



Summary

Week 50: December 11-17, 2016

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

- In week 50, influenza activity increased but remained at low levels across the state.
- The percent of emergency department (ED) and urgent care center (UCC) visits for ILI increased but remained low overall.
- Respiratory syncytial virus (RSV) activity in children <5 years old decreased, and was similar to levels observed in the 2015-16 season at this time. RSV activity this season peaked earlier than in the past three seasons. Despite this peak in activity, RSV continues to circulate throughout the state.
 - For more information on RSV activity in Florida, see page 11.
- In week 49, the preliminary estimated number of deaths due to pneumonia and influenza (P&I) increased slightly and was similar to levels seen in previous seasons at this time.
- **No influenza-associated pediatric deaths were reported.**
 - No influenza-associated pediatric deaths have been reported so far this season.
 - **Annual vaccination remains the best way to protect children against influenza infection. If you have not gotten vaccinated yet, you should get vaccinated now.**
- One county reported elevated influenza activity, five counties reported moderate influenza activity, 47 counties reported mild influenza activity, and 14 counties reported no influenza activity.
- Four outbreaks of influenza or ILI were reported; two in Pinellas county skilled nursing facilities, one in a Seminole County skilled nursing facility, and one in a Manatee County childcare facility. A total of 12 outbreaks of influenza and ILI have been reported this season.
- **Since the start of the 2016-17 influenza season, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) statewide has been influenza A (H3).**
 - In recent weeks, influenza B viruses have predominated in South Florida. It is not uncommon for the predominantly circulating influenza strain in Florida to vary by region.

National influenza activity:

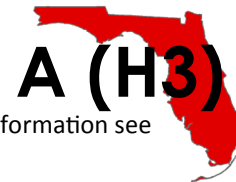
- **Influenza continues to circulate at low levels nationally. In recent weeks, influenza and ILI activity increased, but remained below the national baseline.**
 - While the timing and severity of influenza seasons vary and are unpredictable, influenza activity is expected to increase in the coming weeks.
- **In recent weeks, influenza A (H3) has been the most common subtype reported to the Centers for Disease Control and Prevention (CDC) by public health laboratories across the nation.**
 - Seasons in which influenza A (H3) predominates have been associated with more severe illness, particularly in adults ≥65 years old.
- CDC recommends annual vaccination for everyone ≥6 months old. **People who have not been vaccinated against influenza should get vaccinated as soon as possible.**
 - Getting your annual influenza vaccine aids in the protection of others who are more vulnerable to serious influenza complications, such as pregnant women, the elderly, young children, and people with chronic conditions like asthma or diabetes. Influenza can be more serious for these individuals and the best way to protect them is by getting your flu vaccine every year.
- There is increased risk for highly pathogenic avian influenza (HPAI) H5 virus identification in birds during the fall migratory season. HPAI H5 has not been identified in Florida birds and would be expected to be seen in more northerly states first, but identifications are possible. To date, only one wild duck in Alaska has tested positive for HPAI H5 since November 2015. No human HPAI infections have been identified in Florida or other states.
 - To learn more about HPAI, please visit: www.floridahealth.gov/novelflu.

Weekly State Influenza Activity



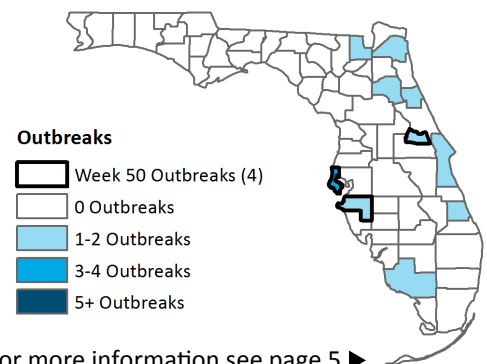
For more information see page 2 ►

Predominately Circulating Strain



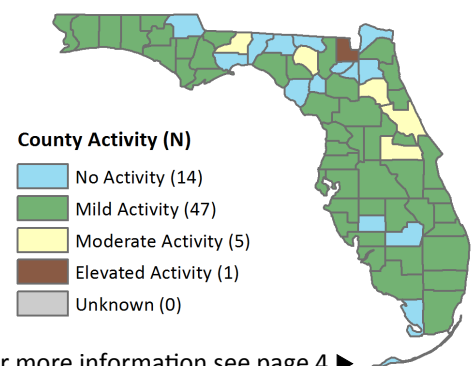
For more information see page 6 ►

Influenza and ILI Outbreaks Reported as of 12/17/2016



For more information see page 5 ►

County Influenza Activity



For more information see page 4 ►

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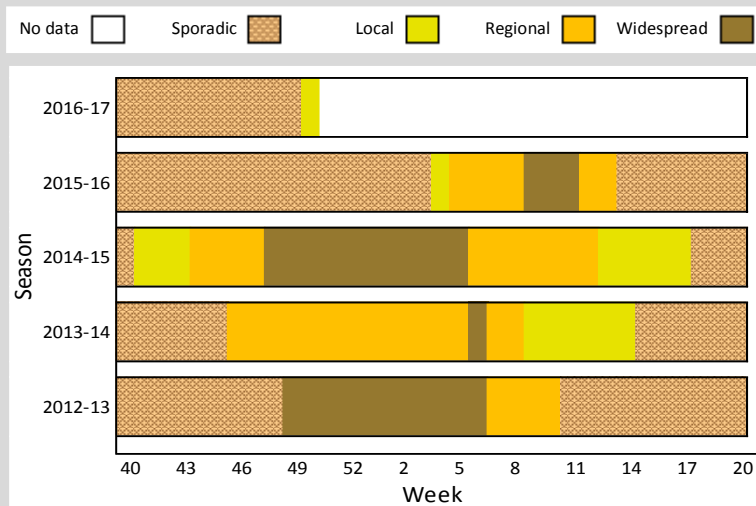
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Weekly State Influenza Activity Reporting

Below is the state influenza activity level reported to CDC each week since the 2012-13 influenza season. **Florida reported local influenza activity for week 50.**



Influenza activity in Florida can vary widely from season to season. This unpredictability underscores the importance of influenza surveillance in Florida.

Influenza surveillance goals:

- Influenza surveillance is conducted to detect changes in the influenza virus. These data are used to help determine the annual national vaccine composition and to prepare for potential epidemics or pandemics.
- Surveillance is also conducted to identify unusually severe presentations of influenza infection, detect outbreaks, and determine seasonal influenza trends in order to guide influenza prevention, particularly in high-risk populations like children, adults ≥65 years old, and pregnant women.
- See the back page of this report for more information on influenza surveillance systems used in Florida: Page 13 ►

Statewide ILI Visits

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

ED and UCC Visits for ILI by Flu Season

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

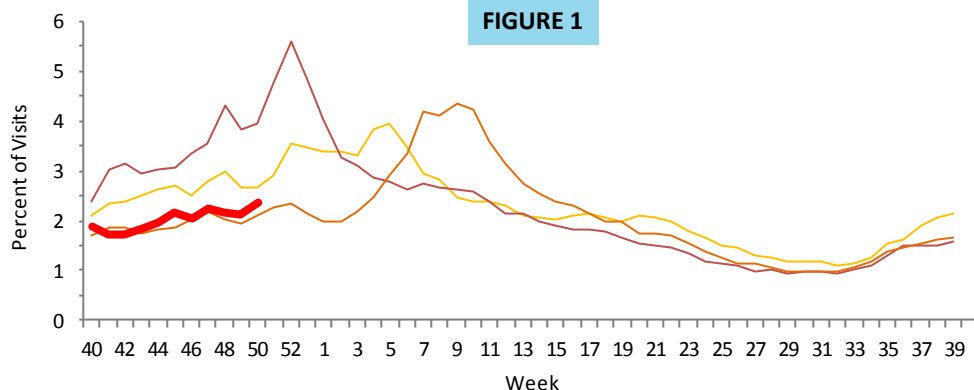


Figure 1 shows the percent of visits for ILI from ED and UCC chief complaint data for ESSENCE-FL participating facilities (n=278), week 40, 2013 to week 50, 2016.

In week 50, the percent of visits to EDs and UCCs for ILI increased slightly but remained similar to or below levels seen in previous seasons at this time.

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

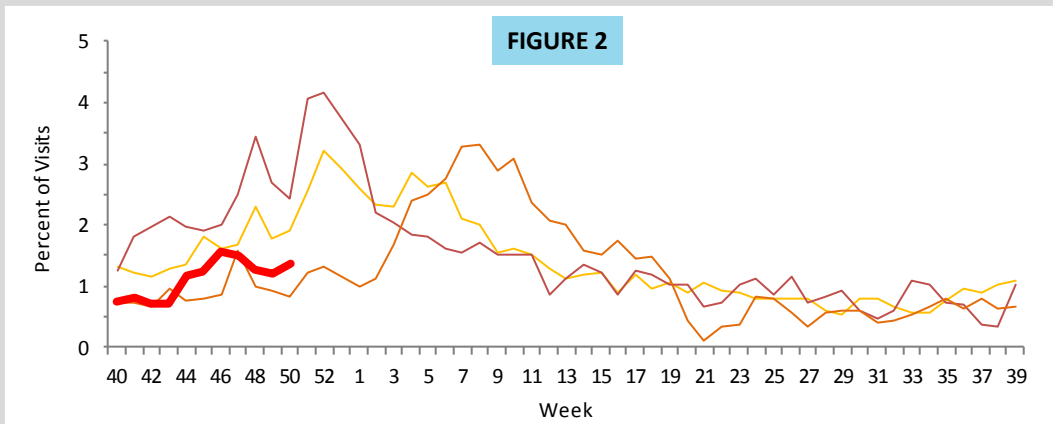


Visits for ILI to Outpatient Providers by Flu Season

ILI = influenza-like illness

Figure 2 shows the percent of visits for ILI reported by ILINet outpatient providers statewide (n=43), week 40, 2013 to week 50, 2016.

In week 50, the percent of visits for ILI reported by ILINet outpatient providers increased but was similar to levels seen in previous seasons at this time.



P&I Deaths* from Vital Statistics by Flu Season

P&I = pneumonia and influenza

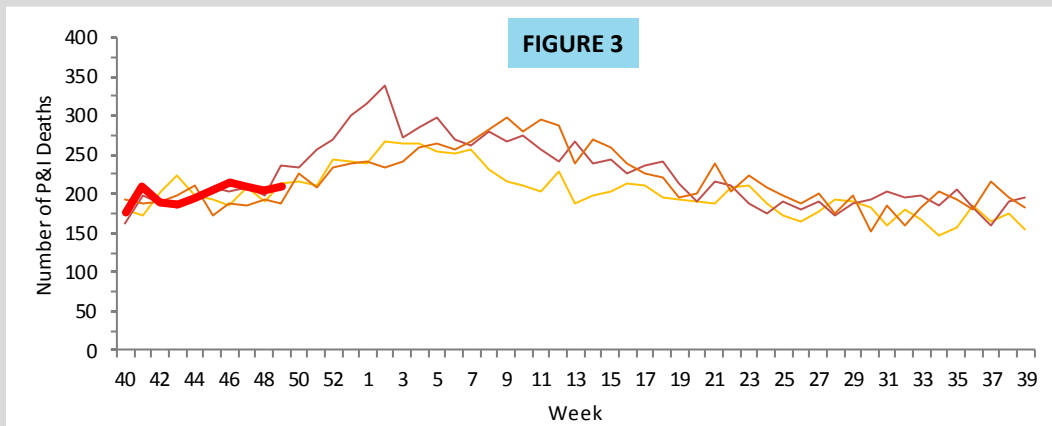


Figure 3 shows P&I deaths* for all Florida counties from the Bureau of Vital Statistics, as reported into ESSENCE-FL, week 40, 2013 to week 49, 2016.

As of week 49 (ending December 10, 2016), 1,995 P&I deaths have been reported in the 2016-17 influenza season.

The preliminary number of P&I deaths increased slightly but was similar to levels seen in previous seasons at this time.

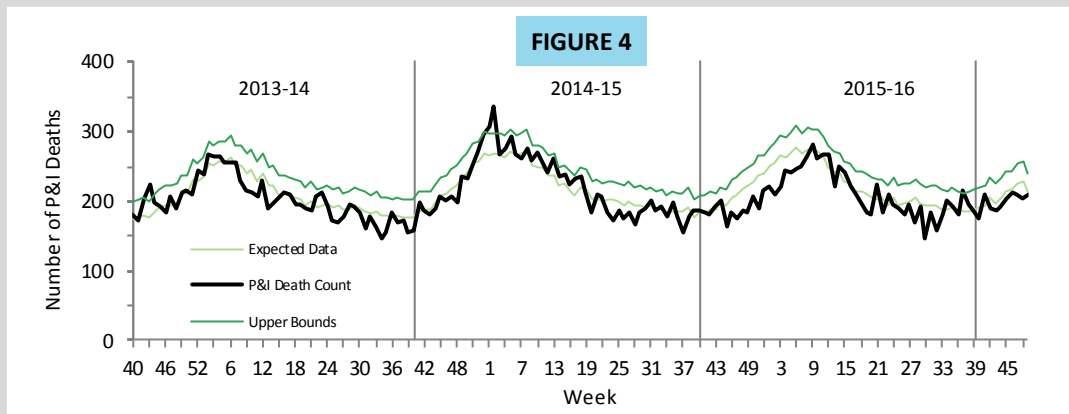
P&I Deaths*, Multi-Year Regression Model

P&I = pneumonia and influenza

Figure 4 shows the number of preliminary estimated P&I deaths* for all Florida counties, the number of deaths predicted using a multi-year regression model, and the upper bound of the 95% confidence interval for this prediction.

For week 49 (ending December 10, 2016), 210 preliminary estimated P&I deaths were reported.

The upper bound of the 95% confidence interval for prediction is 240 deaths, with no excess deaths.



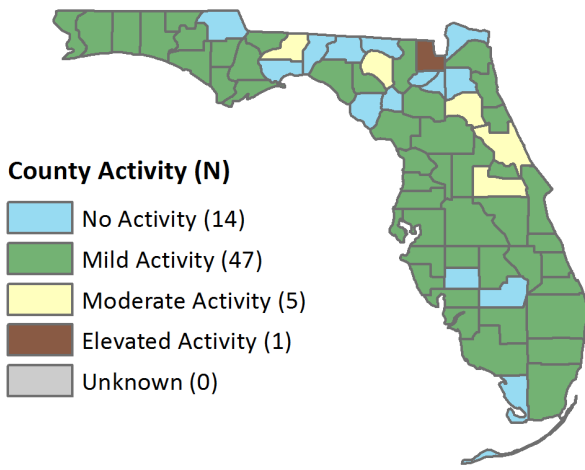
* Current season P&I death counts are preliminary estimates, and may change as more data are received. The most recent data available are displayed here. Vital statistics death records received in ESSENCE-FL are considered to be complete through week 49, 2016.

County influenza activity data are reported by county health departments through EpiGateway on a weekly basis. Information is used to determine county activity and includes laboratory results, outbreak reports, and ILI activity. **The figures below reflect a county health department's assessment of influenza activity within their county. For week 50, 30 counties reported increasing activity, 35 counties reported activity at a plateau, and two counties reported decreasing activity.**

County Influenza Activity

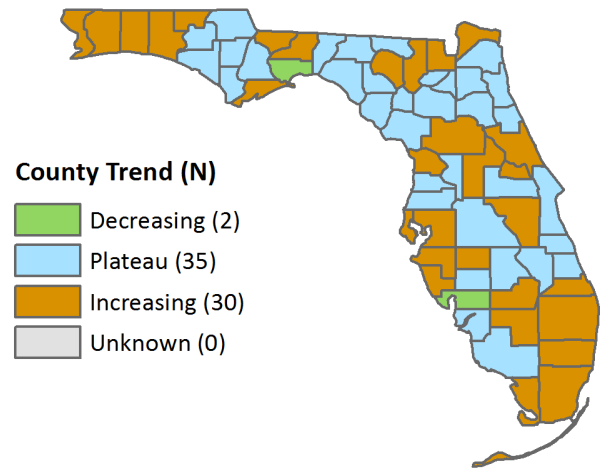
Map 1

County Influenza Activity Level for Week 50 Reported by 9:30 a.m. December 21, 2016



Map 2

County Influenza Activity Trend for Week 50 Reported by 9:30 a.m. December 21, 2016



As of 9:30 a.m. December 21, 2016, a total of 67 (100%) counties reported their weekly level of influenza activity. Please note that data reported after the deadline Tuesday at 5 p.m. are recorded but may not be included in the activity maps for this week.

Influenza-Associated Pediatric Deaths

Influenza-Associated Pediatric Deaths

FIGURES 5 - 7

Figures 5-7 show the number of pediatric deaths associated with influenza infection, week 40, 2012 to week 50, 2016.

No influenza-associated pediatric deaths were reported in week 50. No influenza-associated pediatric deaths have been reported so far this season.

While rare, Florida receives reports of influenza-associated pediatric deaths each season. **Most deaths occurred in unvaccinated children with underlying health conditions.** Children, especially those with underlying health conditions, are at higher risk of severe outcomes from influenza infection.

Annual vaccination remains the best way to protect against influenza. People who have not been vaccinated yet should get vaccinated as soon as possible. CDC recommends vaccination as long as influenza viruses are circulating. To learn more, please visit: www.cdc.gov/flu/protect/whoshouldvax.htm#annual-vaccination.

Figure 5: Influenza-Associated Pediatric Deaths by Vaccination Status



Figure 6: Influenza-Associated Pediatric Deaths by Medical History

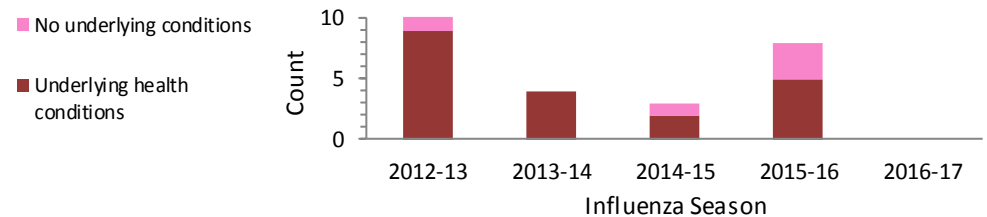
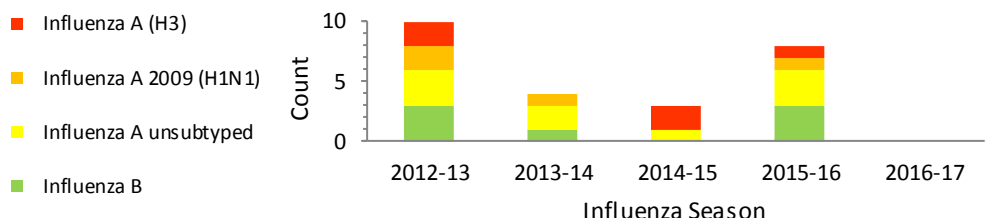


Figure 7: Influenza-Associated Pediatric Deaths by Strain Type



Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

Map 3 shows influenza and ILI outbreaks by county for week 40, 2016 through week 50, 2016. **In week 50, four outbreaks of influenza or ILI were reported into EpiCom or Merlin.** Twelve outbreaks of influenza and ILI have been reported into EpiCom or Merlin so far this season.

Pinellas County:

A local skilled nursing facility reported 36 residents and nine staff members with ILI. The facility reported 69% of the residents received the 2016-17 influenza vaccine. Three specimens were collected for testing at BPHL, the results are pending. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

A local skilled nursing facility reported three residents and two staff members with ILI. Specimens collected from all five ill individuals tested positive for influenza A by rapid antigen testing at local health care providers. The facility reported one of the three ill residents and one of the two ill staff members received the 2016-17 influenza vaccine. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

Seminole County:

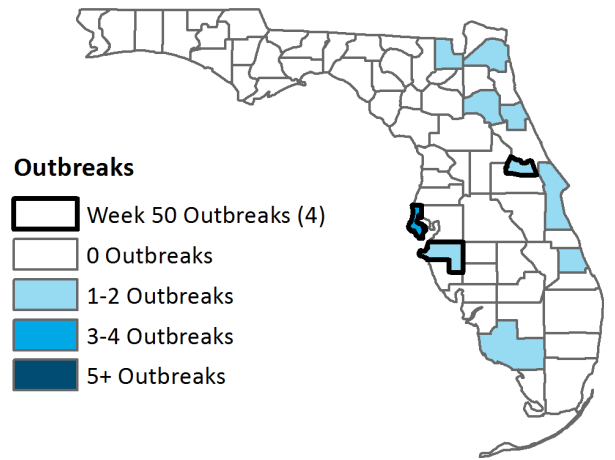
A local skilled nursing facility reported two residents with ILI. One specimen was collected for testing at BPHL and was positive for influenza A (H3) by PCR. Infection control measures were reviewed with facility leadership. This investigation is closed.

Manatee County:

A local childcare facility reported four individuals with ILI. Thus far no specimens have been collected for BPHL. Vaccination status is currently unknown. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

Map 3

**Influenza and ILI Outbreaks by County
Week 40, 2016 through Week 50, 2016**



Outbreaks

- Week 50 Outbreaks (4)
- 0 Outbreaks
- 1-2 Outbreaks
- 3-4 Outbreaks
- 5+ Outbreaks

TABLE 1: Summary of Florida Influenza and ILI Outbreaks by Setting, Week 40 through Week 50, 2016

Setting	Total	A (H3)	A 2009 (H1N1)	A Unsubtyped	A & B Unsubtyped	B Yamagata	B Victoria	B Unsubtyped	Influenza Unspecified	Other respiratory viruses	Currently unknown pathogen
Schools	-	-	-	-	-	-	-	-	-	-	-
Daycares	2	-	-	-	-	1	-	-	-	-	1
Jails & prisons	-	-	-	-	-	-	-	-	-	-	-
Mental health facilities	1	-	-	-	-	-	-	-	-	-	1
Nursing homes & long-term care facilities	9	1	-	3	-	1	-	1	-	1-RSV	2
Health care facilities	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-
Total	12	1	0	3	0	2	0	1	0	1	4

Reported Influenza and ILI Outbreaks by Facility Type

ILI = influenza-like illness

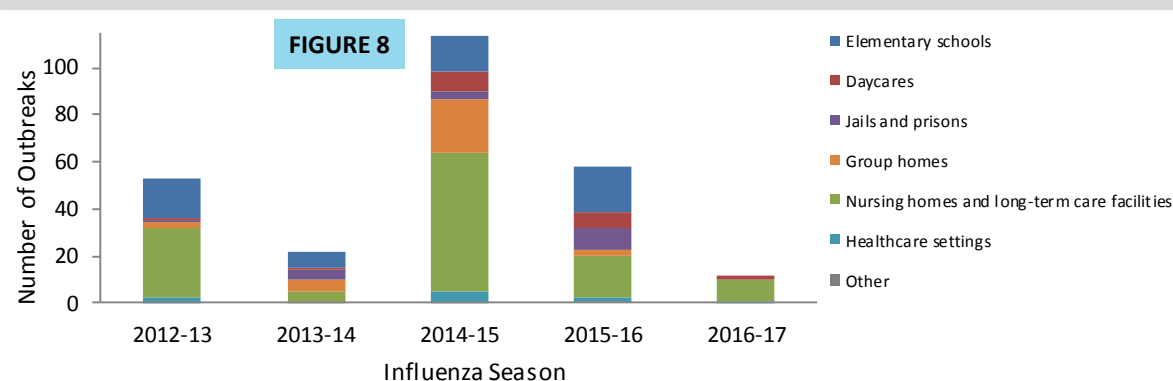


FIGURE 8

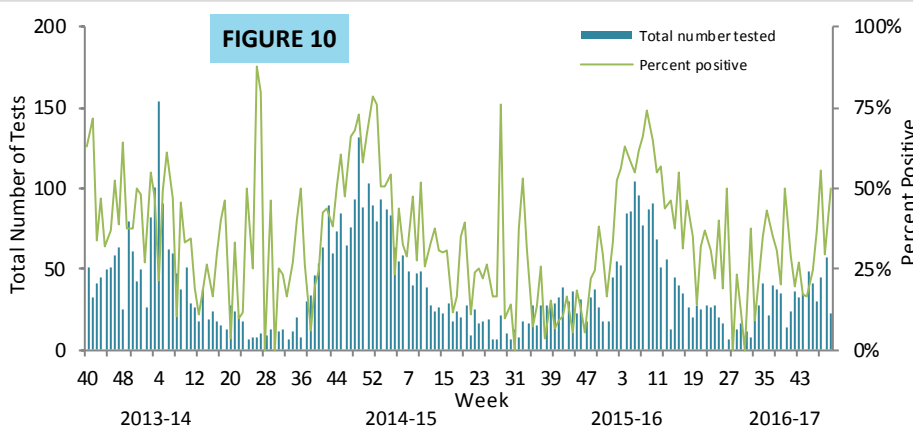
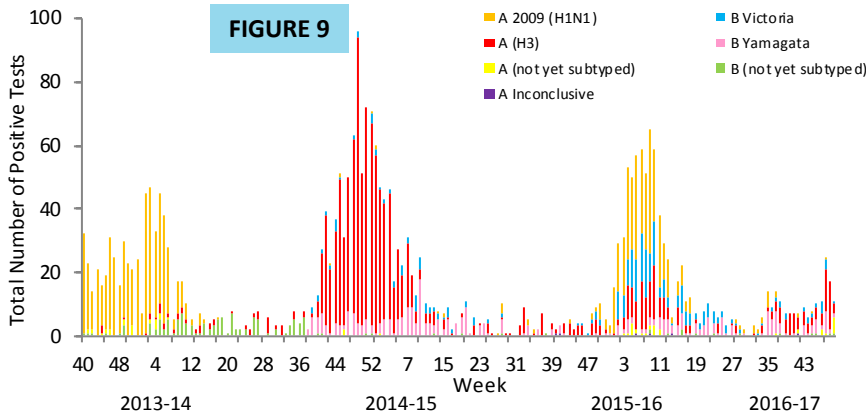
Figure 8 shows the distribution of outbreaks by facility type and season.

In week 50, four outbreaks of influenza or ILI were reported.

Seasons in which influenza A (H3) predominates have been associated with more severe illness, particularly in the elderly. As such, it is expected that outbreaks will occur in facilities serving the elderly, such as long-term care facilities and nursing homes.

BPHL Viral Influenza Specimen Testing

BPHL = Bureau of Public Health Laboratories



Figures 9 and 10 use BPHL viral surveillance data.

Figure 9 shows the number of influenza-positive specimens tested by subtype and lab event date*.

In recent weeks, the most common influenza subtype detected at BPHL statewide has been influenza A (H3). In recent weeks, influenza B viruses have predominated in South Florida. It is not uncommon for the predominantly circulating influenza strain in Florida to vary by region.

Figure 10 shows the number of specimens tested by BPHL and the percent that were positive for influenza by lab event date*.

In week 50, the number of specimens tested for influenza decreased and was below levels observed in previous seasons. The percent of specimens testing positive for influenza increased and was similar to levels in previous seasons.

**TABLE 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance by Lab Event Date*
Reported by 10:00 a.m. December 21, 2016**

Influenza Type	Current Week 50	Previous Week 49	Current 2016-17 Season
Total Specimens Tested	22	57	386
Influenza positive specimens (% of total specimen tested)	11 (50.0%)	17 (29.8%)	118 (30.6%)
Influenza A 2009 (H1N1) (% of influenza positives)	-	-	3 (2.5%)
Influenza A (H3) (% of influenza positives)	3 (27.3%)	15 (88.2%)	67 (56.8%)
Influenza A not yet subtyped (% of influenza positives)	5 (45.5%)	-	9 (7.6%)
Influenza A inconclusive** (% of influenza positives)	-	-	1 (0.8%)
Influenza B Yamagata (% of influenza positives)	1 (9.1%)	1 (5.9%)	21 (17.8%)
Influenza B Victoria (% of influenza positives)	1 (9.1%)	-	13 (11.0%)
Influenza B not yet subtyped (% of influenza positives)	1 (9.1%)	1 (5.9%)	4 (3.4%)

*"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.

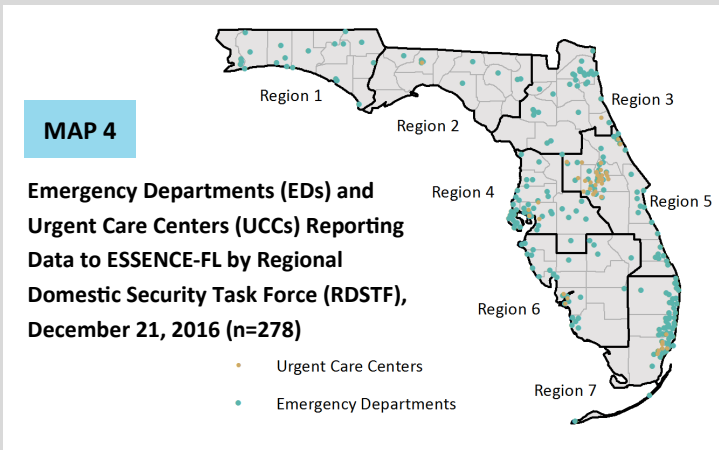
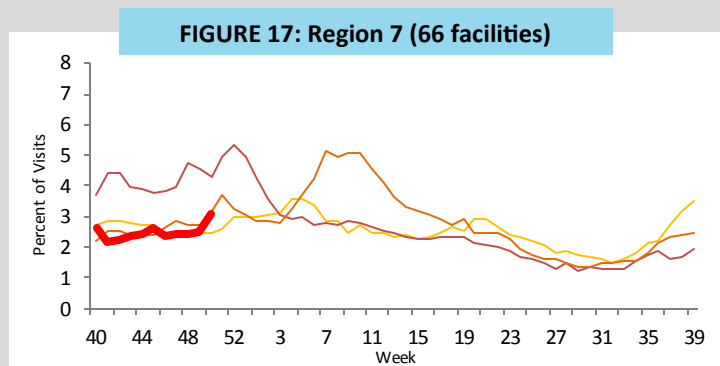
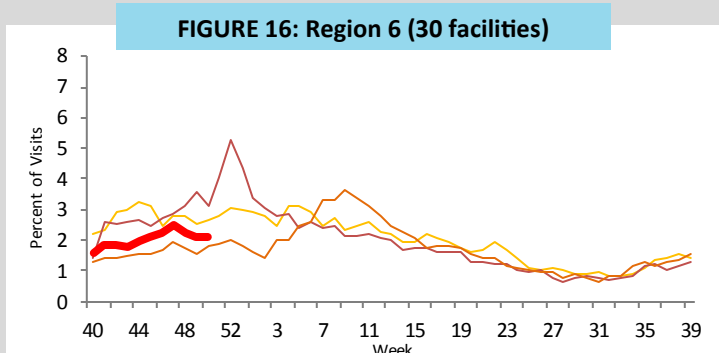
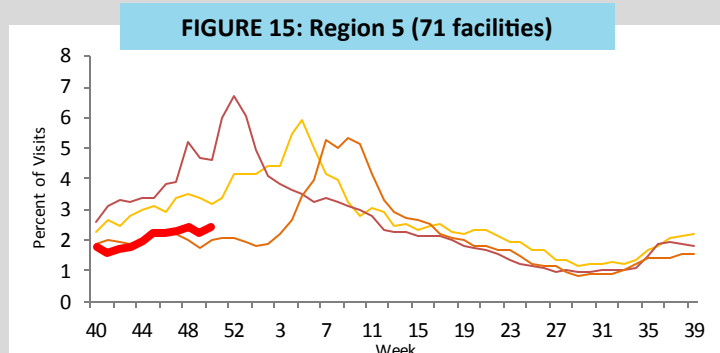
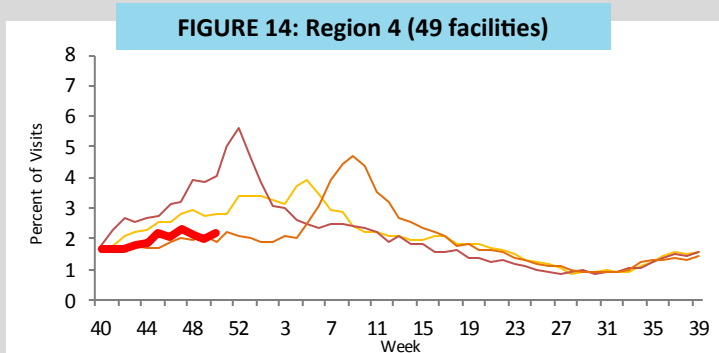
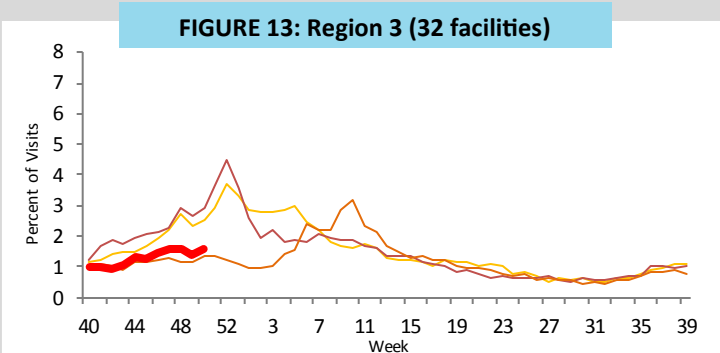
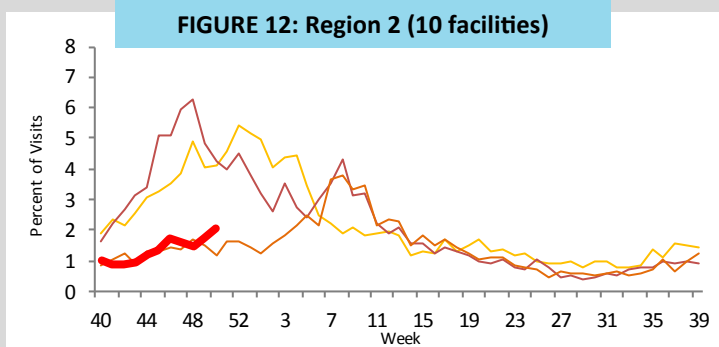
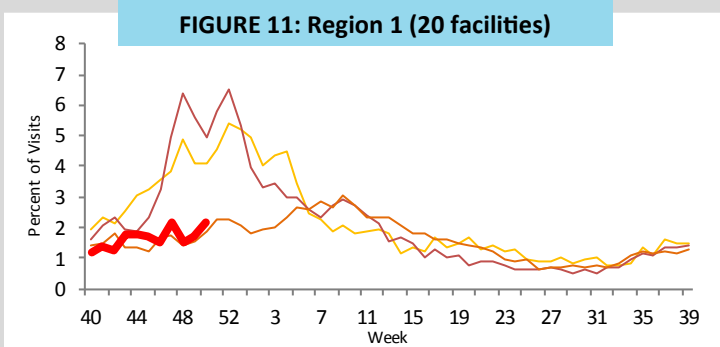
**Influenza A inconclusive test results are due to technical difficulties including an insufficient sample for testing or internal sample control failure and occur occasionally in routine laboratory testing.

For 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: www.floridahealth.gov/diseases-and-conditions/influenza/_documents/flulabreportguide.pdf

ED and UCC Visits for ILI by Region

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

Figures 11-17 show the percent of visits for ILI from ED and UCC chief complaints for ESSENCE-FL participating facilities (n=278), by ESSENCE-FL Regional Domestic Security Task Force (RDSTF) regions (see map 4) from week 40, 2013 to week 50, 2016*. In week 50, the percent of ED and UCC visits for ILI remained low in all regions. ILI activity increased or remained the same in all regions. The percent of ED and UCC visits for ILI was similar to or below levels seen in previous seasons in all regions at this time.



*There is no week 53 for the 2012-13, 2013-14, and 2015-16 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

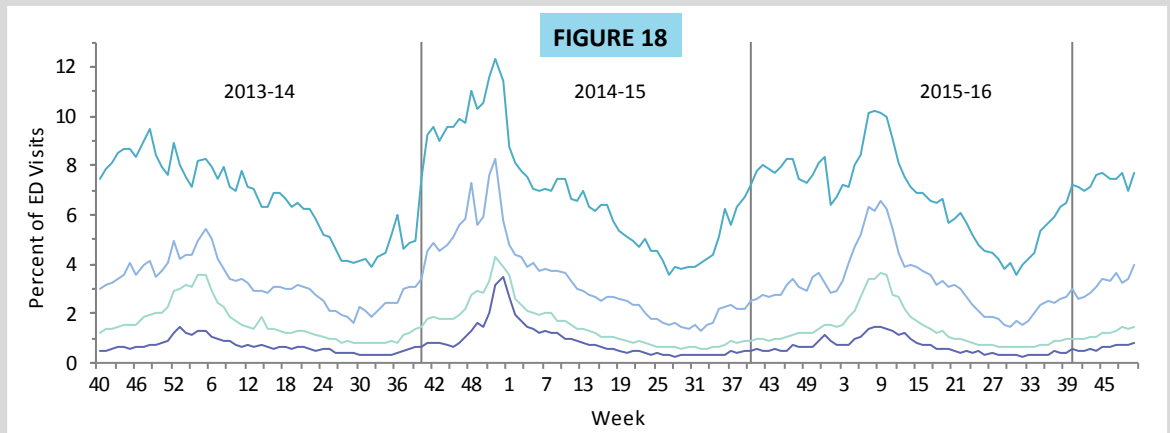
0 to 4 years old 5 to 24 years old 25 to 64 years old ≥65 years old

ED and UCC Visits for ILI by Age Group

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

Figure 18 shows the percent of visits for ILI from ED and UCC chief complaints by age group for ESSENCE-FL participating facilities (n=278), week 40, 2013 to week 50, 2016.

In week 50, ED and UCC visits for ILI increased in all age groups. Levels were similar to those observed in previous seasons at this time in all age groups.



Visits to Outpatient Providers for ILI by Age Group*

ILI = influenza-like illness

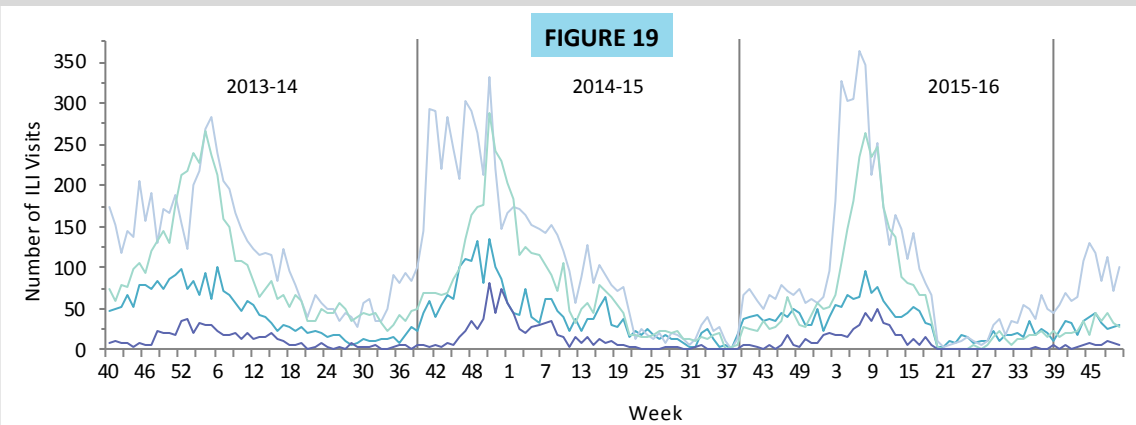


Figure 19 shows the number of visits for ILI reported by ILINet outpatient providers statewide (n=43) by age group, week 40, 2013 to week 50, 2016.

In week 50, the number of visits for ILI increased in the 0-4 and 5-24 age groups. The number of visits for ILI decreased in the 25-64 and the ≥65 age groups. Levels were similar to or below those seen in previous seasons at this time in all age groups.

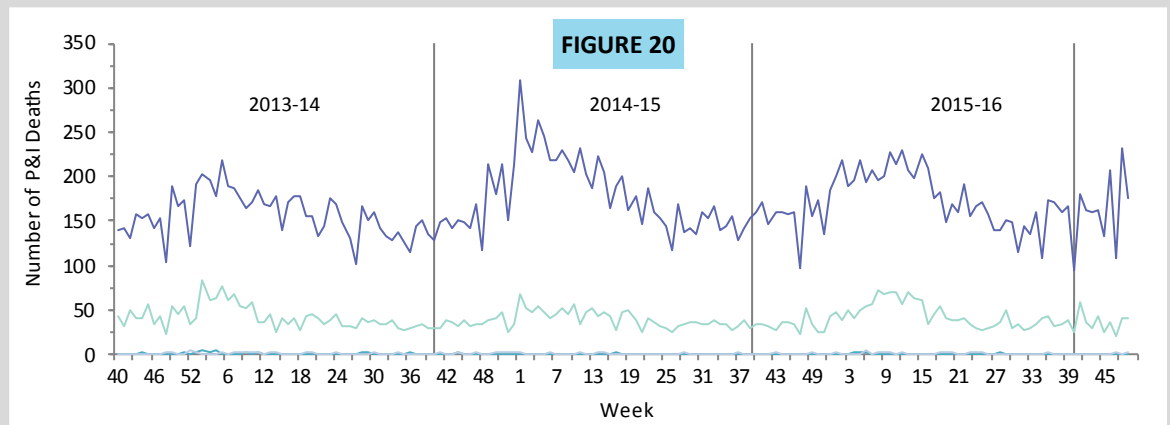
*Data presented here are counts, not proportions. This is because age group denominator data is not available through ILINet.

P&I Deaths* from Vital Statistics by Age Group

P&I = pneumonia and influenza

Figure 20 shows P&I deaths* for all Florida counties by age group, as reported into ESSENCE-FL, week 40, 2013 to week 49, 2016.

In week 49 (ending December 10, 2016), the number of P&I deaths increased in the 0-4 and 5-24 age groups. The number of P&I deaths decreased or remained the same in the 25-64 and ≥65 age groups. Levels were similar to those seen in previous seasons in all age groups.



*Current season P&I death numbers are preliminary estimates, and may change as more data are received. The most recent data available are displayed here. Vital statistics death records received in ESSENCE-FL are currently considered to be complete through week 49, 2016.

ESSENCE-FL collects data daily from 278 EDs and UCCs. Data are processed into 11 different syndrome categories based on the patient's chief complaint. One of the categories is ILI, which is composed of chief complaints that include the words "influenza" or "flu," or complaints that contain "fever," "cough," and/or "sore throat." The Florida Department of Health uses ED and UCC chief complaint data to monitor influenza and ILI activity in a timely manner in groups at higher risk of severe health outcomes (such as hospitalization and death) from influenza infection. These at-risk groups include pregnant women, children ≤ 18 years old, and adults ≥ 65 years old.

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

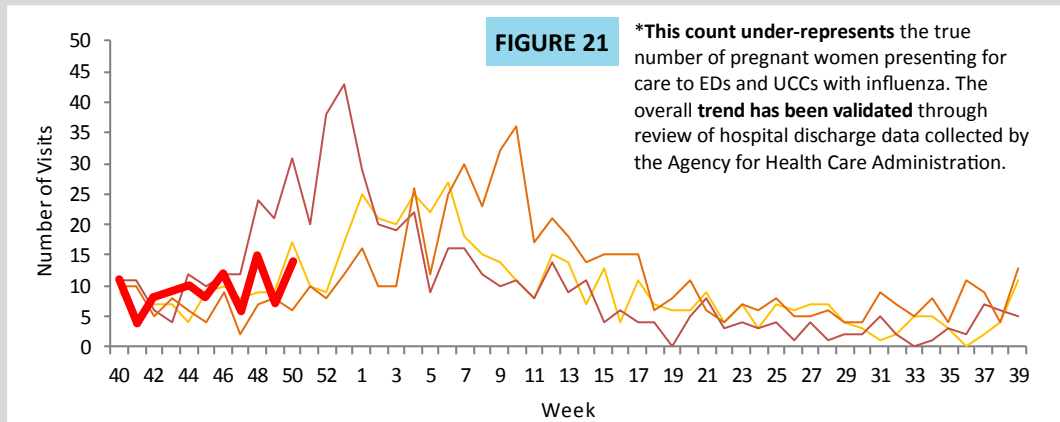
ED and UCC Visits for ILI by Pregnant Women

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

Pregnant women are at higher risk for severe complications due to influenza infection.

Figure 21 shows the number of visits* to EDs and UCCs with chief complaints of influenza infection and pregnancy, as reported into ESSENCE-FL, week 40, 2013 to week 50, 2016.

In week 50, the number of visits to EDs and UCCs by pregnant women with mention of influenza remained similar to levels seen in previous seasons at this time.



ED and UCC Visits for ILI by Children ≤ 18 Years Old

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

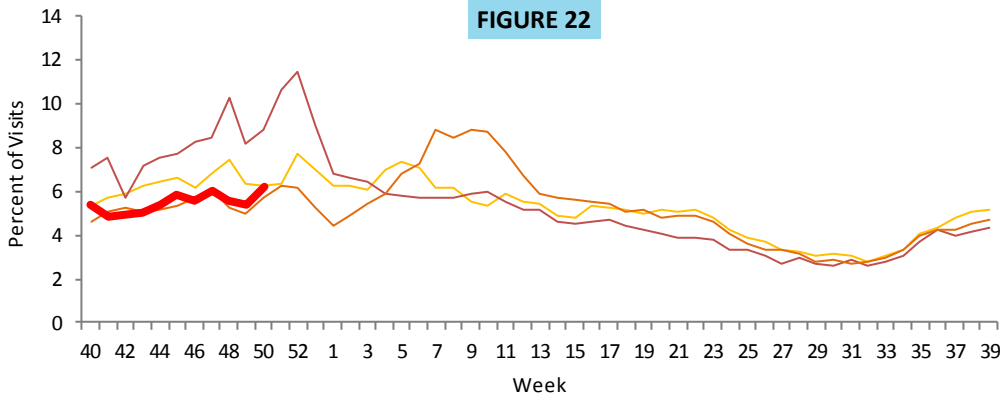


Figure 22 shows the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old, as reported into ESSENCE-FL, week 40, 2013 to week 50, 2016.

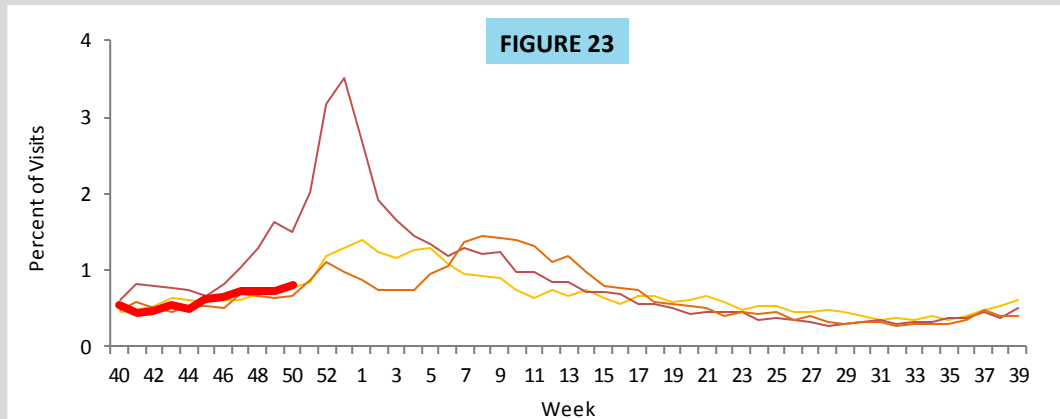
In week 50, the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old increased but remained similar to levels seen in previous seasons at this time.

ED and UCC Visits for ILI by Adults ≥ 65 Years Old

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

Figure 23 shows the percent of ILI visits among all ED and UCC visits for adults ≥ 65 years old, as reported into ESSENCE-FL, week 40, 2013 to week 50, 2016.

In week 50, the percent of ILI visits among all ED and UCC visits for adults ≥ 65 years old increased slightly but remained similar to levels seen in previous seasons at this time.



ILI Activity by Setting Type

ILI = influenza-like illness

County health departments are asked to evaluate influenza activity in certain settings within their county. The assessment scale for activity ranges from no or minimal activity to very high activity.

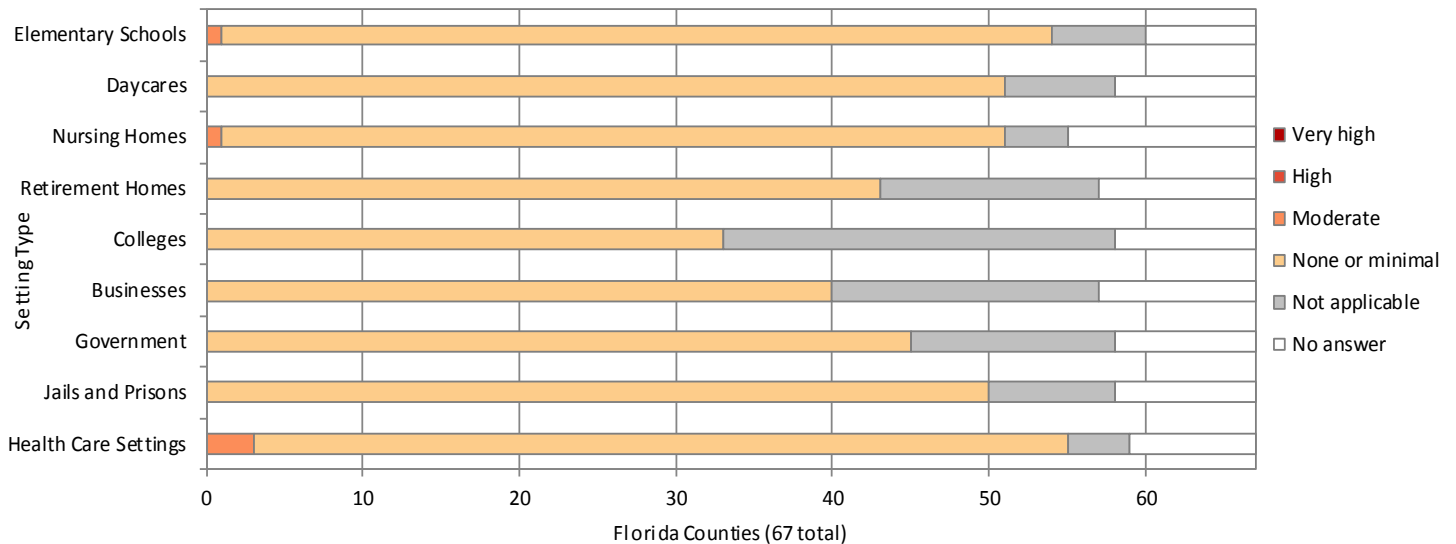
Figure 24 shows the results of the influenza activity assessment for week 50, 2016.

Counties that reported “not applicable” for the listed settings are excluded from the denominator in the calculations below.

ILI Activity Levels:

- No or very minimal activity
- Moderate activity
- High activity
- Very high activity

FIGURE 24



Settings for Children <18 Years Old

In elementary schools, 53 counties (87%) reported no or minimal influenza or ILI activity. One county (2%) reported moderate influenza or ILI activity.

In daycare settings, 51 counties (85%) reported no or minimal influenza or ILI activity.

Settings for Adults >65 Years Old

In nursing homes, 50 counties (79%) reported no or minimal influenza or ILI activity. One county (2%) reported moderate influenza or ILI activity.

In retirement homes, 43 counties (81%) reported no or minimal influenza or ILI activity.

Settings for Adults 18 to 65 Years Old

In colleges, 33 of 42 counties (80%) reported no or minimal influenza or ILI activity.

In businesses, 40 counties (80%) reported no or minimal influenza or ILI activity.

In government offices, 45 counties (83%) reported no or minimal influenza or ILI activity.

Other Unique Settings

In jails and prisons, 50 counties (84%) reported no or minimal influenza or ILI activity.

In health care settings, including rehabilitation facilities and mental health facilities, 52 counties (83%) reported no or minimal influenza or ILI activity. Three counties (5%) reported moderate influenza or ILI activity.

RSV Activity Summary and Seasonality

RSV = respiratory syncytial virus

RSV activity:

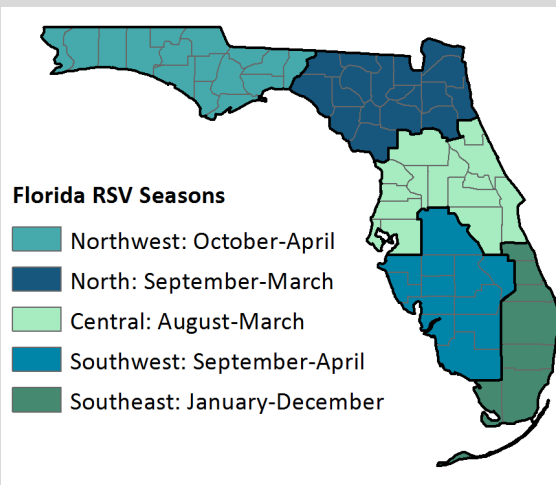
- Preliminary data suggest that RSV activity this season has peaked statewide. This peak in activity occurred earlier than in the past three seasons. Despite this peak in activity, RSV continues to circulate throughout the state. Currently, all regions are still considered to be in RSV season.
- In week 50, the percent of children <5 years old diagnosed with RSV at EDs and UCCs decreased and was similar to levels observed in the 2015-16 season at this time.
- The percent of specimens testing positive for RSV was below levels observed in the 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 in November through 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.
- 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.

Map 5

Florida Respiratory Syncytial Virus (RSV) Regional Season Breakdown



RSV surveillance goals:

- A statewide RSV surveillance system was implemented in Florida to support clinical decision-making for prophylaxis of premature infants. The determination of unique seasonal and geographic trends of RSV activity has important implications as it relates to prescribing patterns for initiating prophylaxis to children at high risk for RSV infection.
- See the back page of this report for more information on RSV surveillance systems used in Florida: Page 13 ►

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

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

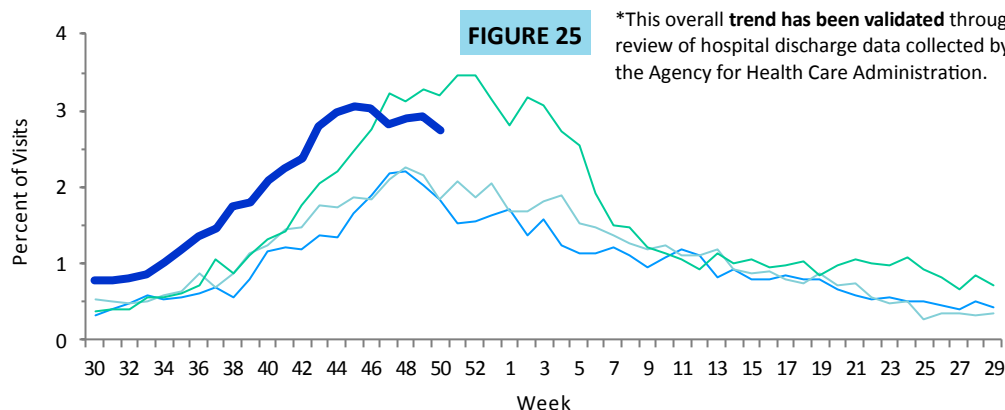


Figure 25 shows the percent of visits to EDs and UCCs with discharge diagnoses that include RSV or RSV-associated illness, as reported by participating ESSENCE-FL facilities (n=278), week 30, 2013 to week 50, 2016.

In week 50, the percent of children presenting to participating EDs and UCCs for care with RSV decreased, and was similar to levels seen in the 2015-16 season at this time.

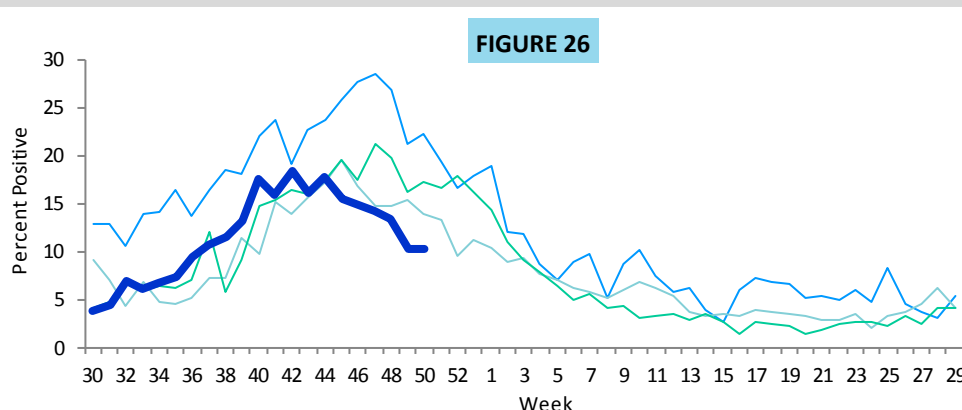
— 2016-17 — 2014-15
— 2015-16 — 2013-14

Laboratory RSV Surveillance

RSV = respiratory syncytial virus

Figure 26 shows the percent of laboratory results testing positive for RSV, as reported by hospital laboratories (n=11), week 40, 2013 to week 50, 2016.

In week 50, the percent of specimens testing positive for RSV was below levels observed in previous seasons at this time.



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

Other Respiratory Virus Surveillance

Statewide activity:

- In week 50 the percent of specimens testing positive for influenza surpassed other respiratory viruses under surveillance.
- The percent of specimens testing positive for rhinovirus decreased slightly and is similar to levels observed in previous seasons at this time. In recent weeks the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance.

Enterovirus D68 (EV-D68) activity:

- In week 50, no new cases of EV-D68 were identified in Florida.
- Eight cases of EV-D68 have been identified in Florida since February 2016. These eight cases were identified in different regions of the state and represent the full spectrum of disease. These are the first identifications of EV-D68 in the United States since the fall of 2014.
- Six of these cases were identified as a result of Florida’s participation in the Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES).
- To learn more about EV-D68, please visit: <http://www.floridahealth.gov/diseases-and-conditions/d68>.

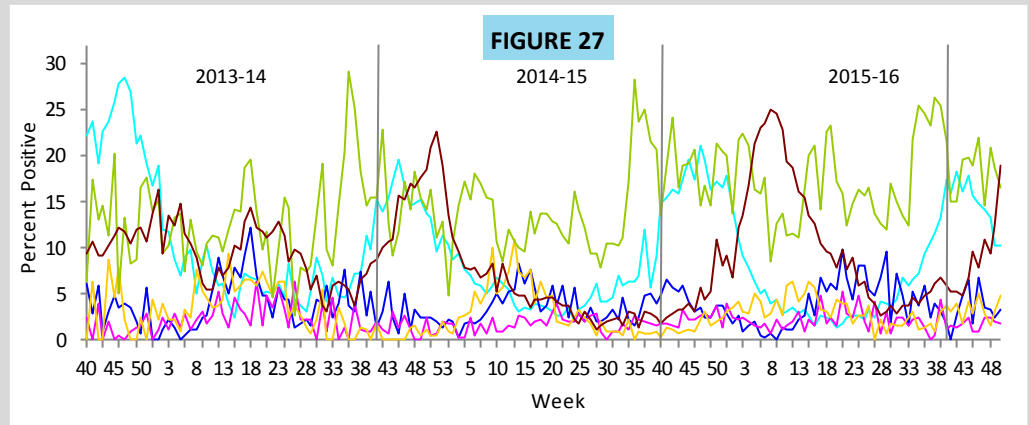
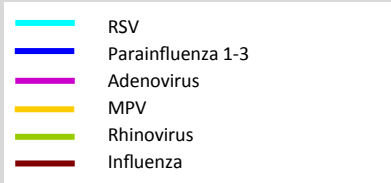
Outbreaks:

- In week 50, no outbreaks of RSV, parainfluenza, human metapneumovirus (MPV), enterovirus, coronavirus, adenovirus, or rhinovirus were reported.

Laboratory Viral Respiratory Surveillance

Figure 27 shows the percent of laboratory results testing positive for eight common respiratory viruses, as reported by hospital laboratories (n=11), week 40, 2013 to week 50, 2016.

In recent weeks, the percent of specimens testing positive for influenza continued to increase notably. The percent of specimens testing positive for rhinovirus decreased slightly.



Non-Influenza ARIES Laboratory Outpatient Surveillance*

ARIES = Acute Respiratory Infection Epidemiology and Surveillance Program

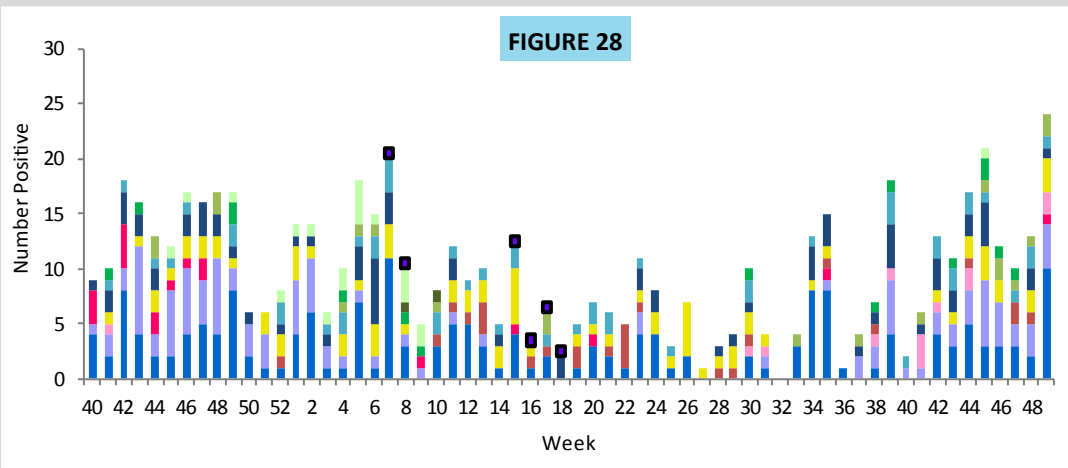
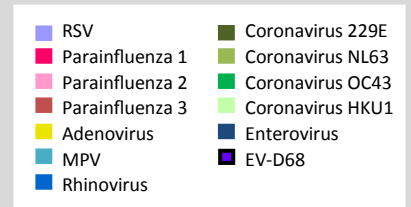


Figure 28 shows the number of specimens testing positive for 12 common respiratory viruses, as reported by BPHL and ARIES outpatient providers statewide (n=6), week 40, 2015 to week 49, 2016.

In week 49 (ending December 10, 2016), specimens submitted by ARIES providers were positive for rhinovirus, RSV, parainfluenza 1 and 2, adenovirus, enterovirus, MPV, and coronavirus NL63.



*Data presented here are counts, not proportions. The most recent data available are displayed here. ARIES laboratory data are currently considered to be complete through week 49, 2016. Laboratory results for specimens that have not yet been tested in full will be included in future reports.

Florida ILINet · Data source for figures 2 and 19

- ILINet is a nationwide surveillance system composed of sentinel providers, predominately outpatient health care providers. Florida has 88 sentinel providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the Bureau of Public Health Laboratories (BPHL) for confirmatory testing.

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal · Data source for figures 1, 3-7, 11-18, 20-23, 25; map 4

- Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) measures trends in ILI visits from emergency departments (ED) and urgent care clinics (UCC) and influenza mortality by using death certificates from the Bureau of Vital Statistics. Participating EDs and UCCs (n=278) electronically transmit visit data into ESSENCE-FL daily or hourly.
- For statewide and regional data on influenza-like illness, visits are counted as ED or UCC visits to participating facilities that include influenza-like illness in patient chief complaints.
- For pneumonia and influenza (P&I) surveillance, death record literals are queried 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, visits are counted as ED or UCC visits to participating facilities for which RSV or RSV-associated illness is included in the discharge diagnosis. 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.

County Influenza Activity in EpiGateway · Data source for figures 19, 24, and maps 1 and 2

- County health department (CHD) epidemiologists report their county's influenza and ILI surveillance data weekly into the EpiGateway website. Influenza activity is classified as: no activity, mild, moderate, or elevated. Setting-specific influenza activity and influenza trend information is also reported. EpiGateway data provided by CHDs creates a county-by-county breakdown of influenza and ILI activity around the state.

Outbreak Reporting in EpiCom · Data source for figure 8, map 3, and table 1

- EpiCom tracks influenza and ILI outbreak investigations by county health departments (CHDs). Reports by CHDs include the type of respiratory disease causing the outbreak and settings where outbreaks are occurring. CHD epidemiologists report outbreaks of influenza and ILI into EpiCom, Florida's online communication setting.
- Outbreaks are defined as two or more cases of influenza or ILI in a specific setting.

Outbreak Reporting in Merlin · Data source for figure 8, map 3, and table 1

- Merlin tracks influenza and ILI outbreak investigations by CHDs. Reports by CHDs include the type of respiratory disease causing the outbreak and settings where outbreaks are occurring. CHD epidemiologists report outbreaks of influenza or ILI into Merlin, Florida's reportable disease surveillance system.
- Outbreaks are defined as two or more cases of influenza or ILI in a specific setting.

Bureau of Public Health Laboratories (BPHL) · Data source for figures 9, 10 and table 2

- BPHL performs confirmatory testing and subtyping on surveillance specimens from ILINet sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations and medical examiners.
- For 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.

Laboratory Viral Respiratory Surveillance · Data sources for figures 26-27

- The National Respiratory and Enteric Virus Surveillance System (NREVSS) and Electronic Laboratory Reporting (ELR) collect data from laboratories in Florida on a weekly basis and monitor temporal and geographic patterns of eight commonly circulating respiratory viruses. NREVSS data is collected by the Centers for Disease Control and Prevention (CDC) and electronic laboratory report (ELR) data is collected by the Florida Department of Health (DOH).

Acute Respiratory Infection Epidemiology and Surveillance (ARIES) Program · Data source for figure 28

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

Case-Based Influenza Surveillance

- Influenza-associated pediatric deaths (reported into Merlin, DOH's reportable disease surveillance system).
- Influenza due to novel or pandemic strains (reported into Merlin)
- Deaths in children with laboratory-confirmed influenza infection and patients with influenza infection due to novel or pandemic strains are reportable in Florida. For more information about reportable diseases please visit www.Floridahealth.gov/diseasereporting.