Week 18 influenza & influenza-like illness (ILI) activity summary:

During week 18, influenza and ILI activity remained at low levels across the state. Influenza seasons vary in timing, severity, and duration.

During the last four weeks, the percent of influenza-positive laboratory results remained low. Due to low testing volume it is difficult to determine what strain will predominate during the 2020-21 influenza season.

Likewise, the percent of emergency department and urgent care center visits with discharge diagnoses that include influenza remained low in recent weeks.

No new influenza-associated pediatric deaths were reported in week 18.

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. Vaccination should continue as long as influenza viruses are circulating. Influenza vaccination is especially important for people at higher risk for complications (children, adults ≥65 years, pregnant women, and people with underlying medical conditions). Influenza vaccination reduces risk of flu illness, hospitalization, and death.

An article published on January 27, 2021 estimated vaccine effectiveness against influenza-associated hospitalizations and emergency department visits among U.S. children for the 2019-2020 season. Influenza vaccination was protective against laboratory-confirmed influenza (doi.org/10.1093/cid/ciab060).

The COVID-19 pandemic is affecting health care seeking behavior, which may be impacting the ILI and influenza activity trends shown in this report. An overall reduction in the number of emergency department and urgent care center visits has been observed since March 2020, along with changes in the reasons for seeking care at these facilities.

Of note, some of the figures in this report that previously displayed chief complaints of ILI were updated to display discharge diagnoses of influenza to better reflect influenza activity trends in Florida. The Florida Department of Health will continue to make updates and provide clarification on the trends presented in this report as needed.
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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 2020-21 season began in week 40 (starting on September 27, 2020) and will extend through week 20 (ending May 22, 2021). 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 14.

Statewide Activity

Figure 1: In week 18, the percent of emergency department and urgent care center visits with a discharge diagnosis of influenza statewide stayed stable and was below the previous three-season average for this time.

![Graph showing percent of visits with discharge diagnoses of influenza](image-url)

▲ Figure 1 shows the percent of visits with discharge diagnoses that include influenza (with certain exceptions) for facilities participating in ESSENCE-FL (n=397) statewide for the current season (week 40, 2020 to week 18, 2021) and the previous three season average (2019-20, 2018-19, and 2017-18). Of note, influenza may not be laboratory-confirmed for all the visits included in this query. For more information on the use of ESSENCE-FL for influenza and ILI surveillance, see page 14.
Figure 2: In week 18, Florida reported **sporadic geographic spread of influenza**.

![Graph showing geographic spread of influenza](image)

**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 cases 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 18, the **percent of patients with ILI reported by ILINet providers statewide stayed stable** and was above levels observed during previous seasons.

![Graph showing percent of patients with influenza-like illness](image)

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 16 (ending 4/24/21), the **number of pneumonia and influenza deaths identified statewide decreased** and was below levels observed at this time in previous seasons. Of note, the query used to capture these data excludes pneumonia associated with Coronavirus Disease 2019 (COVID-19) to better capture influenza death trends in Florida.

![Graph showing number of P&I deaths](image)

*Recent P&I death counts are preliminary numbers that may change as more data are received. The most recent data available are displayed here.*
Figure 5: All counties reported no activity or mild activity for week 18.

Figure 6: Most counties reported activity at a plateau for week 18. Eight counties reported decreasing activity, and fifteen counties reported increasing 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: In week 18, the percent of specimens testing positive for parainfluenza viruses 1–3 remained stable and were higher than other respiratory viruses under surveillance (including rhinovirus and influenza). Of note, a significant decrease in the volume of testing occurred in week 18, 2021 and has been observed during the entire 2020-2021 season. This figure may change as additional data are received.

▲ 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=6), week 30, 2020 to week 18, 2021.
Influenza and ILI Outbreaks

**Week 18 Outbreaks at a Glance:**

Number Reported: 0 Outbreaks  
Influenza-Associated: 0 Outbreaks  
Severe Outcomes*: 0 Outbreaks

**Outbreak Summary:**

No influenza-associated or ILI outbreaks were reported in week 18.

To date, three outbreaks have had specimens collected for influenza testing.

Severe outcomes* (hospitalizations or deaths) were not reported in any of the outbreaks reported so far this season.

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 18 are outlined in bold.

**Figure 9** shows the number of influenza-associated or ILI outbreaks by week as reported in Merlin by county health departments, week 40, 2020 to week 18, 2021. More information on how these setting categories are defined is available on pages 14-15.

**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 2020-21 season as of week 18, 2021. For more information on how ILI and influenza-associated outbreaks are defined, see page 14.

Figure 9: In week 18, no outbreaks were reported.

Figure 10: As of week 18, **38% of outbreaks** reported so far this season were **influenza-associated**.

*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.**
Laboratory Surveillance

Figure 11: In week 18, no specimens tested positive for influenza.*

![Bar chart showing the number of specimens tested for influenza at the Bureau of Public Health Laboratories (BPHL) by lab-event date, week 50, 2020 through week 18, 2021. Specimens are organized by result and percent positivity of results was calculated by dividing positive results over total results. *Updates to laboratory reporting and procedures may impact data for recent weeks. Data are subject to change as laboratory results are processed.](image)

Figure 12: There is not a predominant subtype detected so far this season, though all four influenza subtypes have been detected at least once. During the previous influenza season (2019-2020), influenza A 2009 (H1N1) was the most common influenza subtype detected.

![Bar chart showing the number of influenza-positive laboratory results at the Bureau of Public Health Laboratories (BPHL) by lab-event date, week 40, 2020 through week 18, 2021. *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.](image)
Regional Activity

Figures 13–19 show the percent of emergency department and urgent care center visits with discharge diagnoses of influenza at ESSENCE-FL participating facilities (n=397) from week 40, 2017 to week 18, 2021. Data are organized by region (see Figure 23).

Figure 13: In region 1, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 14: In region 2, influenza activity decreased during week 18 and was below the previous three-season average for this time.

Figure 15: In region 3, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 16: In region 4, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 17: In region 5, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 18: In region 6, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 19: In region 7, influenza activity remained stable during week 18 and was below the previous three-season average for this time.

Figure 20 shows emergency departments and urgent care centers reporting data to ESSENCE-FL (n=397) with regions outlined in bold.
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 21: In week 18, the percent of emergency department and urgent care center visits with a discharge diagnosis of influenza in children <18 years remained stable and was below the previous three-season average for this time.

Figures 22-23: In week 18, no new influenza-associated pediatric deaths were reported. A total of 14 influenza-associated pediatric deaths were reported last season.

*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 2020-21 recommendations, please visit: cdc.gov/mmwr/volumes/69/rr/rr6908a1.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 24: In week 18, the number of emergency department and urgent care center visits for influenza among pregnant women decreased slightly and was below levels observed at this time during previous seasons.

*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 25: In week 18, the percent of emergency department and urgent care center visits with a discharge diagnosis of influenza in adults ≥65 years remained stable and was below the previous three-season average for this time.
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 29). Currently, one of Florida’s five regions are in RSV season.

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

Week 18 (May 2–8, 2021) Activity Summary
In week 18, RSV activity in children <5 years increased and was similar to levels observed at this time in previous seasons. Three new RSV-associated outbreaks were reported in week 18. Fourteen RSV-associated outbreaks have been reported since week 30, 2020 (beginning on July 19, 2020).

Figure 27: In week 18, the percent of emergency department and urgent care center visits for RSV among children <5 years remained stable and were above levels observed at this time in previous seasons.

*The overall trend displayed in Figure 27 has been validated through review of hospital discharge data collected by the Agency for Health Care Administration.
RSV Surveillance

Figure 28: In week 18, the percent of specimens testing positive for RSV stayed stable. Levels were above those observed at this time in previous seasons.

RSV-Associated Outbreaks in Week 18:

3 Outbreaks

Figure 29: In week 18, three new RSV-associated outbreaks were reported in facilities serving children.

Summary of RSV-Associated Outbreaks:

In week 18, three new RSV-associated outbreaks were reported. Since week 30, 2020, fourteen RSV-associated outbreaks have been reported.

Figure 30: In week 18, three RSV-associated outbreaks were reported. Since week 30, outbreaks have been reported in Florida’s southeast, southwest, central, and northwest regions.*

*Regions defined in figure 26.
Other Respiratory Virus Surveillance

Figure 31 shows the number of unique times a pathogen was associated with a respiratory outbreak for outbreaks reported from week 30, 2020 to week 18, 2021.

- Figure 32* 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 33* shows the number of PCR-positive laboratory findings for parainfluenza 1-3 by week** among specimens submitted to BPHL for extended respiratory panel testing.

- Figure 34* 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 35* 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 31-35 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).
No notable outbreaks were reported in week 18, 2021.

*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 14.
Summary of Included Surveillance Systems

**ESSENCE-FL Syndromic Surveillance and Vital Statistics Portal** Data source for figures 1, 4, 13-19, 21, 24, 25, 27

Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL) measures trends in influenza and flu-related 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=397) electronically transmit visit data into ESSENCE-FL daily or hourly.

For statewide and regional figures, percentages are calculated as the proportion of ED and UCC visits to participating facilities that include the words “influenza” or “flu” in the discharge diagnoses (with certain exceptions).

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

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

FLILINet 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. This reporting was suspended by CDC for the 2020-2021 influenza season.

- **Sporadic:** small number 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 are 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 28

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 8-10, 29-31; table 1

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.
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 11, 12, and 32-35.

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 22 and 23

Death in a child whose laboratory-confirmed influenza infection has been identified as 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](http://FloridaHealth.gov/DiseaseReporting).