



Summary

Week 52: December 24-30, 2017

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

- Flu season is well underway with steady and sharp increases in activity over the past several weeks. In week 52:
 - Flu activity levels statewide continued to increase sharply for the fourth week in a row were above peak levels observed during the previous two seasons. Sharp increases in activity were observed in all regions of the state and across all age groups. In South Florida, flu activity was above peak levels observed during the previous three seasons (see page 8).
 - Visits to emergency departments among pregnant women increased sharply and remained well above levels observed during the previous two flu seasons at this time. Pregnant women are among those at high risk for severe complications from influenza infection. Pregnant women who have not been vaccinated yet should get vaccinated as soon as possible. For more information, visit: http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/other/letter-pregnant-women-2017-18.pdf.
- Six outbreaks were reported: one influenza, one respiratory syncytial virus, and four ILI; 64 outbreaks of influenza and ILI have been reported since the start of the 2017-18 season. **More outbreaks have been reported so far this season than in previous seasons at this time, which may be an indication of a more severe influenza season.**

National influenza activity:

- Influenza activity increased sharply and was well above the national baseline. The majority of states are experiencing high levels of ILI activity.
- As in Florida, influenza A (H3) has been the most common influenza subtype reported to the Centers for Disease Control and Prevention (CDC). CDC has continued to report extensive genetic diversity in the HA genes of influenza A (H3) viruses submitted to CDC for phylogenetic analysis. **No significant antigenic drift has been reported.**

Immunizations and prevention:

- The Florida Department of Health recommends that sick people stay home until fever-free for at least 24 hours (without the use of fever-reducing medication) and that all people exercise good handwashing practices.
- Get your flu shot now. Flu vaccines can vary in effectiveness from season to season but they continue to be the best way to prevent influenza infection and serious influenza complications. To locate a flu shot near you, contact your physician, your local county health department, or use the Florida Department of Health's flu shot locator: www.floridahealth.gov/findaflushot.

Treatment:

- CDC recommends the use of antiviral treatment as soon as possible for all persons with suspected influenza for all hospitalized, severely ill, and people who are at higher risk for complications: children <2 years, adults ≥65 years old, and pregnant women, and those with underlying medical conditions; treatment should be administered within 48 hours of illness onset (but treatment administered after this period can still be beneficial), although, unfortunately, there is often a delay in administering antiviral treatment. **A recent CDC health advisory stresses the importance of rapid and early antiviral treatment this season.** For more information, visit: <https://emergency.cdc.gov/han/han00409.asp>.
- Clinicians should not wait for laboratory confirmation to administer antivirals for suspect influenza.

Weekly State Influenza Activity

Widespread

For more information see page 2 ►



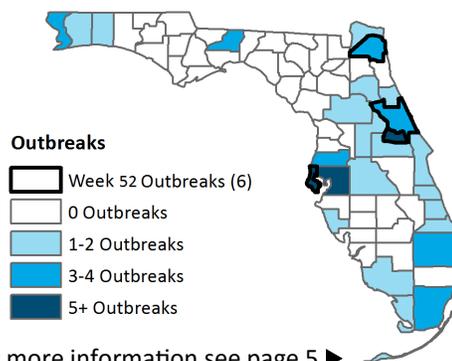
Predominately Circulating Strain

A (H3)

For more information see page 7 ►

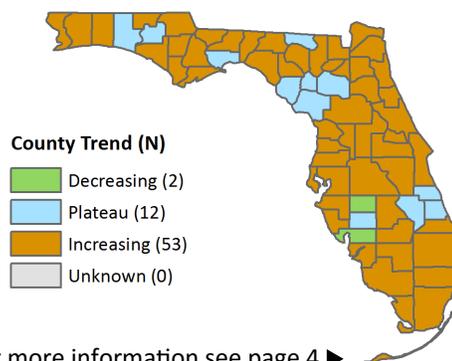


Influenza and ILI Outbreaks Reported as of 12/30/2017



For more information see page 5 ►

County Influenza Activity



For more information see page 4 ►

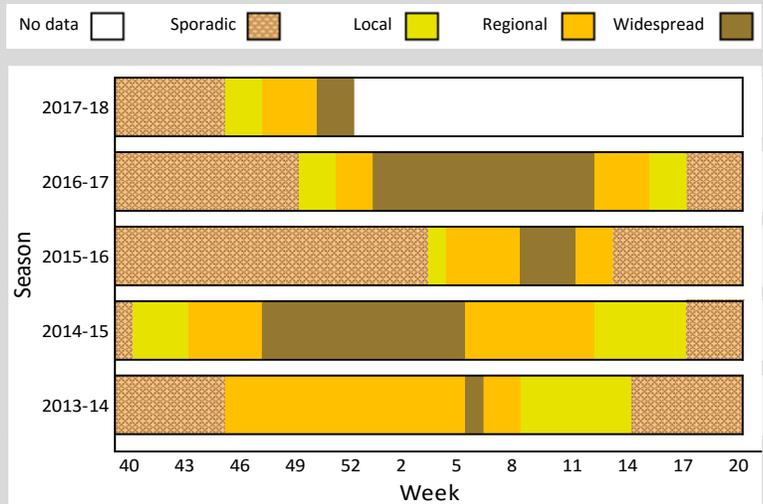
Table of Contents
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Table of Contents

- In This Issue..... 2
- Statewide ILI Visits 2
- Statewide ILI Outpatient Visits and P&I Deaths 3
- County influenza and ILI Activity Maps 4
- Influenza-Associated Pediatric Deaths..... 4
- ILI Activity and Outbreaks by Setting 5
- Influenza Laboratory Surveillance..... 7
- Regional ILI Visits 8
- Age Groups: ILI Visits and P&I Deaths..... 9
- At-Risk Populations: ILI Visits 10
- ILI Activity by Population and Setting Type 11
- Respiratory Syncytial Virus Surveillance 12
- Other Respiratory Virus Surveillance 13
- Florida ILI Surveillance System Summary 14

Weekly State Influenza Activity Reporting

Below is the state influenza activity level reported to the Centers for Disease Control and Prevention each week since the 2013-14 influenza season. **Florida reported widespread influenza activity for week 52.**



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. These activities are particularly important at the start of flu season in order to identify potential changes in circulating influenza strains.

Note: Surveillance case definitions for influenza-like illness vary across surveillance systems. For more information on influenza surveillance systems and associated case definitions used in Florida, see page 14 ►

Statewide ILI Visits

ED and UCC Visits for ILI by Flu Season

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

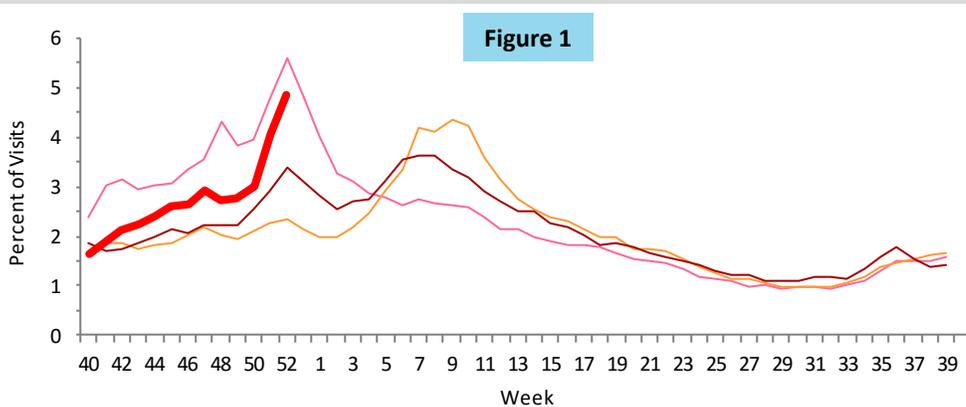


Figure 1

Figure 1 shows the percent of visits for ILI from ED and UCC chief complaint data for ESSENCE-FL participating facilities (n=309), week 40, 2014 to week 52, 2017.

In week 52, the percent of visits to EDs and UCCs continued to increase sharply and was above peak levels observed during the previous two seasons at this time.

Some high-risk subpopulations (children <18 years, adults ≥65 years, and pregnant women) have continued to see elevated flu activity (see page 10).

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

The ESSENCE-FL ILI syndrome is composed of chief complaints that include the words “influenza” or “flu,” or chief complaints that include the words “fever” and “cough,” or “fever” and “sore throat.” For more information on ESSENCE-FL, see page 10.

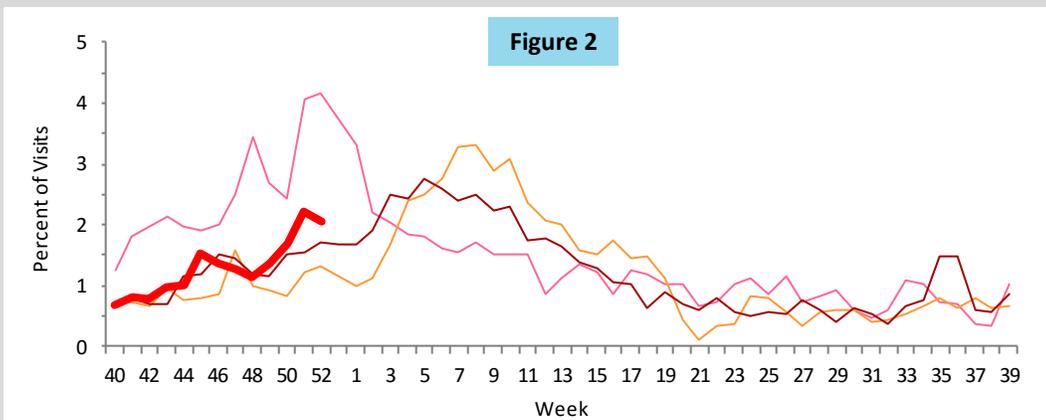
2017-18 2016-17 2015-16 2014-15

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=41), week 40, 2014 to week 52, 2017. For ILINet, ILI is defined as a fever $\geq 100^{\circ}\text{F}$ AND sore throat and/or cough in the absence of another known cause.

In week 52, the percent of visits for ILI reported by ILINet outpatient providers decreased slightly but remained above levels observed during the previous two seasons at this time.



P&I Deaths* from Vital Statistics by Flu Season

P&I = pneumonia and influenza

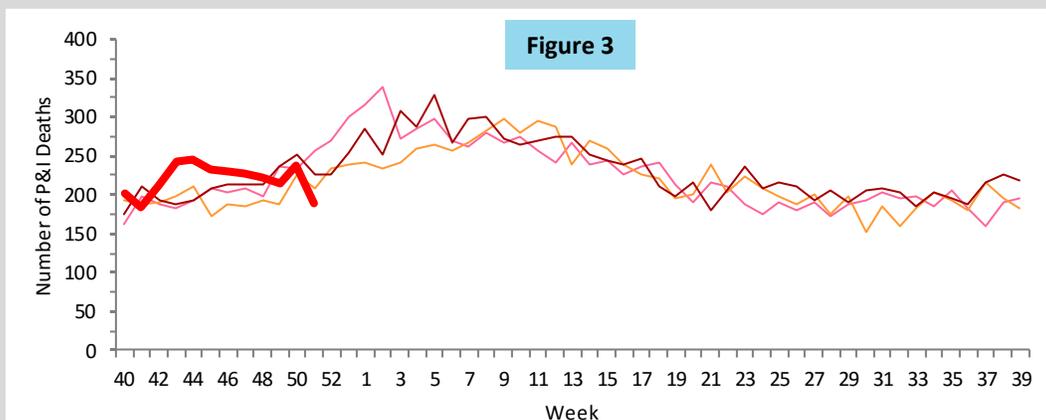


Figure 3 shows P&I deaths* for all Florida counties from the Bureau of Vital Statistics, as reported into ESSENCE-FL, week 40, 2014 to week 51, 2017.

In week 51 (ending December 23, 2017), 190 P&I deaths were reported.

The preliminary number of P&I deaths decreased and was below levels observed in previous season at this time.

P&I Deaths* Multi-Year Regression Model

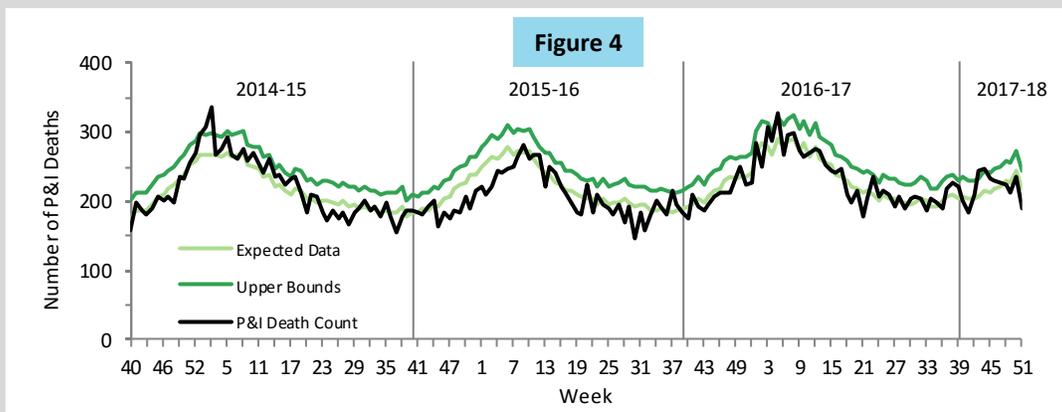
P&I = pneumonia and influenza

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 51 (ending December 23, 2017), 190 preliminary estimated P&I deaths were reported.

The upper bound of the 95% confidence interval for prediction is 243 deaths, with no excess deaths.

Increases in P&I deaths have historically lagged increases in influenza activity. Due to the steep increases in influenza activity in recent weeks, subsequent increases in P&I deaths are expected in the coming weeks.



* 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 51, 2017.

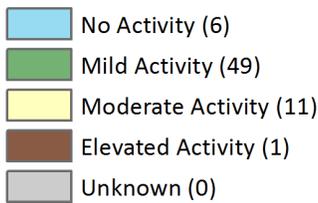
County influenza activity data are reported by county health departments through EpiGateway on a weekly basis. Information is used to determine county activity and includes laboratory results, outbreak reports, and ILI activity. **The figures below reflect a county health department's assessment of influenza activity within their county. For week 52, 53 counties reported increasing activity, 12 counties reported activity at a plateau, and two counties reported decreasing activity.**

County Influenza Activity

Map 1

County Influenza Activity Level for Week 52
Reported by 9:30 a.m. January 3, 2018

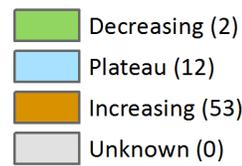
County Activity (N)



Map 2

County Influenza Activity Trend for Week 52
Reported by 9:30 a.m. January 3, 2018

County Trend (N)



As of 9:30 a.m. January 3, 2018, 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, 2013 to week 52, 2017.

In week 52, no influenza-associated pediatric deaths were reported. One influenza-associated pediatric death in an unvaccinated child has been reported so far this season. Eleven influenza-associated pediatric deaths were reported last season.

While rare, Florida receives reports of influenza-associated pediatric deaths each season. **Most deaths occur 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 children against influenza. Now is the perfect time to get vaccinated. 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

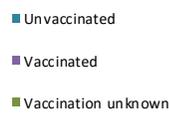


Figure 6: Influenza-Associated Pediatric Deaths by Medical History

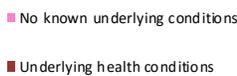
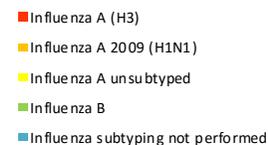


Figure 7: Influenza-Associated Pediatric Deaths by Strain Type



Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

Map 3 shows influenza and ILI outbreaks by county for week 40, 2017 through week 52, 2017, as reported into Merlin.

In week 52, six outbreaks were reported: one influenza, one respiratory syncytial virus (RSV), and five ILI. As of week 52, 64 outbreaks of influenza and ILI have been reported since the start of the 2017-18 influenza season. More outbreaks have been reported than at this time in previous seasons.

Nearly all of the outbreaks (98.4%) reported so far this season have been in facilities serving people at higher risk for complications due to influenza infection (children and adults aged ≥65 years). Based on the data available for the outbreaks that have been reported thus far, this flu season may be more severe; this trend will be monitored closely.

For more detailed information on influenza and ILI outbreaks reported in week 52, see page 6. **Data presented on outbreaks are preliminary and subject to change as outbreak investigations progress.**

Map 3 Influenza and ILI Outbreaks by County
Week 40, 2017 through Week 52, 2017

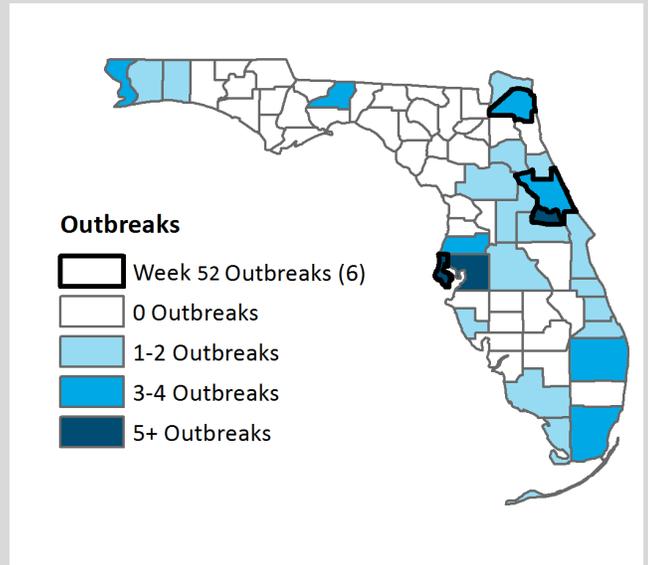


Table 1: Summary of Florida Influenza and ILI Outbreaks by Setting, Week 40, 2017 through Week 52, 2017*

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	12	1	-	3	1	-	-	1	-	1 RSV	5
Daycares	8	-	-	-	-	-	-	-	-	7 RSV	1
Jails & prisons	2	1	-	1	-	-	-	-	-	-	-
Mental health facilities	-	-	-	-	-	-	-	-	-	-	-
Nursing homes & long-term care facilities	40	7	-	12	-	-	-	3	3	1 RSV/rhinovirus 1 rhinovirus	13
Health care facilities	1	-	-	-	-	-	-	-	-	1 RSV	-
Other	1	1	-	-	-	-	-	-	-	-	-
Total	64	10	0	16	1	0	0	4	3	11	19

*Outbreak etiology is updated for two weeks after initial report.

Reported Influenza and ILI Outbreaks by Facility Type

ILI = influenza-like illness

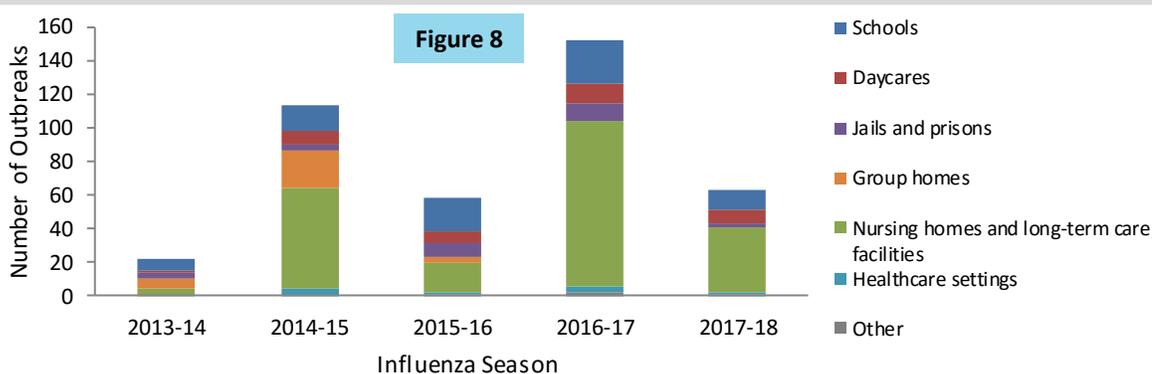


Figure 8 shows the distribution of outbreaks by facility type and season.

In week 52, six outbreaks were reported. Nearly all of the outbreaks reported so far this season (98.4%) have occurred in facilities serving at-risk subpopulations (adults aged ≥65 years and children).

Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

In week 52, six outbreaks were reported in Merlin: one outbreak of influenza, one outbreak of respiratory syncytial virus (RSV), and four outbreaks of ILI.

Duval County:

- **An assisted living facility** reported five residents and one staff member with ILI. One individual was hospitalized as a result of their illness. Specimens collected from five individuals tested positive for influenza (test type unknown) at local health care providers. No specimens have been available for testing at the Bureau of Public Health Laboratories (BPHL) thus far. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing.
- **A long-term care facility** reported three 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 the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing.
- **A long-term care facility** reported seven individuals with ILI. Four specimens were collected for testing at BPHL. Those results are pending. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

Volusia County:

- **An assisted living facility** reported 16 individuals 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 the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

Pinellas County:

- **A long-term care facility** reported six 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 the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing.

Seminole County:

- **A school** reported six individuals with ILI. At least one individual tested positive for RSV by PCR at local health care provider(s). No specimens were available for testing at BPHL. Infection control measures were reviewed with facility leadership. This investigation is closed.

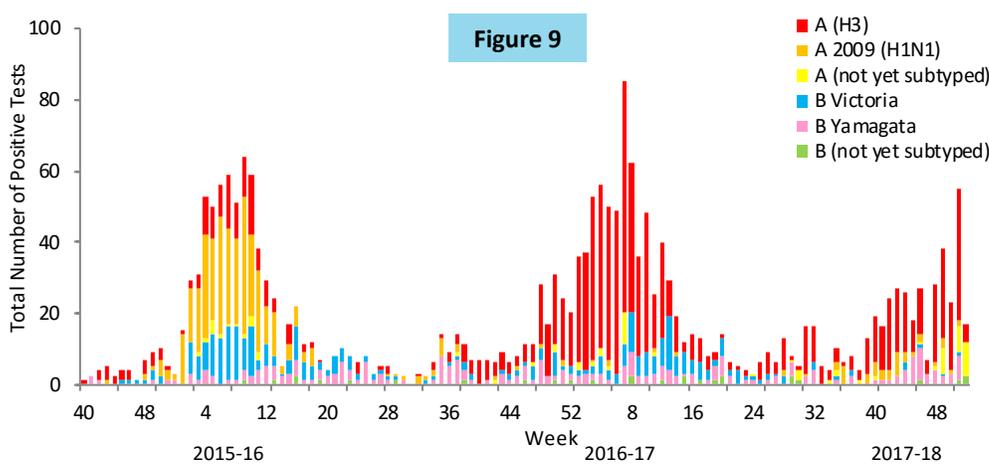
In week 51 (ending December 23, 2017), ten outbreaks were reported into Merlin. Updates were made to two of these outbreaks during week 52.

Okaloosa County:

- **A rehabilitation facility** reported eight residents and two staff members with ILI. One individual was hospitalized as a result of their illness. No specimens have been available for testing at BPHL this far. The etiology of this outbreak is not yet known. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing. **Update: Six specimens tested positive for influenza A (test type unknown) at local health care providers. This investigation is still ongoing.**
- **A correctional facility** reported 14 inmates with ILI. Two specimens were collected for testing at BPHL. Both specimens tested positive for influenza A (H3) by PCR. Influenza vaccination status for the 2017-18 season for inmates and staff is not yet known. Infection control measures were reviewed with facility leadership. This investigation is ongoing. **Update: One additional specimen was collected for testing at BPHL. The specimen tested positive for influenza A (H3) by PCR. This investigation is still ongoing.**

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.*

The most common influenza subtype detected at BPHL statewide for the 2017-18 influenza season has been influenza A (H3). The Centers for Disease Control and Prevention (CDC) has continued to report extensive genetic diversity in the HA genes of influenza A (H3) viruses submitted to CDC for phylogenetic analysis. No significant antigenic drift has been reported. Seasons in which A (H3) viruses predominate are associated with more severe illness in young children and adults ≥65 years old. While statewide data indicate influenza A (H3) is the predominantly circulating strain, these data also indicate a substantial amount of influenza B viruses present and co-circulating.

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

In week 52, the percent of specimens testing positive for influenza decreased but was above levels observed during the previous two influenza seasons at this

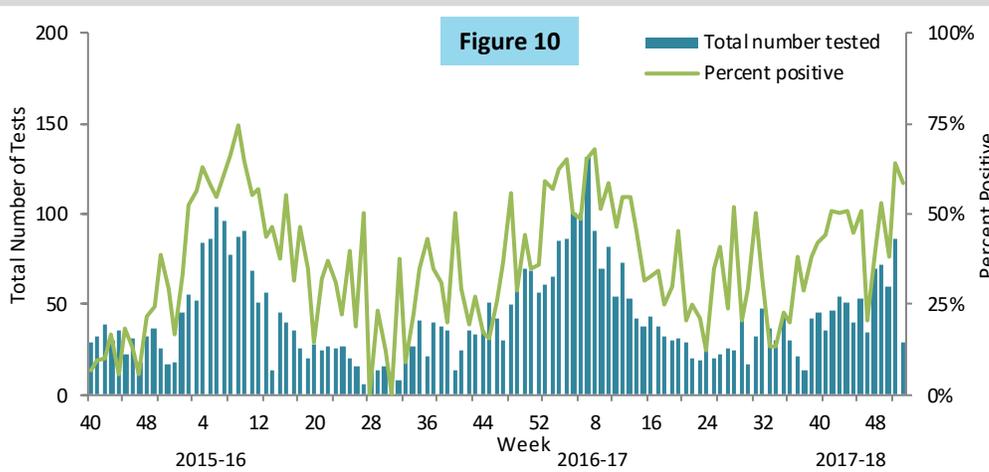


Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance by Lab Event Date*
Reported by 10:00 a.m. January 3, 2018

Influenza Type	Current Week 52	Previous Week 51	Current 2017-18 Season
Total Specimens Tested	29	86	677
Influenza positive specimens (% of total specimen tested)	17 (58.6%)	55 (64.0%)	325 (48.0%)
Influenza A 2009 (H1N1) (% of influenza positives)	-	2 (3.6%)	30 (9.2%)
Influenza A (H3) (% of influenza positives)	5 (29.4%)	37 (67.3%)	214 (65.8%)
Influenza A not yet subtyped (% of influenza positives)	10 (58.8%)	7 (12.7%)	27 (8.3%)
Influenza B Yamagata (% of influenza positives)	-	7 (12.7%)	45 (13.8%)
Influenza B Victoria (% of influenza positives)	-	1 (1.8%)	5 (1.5%)
Influenza B not yet subtyped (% of influenza positives)	2 (11.8%)	1 (1.8%)	4 (1.2%)

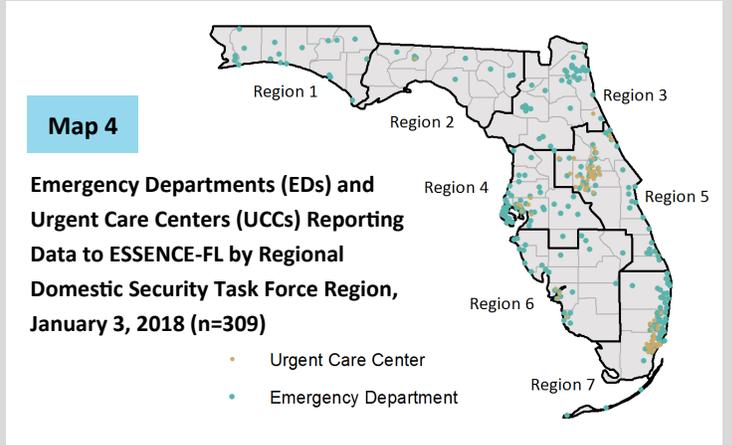
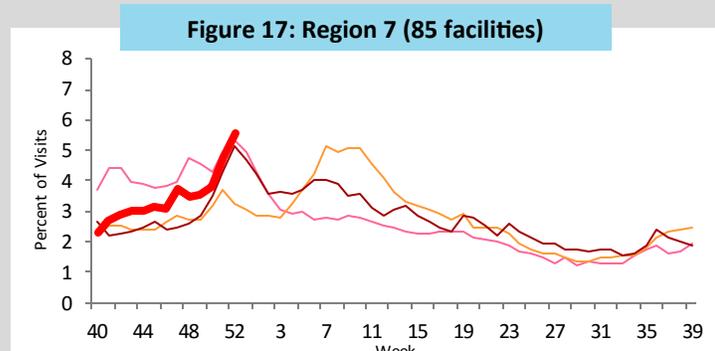
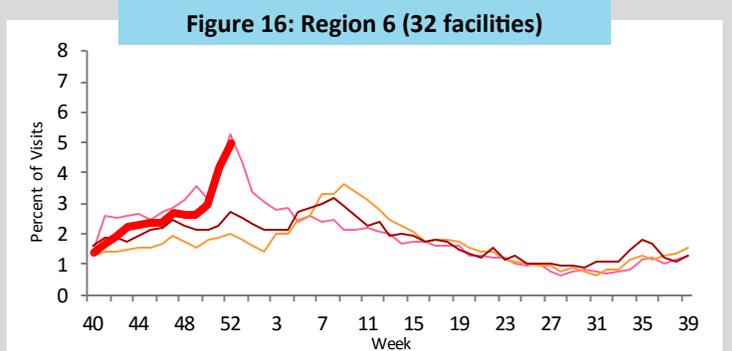
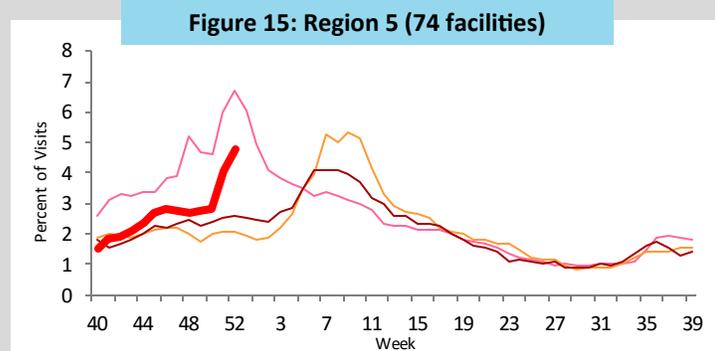
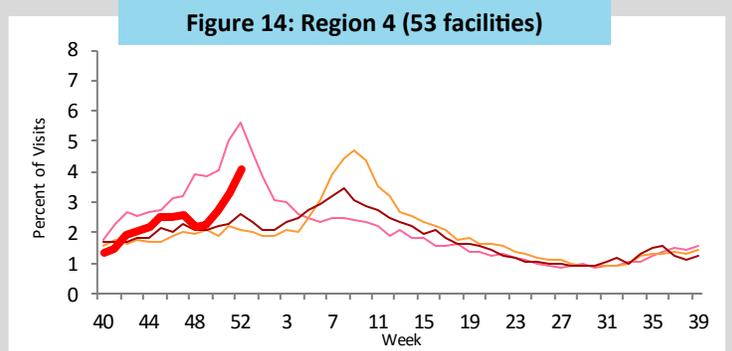
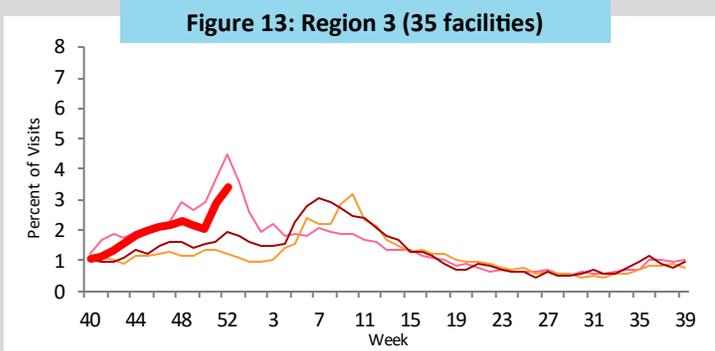
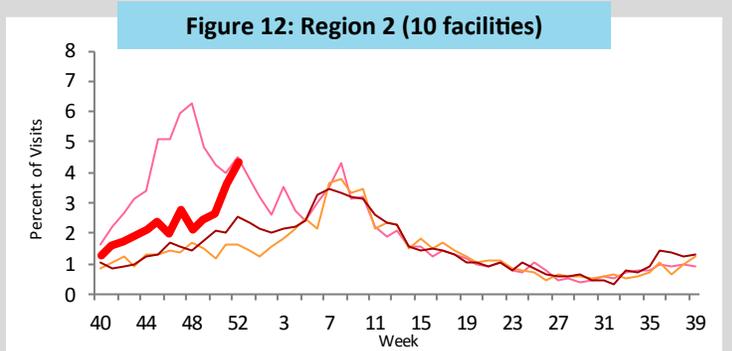
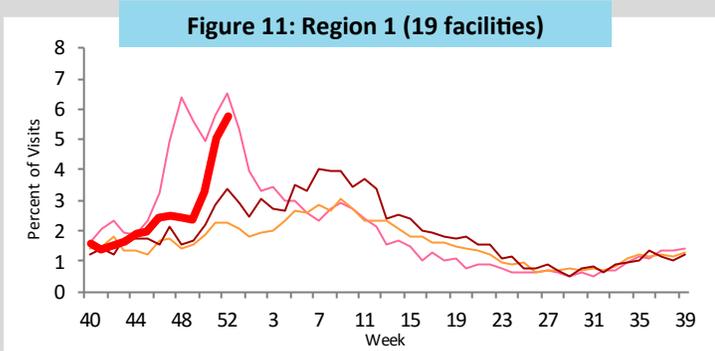
*“Lab event date” is defined as the earliest of the following dates associated with influenza testing at the laboratory: date specimen collected, date received by the laboratory, date reported, or date inserted.

For county health departments 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:
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=309), by ESSENCE-FL Regional Domestic Security Task Force regions (see map 4) from week 40, 2014 to week 52, 2017.* In week 52, the percent of ED and UCC visits for ILI increased dramatically in all regions. ILI activity in all regions was above levels observed in the previous two seasons at this time. In region 7, ILI activity was above peak levels observed during the previous three seasons. Activity levels were highest in regions 1 and 7.



*There is no week 53 for the 2015-16, and 2016-17 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=309), week 40, 2014 to week 52, 2017.

In week 52, ED and UCC visits for ILI increased sharply in all age groups. Levels were well above those observed during the previous two seasons at this time.

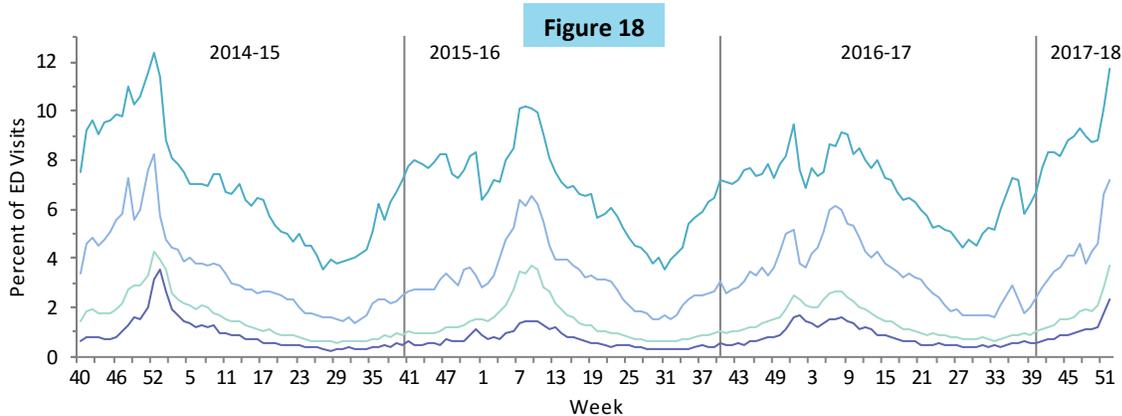


Figure 18

Visits to Outpatient Providers for ILI by Age Group*

ILI = influenza-like illness

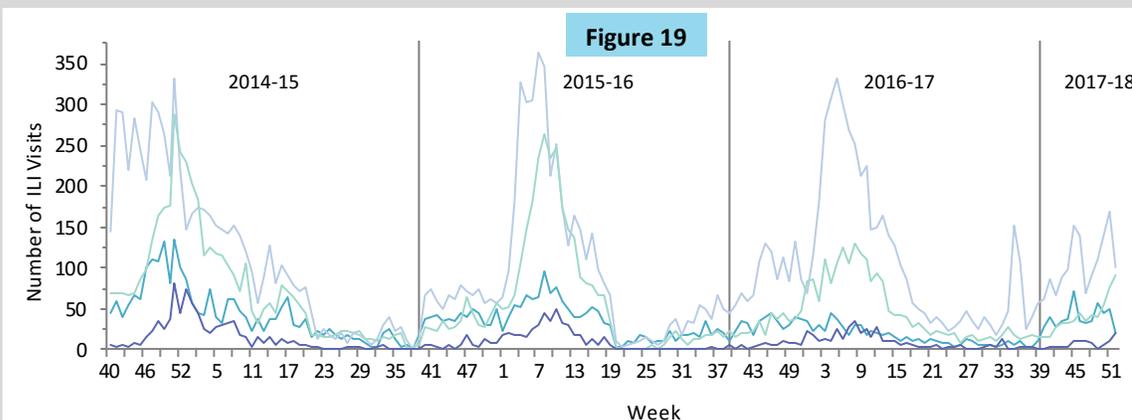


Figure 19 shows the number of visits for ILI reported by ILINet outpatient providers statewide (n=41) by age group, week 40, 2014 to week 52, 2017.

In week 52, the number of visits for ILI increased in the 25-64 and ≥65 age groups. Levels decreased in the 0-4 and 5-24 age groups. Levels were within those observed 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, 2014 to week 51, 2017.

After an early season increase, in week 51 (ending December 23, 2017), the number of P&I deaths increased in the 5-24 age group, remained the same in the 0-4 age group, and decreased in all other age groups. Levels were similar to those observed in previous seasons at this time in all age groups.

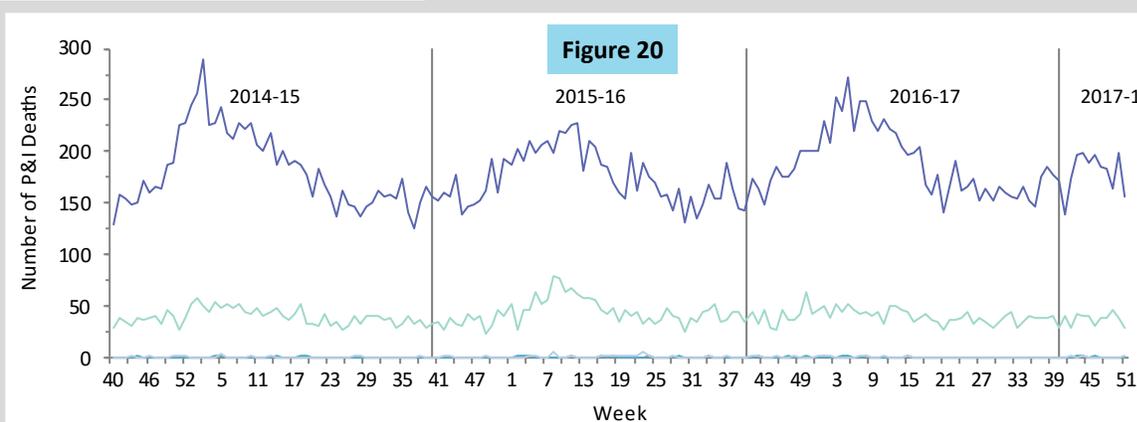


Figure 20

*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 51, 2017.

ESSENCE-FL collects data daily from 309 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" and "cough," or "fever" and "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.

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

ED and UCC Visits for ILI by Pregnant Women

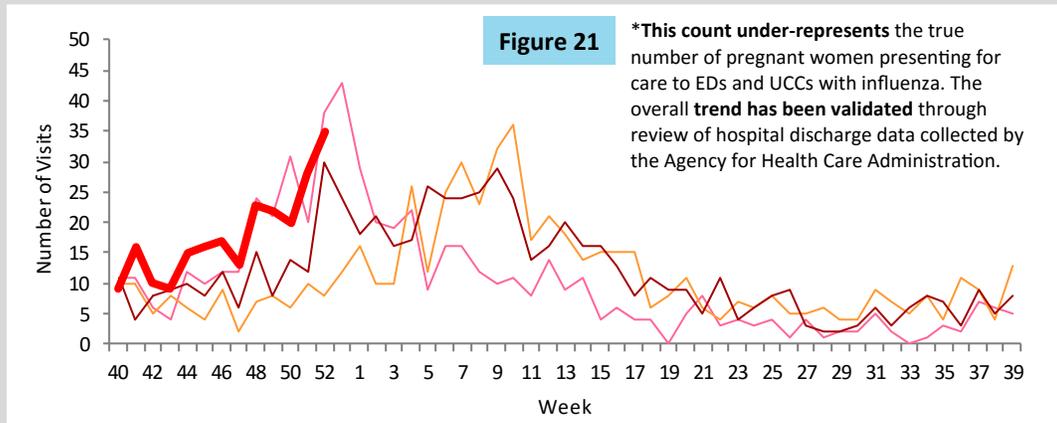
ED = emergency department, UCC = urgent care center, ILI = influenza-like illness

Pregnant women and their babies 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, 2014 to week 52, 2017.

In week 52, the number of visits to EDs and UCCs by pregnant women with mention of influenza was well above levels observed during the previous two seasons at this time.

Pregnant women should get vaccinated as soon as possible.



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

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

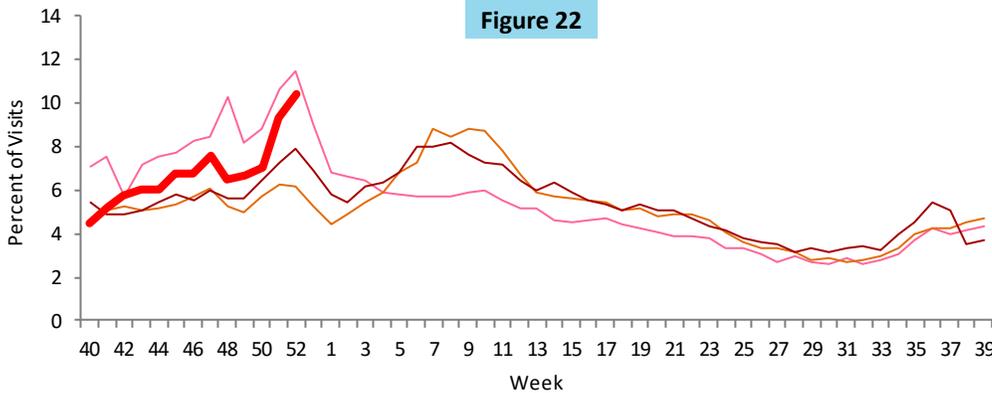


Figure 22 shows the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old, as reported into ESSENCE-FL, week 40, 2014 to week 52, 2017.

In week 52, the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old increased sharply and was well above peak activity levels observed during the previous two seasons at this time.

Children are at higher risk for complications from influenza. Children who have not been vaccinated yet should get vaccinated as soon as possible. Influenza spreads easily among children. Sick children should be kept home.

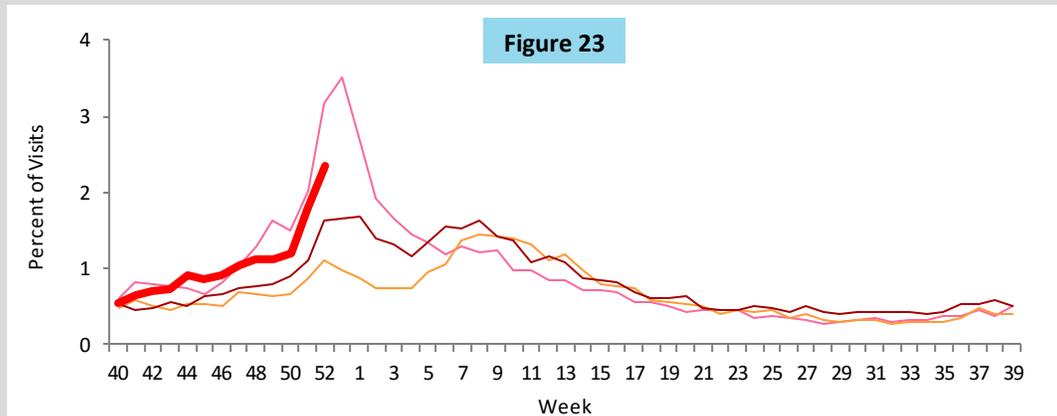
ED and UCC Visits for ILI by Adults ≥ 65 Years Old

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, 2014 to week 52, 2017.

In week 52, the percent of ILI visits among all ED and UCC visits for adults ≥ 65 years increased and was well above peak activity levels observed during the previous two seasons.

Adults aged ≥ 65 years are at high-risk for complications due to influenza infection. People in this age group who have not yet been vaccinated for the 2017-18 season should get vaccinated as soon as possible.



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.

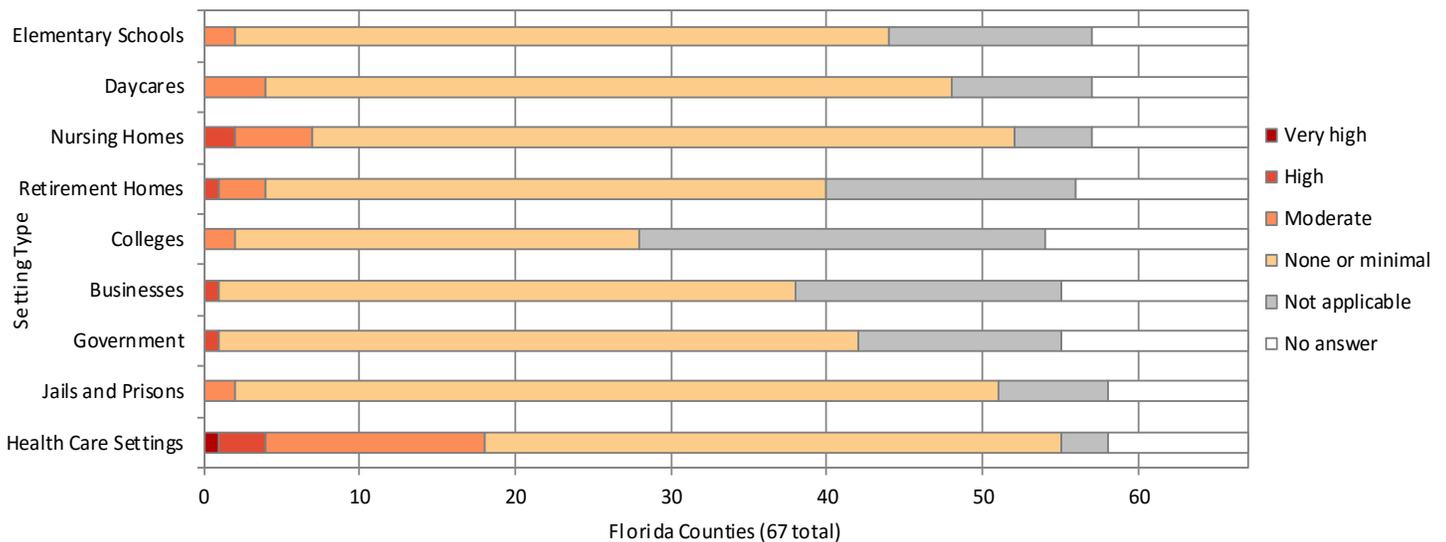
Figure 24 shows the results of the influenza activity assessment for week 52, 2017.

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, 42 counties (77.8%) reported no or minimal influenza or ILI activity. Two counties (3.7%) reported moderate influenza or ILI activity.

In daycare settings, 44 counties (75.9%) reported no or minimal influenza or ILI activity. Four counties (6.9%) reported moderate influenza or ILI activity.

Settings for Adults >65 Years Old

In nursing homes, 45 counties (72.6%) reported no or minimal influenza or ILI activity. Five counties (8.1%) reported moderate influenza or ILI activity. Two counties (3.2%) reported high influenza or ILI activity.

In retirement homes, 36 counties (70.6%) reported no or minimal influenza or ILI activity. Three counties (5.9%) reported moderate influenza or ILI activity. One county (2.0%) reported high influenza or ILI activity.

Settings for Adults 18 to 65 Years Old

In colleges, 26 of 41 counties (63.4%) reported no or minimal influenza or ILI activity. Two counties (4.9%) reported moderate influenza or ILI activity.

In businesses, 37 counties (74.0%) reported no or minimal influenza or ILI activity. One county (2.0%) reported high influenza or ILI activity.

In government offices, 41 counties (75.9%) reported no or minimal influenza or ILI activity. One county (1.9%) reported high influenza or ILI activity.

Other Unique Settings

In jails and prisons, 49 counties (81.7%) reported no or minimal influenza or ILI activity. Two counties (3.3%) reported moderate influenza or ILI activity.

In health care settings, 37 counties (57.8%) reported no or minimal influenza or ILI activity. Fourteen counties (21.9%) reported moderate influenza or ILI activity. Three counties (4.7%) reported high influenza or ILI activity. One county (1.6%) reported very high influenza or ILI activity.

Summary

Week 52: December 17-23, 2017

Respiratory syncytial virus (RSV) activity:

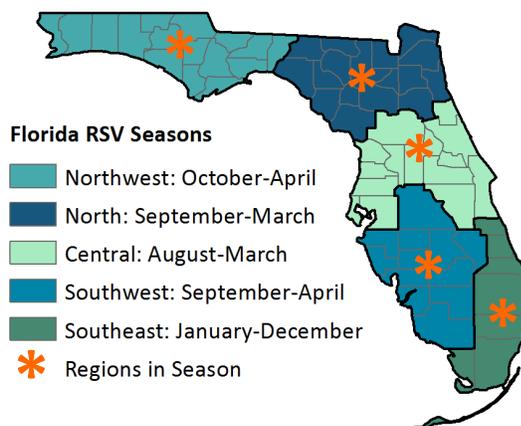
- In week 52, the percent of children <5 years old diagnosed with RSV at EDs and UCCs decreased but remained above levels observed in previous seasons at this time.
- RSV activity this fall has remained higher than levels observed in previous seasons for several months in a row. All regions are currently in RSV season.
- To learn more about RSV in Florida, please visit: 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' (AAP) 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 for prescribing patterns for initiating prophylaxis to children at high risk for RSV infection. The AAP currently recommends that preapproval for prophylactic treatment be made based on state surveillance data.
- See the back page of this report for more information on RSV surveillance systems used in Florida: page 14 ►

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

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

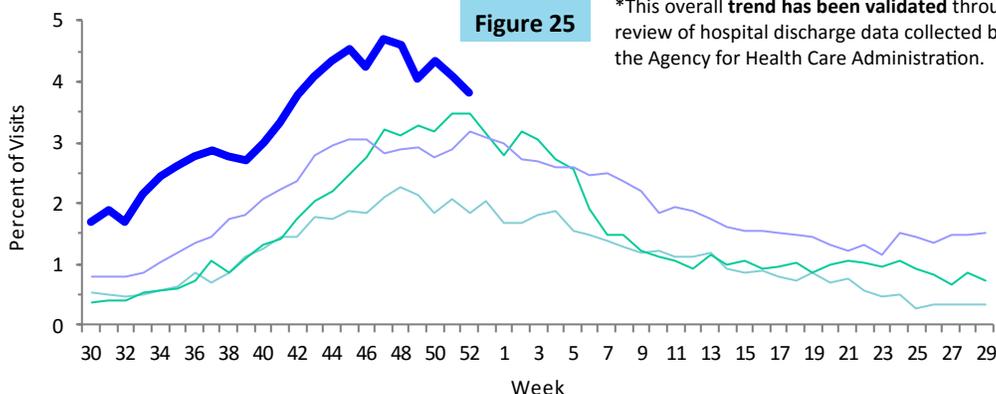


Figure 25 shows the percent of visits to EDs and UCCs with discharge diagnoses that include RSV or RSV-associated illness, as reported by participating ESSSENCE-FL facilities (n=309), week 30, 2014 to week 52, 2017.

In week 52, the percent of children presenting to participating EDs and UCCs for care with RSV decreased but remained above levels observed in previous seasons at this time.

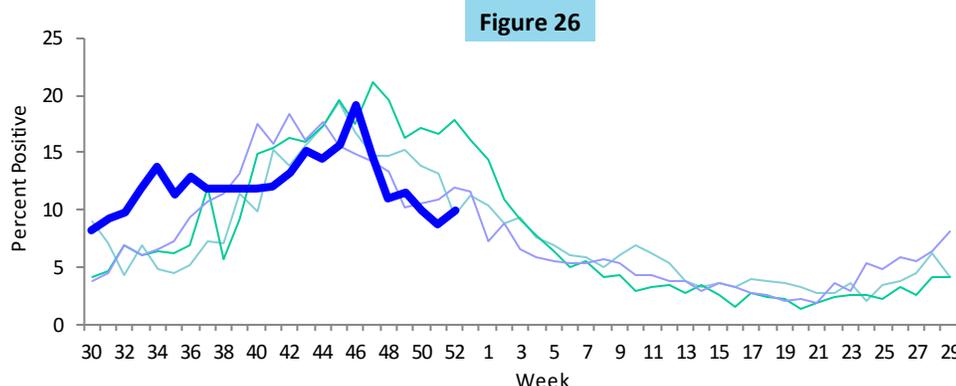
— 2017-18 — 2015-16
— 2016-17 — 2014-15

Laboratory RSV Surveillance

RSV = respiratory syncytial virus

Figure 26 shows the percent of specimens testing positive for RSV, as reported by hospital laboratories (n=7), week 30, 2014 to week 52, 2017.

In week 52, the percent of specimens RSV positive increased slightly.



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

Other Respiratory Virus Surveillance

Statewide activity:

- The percent of specimens testing positive for influenza increased was higher than other respiratory viruses under surveillance.

Enterovirus D68 (EV-D68) activity:

- In week 52, no new people tested positive for EV-D68 in Florida.
 - Three people have tested positive for EV-D68 by PCR in Florida so far in 2017. One person was identified in August 2017 during the investigation of an ILI outbreak. Two people were identified in October 2017 as part of routine outpatient surveillance as a result of Florida participating in the Acute Respiratory Infection Epidemiology and Surveillance (ARIES) Program.
- To learn more about EV-D68, please visit: <http://www.floridahealth.gov/diseases-and-conditions/d68>.

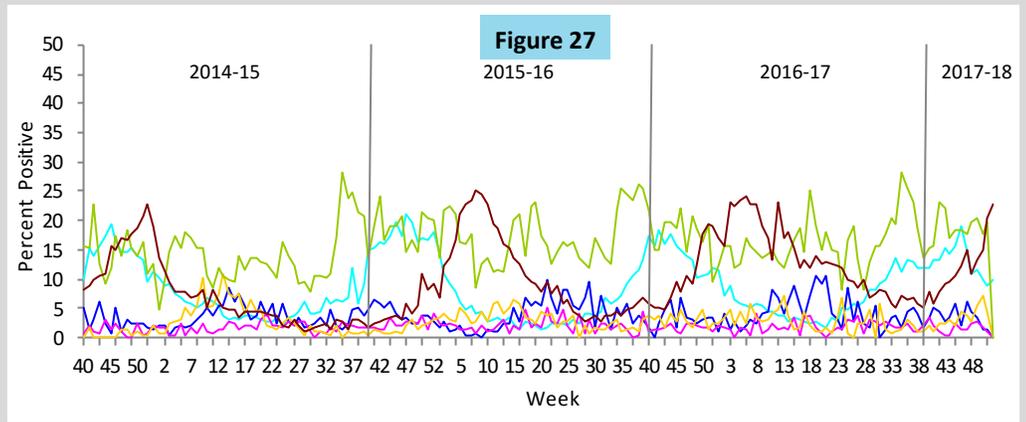
Outbreaks:

- In week 52, one outbreak of respiratory syncytial virus (RSV) was reported (see page 6). No outbreaks of parainfluenza 1-3, adenovirus, human metapneumovirus (MPV), rhinovirus, enterovirus, or coronavirus 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=7), week 40, 2014 to week 52, 2017.

In recent weeks, the percent of specimens testing positive for influenza was higher than other respiratory viruses under surveillance. Due to a decrease in the number of reporting facilities, these numbers will likely be updated next week.



Non-Influenza ARIES Laboratory Outpatient Surveillance*

ARIES = Acute Respiratory Infection Epidemiology and Surveillance Program
BPHL = Bureau of Public Health Laboratories

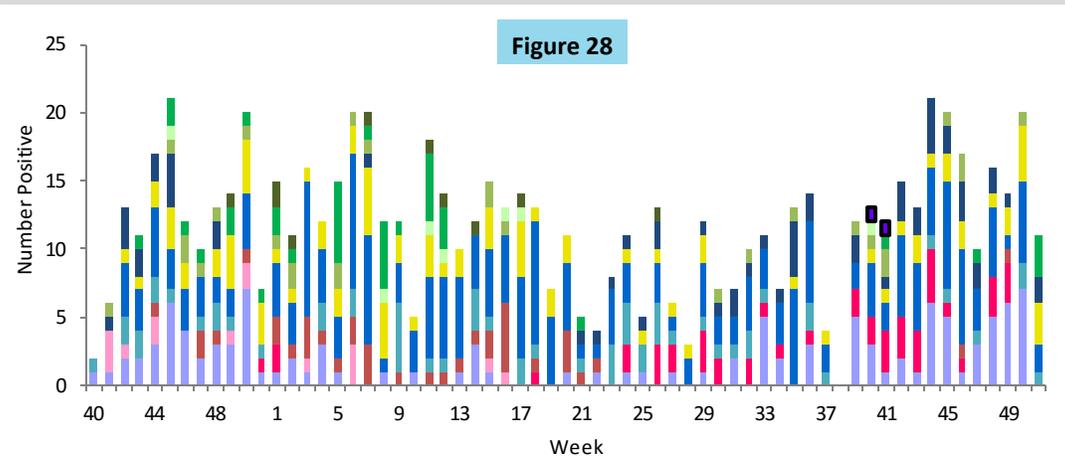
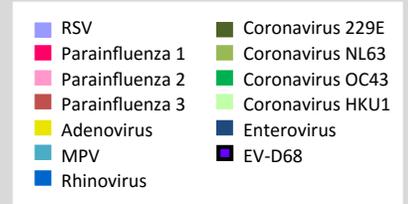


Figure 28 shows the number of specimens testing positive for 12 common respiratory viruses, as reported by BPHL and ARIES outpatient providers statewide (n=7), week 40, 2016 to week 51, 2017.

In week 51 (ending December 23, 2017), specimens submitted by ARIES providers tested PCR-positive for MPV, rhinovirus, enterovirus, adenovirus, and coronavirus OC43.



*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 51, 2017. 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 influenza-like illness (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=309) electronically transmit visit data into ESSENCE-FL daily or hourly.
- For statewide and regional data on ILI, visits are counted as ED or UCC visits to participating facilities that include the words “influenza” or “flu” in patient chief complaints. Chief complaints with the words “fever” and “cough,” or “fever” and “sore throat” are also counted as ILI.
- 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 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 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 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 seven sentinel providers enrolled in ARIES who submit weekly ILI counts, as well as submit ILI specimens to BPHL for testing.

Case-Based Influenza Surveillance

- Death in a child whose laboratory-confirmed influenza infection has been identified as a 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 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.