



## Summary

Weeks 27-28: July 2-15, 2017

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

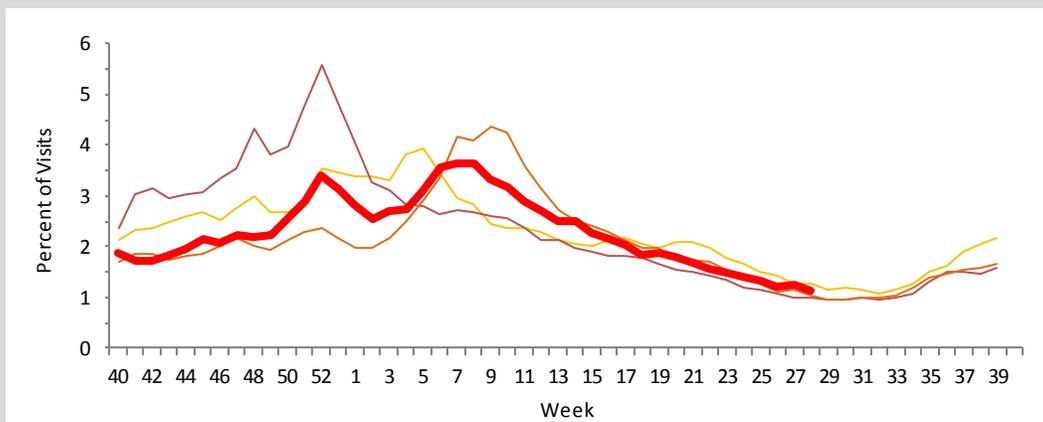
- Influenza and ILI activity in Florida remained low, which is typical for this time of year.
- In weeks 27-28, one outbreak of ILI was reported; 160 outbreaks have been reported since the start of the 2016-17 influenza season.
- In week 27, the preliminary estimated number of deaths due to pneumonia and influenza decreased and was slightly below levels observed in previous seasons at this time.
- **In weeks 27-28, no influenza-associated pediatric deaths were reported. Annual vaccination remains the best way to protect children against influenza.**
  - Ten influenza-associated pediatric deaths have been reported since the start of the 2016-17 influenza season. Further investigation of one previously reported influenza-associated pediatric death determined that influenza was not a contributing cause of death. The total number of influenza-associated pediatric deaths described here reflects this change.
  - For more information on the determination criteria (case definition) for influenza-associated pediatric deaths, please visit: <https://www.cdc.gov/nndss/conditions/influenza-associated-pediatric-mortality/case-definition/2004/>.
- In weeks 27-28, 11 (29.7%) of the 37 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: seven influenza A (H3), two influenza B Yamagata lineage, and two influenza B Victoria lineage.
- In recent weeks, the Florida Department of Agriculture and Consumer Services in coordination with the University of Florida College of Veterinary Medicine announced that the University of Florida has confirmed seven cases of canine influenza A (H3N2) in **dogs** in Florida.
  - These strains of influenza A (H3N2) are **not** the same as the strains circulating in people. **While highly contagious in dogs, there is no evidence to suggest that canine influenza A (H3N2) infects humans.** Canine influenza vaccine is available at many veterinary clinics. To learn more, please visit: <http://hospitals.vetmed.ufl.edu/canine-influenza/>.

### National influenza activity:

- Influenza viruses continue to circulate at low levels nationally.
- **The Centers for Disease Control and Prevention (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 current 2016-17 influenza vaccination formulations.** This drifted strain is also different from the strain of influenza B Victoria lineage recommended for inclusion in the 2017-18 influenza vaccination formulations.
- In the spring of 2017, avian influenza A (H7N9) was identified in **chickens** in Tennessee, Alabama, and Kentucky; avian influenza A (H7) was identified in **chickens** in Georgia; and avian influenza A (H5N2) was identified in **turkeys** in Wisconsin. **No avian influenza has been identified in Florida birds or humans so far in 2017.** To learn more about HPAI, please visit: [www.floridahealth.gov/novelflu](http://www.floridahealth.gov/novelflu).

## 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=303) from week 40, 2013 through week 28, 2017.

**The percent of ILI visits to ESSENCE-FL participating facilities decreased in recent weeks and was similar to levels observed in previous seasons at this time.**

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

<sup>1</sup> 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.

<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 July 19, 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

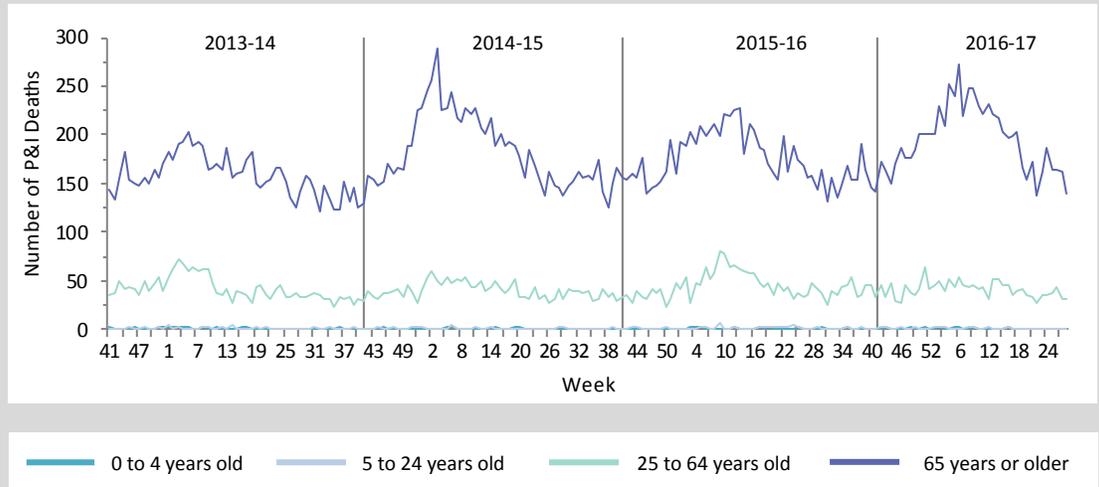
P&I = pneumonia and influenza

The figure below shows the number of preliminary P&I deaths by age group from week 40, 2013 through week 27, 2017, as reported into ESSENCE-FL. *Vital statistics death records data are currently considered to be complete through week 27, 2017.*

The number of P&I deaths reported in week 27 was similar to or slightly below levels seen in previous seasons at this time in all age groups.

**173 preliminary estimated P&I deaths were reported for week 27, 2017.**

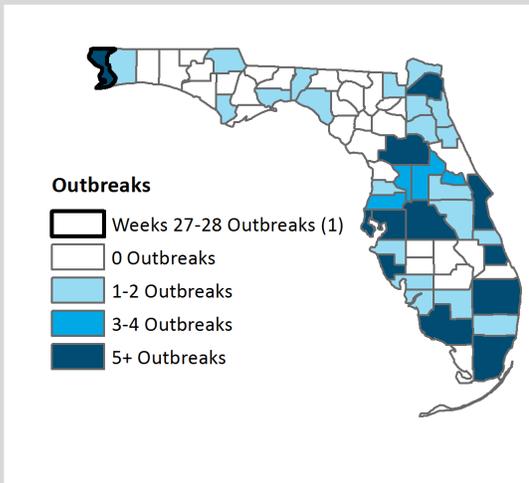
Based on a multi-year regression model to predict P&I death counts in the Florida population, no excess deaths were reported for week 27, 2017. The upper bound of the 95% confidence interval for prediction is 213 deaths.



## Influenza and ILI Outbreaks

ILI = influenza-like illness

### Influenza and ILI Outbreaks by County Week 40, 2016 through Week 28, 2017



The map to the left shows influenza and ILI outbreaks by county from week 40, 2016 (beginning on October 4, 2016) through week 28, 2017 (ending on July 15, 2017). **One outbreak of ILI was reported in weeks 27-28.** As of week 28, 160 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.

#### Escambia County:

A retirement community reported 22 individuals with ILI. No specimens have been available for testing at BPHL thus far. The etiology of this outbreak is not yet known. Vaccination status for the 2016-17 influenza season for all residents and staff members is currently unknown. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

## RSV and Other Respiratory Virus Surveillance

RSV = respiratory syncytial virus

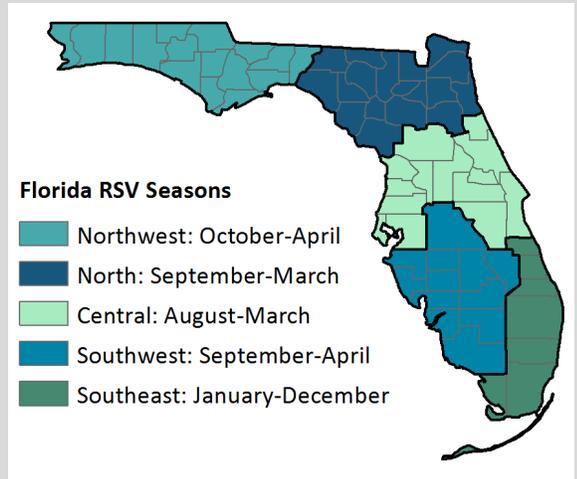
### RSV activity:

- In weeks 27-28, 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.
- The percent of specimens testing positive for RSV increased and 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. **Currently, the southeast region is the only Florida region considered to be 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.

## Florida Respiratory Syncytial Virus (RSV) Regional Season Breakdown

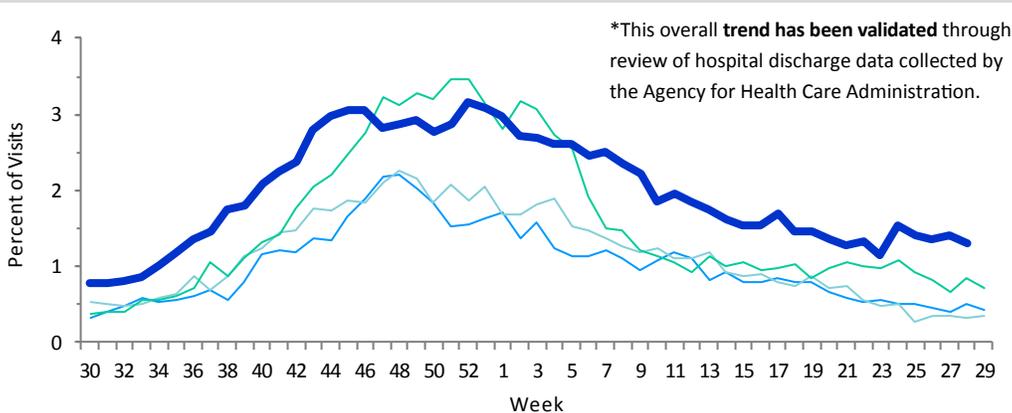


### Other respiratory virus surveillance:

- The percent of specimens testing positive for rhinovirus decreased and was similar to levels observed in previous seasons at this time.
- The percent of specimens testing positive for parainfluenza 1-3 decreased and was similar to levels observed in previous seasons at this time.
- The percent of specimens testing positive for human metapneumovirus increased and was slightly above levels observed in previous seasons at this time.

## 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=303), week 30, 2013 to week 28, 2017.

**In week 28, the percent of children diagnosed with RSV at participating EDs and UCCs decreased. Levels remained above those observed in previous seasons at this time.**

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

- 2016-17 (Dark Blue)
- 2015-16 (Green)
- 2014-15 (Light Blue)
- 2013-14 (Medium Blue)

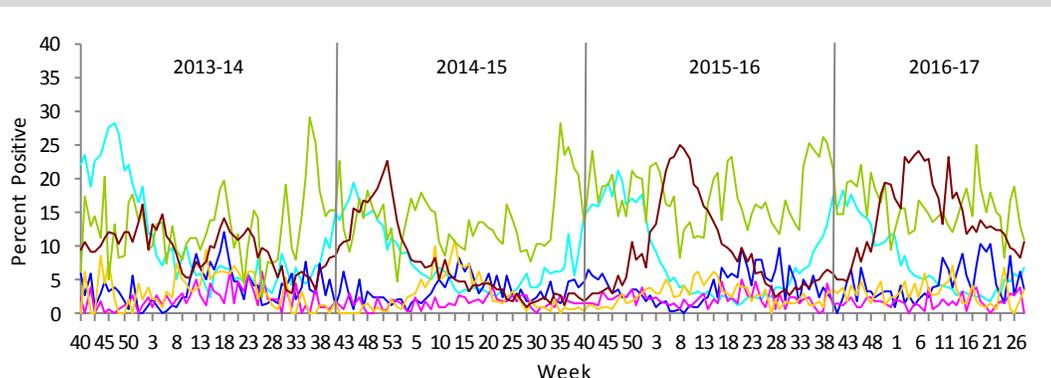
## Laboratory Viral Respiratory Surveillance

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 28, 2017.

**In week 28, the percent of specimens testing positive for influenza increased and was slightly above levels observed in previous seasons at this time. The percent of specimens testing positive for rhinovirus decreased, 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 (Red)



# 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=303) 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).