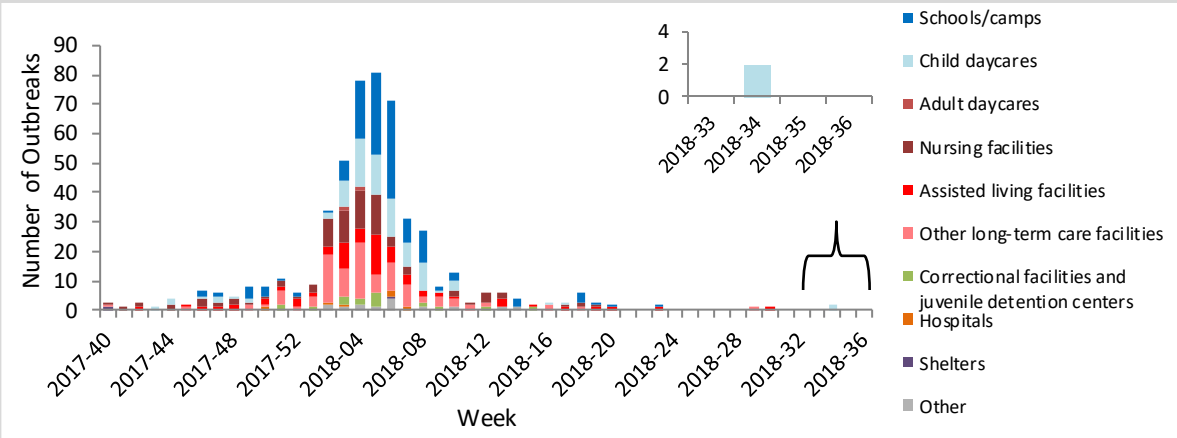
Influenza and ILI Outbreaks by Facility Type

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 36, 2018.

In weeks 35-36, no new outbreaks of influenza or ILI were reported.

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).



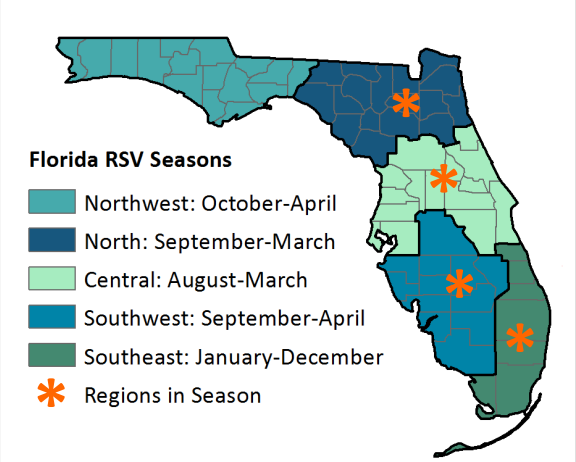
RSV and Other Respiratory Virus Surveillance

RSV = respiratory syncytial virus

RSV activity:

- **In week 36 (ending September 8, 2018), the percent of children <5 years old diagnosed with RSV at EDs and UCCs statewide decreased and remained similar to levels observed at this time in 2017.**
- **No new outbreaks of RSV were reported.**
- **Florida's north, central, southwest, and southeast 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 in 2018 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.

Florida Respiratory Syncytial Virus (RSV) Regional Season Breakdown



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' 2018 Red Book.

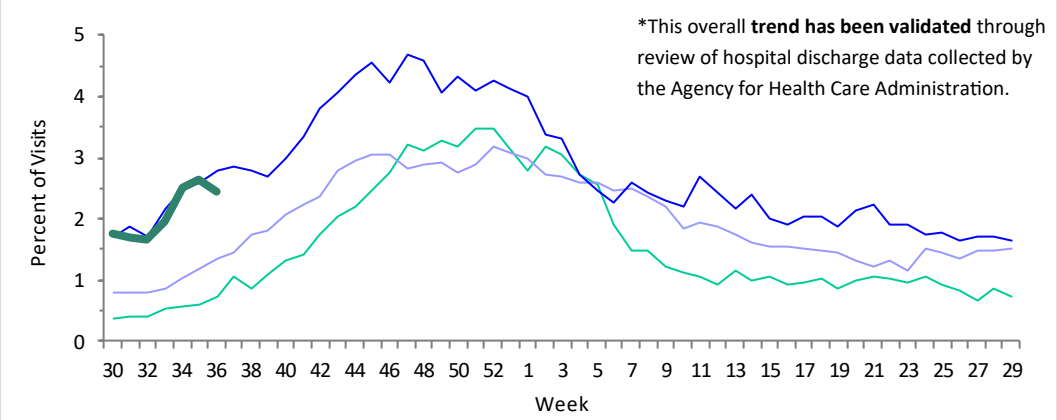
Other respiratory virus surveillance:

- In weeks 35-36, the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance.

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 36, 2018.

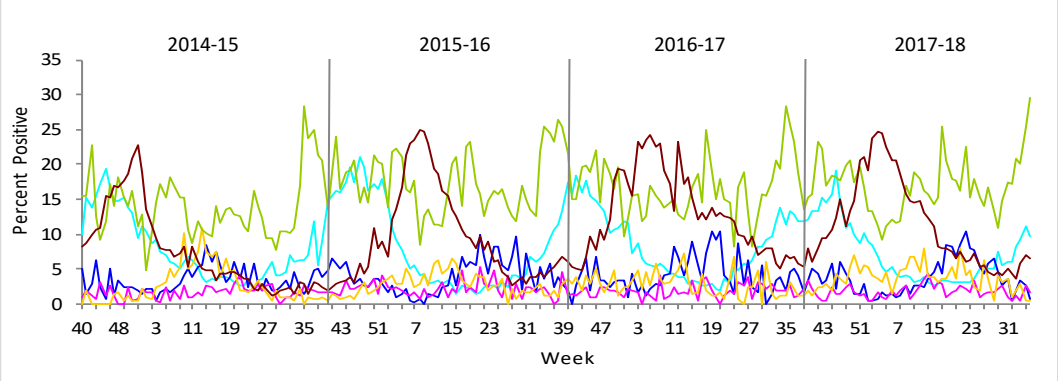


In week 36, the percent of children diagnosed with RSV at participating EDs and UCCs decreased and remained within levels observed during previous years at this time.

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=8 laboratories), week 40, 2014 to week 36, 2018.

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



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.