

Geographic Spread:
Sporadic



Predominant Strain:
A (H3)



ILI Activity Trend:
Increasing



Influenza & influenza-like illness (ILI) activity summary:

During the first week of the 2019-20 influenza season (week 40), **influenza and ILI activity remained at low levels across the state.** Influenza and ILI activity are expected to increase in the coming weeks as the season progresses.

Influenza seasons vary in timing, severity, and duration. It is not possible to predict what the 2019-20 influenza season will be like in Florida.

Annual vaccination is the best way to protect yourself and your loved ones from influenza and its potentially severe complications. Now is the perfect to get your flu shot.

During the last four weeks, influenza A (H3), influenza A 2009 (H1N1), and influenza B Victoria lineage viruses were identified as circulating in Florida. It is still too early to say what strain will predominate during the 2019-20 influenza season, however, **influenza vaccines are designed to protect against all of these viruses.**

In week 40, seven outbreaks were reported (four influenza-associated and three ILI). For more information about these outbreaks, see page 5. Information on respiratory syncytial virus-associated outbreaks and other respiratory disease outbreaks is also available (see pages 14-15).

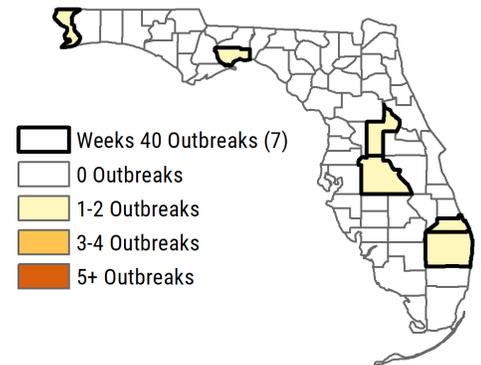
The majority of county health departments reported no or mild activity in week 40.

No new influenza-associated pediatric deaths were reported in week 40.

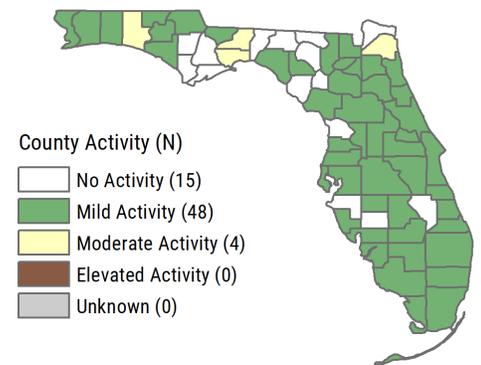
Since March 2019, the percent of specimens testing positive for rhinovirus remained higher than other respiratory viruses under surveillance, including influenza. For more information, see page 4.

The Centers for Disease Control and Prevention recommends antiviral treatment be initiated as soon as possible for people with confirmed or suspected influenza who are at higher risk for complications (children <2 years, adults ≥65 years, pregnant women, and people with underlying medical conditions). Treatment should be administered within 48 hours of illness onset. For more information, contact your health care provider.

Influenza or ILI Outbreaks Reported as of 10/5/19



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:
FloridaHealth.gov/FindAFluShot

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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.

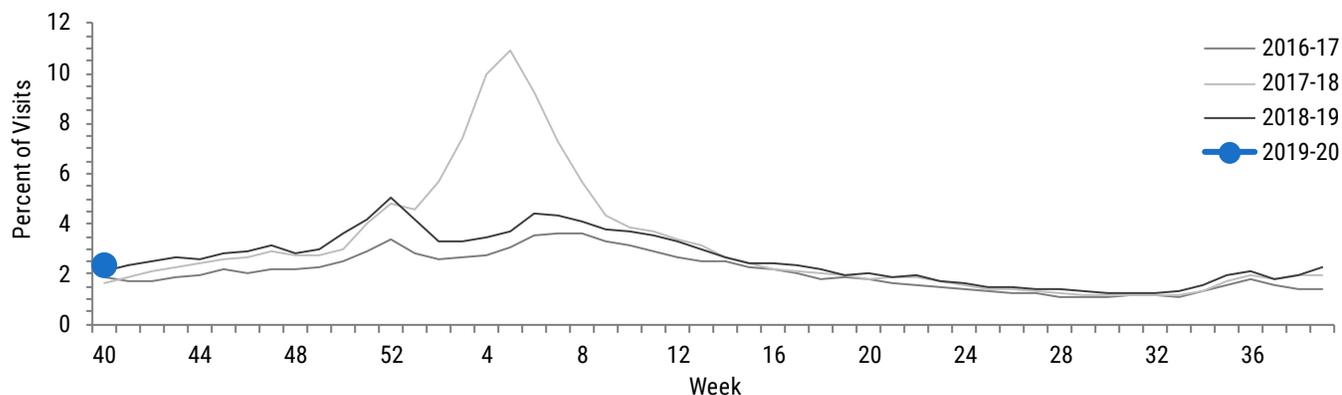
Surveillance is also conducted to identify any unusually severe presentations of influenza, detect outbreaks, and determine the onset, peak, and wane of the influenza season to assist with influenza prevention, particularly in high-risk populations like the very young, adults aged ≥65 years, and pregnant 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 17.**

Statewide Activity

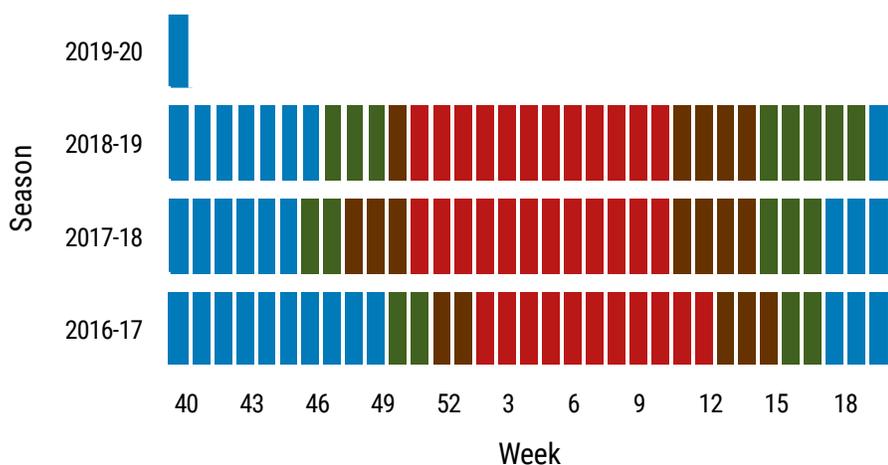
Figure 1: In week 40, **the percent of emergency department and urgent care center visits for ILI statewide increased.** Levels were similar to those observed at this time in previous seasons.



▲ **Figure 1** shows **the percent of visits for influenza-like illness (ILI)** for facilities participating in ESSENCE-FL (n=356) statewide for the current season (week 40, 2018 to week 20, 2019) 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 17.

Statewide Activity

Figure 2: In week 40, Florida reported **sporadic 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 40, 2019.

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 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.

Figure 3: In week 40, **the percent of patients with ILI reported by ILINet providers statewide increased**. Levels were similar to those observed at this time in previous seasons.

Figure 3 shows the **percent of patients with influenza-like illness (ILI)** reported statewide by ILINet providers (n=51), week 40, 2016 to week 40, 2019. ▶

For ILINet, ILI is defined as a fever $\geq 100^{\circ}\text{F}$ in conjunction with sore throat or cough in the absence of another known cause.

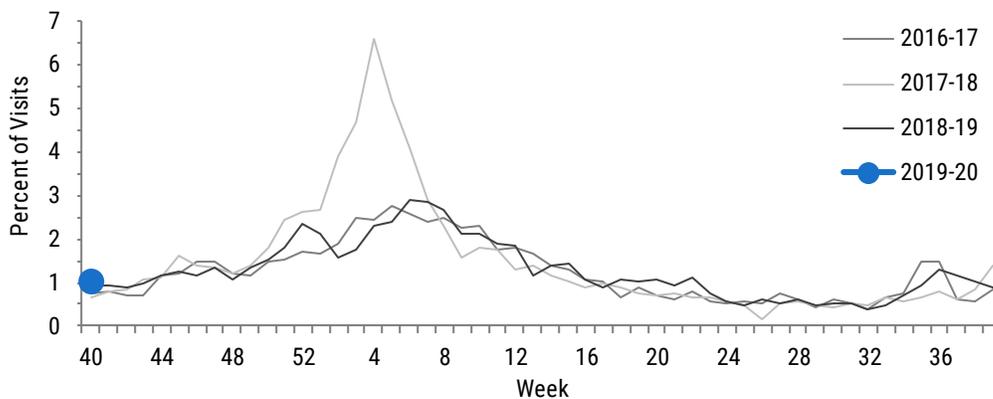
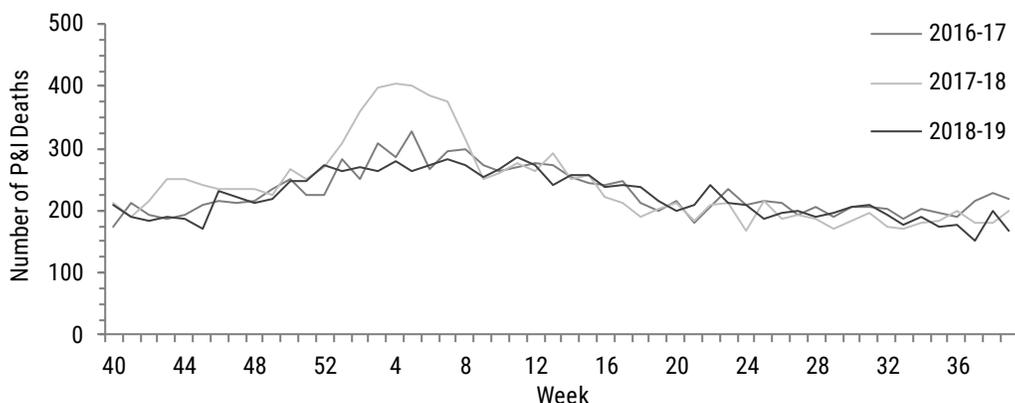


Figure 4: In week 39 (ending 9/28/19), **the number of pneumonia and influenza deaths identified statewide decreased** and was below levels observed at this time in previous seasons.



◀ **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 39, 2019.

*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: Nearly all of Florida's counties reported no activity or **mild activity** for week 40.

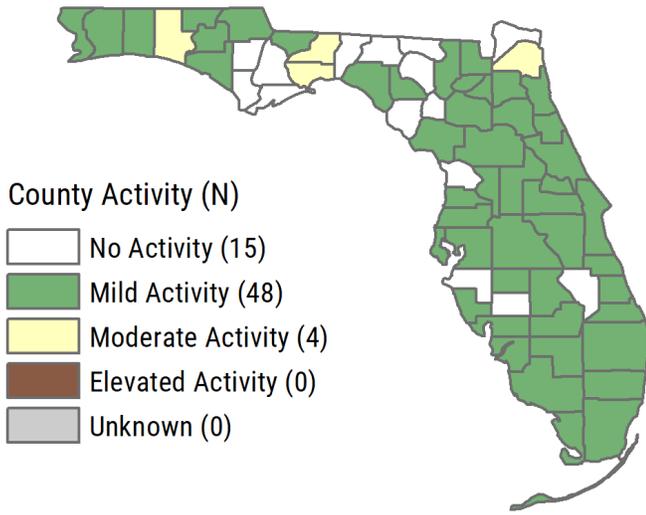
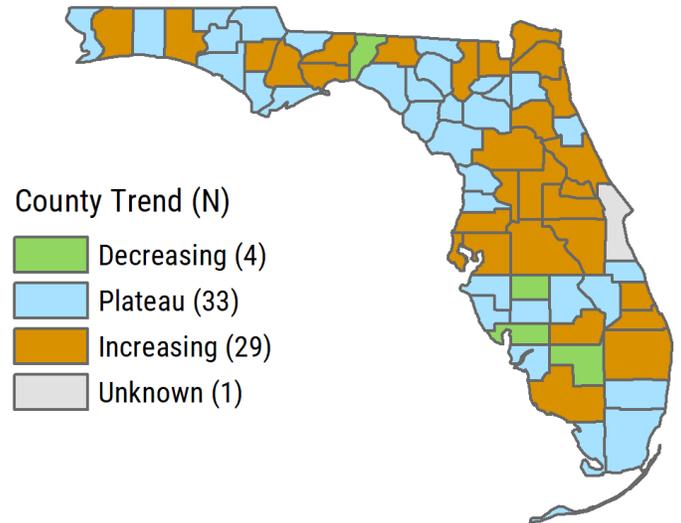
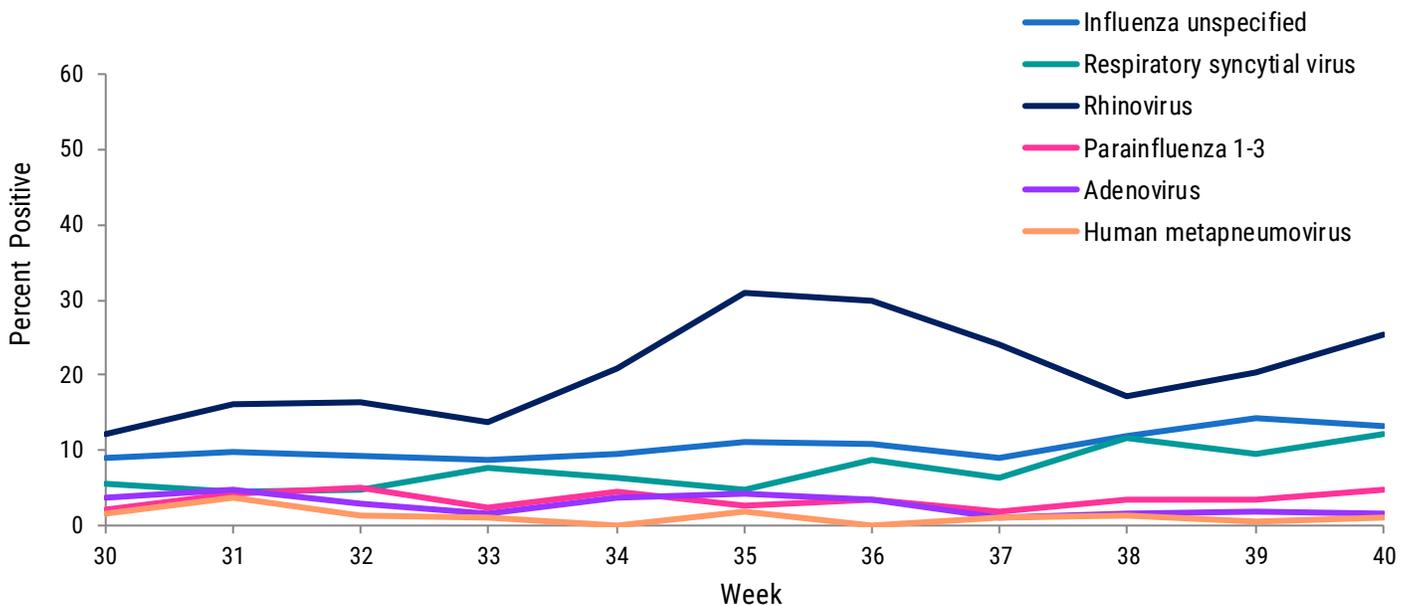


Figure 6: Most counties reported **increasing activity** or **activity at a plateau** for week 40.



▲ **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: In week 40, the **percent of specimens testing positive for rhinovirus increased** and remained higher than other respiratory viruses under surveillance (including influenza and respiratory syncytial virus).



▲ **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=7), week 30, 2019 to week 40, 2019.

Influenza and ILI Outbreaks

Week 40 Outbreaks at a Glance:

Number Reported:
7 Outbreaks



Influenza-Associated:
4 Outbreaks



Severe Outcomes*:
0 Outbreaks



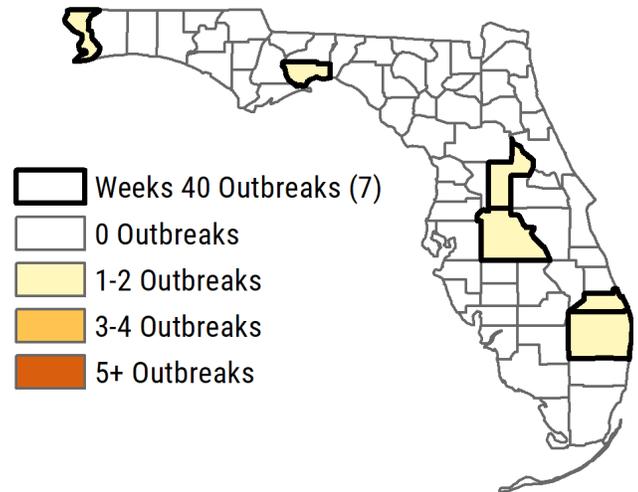
Outbreak Summary:

In week 40, four influenza-associated outbreaks and three ILI outbreaks were reported.

Of the four influenza-associated outbreaks reported, one was associated with influenza A 2009 (H1N1), one influenza B unspecified, and two influenza unspecified.

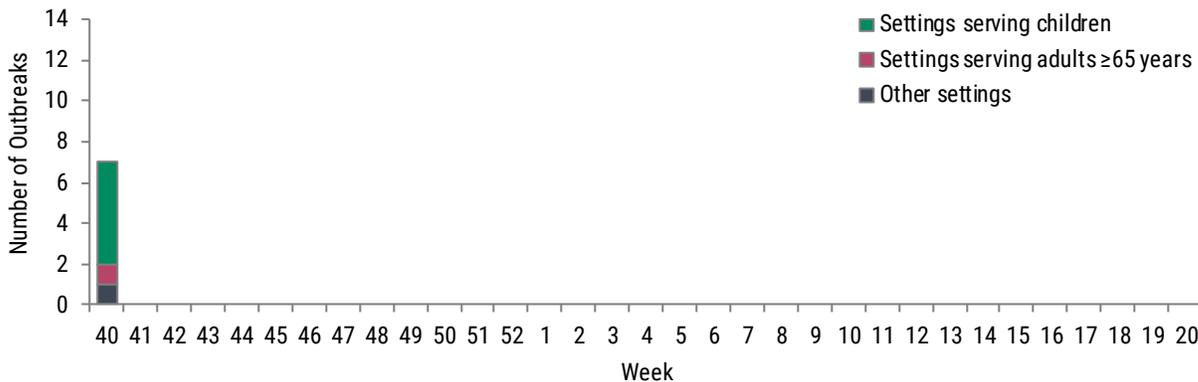
Severe outcomes* (hospitalizations or deaths) were not reported in any of these seven outbreaks.

During the previous season, severe outcomes were most commonly reported in facilities serving adults aged ≥65 years and (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 40 are **outlined in bold.**

Figure 9: In week 40, five outbreaks were reported in facilities serving children, one outbreak in facilities serving adults ≥65 years, and one outbreak in other settings.



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

Figure 10: As of week 40, 2019, 57.1% of outbreaks reported so far this season were influenza-associated.



◀ **Figure 10 shows the number 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 40, 2019.** For more information on how ILI and influenza-associated outbreaks are defined, see page 16.

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

Influenza and ILI Outbreaks

Settings Serving Children*:

5 Outbreaks

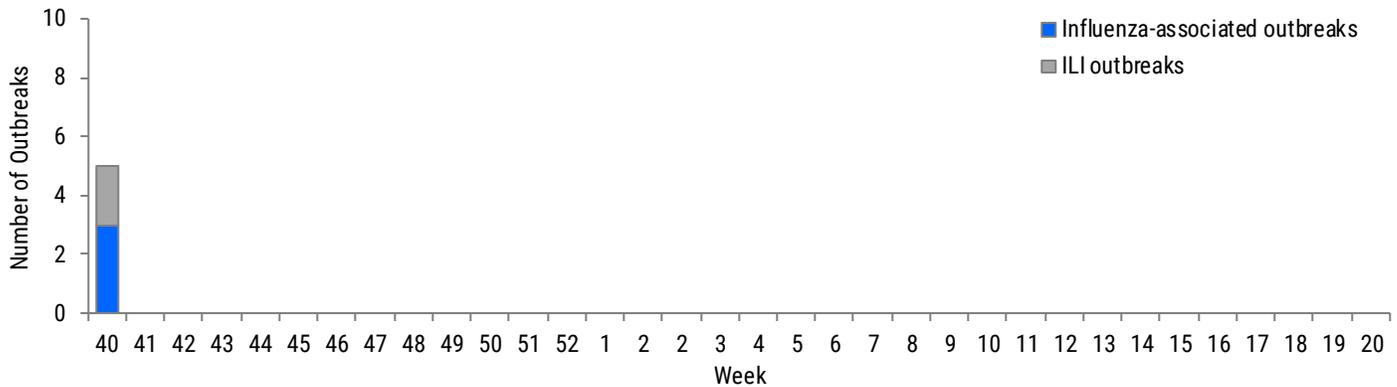


Summary of Outbreaks in Facilities Serving Children:

In week 40, five new outbreaks of influenza or ILI were reported in facilities serving children.

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

Figure 11: In week 40, **three influenza-associated outbreaks** 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 40, 2019.

Settings Serving Adults ≥ 65 yrs. **:

1 Outbreak

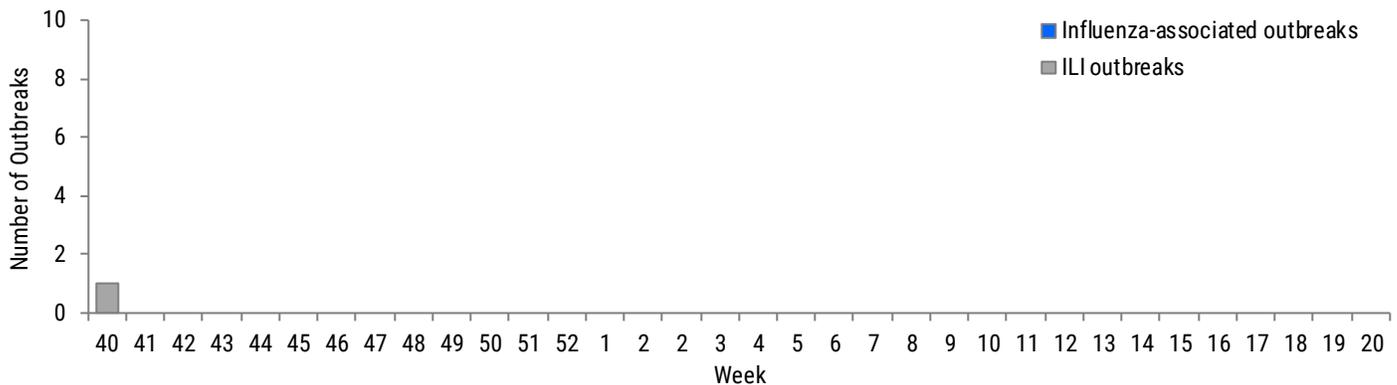


Summary of Outbreaks in Facilities Serving Adults ≥ 65 years:

In week 40, one new outbreak of influenza or ILI were reported in facilities serving adults aged ≥ 65 yrs.

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

Figure 12: In week 40, **one ILI outbreak** was 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 40, 2019.

Influenza and ILI Outbreaks

Other Settings*:

1 Outbreak

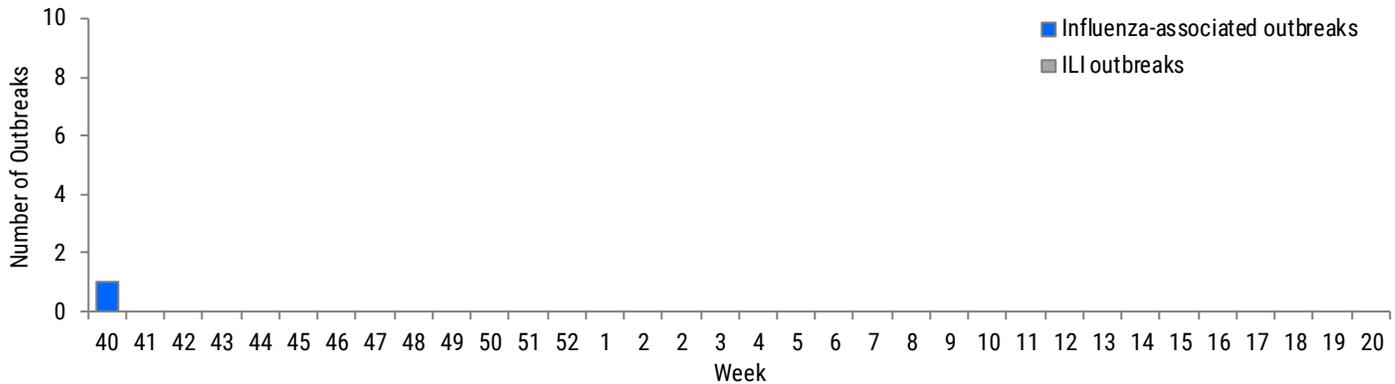


Summary of Outbreaks in Other Settings:

In week 40, one new outbreak was reported among other settings.

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

Figure 13: In week 40, **one influenza-outbreak** was reported among **other facilities**. The outbreak was reported by a correctional facility.



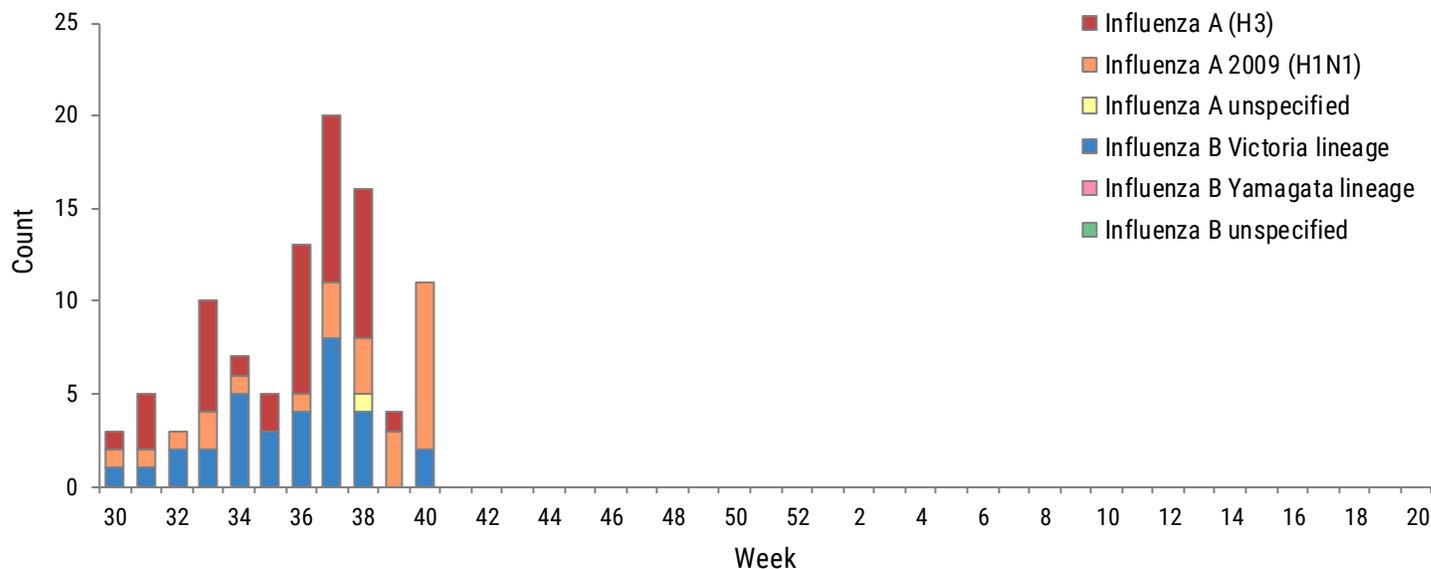
▲ **Figure 13** shows the number of **influenza-associated or ILI outbreaks in other facilities by week** as reported in Merlin by county health departments, week 40, 2019 to week 40, 2019.

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

Setting	Number of Outbreaks (Percent of Outbreaks)	Number ILI or Influenza-Associated
Primary or secondary schools	4 (57.1%)	3 influenza-associated outbreaks 1 ILI outbreak
Child daycares	1 (14.3%)	0 influenza-associated outbreaks 1 ILI outbreak
Camps	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Assisted living facilities	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Nursing facilities	1 (14.3%)	0 influenza-associated outbreaks 1 ILI outbreak
Other long-term care facilities	0 (0.0%)	0 influenza-associated outbreaks 0 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	1 (14.3%)	1 influenza-associated outbreak 0 ILI outbreaks
Hospitals	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Additional facility types	0 (0.0%)	0 influenza-associated outbreaks 0 ILI outbreaks
Total	7 (100.0%)	4 influenza-associated outbreaks 3 ILI outbreaks

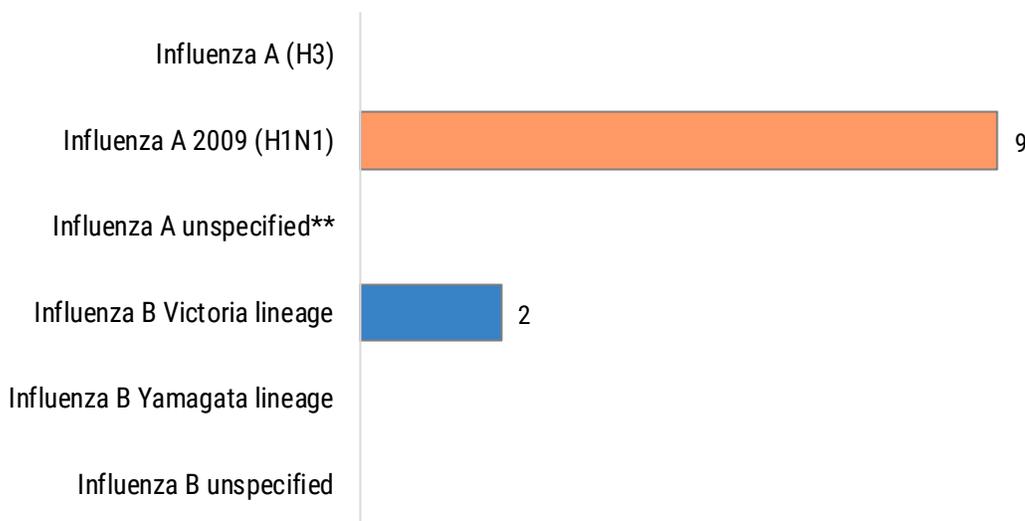
Laboratory Surveillance

Figure 14: Over the last four weeks, **influenza A (H3)** and **influenza A 2009 (H1N1)** were the **most common influenza subtypes detected at BPHL**, followed closely by and **influenza B Victoria lineage**. It is still too early to say which subtype will predominate during the 2019-20 season.



▲ **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 40, 2019.

Figure 15: **Influenza A 2009 (H1N1)** makes the largest number of influenza-positive detections at BPHL during week 40 thus far.



◀ **Figure 15** shows the number of **influenza-positive laboratory results for specimens submitted to BPHL** for the current 2019-20 influenza season, week 40, 2019 through week 40, 2019.

The results shown here are reflective of the influenza testing performed by BPHL thus far for specimens with lab event dates* within this timeframe. Of note, five of the nine influenza A 2009 (H1N1) results from week 40, 2019 were collected during a single outbreak investigation.

*"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.

Laboratory Surveillance: Antigenic Characterization

Background

The Bureau of Public Health Laboratories (BPHL) routinely submits influenza-positive original clinical specimens to the Centers for Disease Control and Prevention (CDC) for antigenic characterization. **The purpose of this testing is to monitor changes in circulating influenza viruses and compare how similar currently circulating influenza viruses are to the reference viruses used for developing influenza vaccines.** While antigenic characterization can provide an indication of the influenza vaccine's ability to produce an immune response against circulating influenza viruses, **annual vaccine effectiveness estimates remain necessary to determine how much protection has been provided to the population by vaccination.**

BPHL submits three influenza A (H3)-positive specimens, two influenza A 2009 (H1N1)-positive specimens, and at least four influenza B-positive specimens (two Victoria lineage and two Yamagata lineage) every two weeks to CDC (as available). CDC's most recent FluView (www.cdc.gov/flu/weekly/index.htm) offers national context for data displayed in Table 2 and Figure 16 (below).

The official recommendation is quadrivalent vaccines administered for the 2019-20 northern hemisphere influenza season contain the following: (1) an A/Brisbane/02/2018 (H1N1)pdm09-like virus, (2) an A/Kansas/14/2017 (H3N2)-like virus, (3) a B/Colorado/06/2017-like virus (B Victoria lineage), and (4) a B/Phuket/3073/2013-like virus (B Yamagata lineage). It is recommended that the influenza B component of trivalent vaccines administered for the 2019-20 northern hemisphere influenza season be a B/Colorado/06/2017-like virus. For more information, visit: www.who.int/influenza/vaccines/virus/recommendations/2019_20_north/en/.

Table 2: Antigenic Characterization Results for Influenza Isolates Submitted to CDC, Cumulative Totals for Week 30, 2019-Week 40, 2019

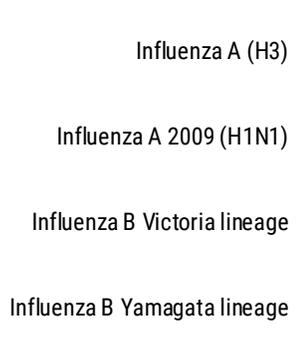
Antigenic Characterization	Number of Specimens
A/BRISBANE/02/2018-LIKE	0
A/KANSAS/14/2017 (H3N2) BY FRA	0
B/COLORADO/06/2018-LIKE	0
B/PHUKET/3073/2013-LIKE	0

◀ **Table 2 summarizes antigenic characterization results** received for specimens collected from week 40, 2019 through week 40, 2019, as reported by CDC. Results for submitted specimens that have not yet been tested will be included in future reports as those results are received.

According to CDC, a specimen is considered "reference-virus-like" if its hemagglutination inhibition (HI) or neutralization focus reduction assay (FRA) titer is within fourfold of the homologous HI/FRA titer of the reference strain; a specimen is considered as

"low" to the reference virus if there is an eightfold or more reduction in the HI or FRA titer when compared with the homologous HI or FRA titer of the reference strain. **No results are available for the 2019-20 season thus far.**

Figure 16: No results are available for the 2019-20 season thus far.



◀ **Figure 16 shows the percentage of specimens** submitted to CDC that are **antigenically similar to reference strains** representing the recommended vaccine components of the 2019-20 northern hemisphere vaccine, week 40, 2019 to week 40, 2019 by virus type.

■ **Antigenically similar:** within fourfold of the homologous HI/FRA titer of the reference strain

■ **Antigenically different:** eightfold or more reduction in the HI/FRA titer when compared to the homologous HI/FRA titer of the reference strain

Regional Activity

Figures 17-23 show the percent of emergency department and urgent care center visits for influenza-like illness (ILI) at ESSENCE-FL participating facilities (n=356) from week 40, 2016 to week 40, 2019. Data are organized by region (see Figure 24).



Figure 17: In **region 1**, ILI activity increased during week 40 and was similar to levels observed at this time in past seasons.

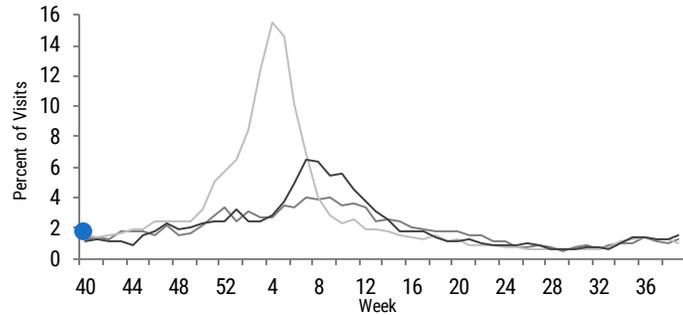


Figure 19: In **region 3**, ILI activity increased during week 40 and was slightly above levels observed at this time in past seasons.

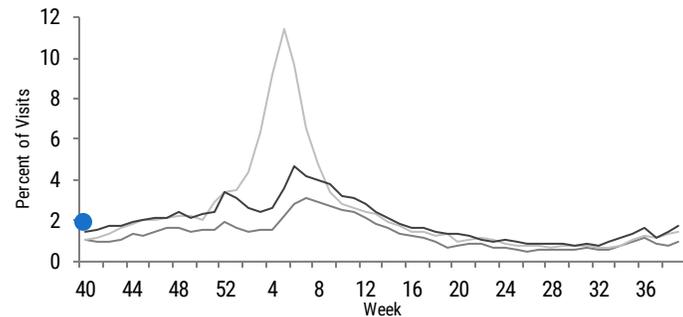


Figure 21: In **region 5**, ILI activity increased during week 40 and was similar to levels observed at this time in past seasons.

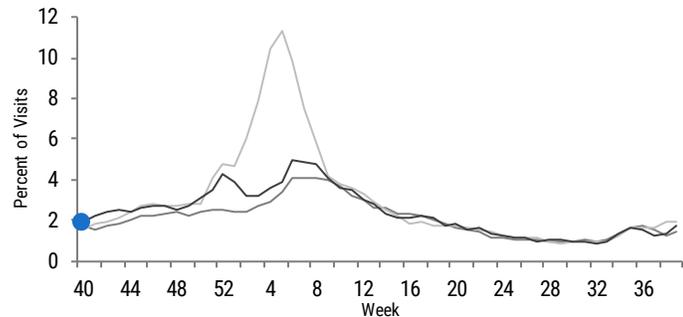


Figure 23: In **region 7**, ILI activity increased during week 40 and was slightly above levels observed at this time in past seasons.

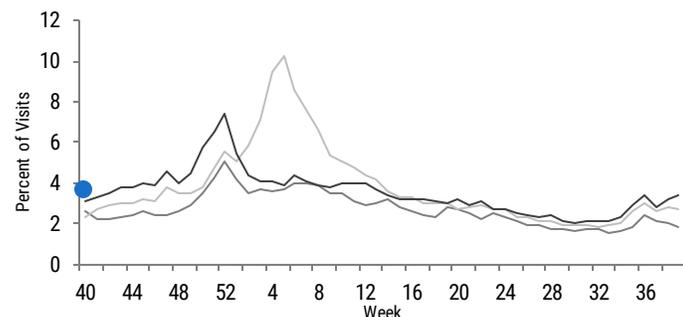


Figure 18: In **region 2**, ILI activity increased during week 40 and was slightly above levels observed at this time in past seasons.

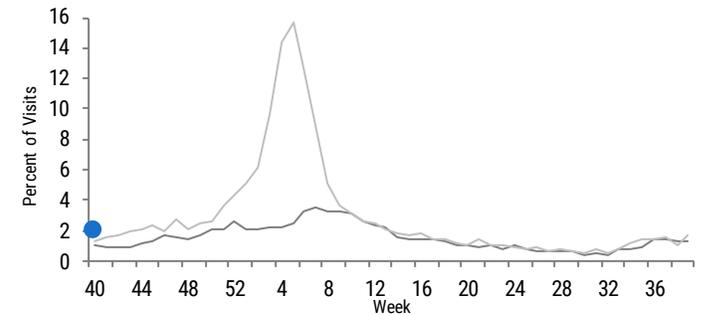


Figure 20: In **region 4**, ILI activity decreased during week 40 and was similar to levels observed at this time in past seasons.

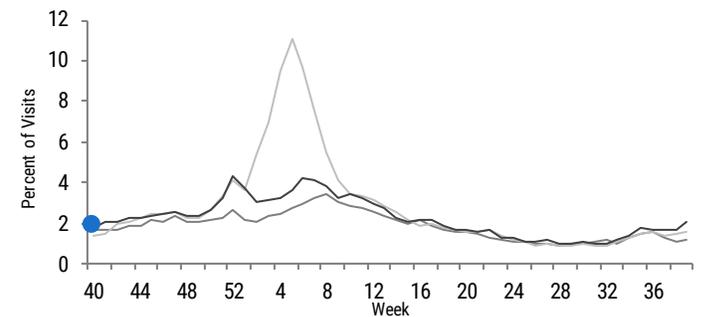
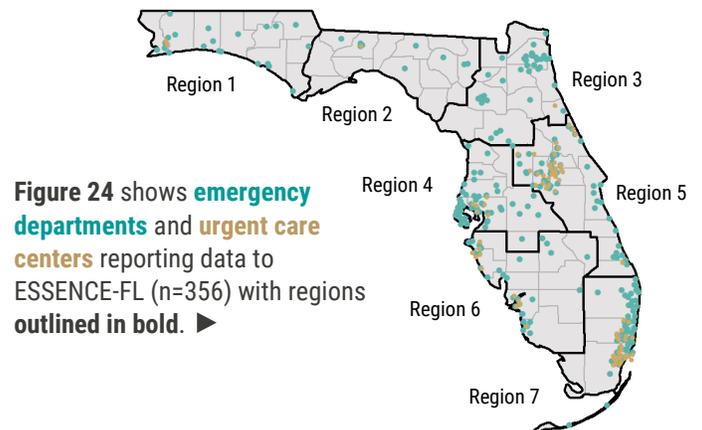
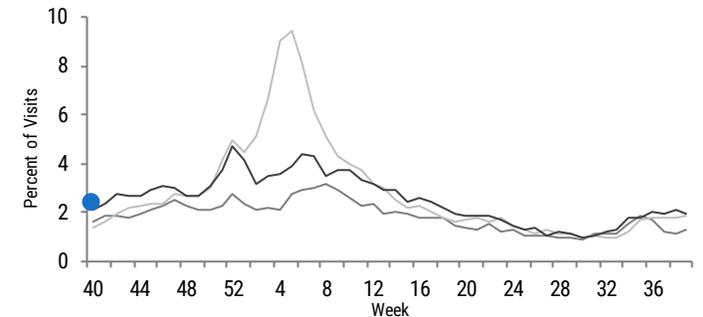


Figure 22: In **region 6**, ILI activity increased during week 40 and was slightly above levels observed at this time in past seasons.

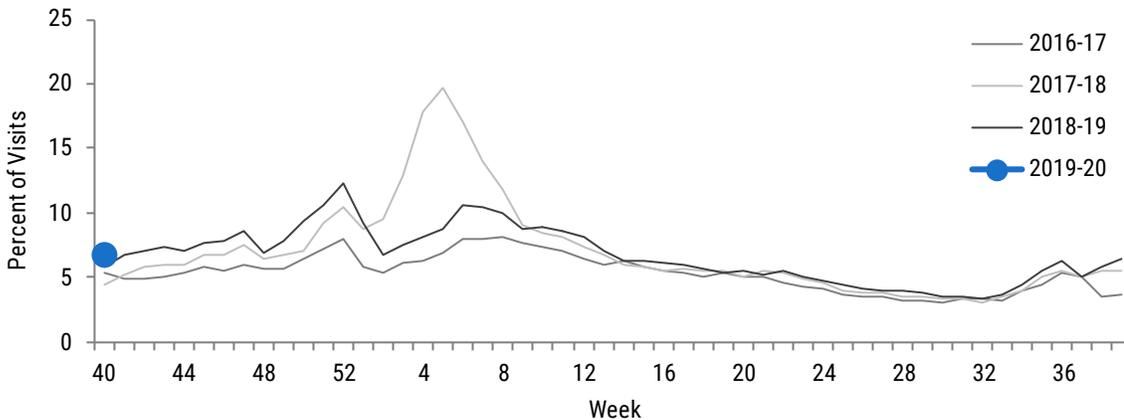


At-Risk Populations

Background: At-Risk Populations, Children

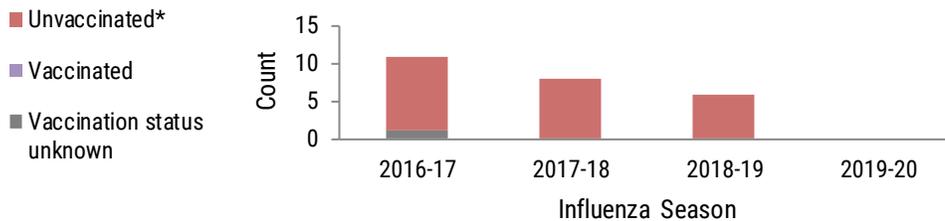
Children, especially those with underlying health conditions (like asthma or diabetes), are at higher risk for severe complications from influenza infection. **The single best way to protect children from influenza is to get them vaccinated every year.** The Centers for Disease Control and Prevention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

Figure 25: In week 40, **the percent of emergency department and urgent care center visits for ILI in children <18 years increased** and was similar to levels observed at this time in past seasons.

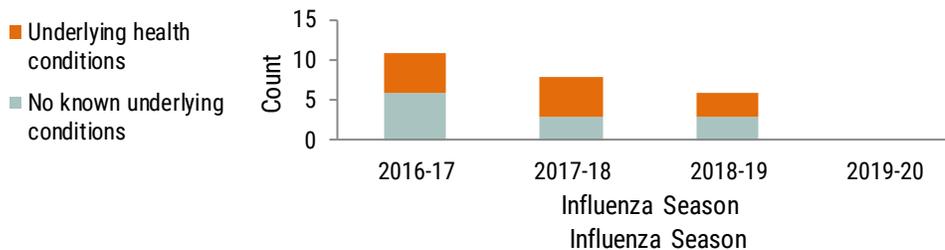


◀ **Figure 25 shows the percent of influenza-like illness (ILI) visits among children <18 years at emergency department and urgent care centers, as reported into ESSENCE-FL, week 40, 2016 to week 40, 2019.**

Figures 26-27: In week 40, **no new influenza-associated pediatric deaths were reported.**



▲ **Figure 26 shows the number of influenza-associated pediatric deaths as reported in Merlin by vaccination status, week 40, 2016 to week 40, 2019.**



▲ **Figure 27 shows the number of influenza-associated pediatric deaths as reported in Merlin by medical history, week 40, 2016 to week 40, 2019.**

In week 40, **no new influenza-associated pediatric deaths were reported.** Six influenza-associated pediatric deaths were reported last season.

While rare, the Florida Department of Health receives reports of influenza-associated pediatric deaths each season. **These deaths are most often reported in unvaccinated children and children with underlying medical conditions.**

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.

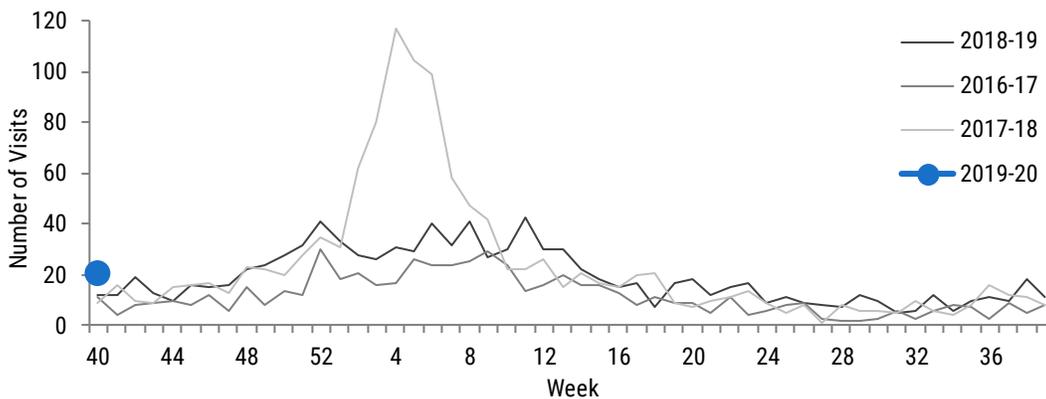
*The Advisory Committee on Immunization Practices (ACIP) recommends children aged six months to eight years receive two doses of influenza vaccine administered a minimum of four weeks apart during their first season of vaccination for optimal protection. The Florida Department of Health includes children 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 28: In week 40, the **number of emergency department and urgent care center visits for influenza among pregnant women increased** and was above levels observed at this time in previous seasons.



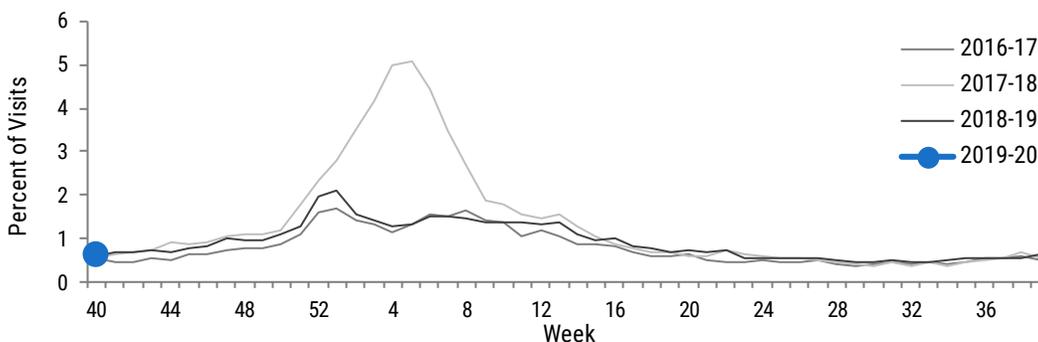
◀ Figure 28 shows the number of visits* to emergency departments and urgent care centers with chief complaints of influenza and pregnancy, as reported in ESSENCE-FL, week 40, 2016 to week 40, 2019.

*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.

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 29: In week 40, the **percent of emergency department and urgent care center visits for ILI in adults ≥65 years increased slightly.** Levels were similar to those observed at this time in previous seasons.



◀ Figure 29 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 40, 2019.

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 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 27). **Currently, all of Florida's regions are in RSV season.**

To learn more about RSV in Florida, please visit: [FloridaHealth.gov/RSV](https://www.floridahealth.gov/RSV).

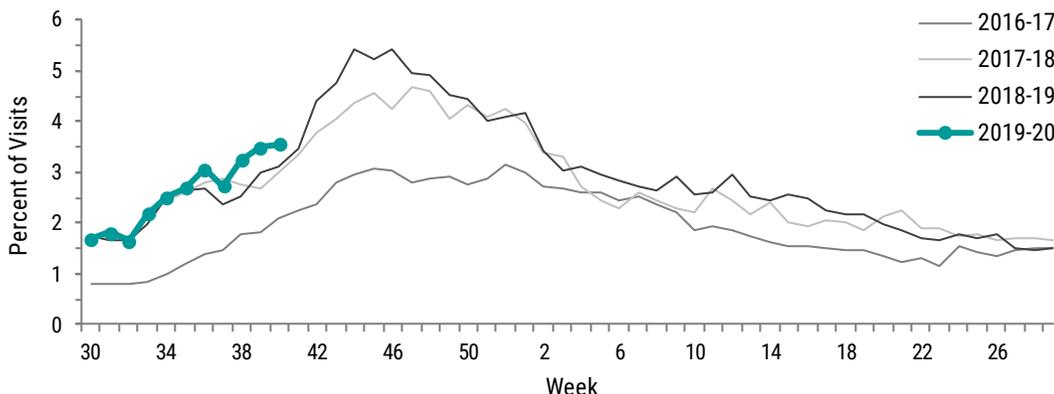
Week 40 (September 29-October 5, 2019) Activity Summary

In week 40, RSV activity in children <5 years old increased and remained above levels observed at this time in previous years.

No new possible RSV-associated pediatric deaths were identified in week 40. One possible RSV-associated pediatric death has been identified so far in 2019.

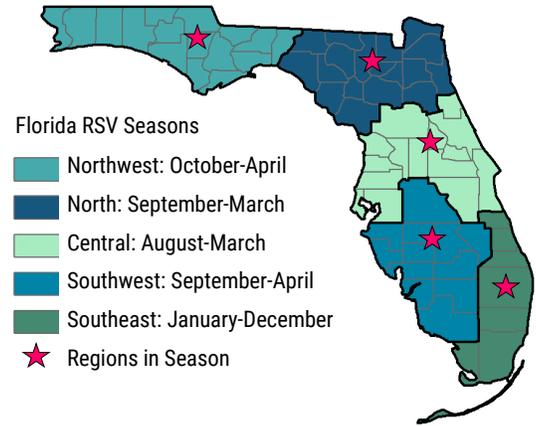
One new RSV-associated outbreak was reported in week 40 in an Escambia County child daycare. A total of three RSV-associated outbreaks have been reported since week 30, 2019 (beginning on July 27, 2019).

Figure 31: In week 40, **the percent of emergency department and urgent care center visits for RSV among children <5 years increased slightly.** Levels remained above those observed at this time in past years.



◀ **Figure 31 shows the percent of emergency department and urgent care center visits with discharge diagnoses that include respiratory syncytial virus (RSV) or RSV-associated illness among children <5 years***, as reported in ESSENCE-FL, week 30, 2016 to week 40, 2019.

*The overall trend displayed in Figure 28 has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.

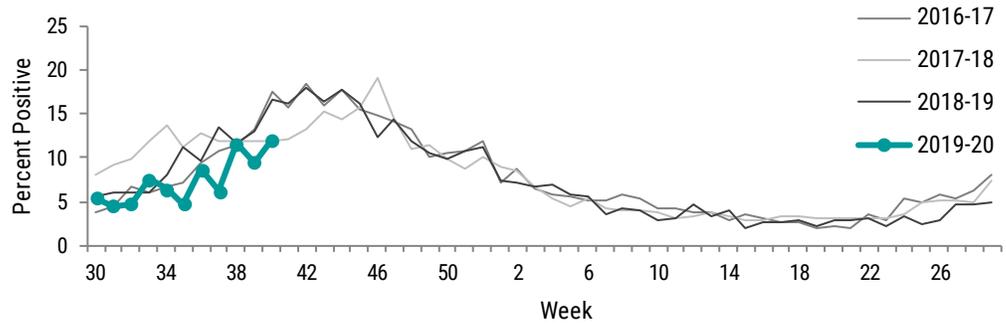


▲ **Figure 30 shows Florida's RSV regional season breakdown.** Regions that are currently in RSV season are marked with **pink stars**.

RSV Surveillance

Figure 32: In week 40, **the percent of specimens testing positive for RSV increased**. Levels were similar to those observed at this time in 2017.

Figure 32 shows the percent of specimens testing positive for respiratory syncytial virus (RSV), as reported by hospital laboratories (n=7), week 30, 2015 to week 40, 2019. ▶



RSV-Associated Outbreaks in Week 40:



1 Outbreak

Summary of RSV-Associated Outbreaks:

In week 40, one new RSV-associated outbreak was reported in a child daycare. Since week 30, 2019, three RSV-associated outbreaks have been reported.

Thus far, no hospitalizations or deaths have been reported in any of the three total RSV-associated outbreaks reported since week 30, 2019.

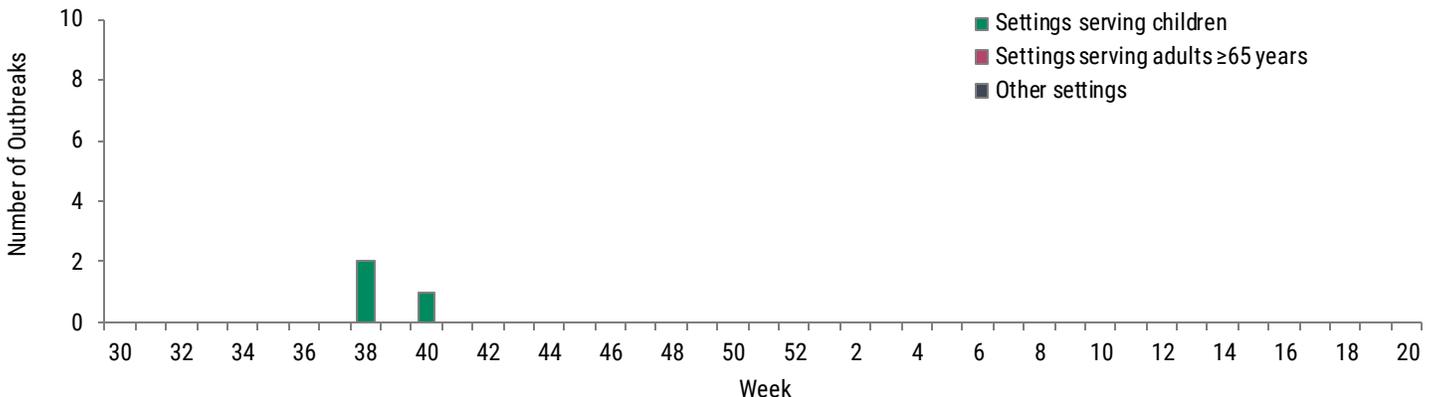
Figure 33: In week 40, **one new RSV-associated outbreak** was reported in Florida's **northwest region**.



◀ Figure 33 shows a summary of RSV-associated outbreaks by region* as reported by county health departments in Merlin, week 30, 2019 to week 40, 2019.

*Regions defined in figure 27.

Figure 34: In week 40, **one new RSV-associated outbreak** was reported in **a facility serving children**. All of the outbreaks reported since week 30 have been in reported by **facilities serving children**.



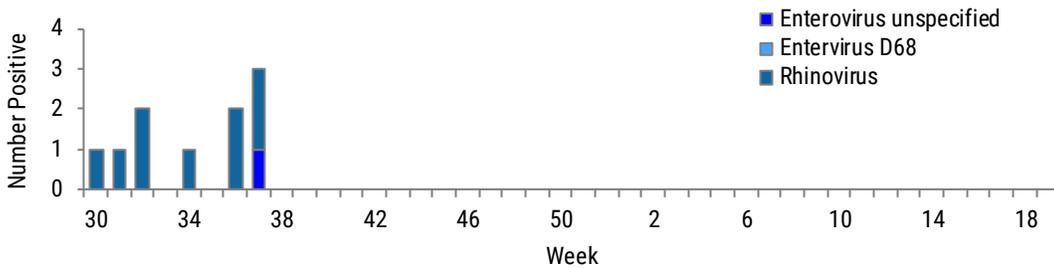
▲ Figure 34 shows the number of RSV-associated outbreaks by setting and week as reported by county health departments in Merlin, week 30, 2019 to week 40, 2019.

Other Respiratory Virus Surveillance



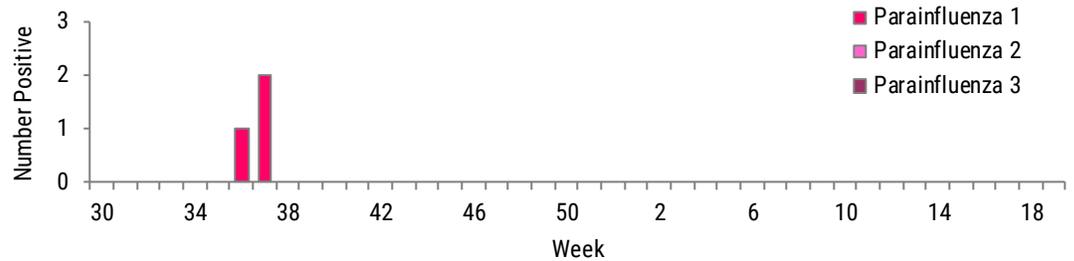
- Rhinovirus
- Enterovirus unspecified
- Enterovirus D68
- Parainfluenza 1
- Parainfluenza 2
- Parainfluenza 3
- Coronavirus NL63
- Coronavirus HKU1
- Coronavirus OC43
- Coronavirus 229E
- Human metapneumovirus
- Adenovirus
- Group A Streptococcus
- Other

▲ **Figure 35** shows the number of unique times a pathogen was associated with a respiratory outbreak for outbreaks reported for the current season, week 30, 2019 to week 40, 2019.

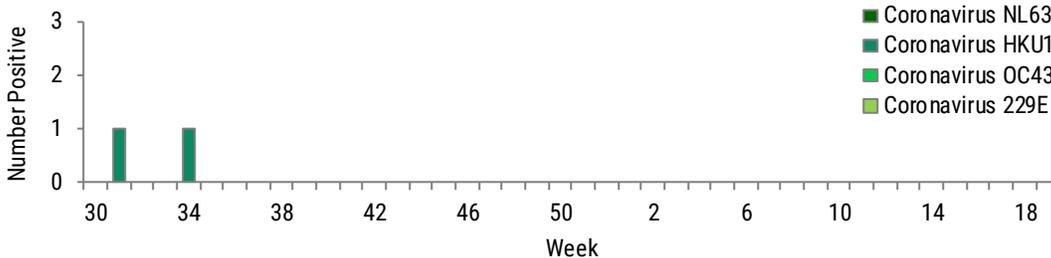


◀ **Figure 36*** shows the number of PCR-positive laboratory findings for enterovirus unspecified, enterovirus D68, and rhinovirus by week** among specimens submitted to the Bureau of Public Health Laboratories (BPHL) for extended respiratory panel testing.

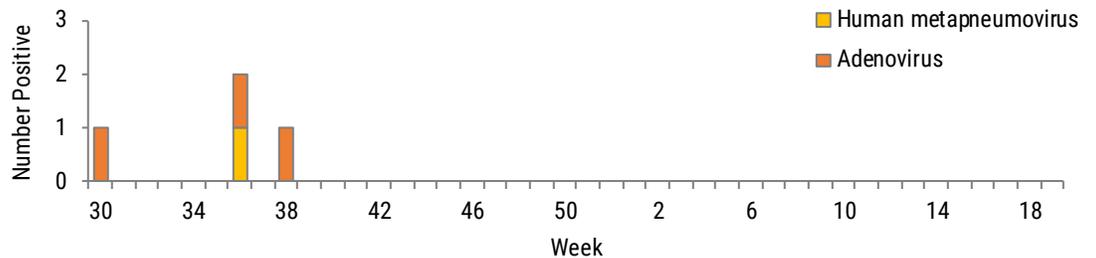
► **Figure 37*** shows the number of PCR-positive laboratory findings for parainfluenza 1-3 by week** among specimens submitted to BPHL for extended respiratory



◀ **Figure 38*** shows the number of PCR-positive laboratory findings for seasonal coronaviruses NL63, HKU1, OC43, and 229E by week** among specimens submitted to BPHL for extended respiratory panel testing.



► **Figure 39*** 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 36-39 includes 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 3: Summary of Notable* Influenza-Associated, Respiratory Syncytial Virus (RSV)-Associated, and Influenza-like Illness (ILI) Outbreaks Reported in Week 40, 2019

Facility Type	County	Number of Cases	Number of Cases Hospitalized	Number of Cases Died	Outbreak Etiology	Control Measures Recommended to Facility Leadership	Investigation Status
No notable outbreaks were reported in week 40, 2019.							

*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 17.

Summary of Included Surveillance Systems

ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal Data source for figures 1, 4, 17-25, 28, 29, 31

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=356) 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 32

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, 33-35; tables 1 and 3

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.

Continued on next page.

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 36-39.

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.

United States World Health Organization Collaborating Laboratories Influenza Virus Surveillance Data source for figure 16; table 2

The United States World Health Organization Collaborating Laboratories Influenza Virus Surveillance is a system that captures antigenic characterizations results for specimens submitted by BPHL to the Centers for Disease Control and Prevention for testing.

Case-Based Influenza Surveillance Data source for figures 26 and 27

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](https://www.floridahealth.gov/disease-reporting).