



## Summary

Weeks 37-38: September 10-23, 2017

### State influenza and influenza-like illness (ILI)<sup>1</sup> activity<sup>2</sup>:

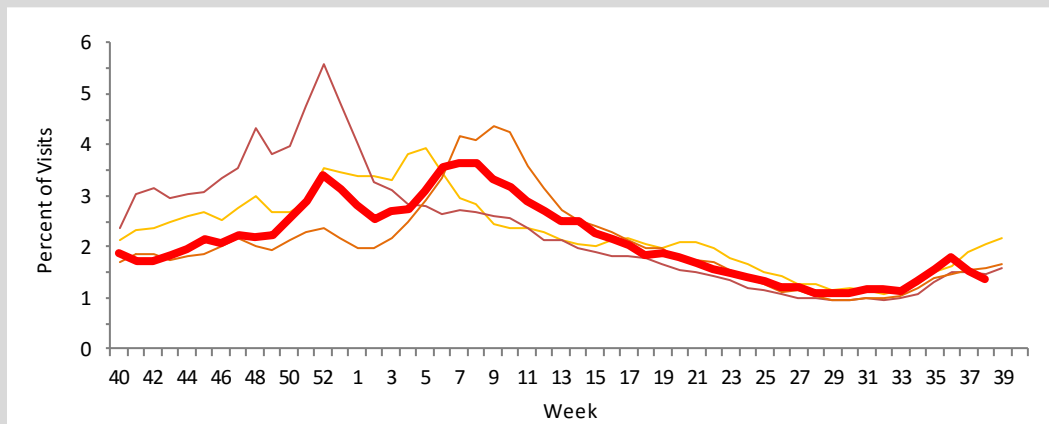
- Influenza activity continues to circulate at low levels across the state although activity started to increase one month ago.
- Over the past two weeks (37-38), the percent of emergency department (ED) and urgent care center (UCC) visits for ILI decreased and was below levels observed in previous seasons at this time.
  - **The decrease is not considered to be a true decrease but more likely due to a lack of people seeking care for influenza due to Hurricane Irma making landfall in Florida on September 10, 2017. As a result of Hurricane Irma a number of health care facilities were also closed or on evacuation status.**
  - Influenza and ILI activity is expected to increase in the coming weeks as we head into the fall months.
- One outbreak of influenza A and two outbreaks of ILI; 175 outbreaks of influenza and ILI have been reported since the start of the 2016-17 season.
- In week 37, the preliminary estimated number of deaths due to pneumonia and influenza decreased and was similar to levels observed in previous seasons at this time.
- **In weeks 37-38, one influenza-associated pediatric death was reported in a child with no known underlying health condition. The child was positive for influenza A (not subtyped). It is unknown if the child was vaccinated for the 2016-17 influenza season.**
  - Eleven influenza-associated pediatric deaths have been reported since the start of the 2016-17 influenza season. **Annual vaccination remains the best way to protect children against influenza.**
- In weeks 37-38, nine (33.3%) of the 27 specimens submitted to the Bureau of Public Health Laboratories (BPHL) for influenza testing were positive by real-time reverse transcription polymerase chain reaction (RT-PCR) for influenza: five influenza A (H3), two influenza B Yamagata lineage, and two influenza B Victoria lineage.

### National influenza activity:

- Influenza viruses continue to circulate at low levels nationally.
- The Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP) voted in favor of a recommendation that **the live attenuated influenza vaccine (LAIV) should not be used during the 2017-18 influenza season.** This recommendation follows concerns about lower effectiveness of the LAIV during the 2013-14 and 2015-16 influenza seasons against influenza A 2009 (H1N1) viruses. **ACIP continues to recommend annual influenza vaccination with either the inactivated influenza vaccine (IIV) or recombinant influenza vaccine (RIV) for everyone aged six months and older.**
- **CDC has identified an antigenically drifted influenza B Victoria lineage strain circulating nationally and in Florida that is different from the strain of influenza B Victoria lineage contained in the 2017-18 influenza vaccination formulations.** This drifted strain is also different from the strain of influenza B Victoria lineage included in the 2016-17 influenza vaccination formulations.

## ED and UCC Visits for ILI<sup>3</sup> by Flu Season

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



The figure to the left shows the percent of visits for ILI from ED and UCC chief complaint data for ESSENCE-FL participating facilities (n=306) from week 40, 2013 through week 38, 2017.

The percent of ILI visits to ESSENCE-FL participating facilities decreased in recent weeks and was below levels observed in previous seasons at this time. This decrease is likely due to a drop in the number of people seeking care due to Hurricane Irma.

— 2016-17      — 2014-15  
— 2015-16      — 2013-14

<sup>1</sup> Influenza-like illness (ILI) is defined as a fever ≥ 100°F AND sore throat and/or cough in the absence of another known cause.

<sup>2</sup> In Florida, only influenza-associated pediatric mortalities, cases of novel influenza infection, and outbreaks of influenza or ILI are reportable. The Florida Department of Health (DOH) 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](http://www.floridahealth.gov/floridaflu) and on page 4.

Posted September 28, 2017 on the Bureau of Epidemiology (BOE) website: [www.floridahealth.gov/floridaflu](http://www.floridahealth.gov/floridaflu)

Produced by BOE, DOH

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## P&I Deaths from Vital Statistics by Age Group

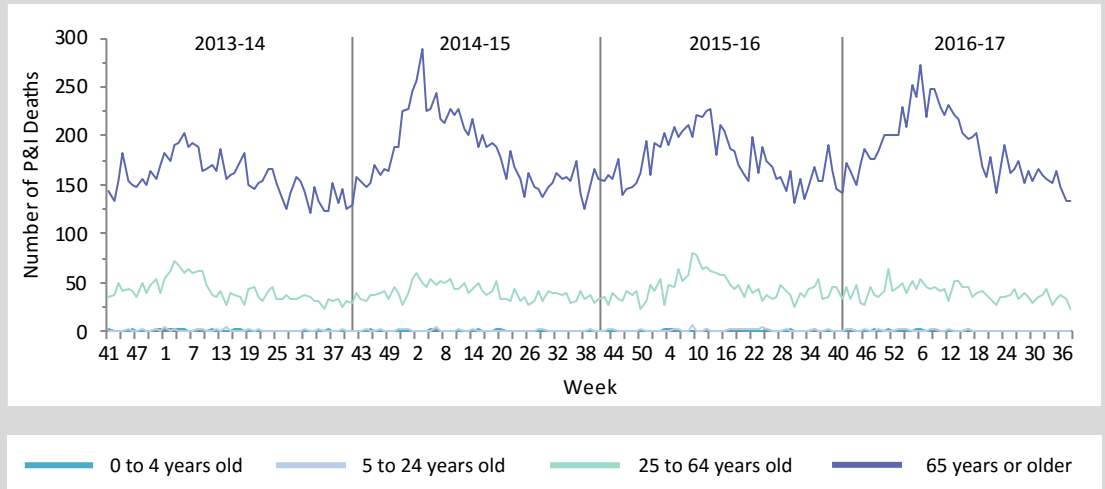
P&I = pneumonia and influenza

The figure below shows the number of preliminary P&I deaths by age group from week 40, 2013 through week 37, 2017, as reported into ESSENCE-FL. *Vital statistics death records data are currently considered to be complete through week 37, 2017.*

The number of P&I deaths reported in week 37 was similar to or below levels seen in previous seasons at this time in all age groups.

**173 preliminary estimated P&I deaths were reported for week 37, 2017.**

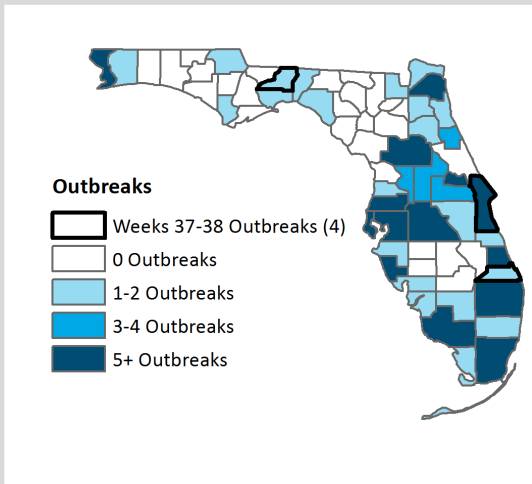
Based on a multi-year regression model to predict P&I death counts in the Florida population, no excess deaths were reported for week 37, 2017. The upper bound of the 95% confidence interval for prediction is 198 deaths.



## Influenza and ILI Outbreaks

ILI = influenza-like illness

### Influenza and ILI Outbreaks by County Week 40, 2016 through Week 38, 2017



The map to the left shows influenza and ILI outbreaks by county from week 40, 2016 (beginning on October 4, 2016) through week 38, 2017 (ending on September 23, 2017). Three outbreaks were reported in the last two weeks: one outbreak of influenza A and two outbreaks of ILI. As of week 38, 175 outbreaks of influenza and ILI have been reported into Merlin since the start of the 2016-17 season. This is the largest number of outbreaks reported in the past seven influenza seasons.

#### Brevard County:

- **An assisted living facility** reported 17 residents with ILI. No specimens have been available for testing at BPHL thus far. The etiology of this outbreak is not yet known. Influenza vaccination status for all residents and staff members is currently unknown. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

#### Leon County:

- **An assisted living facility** reported 40 residents and eight staff members with ILI. No specimens have been available for testing at BPHL thus far. The etiology of this outbreak is not yet known. Influenza vaccination status for all residents and staff members is currently unknown. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

#### Martin County:

- **A school** reported six individuals with ILI. Two individuals tested positive for influenza A and one individual tested positive for influenza (type not determined) at local health care providers. No specimens were available for testing at BPHL. Influenza vaccination status for all students and staff members is unknown. Infection control measures were reviewed with facility leadership. This investigation is closed.

## RSV and Other Respiratory Virus Surveillance

RSV = respiratory syncytial virus

### RSV activity:

- In week 38, the percent of children <5 years old diagnosed with RSV at EDs and UCCs decreased but remained above levels observed in previous seasons at this time. This decrease is not considered a true decrease but may be due to a lack of people seeking care as a result of the impact of Hurricane Irma.
- The percent of specimens testing positive for RSV decreased but was slightly above levels observed in previous seasons at this time.
- To learn more about RSV in Florida, please visit: <http://www.floridahealth.gov/rsv>.

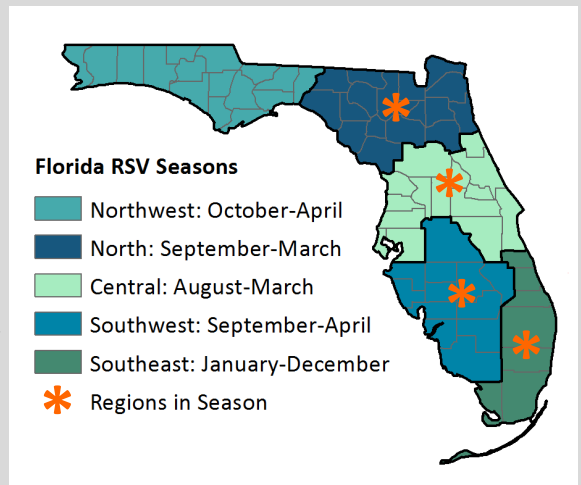
### RSV seasonality:

- RSV activity in Florida typically peaks between November and January, though activity can vary dramatically by region. According to CDC, the start of RSV season is marked by the first two consecutive weeks during which the average percentage of specimens testing positive for RSV is  $\geq 10\%$ .
- Florida has established regular RSV seasons based on these thresholds. **Four regions are now in RSV season.**
- 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:

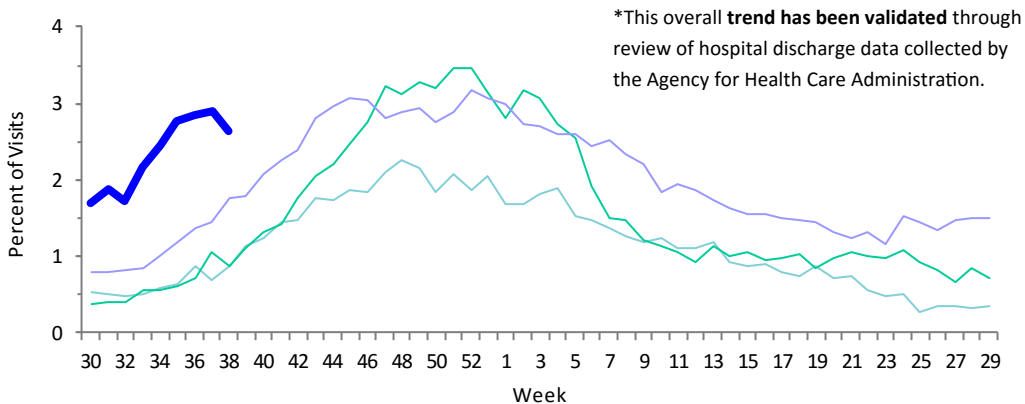
- **One case of enterovirus D68 (EV-D68) was identified in Florida.** This case was retrospectively identified when a specimen collected from an outbreak reported in week 33 (ending August 19, 2017) tested positive for EV-D68 by PCR at BPHL. No additional specimens collected during this outbreak investigation were positive for EV-D68. This is the first identification of EV-D68 in Florida in 2017.
  - To learn more about EV-D68, please visit: <http://www.floridahealth.gov/diseases-and-conditions/d68>.

## 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 to the left 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=306), week 30, 2014 to week 38, 2017.

In week 38, the percent of children diagnosed with RSV at participating EDs and UCCs decreased. Levels remained above those observed in previous seasons at this time. This decrease may be due to a drop in the number of people seeking care as a result of Hurricane Irma.

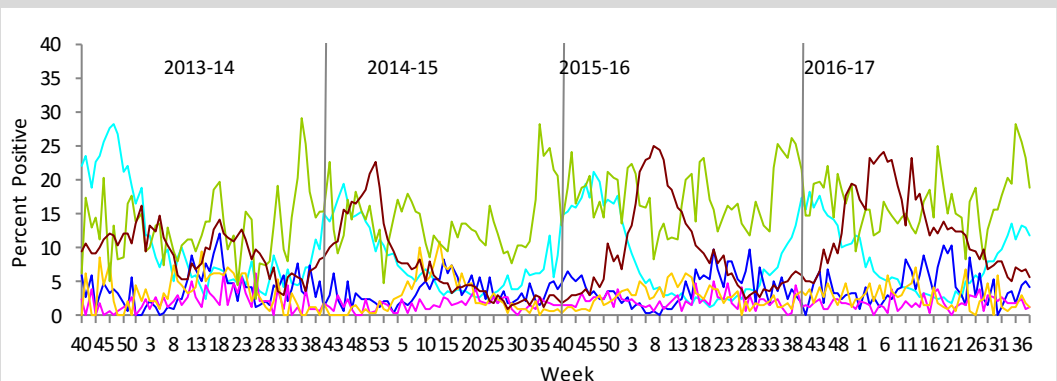
█ 2017-18      █ 2015-16  
█ 2016-17      █ 2014-15

## Laboratory Viral Respiratory Surveillance

The figure below shows the percent of laboratory results testing positive for eight common respiratory viruses, as reported by the National Respiratory and Enteric Virus Surveillance System (NREVSS) and participating validated laboratories reporting via electronic laboratory reporting (ELR) to DOH (n=15), week 40, 2013 to week 38, 2017.

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

█ RSV  
█ Parainfluenza 1-3  
█ Adenovirus  
█ Human metapneumovirus  
█ Rhinovirus  
█ Influenza



# 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) is used to measure trends in ILI visits from emergency departments (ED) and urgent care clinics (UCC) and influenza mortality using death certificates from the Bureau of Vital Statistics. Participating EDs and UCCs (n=306) 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 literals are examined using a free-text query that searches for references to P&I on death certificates. 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 the discharge diagnosis 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](http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/flulabreportguide.pdf).

## **Outbreak Reporting in Merlin**

- Merlin, Florida Department of Health (DOH)'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) and electronic laboratory reporting (ELR) data are from Florida laboratories are used to monitor temporal and geographic patterns of six commonly circulating respiratory viruses on a weekly basis. NREVSS data are collected by the Centers for Disease Control and Prevention (CDC) and ELR data are collected by DOH.

## **Acute Respiratory Infection Epidemiology and Surveillance (ARIES) Program**

- The Acute Respiratory Infection Epidemiology and Surveillance (ARIES) Program is a nationwide surveillance system composed of nine participating jurisdictions. Florida has seven sentinel providers enrolled in ARIES who submit weekly ILI and acute respiratory infection (ARI) patient counts, as well as submit ARI and ILI specimens to BPHL for testing.

## **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](http://www.Floridahealth.gov/diseasereporting).