



Summary

Week 3: January 14-20, 2018

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

- Flu activity is high and continues to increase. In week 3, 2018:
 - Activity increased sharply and was above peak activity in previous flu seasons. Increases were observed in all age groups and in all regions of the state (see page 7). The panhandle region continued to experience the largest increases in flu activity.
 - Visits to emergency departments among pregnant women and adults aged ≥65 years increased sharply and are well above peak activity in previous flu seasons. **These groups are among those at high-risk for severe complications from influenza infection.**
 - Fifty-two outbreaks were reported: 25 with laboratory evidence of influenza and 27 ILI. As of week 3 (ending January 20, 2018), 159 outbreaks of influenza and ILI have been reported since the start of the 2017-18 season.
 - **More outbreaks have been reported than in previous seasons.** Nearly all of these outbreaks (93%) have been reported in facilities serving people at risk for complications from influenza infection (children and adults aged ≥65 yrs).
 - **One influenza-associated pediatric death was reported (see page 4). A total of three influenza-associated pediatric deaths have been confirmed so far this season.**
- Deaths due to influenza are increasing but have remained within normal limits. These data will continue to be monitored closely. Increases in influenza deaths are expected in the coming weeks.

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 use good handwashing practices.
- Those who have not been vaccinated should get vaccinated as soon as possible. Though flu vaccines can vary in effectiveness from season to season, **flu vaccines are safe and are the best way to prevent influenza infection and serious influenza complications.** To locate a flu shot near you, please visit www.floridahealth.gov/findaflushot.

Treatment:

- The Centers for Disease Control and Prevention (CDC) recommends the use of antiviral treatment as soon as possible for all hospitalized, severely ill, and people who are at higher risk for complications with suspect influenza: children <2 years old, adults ≥65 years old, 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). **A recent CDC health advisory stresses the importance of rapid and early antiviral treatment this season.** For more information, visit: http://www.floridahealth.gov/diseases-and-conditions/influenza/_documents/cdc-han-influenza-12-27-2017.pdf.
 - In these instances, clinicians should not wait for laboratory confirmation to administer antivirals to people with suspect influenza.

National influenza activity:

- Influenza activity continued to increase and was well above the national baseline. Most states are experiencing high levels of ILI activity.
- As in Florida, influenza A (H3) has been the most common strain of influenza identified.

Weekly State Influenza Activity

Widespread

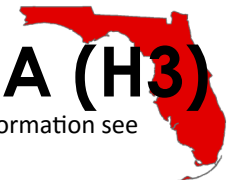
For more information see page 2 ►



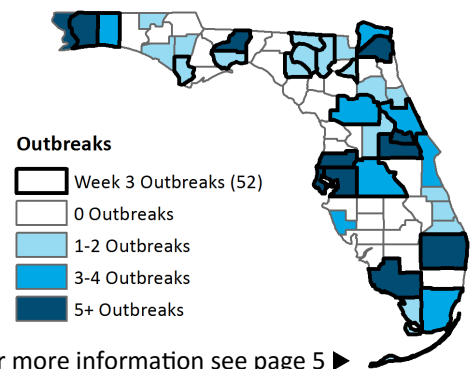
Predominately Circulating Strain

A (H3)

For more information see page 10 ►



Influenza and ILI Outbreaks Reported as of 1/20/2018



County Influenza Activity

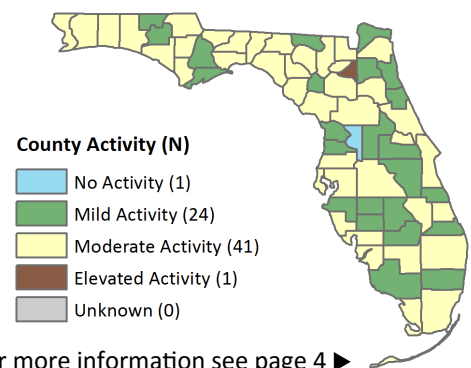


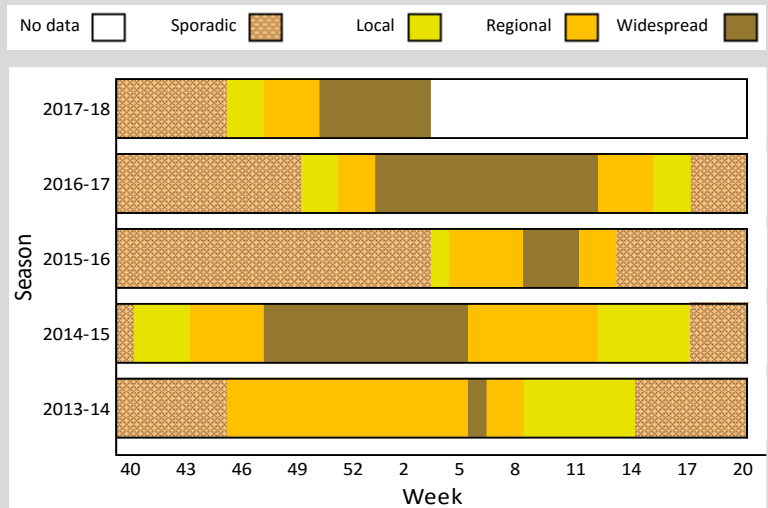
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Weekly State Influenza Activity Reporting

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 3.**



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 16 ►

Statewide ILI Visits

ED and UCC Visits for ILI by Flu Season

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

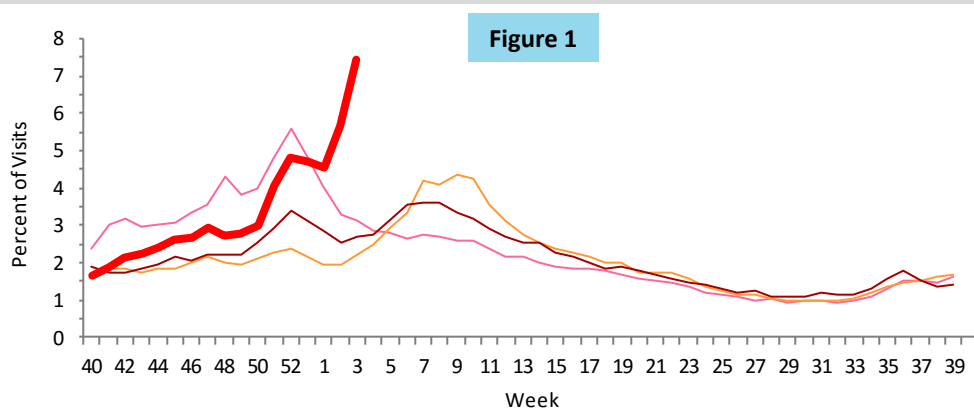


Figure 1 shows the percent of visits for ILI from ED and UCC chief complaint data for ESSENCE-FL participating facilities (n=309), week 40, 2014 to week 3, 2018.

In week 3, the percent of visits to EDs and UCCs increased and was well above peak levels observed during previous seasons.

All regions experienced sharp increases in the percent of visits to EDs and UCCs for ILI during week 3 (see page 7).

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 17.

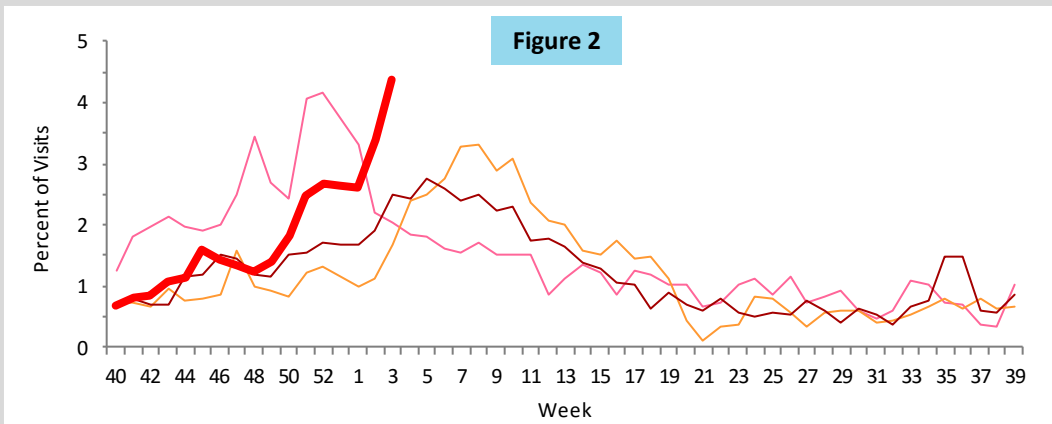


Visits for ILI to Outpatient Providers by Flu Season

ILI = influenza-like illness

Figure 2 shows the percent of visits for ILI reported by ILINet outpatient providers statewide (n=50), week 40, 2014 to week 3, 2018. 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 3, the percent of visits for ILI reported by ILINet outpatient providers increased sharply and was above levels observed during previous seasons at this time.



P&I Deaths* from Vital Statistics by Flu Season

P&I = pneumonia and influenza

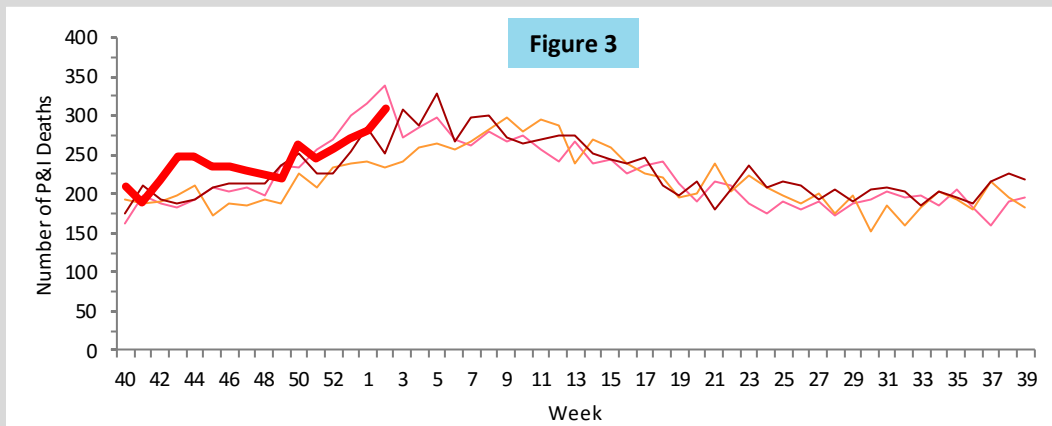


Figure 3 shows P&I deaths* for all Florida counties from the Bureau of Vital Statistics, as reported into ESSENCE-FL, week 40, 2014 to week 2, 2018.

In week 2 (ending January 13, 2018), 310 P&I deaths were reported.

The preliminary number of P&I deaths increased but was within levels observed in previous season at this time.

P&I Deaths* Multi-Year Regression Model

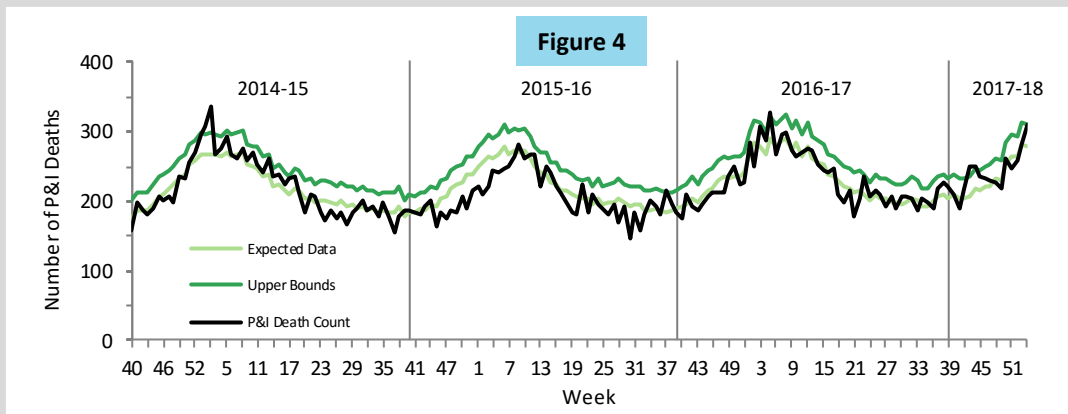
P&I = pneumonia and influenza

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 2 (ending January 6, 2018), 310 preliminary estimated P&I deaths were reported.

The upper bound of the 95% confidence interval for prediction is 311 deaths, with no excess deaths.

Due to the delay in death data, it is expected that the number of deaths reported for week 2 will exceed the upper bounds when additional data are received.



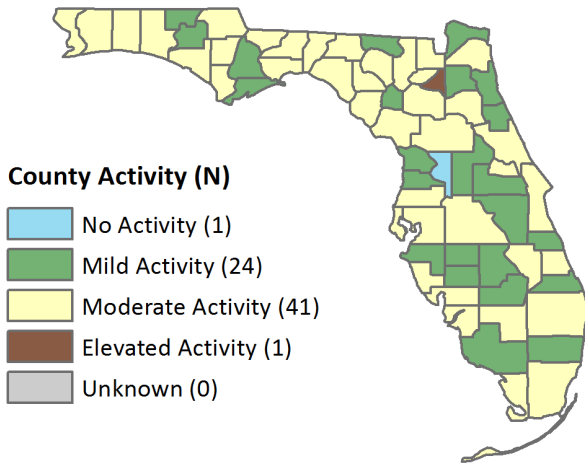
* Current season P&I death counts are preliminary estimates and may change as more data are received. *The most recent data available are displayed here. Vital statistics death records received in ESSENCE-FL are considered to be complete through week 2, 2018.*

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 3, 59 counties reported increasing activity and eight counties reported activity at a plateau.**

County Influenza Activity

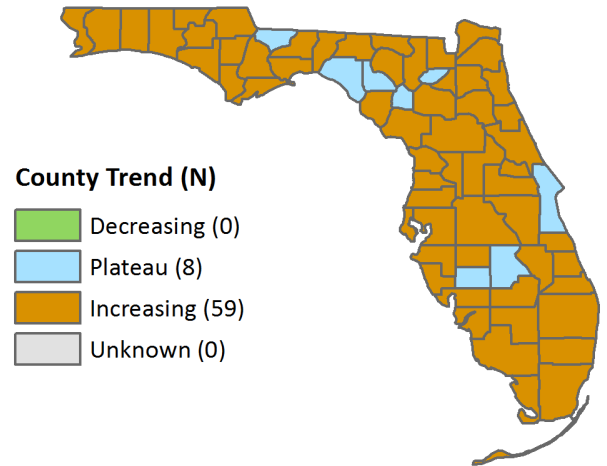
Map 1

County Influenza Activity Level for Week 3 Reported by 9:30 a.m. January 24, 2018



Map 2

County Influenza Activity Trend for Week 3 Reported by 9:30 a.m. January 24, 2018



As of 9:30 a.m. January 24, 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 3, 2018.

In week 3, one influenza (H3)-associated pediatric death was confirmed in an unvaccinated child with underlying health conditions. A total of three influenza-associated pediatric deaths have been confirmed so far this season. All of the deaths reported so far this season have been in unvaccinated children.

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

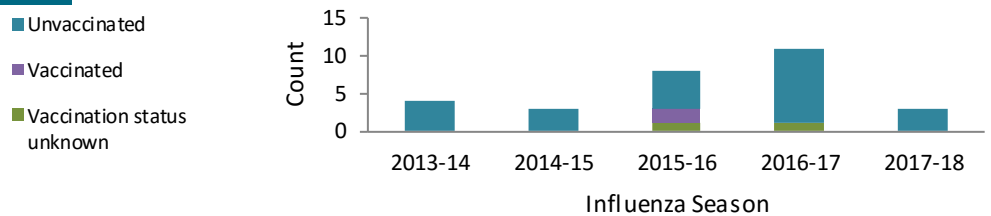


Figure 6: Influenza-Associated Pediatric Deaths by Medical History

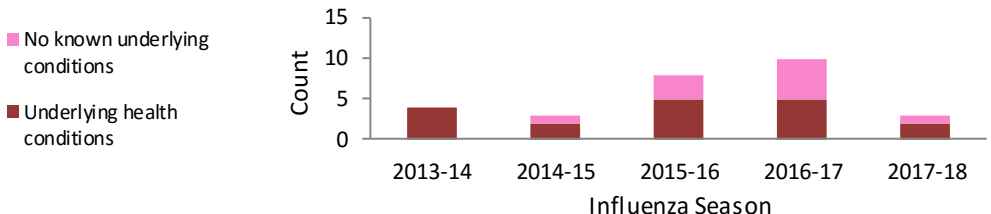
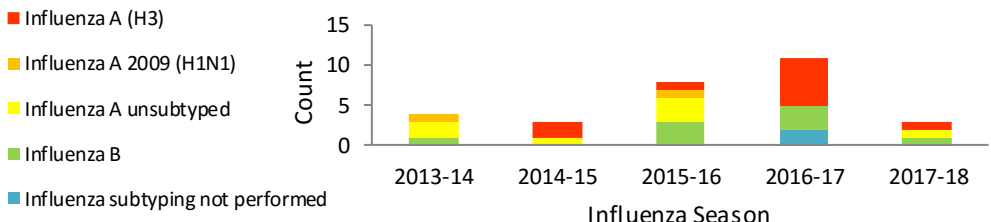


Figure 7: Influenza-Associated Pediatric Deaths by Strain Type



Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

Map 3 shows influenza and ILI outbreaks by county for week 40, 2017 through week 3, 2018, as reported into Merlin.

In week 3, 52 outbreaks were reported: 25 outbreaks with laboratory evidence of influenza and 27 outbreaks of ILI. This is the largest number of outbreaks to be reported in a single week and is indicative of the high influenza activity Florida is currently experiencing. **As of week 3 (ending January 20, 2018), 159 outbreaks of influenza and ILI have been reported since the start of the 2017-18 influenza season.** More outbreaks have been reported this season than in previous seasons.

There has been a sharp increase in the number of outbreaks reported since in week 1, 2018. Most influenza outbreaks continue to be caused by influenza A, however, in week 3, there were also reports of outbreaks due to influenza B.

As of week 3 (ending January 20, 2018), a total of 148/159 (93%) of the outbreaks 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).

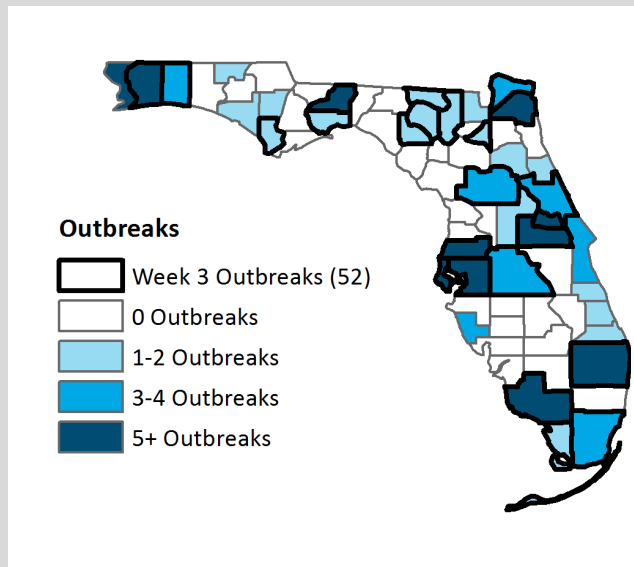
In week 3, influenza or ILI outbreaks were reported in 24 counties located in all regions of the state. Of the 52 outbreaks reported, 43 (83%) have ongoing investigations.

- These outbreaks occurred in the following settings: 31 (60%) in facilities serving adults aged ≥65 years, seven (14%) in daycares, nine (17%) in schools, two (4%) in health care facilities, and three (6%) in correctional facilities.
- Specimens have been collected and submitted to Bureau of Public Health Laboratories for testing for seven outbreaks so far (14%).
- Outbreak control measures were reviewed with facility leadership for 52 (100%) of the reported outbreaks by county health departments. To date, facilities administered antiviral treatment of ill individuals in 4/8 outbreaks (50%) where CHDs recommended antiviral treatment. To date, facilities administered antiviral chemoprophylaxis of at-risk individuals in 4/5 outbreaks (80%) where CHDs recommended antiviral chemoprophylaxis.
- People were hospitalized in five outbreaks (10%) and people died in two outbreaks (4%).

For detailed information on select outbreaks reported during week 3, see page 13. For updates on select outbreaks reported in week 2 (ending January 13, 2018), see page 15.

Map 3

**Influenza and ILI Outbreaks by County
Week 40, 2017 through Week 3, 2018**



Reported Influenza and ILI Outbreaks by Facility Type

ILI = influenza-like illness

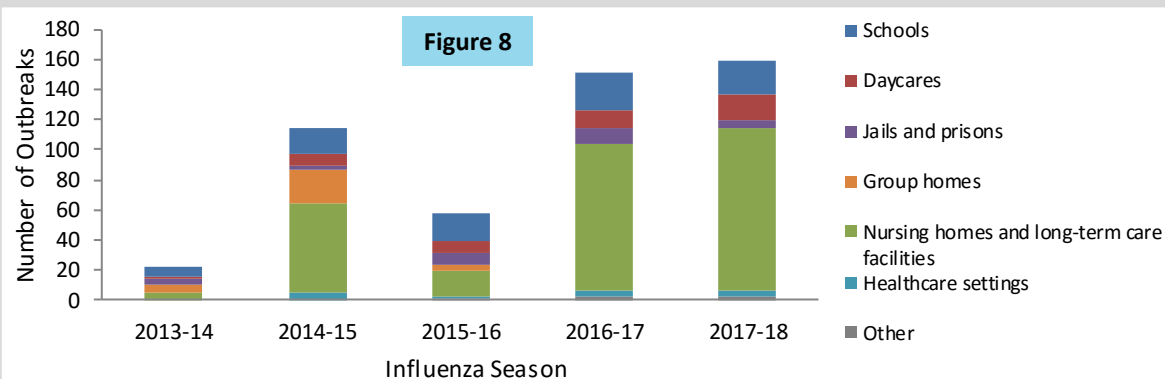
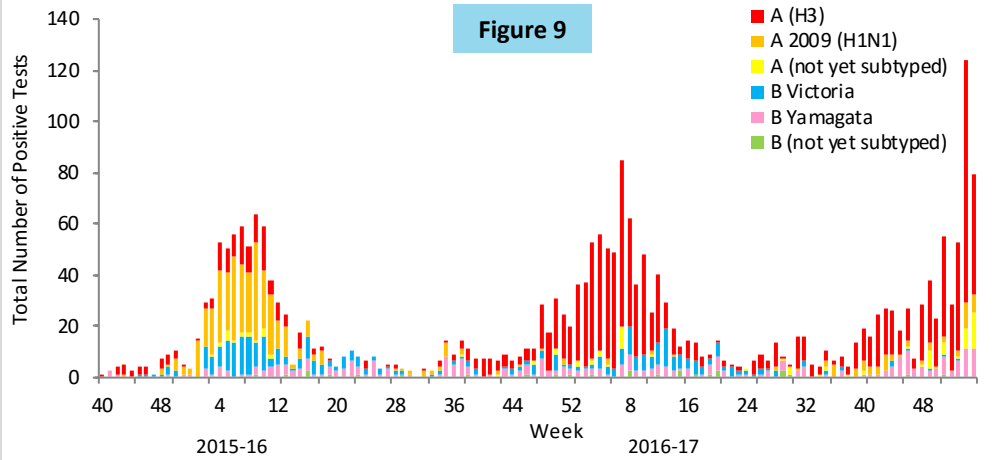


Figure 8 shows the distribution of outbreaks by facility type and season.

In week 3, 52 outbreaks were reported. Nearly all of the outbreaks reported so far this season have occurred in facilities serving at-risk subpopulations (adults aged ≥65 years and children).

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 3, the percent of specimens testing positive for influenza decreased but remained above levels observed during the previous three influenza seasons at this time.

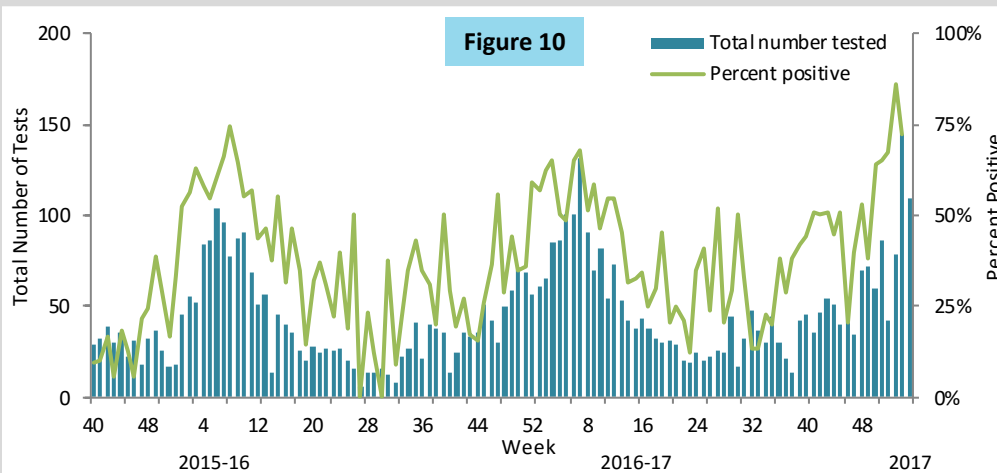


Table 2: Bureau of Public Health Laboratories (BPHL) Viral Surveillance by Lab Event Date*
Reported by 10:00 a.m. January 24, 2018

Influenza Type	Current Week 3	Previous Week 2	Current 2017-18 Season
Total Specimens Tested	109	145	1023
Influenza positive specimens (% of total specimen tested)	79 (72.5%)	124 (85.8%)	592 (57.9%)
Influenza A 2009 (H1N1) (% of influenza positives)	7 (8.9%)	10 (8.1%)	50 (8.4%)
Influenza A (H3) (% of influenza positives)	47 (59.5%)	95 (76.6%)	422 (71.3%)
Influenza A not yet subtyped (% of influenza positives)	14 (17.7%)	8 (6.5%)	37 (6.3%)
Influenza B Yamagata (% of influenza positives)	11 (13.9%)	11 (8.9%)	75 (12.7%)
Influenza B Victoria (% of influenza positives)	-	-	6 (1.0%)
Influenza B not yet subtyped (% of influenza positives)	-	-	2 (0.3%)

*“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 3, 2018.* In week 3, the percent of ED and UCC visits

for ILI continued to increase sharply in all regions. In all regions, activity levels were well above peak levels observed during previous seasons. Activity levels remained highest in regions 1 and 2, where the largest increases were observed.



Figure 11: Region 1 (19 facilities)

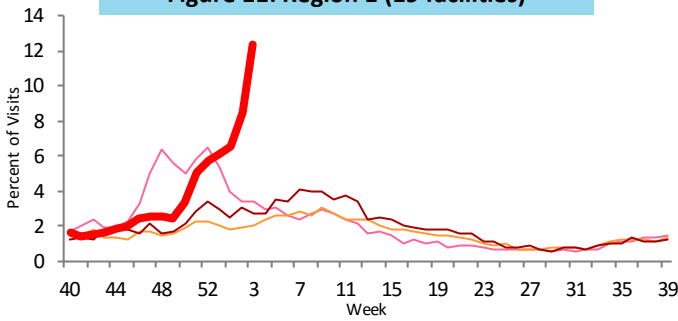


Figure 12: Region 2 (10 facilities)

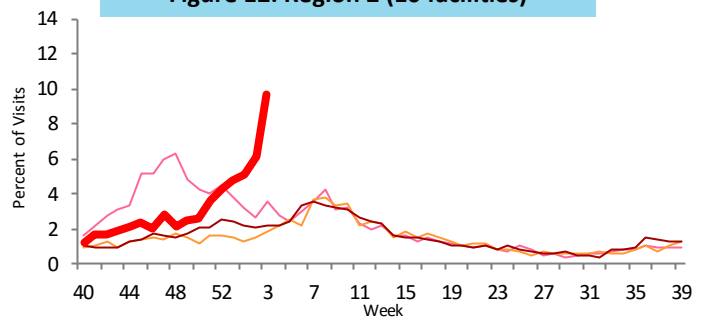


Figure 13: Region 3 (35 facilities)

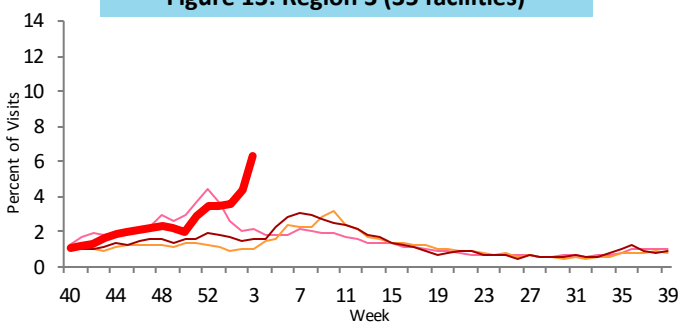


Figure 14: Region 4 (53 facilities)

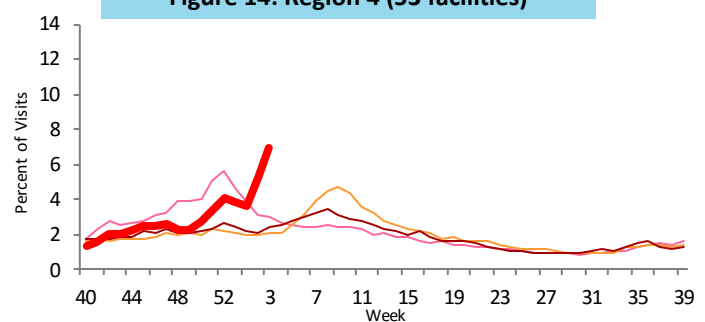


Figure 15: Region 5 (74 facilities)

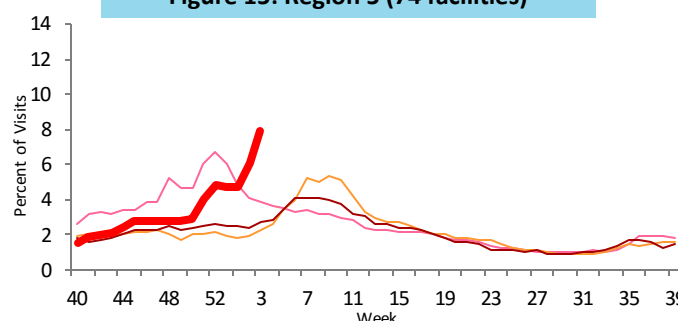


Figure 16: Region 6 (32 facilities)

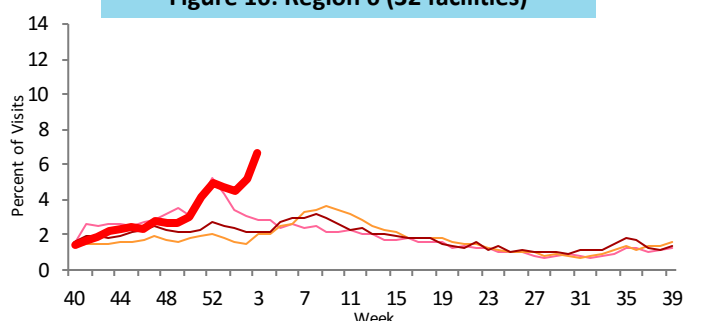
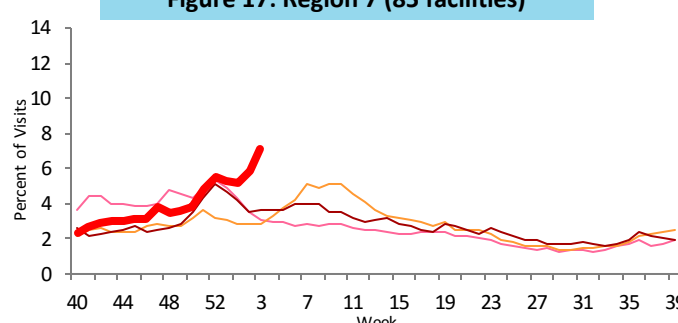
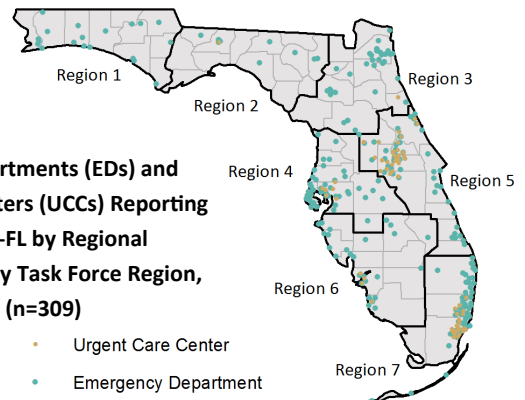


Figure 17: Region 7 (85 facilities)



Map 4

Emergency Departments (EDs) and Urgent Care Centers (UCCs) Reporting Data to ESSENCE-FL by Regional Domestic Security Task Force Region, January 24, 2018 (n=309)



*There is no week 53 for the 2015-16, 2016-17, and 2017-18 seasons; the week 53 data point for those seasons is an average of weeks 52 and 1.

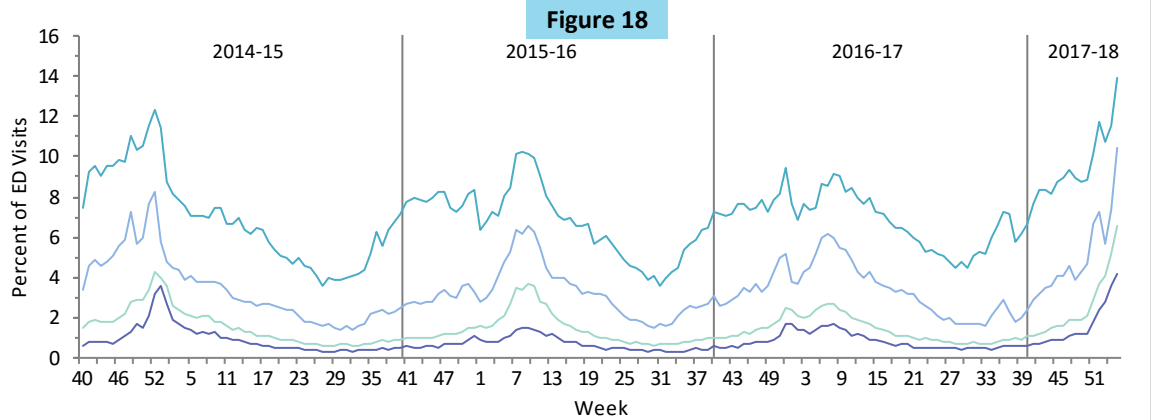
0 to 4 years old 5 to 24 years old 25 to 64 years old ≥65 years old

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 3, 2018.

In week 3, ED and UCC visits for ILI increased sharply in all age groups. Levels were well above 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

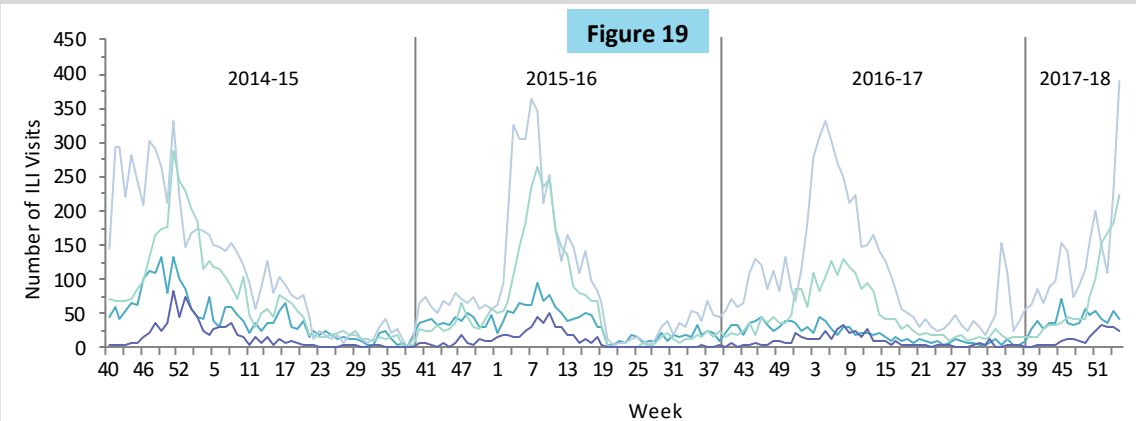


Figure 19 shows the number of visits for ILI reported by ILINet outpatient providers statewide (n=50) by age group, week 40, 2014 to week 3, 2018.

In week 3, the number of visits for ILI increased in the 5-24 and 25-64 age group.

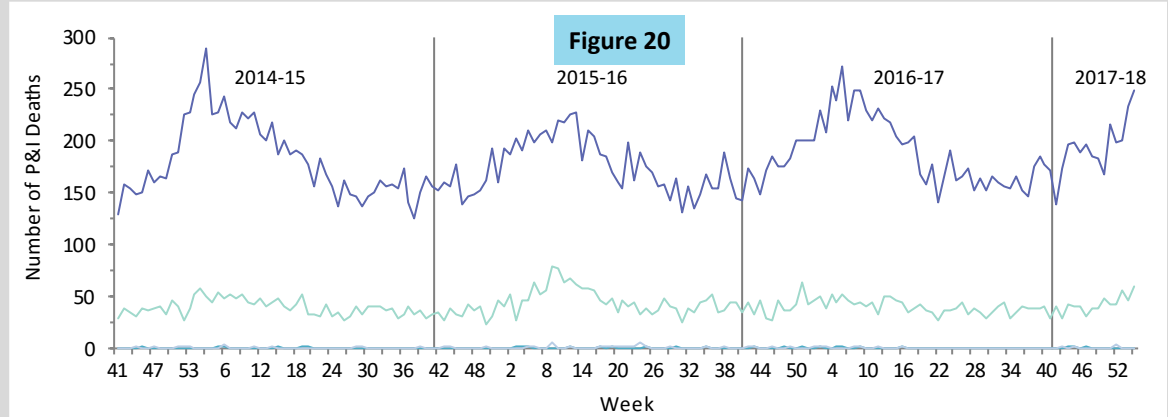
*Data presented here are counts, not proportions. This is because age group denominator data is not available through ILINet.

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 2, 2018.

In week 2 (ending January 13, 2018), the number of P&I deaths increased in all age groups with the exception of the 5-24 age group. Levels were above those observed in previous seasons at this time in the 25-64 age group. Levels were similar to levels observed in previous seasons at this time in all other 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 2, 2018.*

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

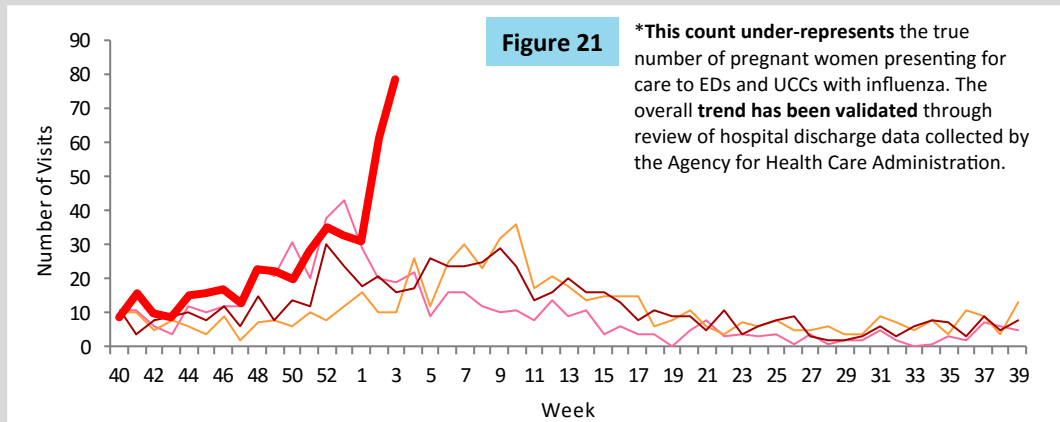
ED and UCC Visits for ILI by Pregnant Women

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 3, 2018.

In week 3, the number of visits to EDs and UCCs by pregnant women with mention of influenza continued to increase sharply and was well above peak levels observed during previous seasons. 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

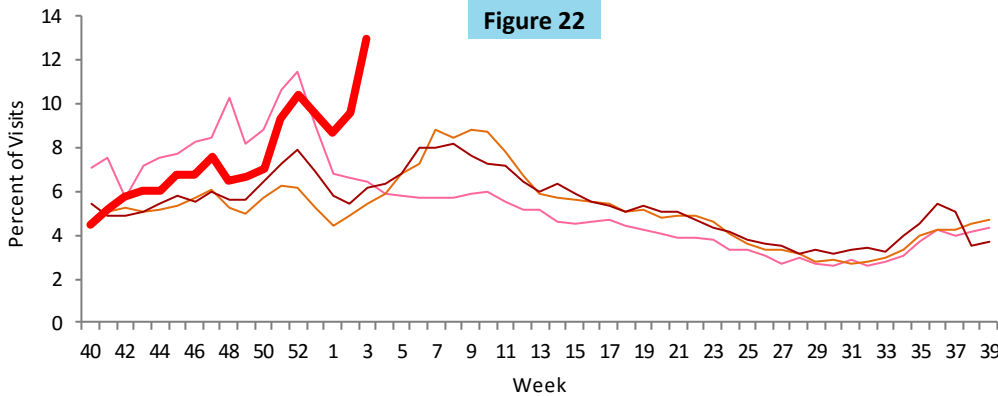


Figure 22 shows the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old, as reported into ESSENCE-FL, week 40, 2014 to week 3, 2018.

In week 3, the percent of ILI visits among all ED and UCC visits for children ≤ 18 years old increased and remained well above peak activity levels in previous seasons.

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.

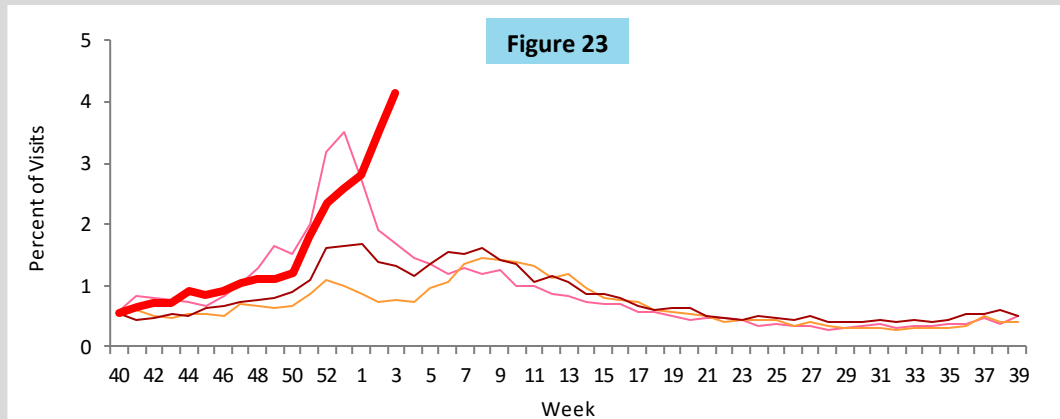
ED and UCC Visits for ILI by Adults ≥ 65 Years Old

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 3, 2018.

In week 3, the percent of ILI visits among all ED and UCC visits for adults ≥ 65 years old continued to increase and was above peak activity levels observed during previous 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.

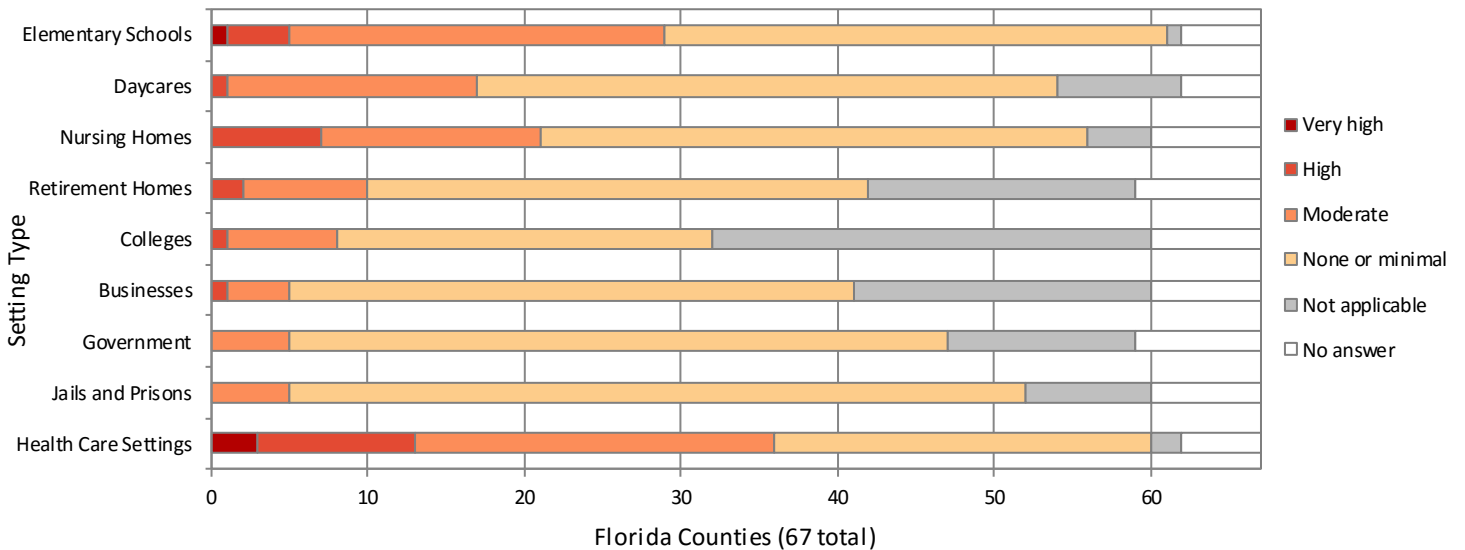
Figure 24 shows the results of the influenza activity assessment for week 3, 2018.

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, 32 counties (48.5%) reported no or minimal influenza or ILI activity. Twenty-four counties (36.4%) reported moderate influenza or ILI activity. Four counties (6.1%) reported high influenza or ILI activity. One county (1.5%) reported very high influenza or ILI activity.

In daycare settings, 37 counties (62.7%) reported no or minimal influenza or ILI activity. Sixteen counties (27.1%) reported moderate influenza or ILI activity. One county (1.7%) reported high influenza or ILI activity.

Settings for Adults >65 Years Old

In nursing homes, 35 counties (55.6%) reported no or minimal influenza or ILI activity. Fourteen counties (22.2%) reported moderate influenza or ILI activity. Seven counties (11.1%) reported high influenza or ILI activity.

In retirement homes, 32 counties (64.0%) reported no or minimal influenza or ILI activity. Eight counties (16%) reported moderate influenza or ILI activity. Two counties (4.0%) reported high influenza or ILI activity.

Settings for Adults 18 to 65 Years Old

In colleges, 24 of 39 counties (61.5%) reported no or minimal influenza or ILI activity. Seven counties (17.9%) reported moderate influenza or ILI activity. One county (2.6%) reported high influenza or ILI activity.

In businesses, 36 counties (75%) reported no or minimal influenza or ILI activity. Four counties (8.3%) reported moderate influenza or ILI activity. One county (2.1%) reported high influenza or ILI activity.

In government offices, 42 counties (76.4%) reported no or minimal influenza or ILI activity. Five counties (9.1%) reported moderate influenza or ILI activity.

Other Unique Settings

In jails and prisons, 47 counties (79.7%) reported no or minimal influenza or ILI activity. Five counties (8.5%) reported moderate influenza or ILI activity.

In health care settings, 24 counties (36.9%) reported no or minimal influenza or ILI activity. Twenty-three counties (35.4%) reported moderate influenza or ILI activity. Ten counties (15.4%) reported high influenza or ILI activity. Three counties (4.6%) reported very high influenza or ILI activity.

Summary

Week 3: January 14-20, 2018

Respiratory syncytial virus (RSV) activity:

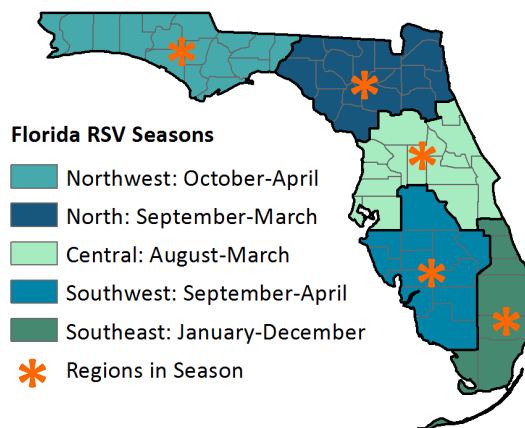
- In week 3, the percent of children <5 years old diagnosed with RSV at EDs and UCCs decreased and was similar to levels observed in previous seasons at this time.
- All regions are currently in RSV season.
- No RSV-associated pediatric deaths were identified in week 3. One RSV-associated pediatric death has been identified so far this season. Premature infants and children <2 years with underlying medical conditions are at higher risk for severe complications from RSV infection. Prophylaxis is available for children who qualify. For more information, contact your physician.
- 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 16 ►

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

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

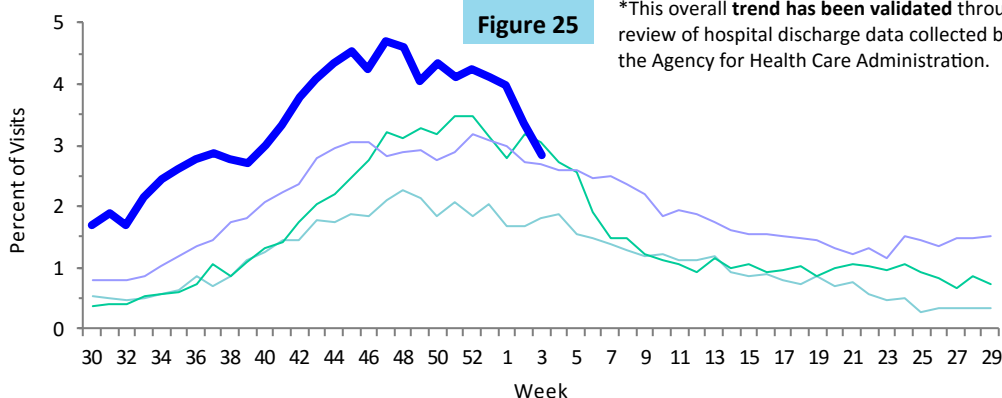


Figure 25 shows the percent of visits to EDs and UCCs with discharge diagnoses that include RSV or RSV-associated illness, as reported by participating ESSENCE-FL facilities (n=309), week 30, 2014 to week 3, 2018.

In week 3, the percent of children presenting to participating EDs and UCCs for care with RSV decreased and was similar to levels observed in previous seasons at this time.

Legend for Figure 25:
 2017-18 (dark blue line)
 2016-17 (purple line)
 2015-16 (green line)
 2014-15 (light blue line)

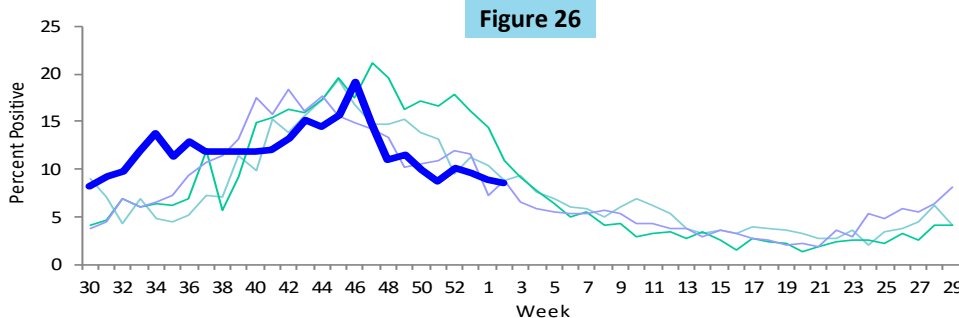
Laboratory RSV Surveillance

RSV = respiratory syncytial virus

Figure 26 shows the percent of specimens testing positive for RSV, as reported by hospital laboratories (n=10), week 30, 2014 to week 3, 2018.

In week 3, the percent of specimens RSV positive decreased and was similar to levels observed in previous seasons at this time.

Legend for Figure 26:
 2017-18 (dark blue line)
 2016-17 (purple line)
 2015-16 (green line)
 2014-15 (light blue line)



Other Respiratory Virus Surveillance

Statewide activity:

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

Enterovirus D68 (EV-D68) activity:

- In week 3, no new people tested positive for EV-D68 in Florida.
 - No people have tested positive for EV-D68 by PCR so far in 2018. In 2017, three people tested positive for EV-D68 by PCR in Florida. 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>.

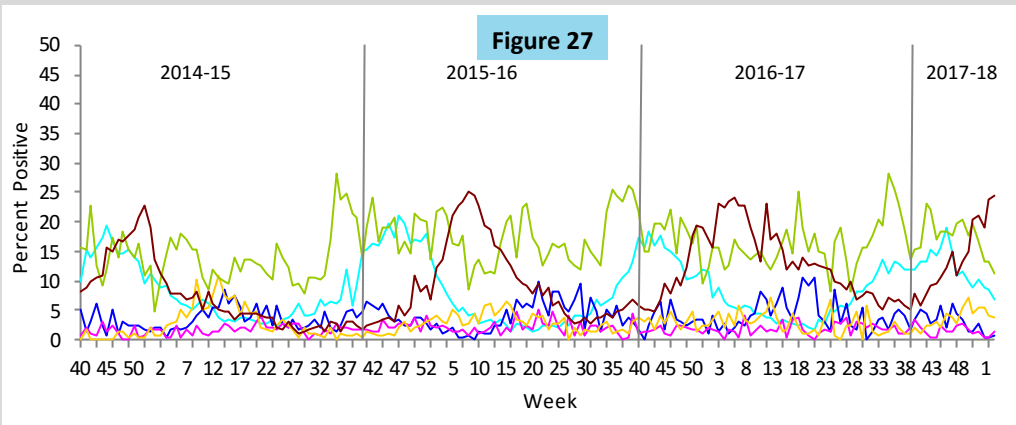
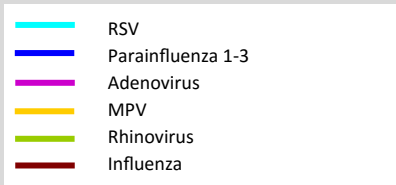
Outbreaks:

- In week 3, one outbreak with both respiratory syncytial virus (RSV) and influenza A was reported in a daycare. 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=10), week 40, 2014 to week 3, 2018.

In recent weeks, the percent of specimens testing positive for influenza was higher than other respiratory viruses under surveillance.



Non-Influenza ARIES Laboratory Outpatient Surveillance*

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

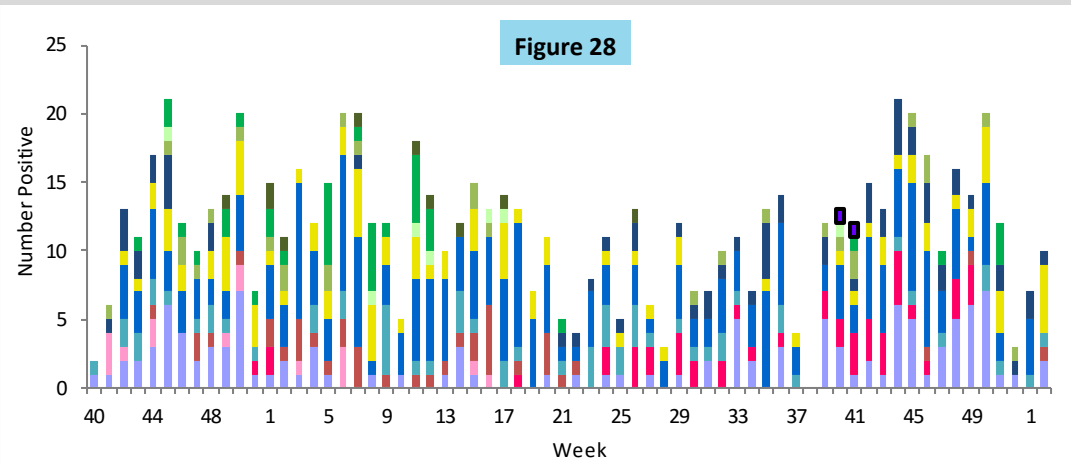
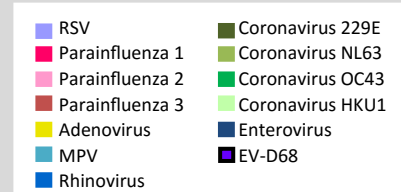


Figure 28 shows the number of specimens testing positive for 12 common respiratory viruses, as reported by BPHL and ARIES outpatient providers statewide (n=7), week 40, 2016 to week 2, 2018.

In week 2 (ending January 13, 2018), specimens submitted by ARIES provider tested positive for RSV, parainfluenza 3, MPV, adenovirus, and enterovirus by PCR.



*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 2, 2018. Laboratory results for specimens that have not yet been tested in full will be included in future reports.

Table 1: Summary of Florida Influenza and ILI Outbreaks by Setting, Week 40, 2017 through Week 3, 2018*

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	22	2	-	5	4	-	-	1	-	1 RSV	9
Daycares	17	-	-	5**	-	-	-	-	-	7 RSV	5
Jails & prisons	6	1	-	2	-	-	-	1	-	-	2
Mental health facilities	-	-	-	-	-	-	-	-	-	-	-
Nursing homes & long-term care facilities	108	12	-	38	7	1	-	6	3	1 RSV/rhinovirus 1 rhinovirus	39
Health care facilities	4	-	-	-	-	-	-	1	-	1 RSV	2
Other	2	1	-	-	-	-	-	-	-	-	1
Total	159	16	0	50	11	1	0	9	3	11	58

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

**This total includes one outbreak where both influenza A and RSV were identified as the etiology.

Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

In week 3, 52 outbreaks were reported in Merlin: 25 outbreaks with laboratory evidence of influenza and 27 outbreaks of ILI. Of the 52 outbreaks reported during week 3 (ending January 20, 2018), 14 select outbreaks are summarized below.

Marion County

- **A correctional facility** reported 20 inmates with ILI. Four specimens were submitted for testing at the Bureau of Public Health Laboratories (BPHL). All four of the specimens tested positive for influenza B by PCR. Subtyping results are still pending. Influenza vaccination status for inmates and staff for the 2017-18 season is currently unknown. Control measures were reviewed with facility leadership. This investigation is ongoing.
- **An additional correctional facility** reported 30 inmates 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 inmates and staff for the 2017-18 season is currently unknown. Control measures were reviewed with facility leadership. This investigation is ongoing.

Suwanee County

- **A daycare** reported 25 individuals with ILI. Specimens collected from seven individuals tested positive for influenza A by rapid antigen testing at local health care providers. No specimens have been available for testing at BPHL thus far. Influenza vaccination status for children and staff for the 2017-18 season is currently unknown. Control measures were reviewed with facility leadership. This investigation is ongoing.

Palm Beach County:

- **A preschool** reported 14 students and one staff member with ILI. No specimens were available for testing at BPHL. The etiology of this outbreak is unknown. Influenza vaccination status for the 2017-18 season for students and staff is unknown. Control measures were reviewed with facility leadership. This investigation is closed.
- **An adult daycare facility** reported 15 attendees with ILI. Both influenza A and influenza B were identified by rapid antigen testing at local health care providers. No specimens have been available for testing at BPHL thus far. The facility estimated 45 staff members and 85 residents were vaccinated for the 2017-18 influenza season. Control measures were reviewed with facility leadership. This investigation is ongoing.

Hillsborough County

- **A long-term care facility** reported 11 residents and 10 staff members with ILI. Three specimens were collected for testing at BPHL. All three specimens tested positive for influenza A by PCR at BPHL. Subtyping results are still pending. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing.

Continued on page 14.

Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

Volusia County

- **A long-term care facility** reported 15 residents and three staff members with ILI. Twelve individuals visited the emergency department and were hospitalized as a result of their illness. At least one specimen was collected for testing at the Bureau of Public Health Laboratories (BPHL). The etiology of this outbreak is not yet known. Vaccination status for all residents and staff for the 2017-18 influenza season is currently unknown. Control measures were reviewed with facility leadership. This investigation is ongoing.

Miami-Dade County

- **An elementary school** reported five students and 10 staff with ILI. Specimens collected from 10 individuals tested positive for influenza A by rapid antigen testing at local health care providers. A specimen collected from one individual tested positive for influenza B at a local health care provider. No specimens were available for testing at BPHL. The facility estimated two students were vaccinated for the 2017-18 influenza season. Influenza vaccination status for the 2017-18 season for staff is unknown. Control measures were reviewed with facility leadership. This investigation is closed.

Santa Rosa County

- **A long-term care facility** reported 21 residents and seven staff members with ILI. Two individuals were hospitalized as a result of their illness. 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. Control measures were reviewed with facility leadership. This investigation is ongoing.
- **An elementary school** reported 49 students and five staff members with ILI. Both influenza A and B were identified (test type unknown) at local health care providers. No specimens have been available for testing at BPHL thus far. Influenza vaccination status for the 2017-18 season for students and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing.
- **A middle school** reported 57 students and one staff member with ILI. Influenza A and B were identified (test type unknown) at local health care providers. No specimens have been available for testing at BPHL thus far. Influenza vaccination status for the 2017-18 season for students and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing.

Pasco County

- **A long-term care facility** reported 20 residents and three staff members with ILI. One individual was hospitalized and one individual died as a result of their illness. Three specimens were collected for testing at BPHL. Those results are pending. 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. Control measures were reviewed with facility leadership. This investigation is ongoing.

Seminole County

- **An assisted living facility** reported 11 residents and 12 staff members with ILI. Two residents were hospitalized as a result of their illness. Specimens collected from two residents tested positive for influenza (test type unknown) at the hospital. Specimens collected from four residents tested positive for influenza A and/or B by rapid antigen testing at local health care providers. No specimens have been available for testing at BPHL thus far. The facility reported that 153 residents were vaccinated for the 2017-18 influenza season. Influenza vaccination status for the 2017-18 season for staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing.
- **A daycare** reported 24 children and four staff members with ILI. No specimens have been available for testing at BPHL. The etiology of this outbreak is not yet known. Influenza vaccination status for the 2017-18 season for children and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing.

Reported Influenza and ILI Outbreaks

ILI = influenza-like illness

In week 2 (ending January 13, 2018), 34 outbreaks were reported into Merlin. Updates were made to two select outbreaks during week 3.

Hillsborough County

- **A long-term care facility** reported 25 residents and two staff members with ILI. Five specimens were collected for testing at the Bureau of Public Health Laboratories (BPHL). Of those, four tested positive for influenza A by PCR thus far. Subtyping results are still pending. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing. **Update: An additional five residents with ILI were reported. This investigation is now closed.**

Polk County

- **A long-term care facility** reported 17 residents and five staff members with ILI. One individual sought treatment at a local emergency department. A specimen collected from one individual tested positive for influenza A by rapid antigen testing at the emergency department. No specimens have been available for testing at BPHL thus far. Influenza vaccination status for the 2017-18 season for residents and staff is not yet known. Control measures were reviewed with facility leadership. This investigation is ongoing. **Update: Eight additional specimens were collected from residents for testing at a private laboratory. Of those, one specimen tested positive for influenza B by rapid antigen testing and one specimen tested positive for influenza A and B by PCR. This investigation is still ongoing.**

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) mortality 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.
- For RSV mortality surveillance, death record literals are queried using a free-text query that searches for references to RSV on death certificates. Any mention of RSV, syncytial, and bronchiolitis in the death certificate literals, with certain exceptions, is counted as a RSV death.