



Missouri Weekly Influenza Surveillance Report 2021-2022 Influenza Season¹

Week 2: January 9, 2022 – January 15, 2022

All data are preliminary and may change as more reports are received.

Summary:

- The estimated influenza activity in Missouri is Widespread².
- During Week 2, a total of 1,337 laboratory-positive³ influenza cases (1,192 influenza A, 142 influenza B and 3 untyped) were reported. A season-to-date total of 14,477 laboratory-positive influenza cases (13,074 influenza A, 1,319 influenza B, and 84 untyped) have been reported in Missouri as of Week 2. The influenza type for reported season-to-date cases includes 90.3% influenza A, 9.1% influenza B, and 0.6% untyped. The percentage of respiratory specimens testing positive for influenza in Missouri laboratories reporting to the National Respiratory and Enteric Virus Surveillance System (NREVSS) increased slightly to 2.37% during Week 2, with the most common subtype being A(H3N2) (Figure 5).
- Influenza-like illness (ILI) activity for Week 2 was above baseline for the hospital emergency room visit chief complaint data reported through ESSENCE. The reported percentage of visits for ILI through ESSENCE was 4.74% (Figure 6).⁴
- Five influenza-associated deaths have been reported in Missouri as of Week 2.⁵
- Four influenza or ILI-associated outbreaks have been reported in Missouri as of Week 2.
- National influenza surveillance information is prepared by CDC and is included in the weekly FluView report, which is available online at <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>.

¹The 2021- 2022 influenza season begins CDC Week 40 (week ending October 9, 2021) and ends CDC Week 39 (week ending October 1, 2022).

²Widespread is defined as: Increased influenza-like illness from sentinel providers (ILI) in three or more regions and large numbers of laboratory-confirmed influenza cases in those regions.

³Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

⁴ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁵All influenza-associated deaths became reportable in Missouri in 2016.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/G5LWv>.

Click on the jurisdiction to view the influenza data specific to that jurisdiction.

- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, CDC Week 2
- Reported Week-specific Rate per 100,000 Population, CDC Week 2
- Reported Laboratory-positive Influenza Cases by Influenza Type by Jurisdiction, Season-to-Date
- Reported Rate per 100,000 Population, Season-to-Date

Data Figures

Figure 1. Number of Laboratory-positive[†] Influenza Cases by Influenza Type, Missouri, CDC Weeks 52-2 (December 26, 2021 – January 15, 2022)*

| Influenza Type | Week 52 | Week 1 | Week 2 | 2021-2022* Season-to-Date |
|------------------------------|--------------|--------------|--------------|------------------------------|
| Influenza A | 2,707 | 1,856 | 1,192 | 13,074 |
| Influenza B | 185 | 228 | 142 | 1,319 |
| Influenza Unknown Or Untyped | 4 | 4 | 3 | 84 |
| Total | 2,896 | 2,088 | 1,337 | 14,477 |

^{185†}Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins with the week ending October 9, 2021 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv).

Figure 2. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Age Group, Missouri, CDC Week 2 (January 9, 2022 – January 15, 2022)**

| Age Group | Week 2 Cases | Week 2 Rate [‡] | 2021-22* Season-to-Date | 2021-2022* Season-to-Date Rate [‡] |
|--------------|-----------------|-----------------------------|----------------------------|--|
| 00-04 | 214 | 58.14 | 1,784 | 484.68 |
| 05-24 | 593 | 37.92 | 7,461 | 477.04 |
| 25-49 | 270 | 13.90 | 2,928 | 150.69 |
| 50-64 | 129 | 10.75 | 1,168 | 97.32 |
| 65+ | 131 | 12.33 | 1,136 | 106.96 |
| Total | 1,337 | 21.78 | 14,477 | 235.88 |

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

*Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

Figure 3. Number of Laboratory-positive[†] Influenza Cases and Case Rates by Region, Missouri, CDC Week 2 (January 9, 2022 – January 15, 2022)^{}**

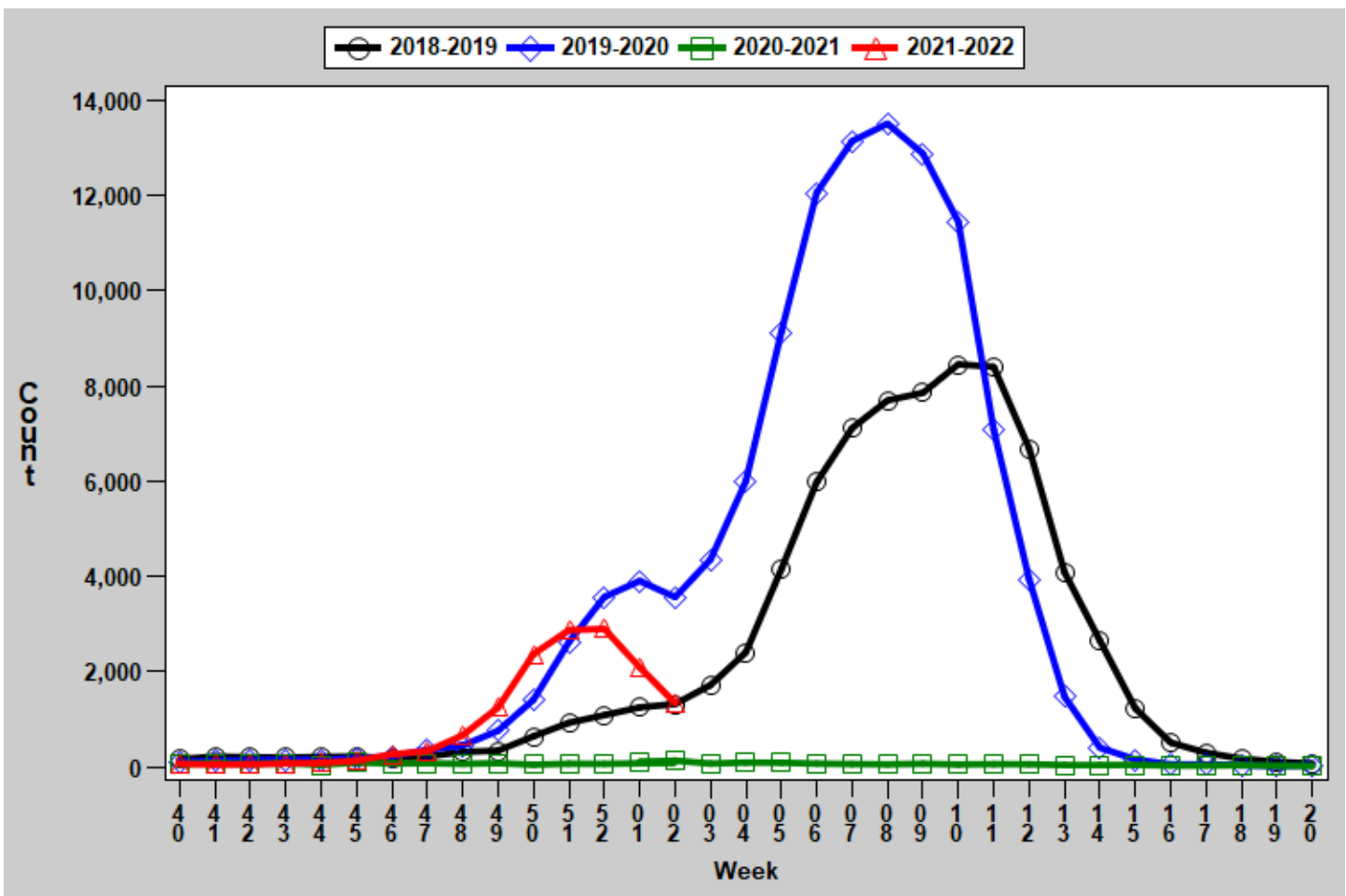
| Region | Week 2 Cases | Week 2 Rate [‡] | 2021-22* Season-to-Date | 2021-22* Season-to-Date Rate [‡] |
|--------------|--------------|--------------------------|-------------------------|---|
| Central | 111 | 16.45 | 1,942 | 287.78 |
| Eastern | 435 | 19.18 | 5,117 | 225.64 |
| Northwest | 298 | 18.21 | 3,021 | 184.57 |
| Southeast | 132 | 30.52 | 1,880 | 434.74 |
| Southwest | 361 | 34.36 | 2,517 | 239.57 |
| Total | 1,337 | 21.78 | 14,477 | 235.88 |

[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

^{**}Influenza season begins week ending October 3, 2020 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

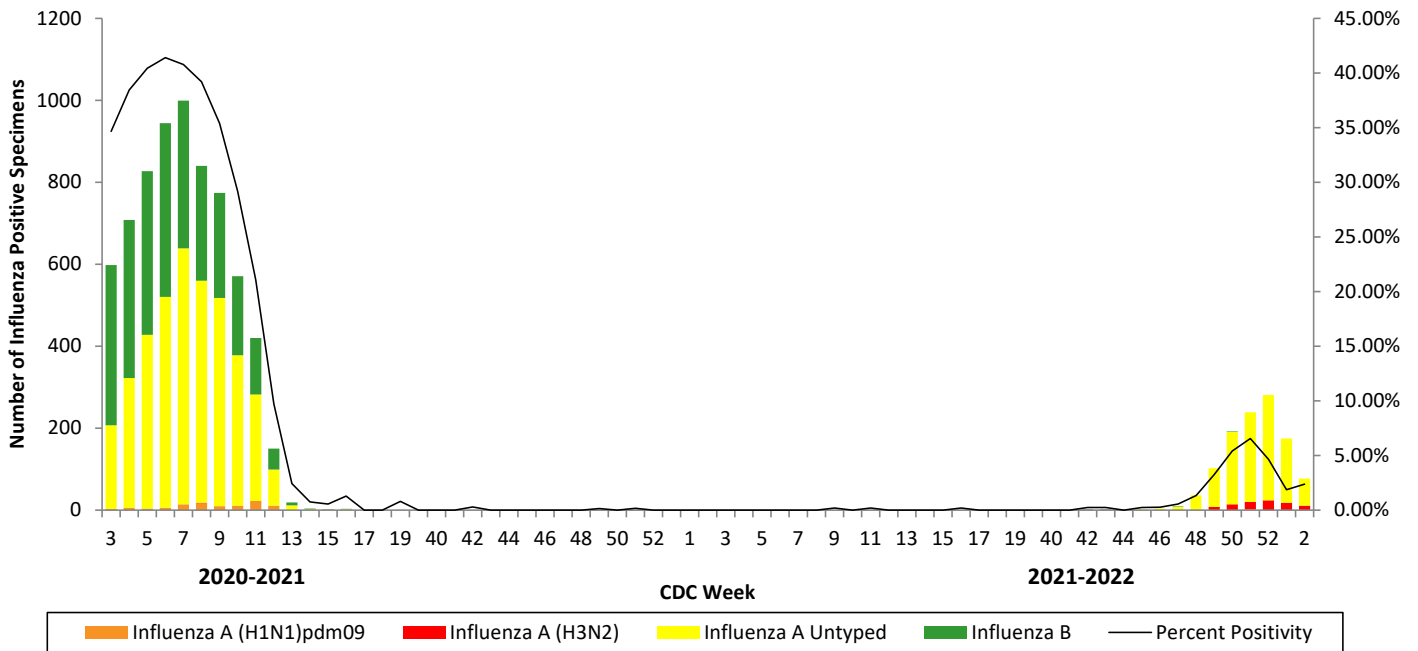
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2018-2022^{*}



[†]Laboratory-positive influenza includes the following test methods: rapid influenza diagnostic tests (antigen), reverse transcriptase polymerase chain reaction (RT-PCR) and other molecular assays, immunofluorescence antibody staining (Direct (DFA) or Indirect (IFA)), or viral culture.

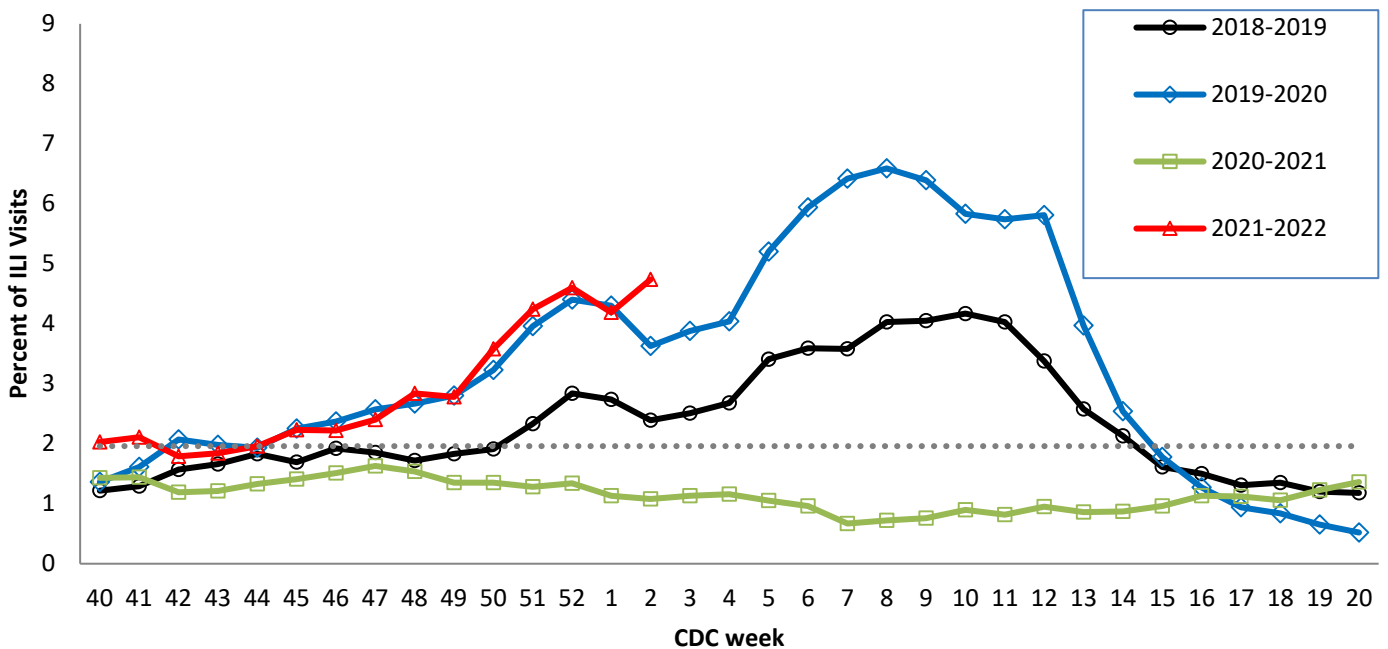
^{*}2021-2022 season-to-date through the week ending May 21, 2022 (Week 20).Data Source: Missouri Health Information Surveillance System (WebSurv)

Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri



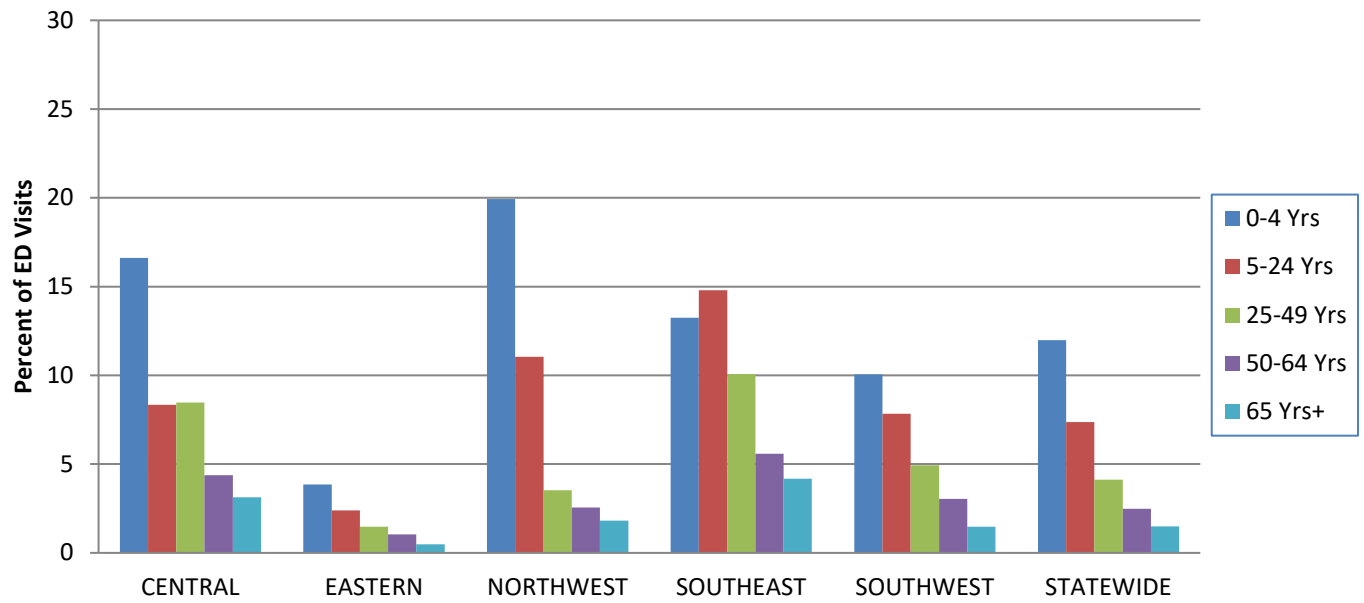
Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2021-2022 season-to-date through the week ending January 15, 2022 (Week 2).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2018-2022 Influenza Seasons**



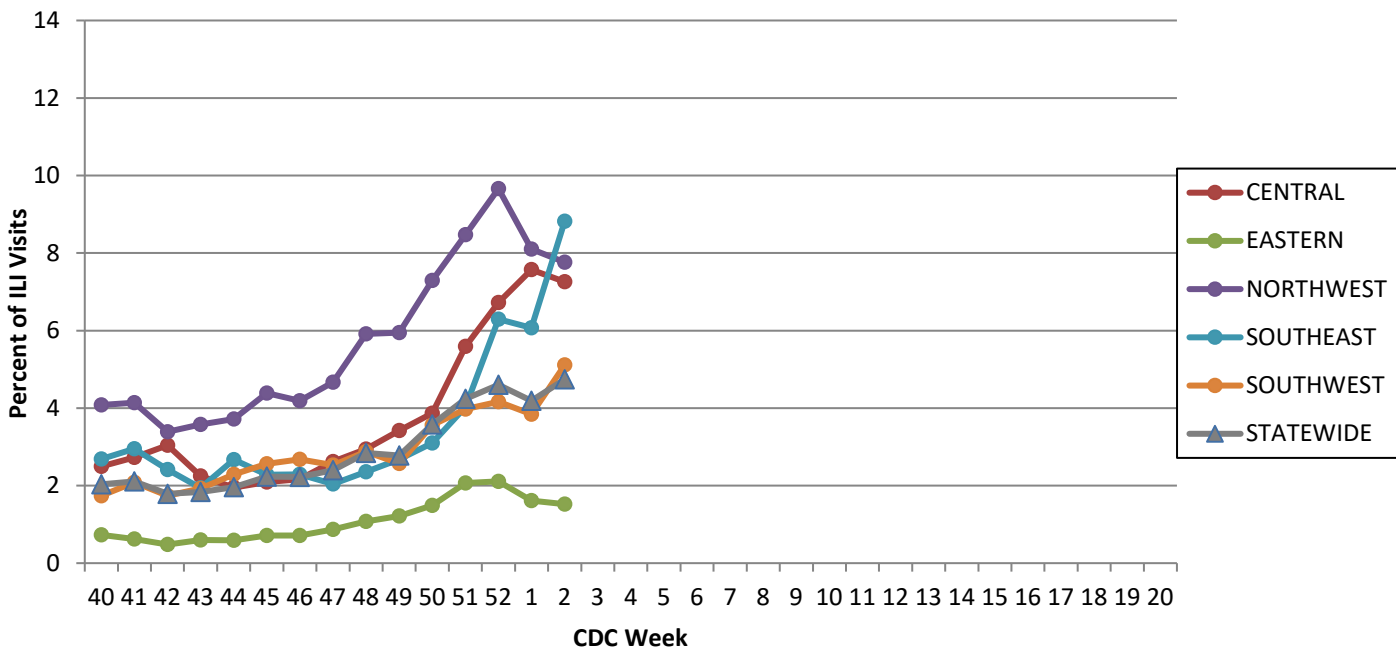
**The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits, plus two standard deviations. Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.

Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 2, 2021*



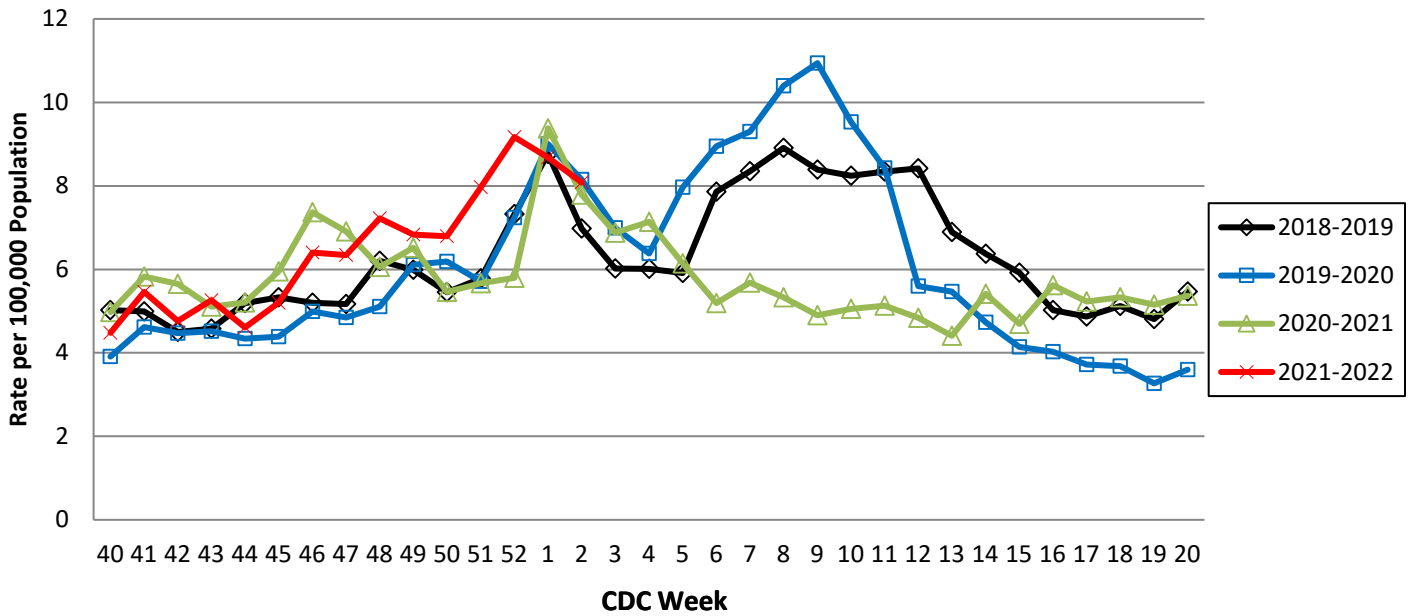
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2021-2022 Influenza Season*



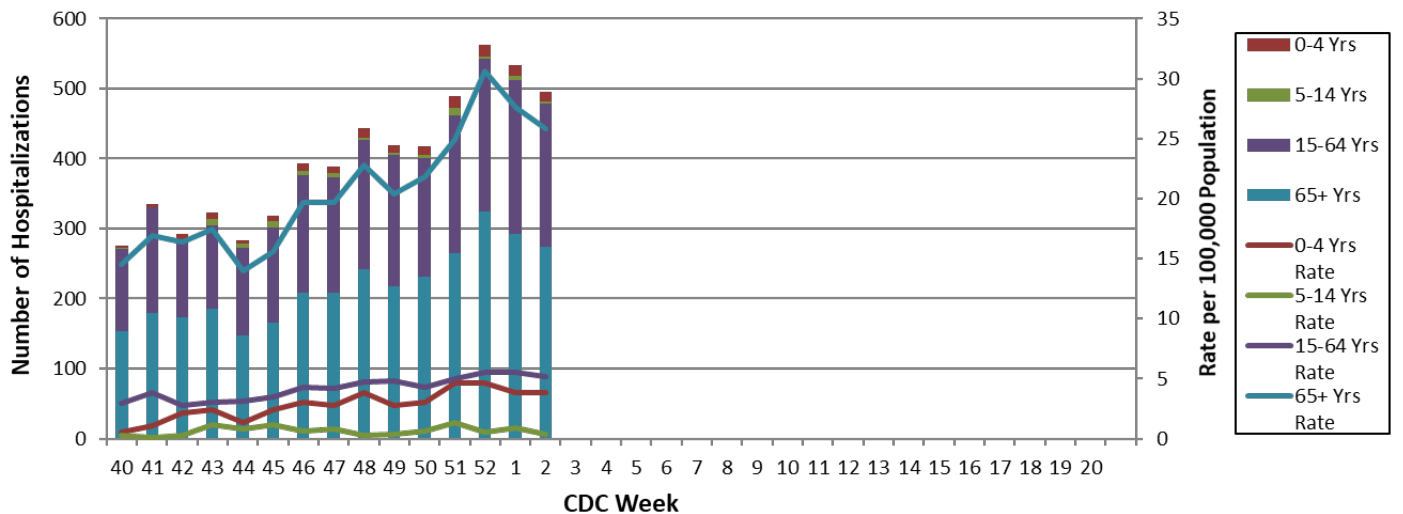
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2018-2022 Influenza Seasons



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal. Population data from Missouri Census Data Center 2017 (<https://census.missouri.edu>).

Figure 10. Number of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Participating Missouri Hospitals, by Age Group, Week 2, 2021-2022 Influenza Season



Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, HL7 Messaging Portal.

Additional Influenza Data Sources:

Centers for Disease Control and Prevention: National Influenza Surveillance (FluView):
<http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

The National Respiratory and Enteric Virus Surveillance System (NREVSS):
<https://www.cdc.gov/surveillance/nrevss/>

World Health Organization: International Influenza Surveillance:
http://www.who.int/influenza/surveillance_monitoring/en/