Florida

FLU REVIEW

Season: 2019-20

Week 10: 3/1/20-3/7/20

Geographic Spread:

Widespread



Predominant Strain: A 2009 (H1N1)



ILI Activity Trend: Increasing



Week 10 influenza & influenza-like illness (ILI) activity summary:

Activity increased in week 10 and was above peak levels observed in the 2016-17 and 2018-19 seasons. Increases were observed in all regions of the state.

Ten outbreaks were reported, up from nine outbreaks in the previous week. Of the ten outbreaks reported, four were influenza-associated and six were ILI.

Two new influenza-associated pediatric deaths were reported, both in vaccinated individuals with known underlying medical conditions. Twelve influenza-associated pediatric deaths have been reported so far this season; only three children were vaccinated for the 2019-20 season.

Influenza A 2009 (H1N1) remained the predominant strain.

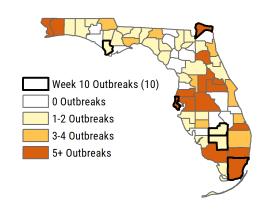
The Centers for Disease Control and Prevention (CDC) continues to recommend that people who have not yet been vaccinated do so as soon as possible. It is especially important for people at higher risk for complications (children, adults ≥65 years, pregnant women, and people with underlying medical conditions).

On January 10, 2020, CDC issued a health advisory reminding clinicians to reiterate vaccination and antiviral treatment recommendations (emergency.cdc.gov/han/HAN00425.asp).

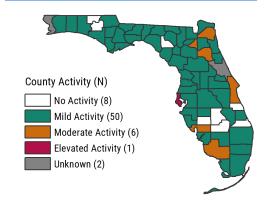
In addition to getting vaccinated, the Florida Department of Health recommends you take everyday precautions to prevent the spread of influenza and other respiratory viruses:

- Wash your hands often with soap and water (if soap is not available, use an alcohol-based sanitizer).
- Avoid touching your eyes, nose, and mouth.
- If you do get sick, stay home until fever-free for at least 24 hours (without the use of fever-reducing medication).

Influenza or ILI Outbreaks
Reported as of 2/29/20



County Influenza Activity



Flu Shot Locator



Your flu shot is the first and most important step to fight the flu.

To locate a vaccine near you, visit: VaccineFinder.org

Posted March 11, 2020 on the Bureau of Epidemiology (BOE) website: FloridaHealth.gov/FloridaFlu Produced by the BOE, Florida Department of Health



In This Issue

Table of Contents:

In This Issue2
Statewide ILI Activity2
Geographic Spread of Influenza in Florida3
Statewide ILI Outpatient Visits and P&I Deaths3
County influenza and ILI Activity Maps4
Influenza and ILI Outbreaks5
Influenza Laboratory Surveillance8
Regional ILI Activity9
At-Risk Populations: Children10
Influenza-Associated Pediatric Deaths10
At-Risk Populations: Pregnant Women11
At-Risk Populations: Adults ≥ 65 Years Old11
Respiratory Syncytial Virus (RSV) Surveillance 12
Other Respiratory Virus Surveillance14
Summary of Notable Outbreaks
Florida ILI Surveillance System Summary16

Background

Influenza, or flu, is a respiratory infection caused by a variety of influenza viruses. Most experts believe influenza viruses spread primarily by droplets made when infected people cough, sneeze, or talk. Less often, a person might become infected with influenza by touching a surface or object contaminated with influenza virus and then touching their own mouth, eyes, or nose.

The best way to prevent influenza infection is to get vaccinated each year. Influenza vaccines protect against the three or four influenza viruses research suggests will be most common.

Influenza Surveillance

Individual cases of influenza are not reportable in Florida with the exception of novel influenza A (a new subtype of influenza A) and influenza-associated pediatric deaths. All outbreaks, including those due to influenza or influenza-like illness (ILI), are reportable in Florida.

Influenza surveillance is conducted to detect changes in the influenza virus. These data are used to help determine the annual northern hemisphere vaccine composition and to prepare for potential pandemics.

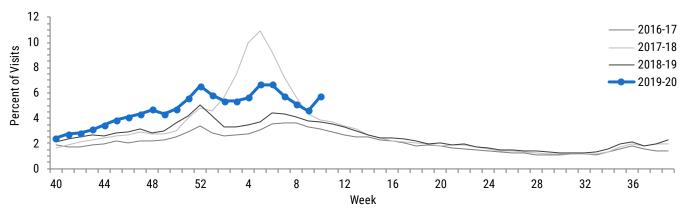
Surveillance is also conducted to identify any unusually severe presentations of influenza, detect outbreaks, and determine the onset, peak, and wane of the influenza season to assist with influenza prevention, particularly in high-risk populations like the very young, adults aged ≥65 years, and pregnant women.

The influenza reporting year is defined by standard reporting weeks outlined by the Centers for Disease Control and Prevention, where every year has 52 or 53 reporting weeks. Increased surveillance for influenza in Florida for the 2019-20 season began in week 40 (starting on September 29, 2019) and will extend through week 20 (ending May 16, 2020). This report is produced by the Florida Department of Health on a weekly basis during the regular influenza season and an abbreviated report is published on a biweekly basis during the summer months.

Surveillance case definitions for ILI vary slightly across surveillance systems. For more information on Florida's influenza surveillance systems and associated case definitions, see page 16.

Statewide Activity

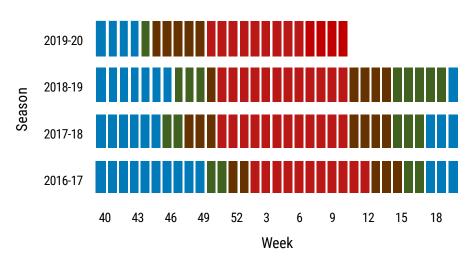
Figure 1: In week 10, the percent of emergency department and urgent care center visits for ILI statewide increased and was above peak levels observed during the 2016-17 and 2018-19 seasons.



▲ Figure 1 shows the percent of visits for ILI for facilities participating in ESSENCE-FL (n=370) statewide for the current season (week 40, 2019 to week 10, 2020) and the last three seasons (2018-19, 2017-18, and 2016-17). The ESSENCE-FL ILI syndrome captures visits with 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 the use of ESSENCE-FL for influenza and ILI surveillance, see page 16.

Statewide Activity

Figure 2: In week 10, Florida reported **widespread geographic spread of influenza** to the Centers for Disease Control and Prevention.



▼ Figure 2 shows Florida's self-reported geographic spread of influenza as reported to the Centers for Disease Control and Prevention, week 40, 2016 to week 10, 2020.

Defining geographic spread of influenza:

Sporadic: small numbers of laboratory-confirmed influenza or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of II I.

Local: outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state.

Regional: outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions.

Widespread: Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.

Figure 3: In week 10, the percent of patients with ILI reported by ILINet providers statewide increased and was within levels observed during previous seasons. Of note, the number of reporting providers remained low in recent weeks.

Figure 3 shows the percent of patients with influenza-like illness (ILI) reported statewide by ILINet providers (n=8), week 40, 2016 to week 10, 2020. ▶

For ILINet, ILI is defined as a fever ≥100°F in conjunction with sore throat or cough in the absence of another known cause.

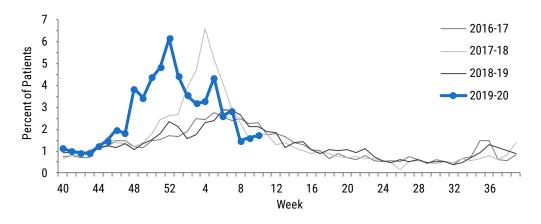
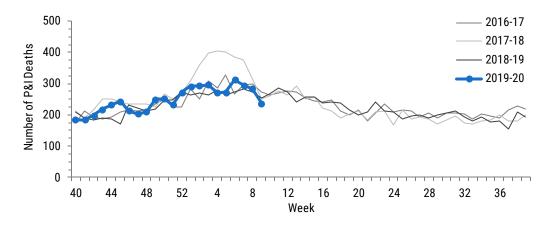


Figure 4: In week 9 (ending 2/29/20), the number of pneumonia and influenza deaths identified statewide decreased and was slightly below levels observed at this time in previous seasons.

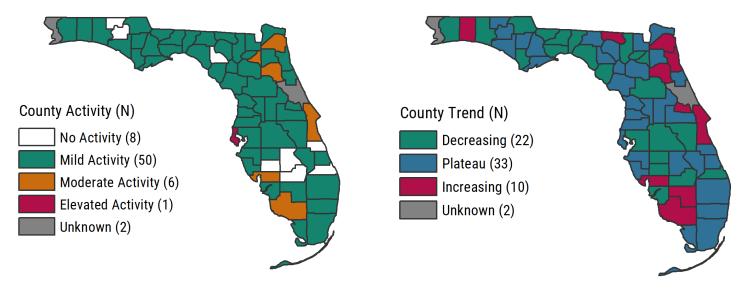


- ▼ Figure 4 shows pneumonia and influenza (P&I) deaths* for all Florida counties from the Bureau of Vital Statistics, as reported into ESSENCE-FL, week 40, 2016 to week 9, 2020.
- *Recent P&I death counts are preliminary numbers that may change as more data are received. The most recent data available are displayed here.

County Influenza Activity

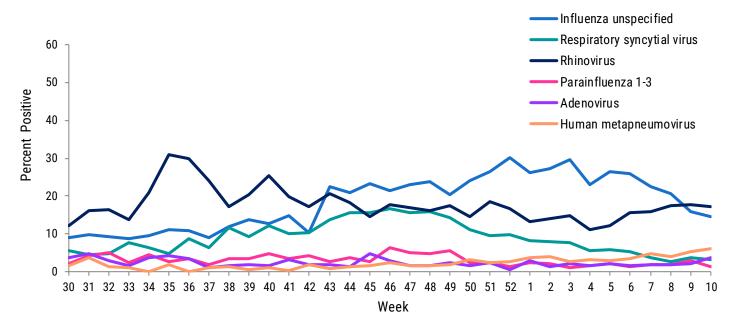
Figure 5: Most counties reported **mild activity** for week 10. Six counties reported **moderate activity**, and one county reported **elevated activity**.

Figure 7: Most counties reported **activity at a plateau** for week 10. Ten counties reported **increasing activity**, and 22 counties reported **decreasing activity**.



▲ Figures 5-6 show county influenza activity data as reported by county health departments in EpiGateway. These data are collected on a weekly basis and are used to determine influenza activity levels for each county (Figure 5). County health departments also report their weekly influenza activity trend (Figure 6).

Figure 7: The **percent of specimens testing positive for influenza decreased** in recent weeks. In week 10, **percent of specimens testing positive for rhinovirus** was higher than other respiratory viruses under surveillance.



▲ Figure 7 shows the percent of laboratory results testing positive for eight common respiratory viruses, as reported by laboratories participating in the National Respiratory and Enteric Virus Surveillance System (NRVESS) and laboratories reporting validated respiratory virus data to the Florida Department of Health via electronic laboratory reporting (n=9), week 40, 2019 to week 10, 2020.

Influenza and ILI Outbreaks

Week 10 Outbreaks at a Glance:

Number Reported:



Influenza-Associated:

4 Outbreaks



Severe Outcomes*:

0 Outbreaks

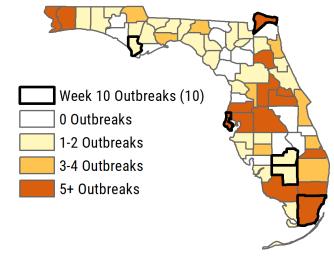


Outbreak Summary:

In week 10, four influenza-associated and six ILI outbreaks were reported, a slight increase from the previous week.

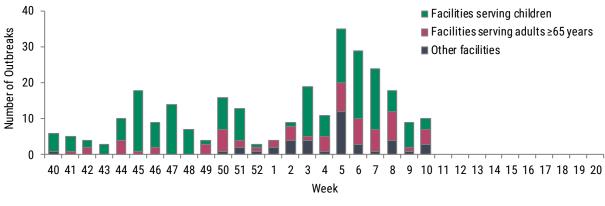
Severe outcomes* were not reported in any of these outbreaks.

During the previous season, severe outcomes were most commonly reported in facilities serving adults aged ≥65 years (assisted living facilities, nursing facilities, and long-term care facilities).



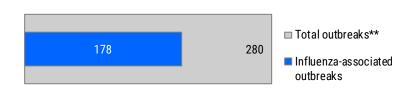
▲ Figure 8 shows reported influenza or ILI outbreaks by county. Counties with outbreaks reported in week 10 are outlined in bold.

Figure 9: In week 10, four outbreaks were reported among facilities serving adults aged ≥65 years, three outbreaks were reported in facilities serving children, and three outbreaks were reported among other facilities.



■ Figure 9 shows the number of influenzaassociated or ILI outbreaks by week as reported in Merlin by county health departments, week 40, 2019 to week 10, 2020. More information on how these setting categories are defined is available on pages 6-7.

Figure 10: As of week 10, 63.6% of outbreaks reported so far this season were influenza-associated.



■ Figure 10 shows the total number of outbreaks and the number of influenza-associated outbreaks as reported in Merlin by county health departments for the 2019-20 season as of week 10, 2020. For more information on how ILI and influenzaassociated outbreaks are defined, see page 16.

^{*}Severe outcomes are defined as hospitalization or death among one or more outbreak cases.

^{**}Total outbreaks includes the number of influenza-associated outbreaks in addition to outbreaks of ILI.

Influenza and ILI Outbreaks

Facilities Serving Children*:



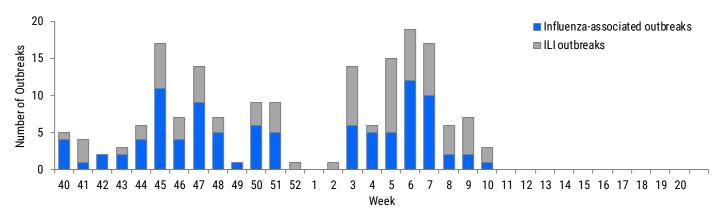
Summary of Outbreaks in Facilities Serving Children:

In week 10, three new outbreaks of influenza or ILI were reported in facilities serving children.

*Facilities serving children include primary schools, secondary schools, and child daycares.

3 Outbreaks

Figure 11: In week 10, one influenza-associated outbreak and two ILI outbreaks were reported in facilities serving children.



▲ Figure 11 shows the number of influenza-associated or ILI outbreaks in facilities serving children by week as reported in Merlin by county health departments, week 40, 2019 to week 10, 2020.

Facilities Serving Adults ≥65 yrs.**:



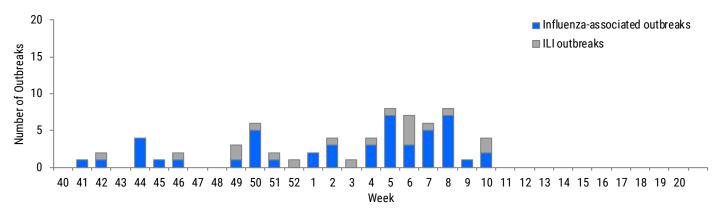
Summary of Outbreaks in Facilities Serving Adults ≥65 years:

In week 10, four new outbreaks of influenza or ILI were reported among facilities serving adults aged ≥65 years.

**Facilities serving adults ≥65 years include assisted living facilities, nursing homes, and other long-term care facilities.

4 Outbreaks

Figure 12: In week 10, two influenza-associated outbreaks and two ILI outbreaks were reported among facilities serving adults ≥65 years.



▲ Figure 12 shows the number of influenza-associated or ILI outbreaks in facilities serving adults aged ≥65 years by week as reported in Merlin by county health departments, week 40, 2019 to week 10, 2020.

Influenza and ILI Outbreaks

Other Facilities*:

3 Outbreaks

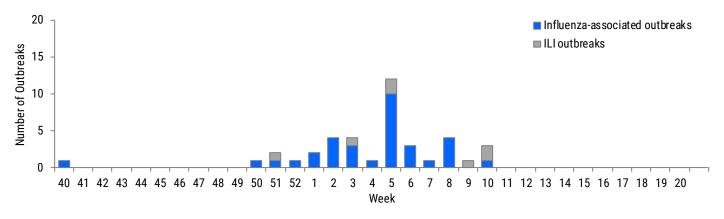


Summary of Outbreaks in Other Facilities:

In week 10, three new outbreaks of influenza or ILI was reported among other facilities.

*Other facilities include post-secondary schools, adult daycares, correctional facilities, hospitals, shelters, and workplaces.

Figure 13: In week 10, two ILI outbreaks and one influenza-associated outbreak were reported among other facilities.



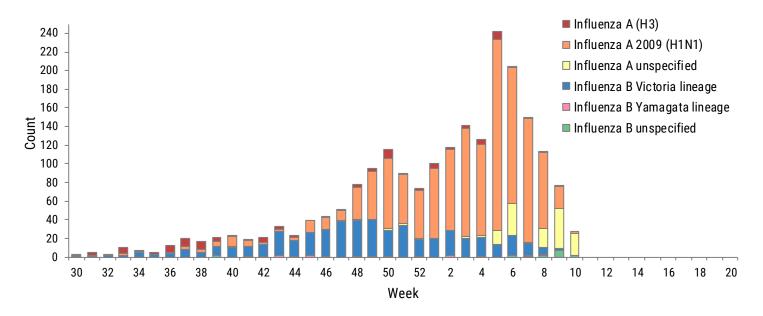
▲ Figure 13 shows the number of influenza-associated or ILI outbreaks in other facilities by week as reported in Merlin by county health departments, week 40, 2019 to week 10, 2020.

Table 1: Summary of Influenza or ILI Outbreaks Reported During the 2019-20 Season by Setting

Setting	Number of Outbreaks (Percent of Outbreaks)	Number Influenza-Associated or ILI
Primary or secondary schools	133 (47.5%)	80 influenza-associated outbreaks 53 ILI outbreaks
Child daycares	40 (14.3%)	17 influenza-associated outbreaks 23 ILI outbreaks
Camps	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Assisted living facilities	21 (7.5%)	10 influenza-associated outbreaks 11 ILI outbreaks
Nursing facilities	15 (5.4%)	12 influenza-associated outbreaks 3 ILI outbreaks
Other long-term care facilities	31 (11.1%)	26 influenza-associated outbreaks 5 ILI outbreaks
Adult daycares	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Post-secondary schools	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Correctional facilities	33 (11.8%)	29 influenza-associated outbreaks 4 ILI outbreaks
Hospitals	3 (1.1%)	2 influenza-associated outbreaks 1 ILI outbreak
Additional facility types	4 (1.4%)	2 influenza-associated outbreaks 2 ILI outbreaks
Total	280 (100.0%)	178 influenza-associated outbreaks 102 ILI outbreaks

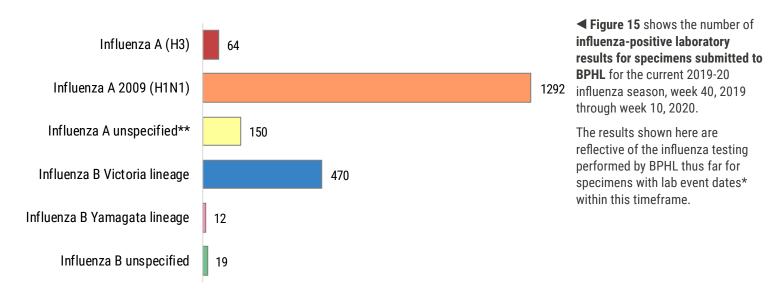
Laboratory Surveillance

Figure 14: Influenza A 2009 (H1N1) continues to be the most common influenza virus identified at BPHL in recent weeks, and influenza A 2009 (H1N1) is the most common influenza subtype detected so far this season. Influenza B Victoria lineage was predominant earlier in the season, but the frequency of those detections decreased in recent weeks.



▲ Figure 14 shows the number of influenza-positive laboratory results at the Bureau of Public Health Laboratories (BPHL) by lab-event date,* week 30, 2019 through week 10, 2020.

Figure 15: **Influenza A 2009 (H1N1)** makes up the largest number of influenza detections at BPHL since week 40. Earlier in the season, **influenza B Victoria lineage** was the most common strain.



^{*&}quot;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.

^{**}This number includes both influenza A specimens for which subtyping has not yet been performed as well as specimens that tested positive for influenza A but were unable to be subtyped due to low viral load.

Regional Activity

Figures 16-22 show the percent of emergency department and urgent care center visits for influenza-like illness (ILI) at ESSENCE-FL participating facilities (n=370) from week 40, 2016 to week 10, 2020. Data are organized by region (see Figure 23).

Figure 16: In **region 1, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 season.

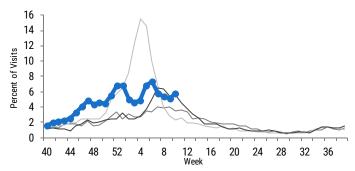


Figure 18: In **region 3, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 and 2018-19 seasons.

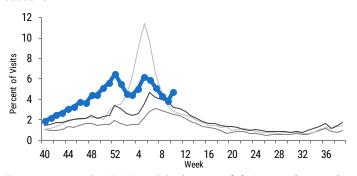


Figure 20: In **region 5, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 and 2018-19 seasons.

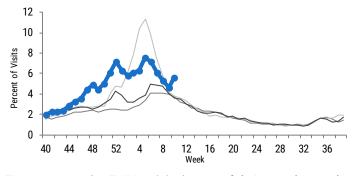


Figure 22: In **region 7, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 season.

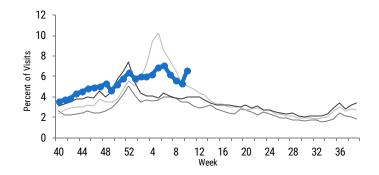


Figure 17: In **region 2, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 and 2018-19 seasons.

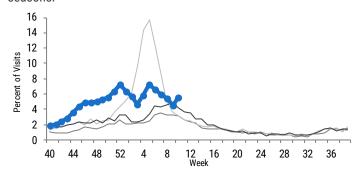


Figure 19: In **region 4, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 and 2018-19 seasons.

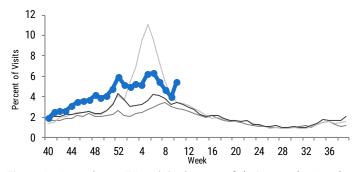
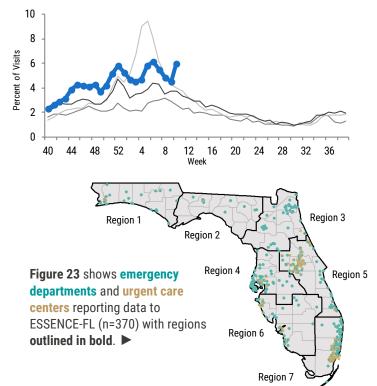


Figure 21: In **region 6, ILI activity increased** during week 10 and was above peak activity observed during the 2016-17 and 2018-19 seasons.

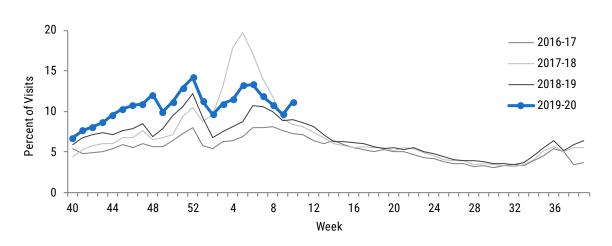


At-Risk Populations

Background: At-Risk Populations, Children

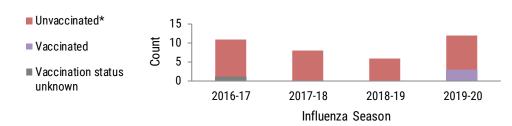
Children, especially those with underlying health conditions (like asthma or diabetes), are at higher risk for severe complications from influenza infection. The single best way to protect children from influenza is to get them vaccinated every year. The Centers for Disease Control and Prevention continues to recommend influenza vaccination as long as flu viruses are circulating. To find a flu shot near you, please visit: VaccineFinder.org.

Figure 24: In week 10, the percent of emergency department and urgent care center visits for ILI in children <18 years increased and was above levels observed at this time during the 2016-17 season.

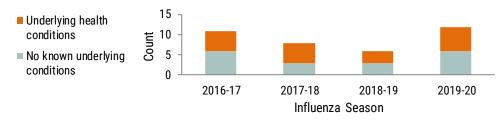


■ Figure 24 shows the percent of influenza-like illness (ILI) visits among children <18 years at emergency department and urgent care centers, as reported into ESSENCE-FL, week 40, 2016 to week 10, 2020.

Figures 25-26: In week 10, **two new influenza-associated pediatric deaths were reported**. A total of 12 influenza-associated pediatric deaths have been reported so far this season.



▲ Figure 25 shows the number of influenza-associated pediatric deaths as reported in Merlin by vaccination status, week 40, 2016 to week 10, 2020.



▲ Figure 26 shows the number of influenza-associated pediatric deaths as reported in Merlin by medical history, week 40, 2016 to week 10, 2020.

In week 10, two new influenza-associated pediatric deaths were reported. The first death was associated with influenza A 2009 (H1N1) in a child with known underlying medical conditions. The second was associated with influenza B in a child with known underlying medical conditions. Both were vaccinated for the 2019-20 season.

A total of 12 influenza-associated pediatric deaths have been reported so far this season. Influenza vaccination is recommended as long as influenza viruses are circulating, even in March or later.

Children, especially those with certain health conditions are at increased risk of severe complications from influenza infection. Influenza vaccination has been shown to reduce a child's likelihood of dying from influenza by up to 60%. For more information, please visit: www.cdc.gov/media/releases/2017/p0403-flu-vaccine.html.

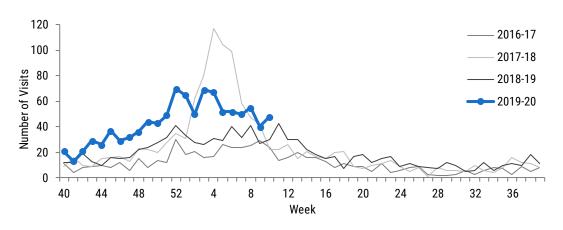
*The Advisory Committee on Immunization Practices (ACIP) recommends children aged six months to eight years receive two doses of influenza vaccine administered a minimum of four weeks apart during their first season of vaccination for optimal protection. The Florida Department of Health includes children in this age group who did not receive a second influenza vaccine in this unvaccinated category. To learn more about the ACIP's 2019-20 recommendations, please visit: www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm.

At-Risk Populations Continued

Background: At-Risk Populations, Pregnant Women

Influenza is five times more likely to cause severe illness in pregnant women (even those who are generally healthy) compared to women who are not pregnant. Pregnant women with certain underlying medical conditions (such as asthma or heart disease) are at even greater risk for severe complications from influenza. Inactivated influenza vaccines are safe, provide the best protection for pregnant women and their babies, and are recommended at any time during pregnancy. Vaccination during pregnancy provides maternal antibody protection to infants too young to be vaccinated for influenza and has been shown to protect pregnant women from influenza-associated hospitalization and preterm birth. For more information, talk to your health care provider.

Figure 27: In week 10, the number of emergency department and urgent care center visits for influenza among pregnant women increased and was above peak levels observed during the 2016-17 and 2018-19 seasons.

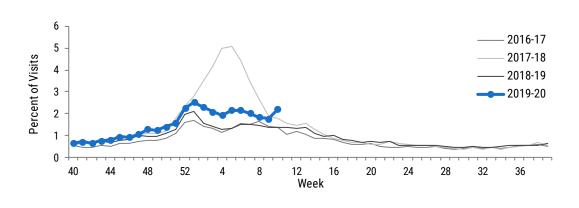


▼ Figure 27 shows the number of visits* to emergency departments and urgent care centers with chief complaints of influenza and pregnancy, as reported in ESSENCE-FL, week 40, 2016 to week 10, 2020.

Background: At-Risk Populations, Adults Aged ≥65 Years

Adults ≥65 years old are at higher risk for severe complications from influenza infection, including hospitalization and death. While influenza seasons vary in intensity, adults in this age group bear the greatest burden of severe influenza disease. In Florida, an average of 80% of seasonal pneumonia and influenza deaths occurred in adults aged ≥65 years over the last five influenza seasons. Annual vaccination is the best way to prevent influenza infection.

Figure 28: In week 10, the percent of emergency department and urgent care center visits for ILI in adults ≥65 years increased and was above levels observed at this time during the 2016-17 and 2018-19 seasons.



▼ Figure 28 shows the percent
of influenza-like illness (ILI)
visits among adults ≥65 years
old at emergency departments
and urgent care centers, as
reported into ESSENCE-FL,
week 40, 2016 to week 10,
2020.

^{*}This count **underrepresents** the true number of pregnant women presenting for care to emergency departments and urgent care centers with influenza, however, **the overall trend** has been validated through review of discharge data collected by the Agency of Health Care Administration.

Respiratory Syncytial Virus Surveillance

Background

Respiratory syncytial virus (RSV) is a common respiratory virus that usually causes mild, cold-like symptoms. Young children and older adults, especially those with certain underlying health conditions, are at higher risk for severe illness from RSV. Prophylaxis is available for children who qualify. For more information, contact your health care provider.

RSV Surveillance

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 in Florida has important implications for prescribing patterns for initiating prophylaxis to children at high risk for complications from RSV infection. The American Academy of Pediatrics currently recommends pre-approval for prophylactic treatment be made based on

Florida RSV Seasons

Northwest: October-April

North: September-March

Central: August-March

Southwest: September-April

Southeast: January-December

Regions in Season

▲ Figure 29 shows Florida's RSV regional season breakdown. Regions that are currently in RSV season are marked with pink stars.

state surveillance data. For more information on RSV surveillance systems used in Florida, see the last page of this report.

Florida's RSV season is longer than the rest of the nation and has distinct regional patterns. The Florida Department of Health established regional RSV seasons based on activity thresholds provided by the Centers for Disease Control and Prevention (see Figure 29). Currently, all of Florida's regions are in RSV season.

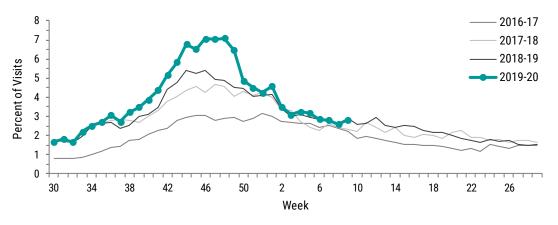
To learn more about RSV in Florida, please visit: FloridaHealth.gov/RSV.

Week 10 (February 23-29, 2020) Activity Summary

In week 10, RSV activity in children <5 years increased and was similar to levels observed at this time in 2019.

No new RSV-associated outbreaks were reported in week 10. A total of nine RSV-associated outbreaks have been reported since week 30, 2019 (beginning on July 27, 2019).

Figure 30: In week 10, the percent of emergency department and urgent care center visits for RSV among children <5 years increased and was similar to levels observed at this time in 2019.



■ Figure 30 shows the percent of emergency department and urgent care center visits with discharge diagnoses that include RSV or RSV-associated illness among children <5 years*, as reported in ESSENCE-FL, week 30, 2016 to week 10, 2020.

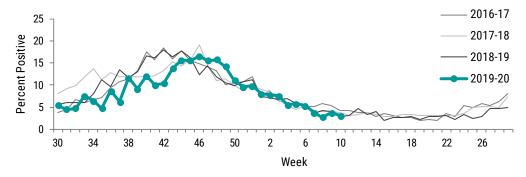


^{*}The overall trend displayed in Figure 30 has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

RSV Surveillance

Figure 31: In week 10, the percent of specimens testing positive for RSV decreased. Levels were similar to those observed at this time in previous seasons.

Figure 31 shows the percent of specimens testing positive for respiratory syncytial virus (RSV), as reported by hospital laboratories (n=9), week 30, 2016 to week 10, 2020. ▶



RSV-Associated Outbreaks in Week 10:

Summary of RSV-Associated Outbreaks:

In week 10, no new RSV-associated outbreaks were reported. Since week 30, 2019, nine RSV-associated outbreaks have been reported.

0 Outbreaks

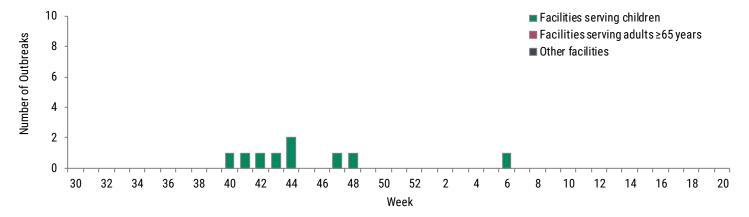
Figure 32: In week 10, no new RSV-associated outbreaks were reported. Since week 30, outbreaks have been reported in Florida's southeast, central, and northwest regions.



▼ Figure 32 shows a summary of RSV-associated outbreaks by region* as reported by county health departments in Merlin, week 30, 2019 to week 10, 2020.

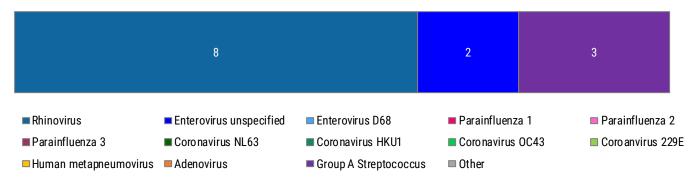
*Regions defined in figure 29.

Figure 33: In week 10, no new RSV-associated outbreaks were reported. All of the outbreaks reported since week 30 have been reported in facilities serving children.



▲ Figure 33 shows the number of RSV-associated outbreaks by setting and week as reported by county health departments in Merlin, week 30, 2019 to week 10, 2020.

Other Respiratory Virus Surveillance



▲ Figure 34 shows the number of unique times a pathogen was associated with a respiratory outbreak for outbreaks reported from week 30, 2019 to week 10, 2020.

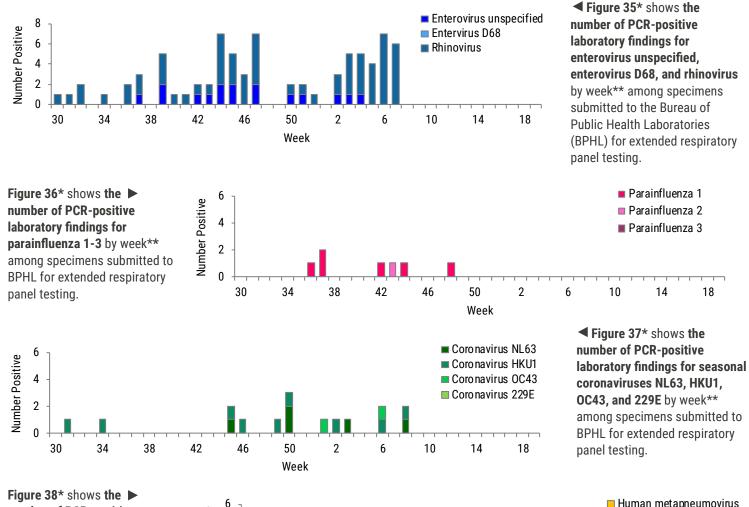
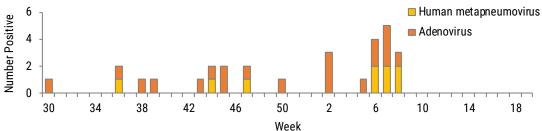


Figure 38* shows the

number of PCR-positive
laboratory findings for human
metapneumovirus and
adenovirus by week** among
specimens submitted to BPHL
for extended respiratory panel
testing.



^{*}Data shown in figures 34-38 include results for specimens submitted by Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) providers (n=4) as reported by BPHL.

^{**}Results are organized by week based on "lab event date" (defined as the earliest of the following dates associated with testing at the laboratory: date specimen collected, date received by the laboratory, date reported, or date inserted).

Summary of Notable Outbreaks

Table 2: Summary of Notable* Influenza-Associated, Respiratory Syncytial Virus (RSV)-Associated, and Influenza-like Illness (ILI) Outbreaks Reported in Week 10, 2020

Setting County Number of Cases Cases Hospitalized	Number of Outbreak Cases Died Etiology	Control Measures Recommended to Facility Leadership
---	--	---

No notable outbreaks were reported in week 10, 2020.

^{*}For the purposes of this report, notable outbreaks are defined as influenza-associated, RSV-associated, or ILI outbreaks with two or more hospitalizations, one or more deaths, or 30 or more cases. For more information on how outbreaks are defined, see page 16.

Summary of Included Surveillance Systems

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal Data source for figures 1, 4, 16-24, 27, 28, 30

Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) measures trends in influenza-like illness (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=370) 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. Deaths counts are aggregated and presented by date of 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.

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. These deaths are also investigated to ensure they meet case definition.

Florida ILINet Data source for figures 2 and 3

ILINet is a nationwide surveillance system composed of sentinel providers, predominately outpatient health care providers. Florida has 118 sentinel providers enrolled in ILINet who submit weekly ILI and total visit counts, as well as submit ILI specimens to the Bureau of Public Health Laboratories for virologic surveillance. For healthcare providers interested in enrolling in ILINet, contact your local county health department.

ILINet is also used as a portal in which the Florida Department of Health reports Florida's geographic spread of influenza each week to the Centers for Disease Control and Prevention (CDC). Geographic spread is not an indication of influenza severity. Geographic spread can be reported as sporadic, local, regional, or widespread.

- Sporadic: small numbers of laboratory-confirmed influenza or a single laboratory-confirmed influenza has been reported but there is no increase in cases of ILI
- Local: outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions
 of the state
- Regional: outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the
 regions of the state with recent laboratory evidence of influenza in those regions
- Widespread: outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.

County Influenza Activity in EpiGateway Data source for figure 5 and 6

County health department (CHD) epidemiologists report their county's influenza and ILI surveillance data weekly into The Florida Department of Health's EpiGateway website. Data from these reports is used to classify influenza activity as: no activity, mild, moderate, or elevated. Setting-specific influenza activity and influenza trend information is also reported by CHDs as available. EpiGateway data provided by CHDs creates a county-by-county breakdown of influenza and ILI activity around the state.

Laboratory Viral Respiratory Surveillance Data source for figures 7 and 31

The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a CDC surveillance system that captures on eight commonly circulating respiratory viruses as reported by participating laboratories in Florida. NREVSS data are combined with validated electronic laboratory data from Florida laboratories that submit RSV laboratory results via electronic laboratory reporting. Together, this information is used to monitor the temporal and geographic patterns of these viruses.

Outbreak Reporting in Merlin Data source for figures 8-13, 32-34; tables 1 and 2

Outbreak investigations are tracked in Merlin (Florida's reportable disease surveillance system) by investigating county health departments. Outbreak reports include implicated viruses or bacteria, the outbreak setting, and recommendations made to mitigate the spread of disease (among other data elements). All outbreak data are considered preliminary and subject to change. As such, outbreak counts may increase or decrease as additional information is received.

- ILI outbreaks in facilities serving adults aged ≥65 years (assisted living facilities, nursing facilities, and long-term care facilities) are
 defined as two or more individuals with ILI (fever and cough or fever and sore throat in the absence of positive laboratory results). ILI
 outbreaks in facilities serving children (primary/secondary schools and child daycares) are defined as three or more epidemiologically
 linked individuals with ILI.
- Influenza-associated outbreaks in facilities serving adults aged ≥65 years are defined as two or more individuals with respiratory symptoms, where at least one individual tests positive for influenza. Influenza-associated outbreaks in facilities serving children are defined as three or more epidemiologically linked individuals with respiratory symptoms, where at least one individual tests positive for influenza. Testing may be conducted by the Bureau of Public Health Laboratories (BPHL), commercial laboratories, hospitals, or private health care providers.

Summary of Included Surveillance Systems Continued

- RSV-associated outbreaks in facilities serving adults aged ≥65 years are defined as two or more individuals with respiratory symptoms,
 where at least one individual tests positive for RSV. RSV-associated outbreaks in facilities serving children are defined as three or more
 epidemiologically linked individuals with respiratory symptoms, where at least one individual tests positive for RSV. Testing may be
 conducted by BPHL, commercial laboratories, hospitals, or private health care providers.
- Notable outbreaks include influenza-associated, RSV-associated, or ILI outbreaks in any setting with 30 or more cases, two or more hospitalized cases, or one or more cases who died.
- Household clusters are not counted as outbreaks.

Bureau of Public Health Laboratories (BPHL) Data source for figures 14, 15, and 35-38.

BPHL performs testing and subtyping on surveillance specimens from sentinel providers, outbreak investigations, patients with severe or unusual influenza presentations, and medical examiners. Sentinel providers include both ILINet and Acute Respiratory Infection Epidemiology and Surveillance Program (ARIES) providers. Some laboratories also routinely submit pre-screened influenza-positive specimens for testing at BPHL for surveillance purposes.

Case-Based Influenza Surveillance Data source for figures 25 and 26

Death in a child whose laboratory-confirmed influenza infection has been identified as a contributing to the child's death is a reportable condition in Florida. Influenza-associated pediatric deaths are documented by county health departments in Merlin.

In addition, an individual of any age suspected as being infected with non-seasonal or pandemic influenza A is reportable condition in Florida. Such cases are referred to as cases of 'novel influenza A.' Novel influenza A cases are documented by county health departments in Merlin.

For more information about reportable diseases and conditions, please visit FloridaHealth.gov/DiseaseReporting.