



Missouri Weekly Influenza Surveillance Report 2022-2023 Influenza Season¹

Week 46: November 13, 2022 – November 19, 2022

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

Summary:

- Influenza activity continued to increase across Missouri during Week 46. The estimated influenza activity in Missouri is now widespread², and the overall Influenza-like illness (ILI) activity has increased to Level 9 in the high category.³
- During Week 46, a total of 4,893 laboratory-positive⁴ influenza cases (4,559 influenza A, 258 influenza B and 76 untyped) were reported. The influenza type for reported season-to-date cases includes 90.8% influenza A, 8.2% influenza B and 1.0% 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 to 12.3% during Week 46.
- Influenza-like illness activity for the hospital emergency room visit chief complaint data reported through ESSENCE continued to increase during week 46. The reported percentage of visits for ILI through ESSENCE increased to 4.70 % (Figure 6).⁵
- Three influenza-associated deaths have been reported in Missouri as of Week 44⁶.
- No influenza outbreaks have been reported in Missouri as of Week 46.
- Seasonal influenza activity continues to increase nationwide. 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 2022- 2023 influenza season begins CDC Week 40 (week ending October 8, 2022) and ends CDC Week 39 (week ending September 30, 2023).

²Widespread is defined as: 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.

³ILI Activity indicates levels of activity on a scale of 1-13 ranging from minimal to very high. For more information see <https://gis.cdc.gov/grasp/fluview/main.html>

⁴Laboratory-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.

⁵ILI is defined by ESSENCE as Emergency Department chief complaints for Influenza or (FeverPlus and (Cough or SoreThroat) and not NonILIFevers).

⁶Influenza deaths are collected from Missouri's death certificate data. Decedents with influenza listed as a cause or contributor to death are classified as an influenza-associated death. Death certificate data are generally available two weeks following the current CDC week.

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided through interactive maps available at <https://arcg.is/DKTSe0>. 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 46
- Reported Week-specific Rate per 100,000 Population, CDC Week 46
- 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 44-46 (October 30, 2022 – November 19, 2022)^{*}

Influenza Type	Week 44	Week 45	Week 46	2022-2023* Season-to-Date
Influenza A	2,373	3,557	4,559	12,417
Influenza B	181	258	258	1,117
Influenza Unknown Or Untyped	16	32	76	142
Total	2,570	3,847	4,893	13,676

[†]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 8, 2022 (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 46 (November 13, 2022 – November 19, 2022)^{}**

Age Group	Week 46 Cases	Week 46 Rate [‡]	2022-23* Season-to-Date	2022-2023* Season-to-Date Rate [‡]
00-04	716	194.52	1,977	537.11
05-24	2,616	167.26	7,151	457.22
25-49	895	46.06	2,620	134.84
50-64	363	30.24	1,101	91.73
65+	303	28.53	827	77.87
Total	4,893	79.72	13,676	222.83

[†]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 8, 2022 (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 46 (November 13, 2022 – November 19, 2022)^{‡*}

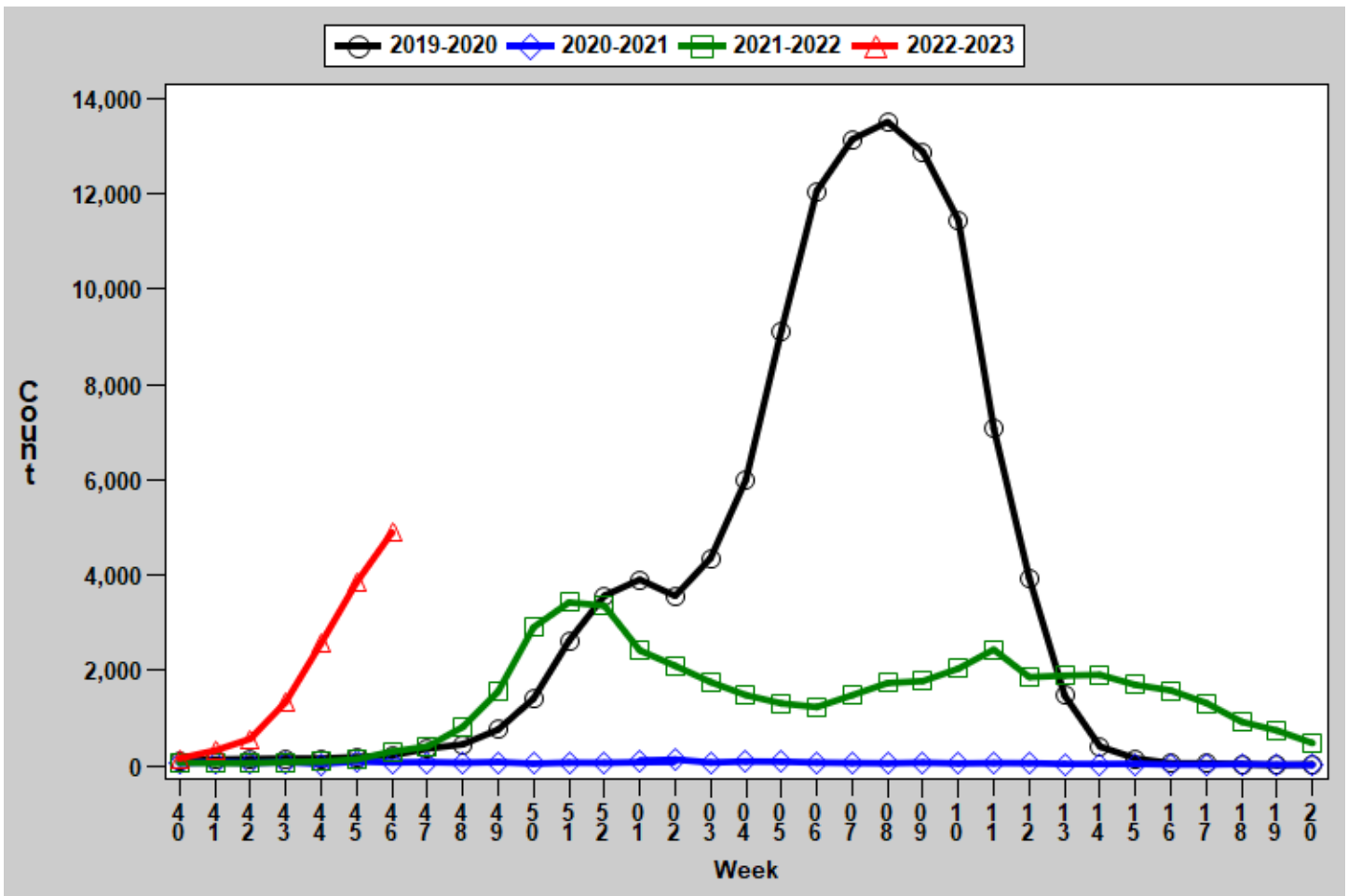
Region	Week 46 Cases	Week 46 Rate [‡]	2022-23* Season-to-Date	2022-23* Season-to-Date Rate [‡]
Central	195	28.90	691	102.40
Eastern	1,363	60.10	3,505	154.56
Northwest	2,456	150.05	6,282	383.87
Southeast	492	113.77	1,802	416.71
Southwest	387	36.84	1,395	132.78
Total	4,893	79.72	13,676	222.83

[†]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 8, 2022 (CDC Week 40) Data Source: Missouri Health Information Surveillance System (WebSurv)

[‡]Incidence Rate per 100,000 population

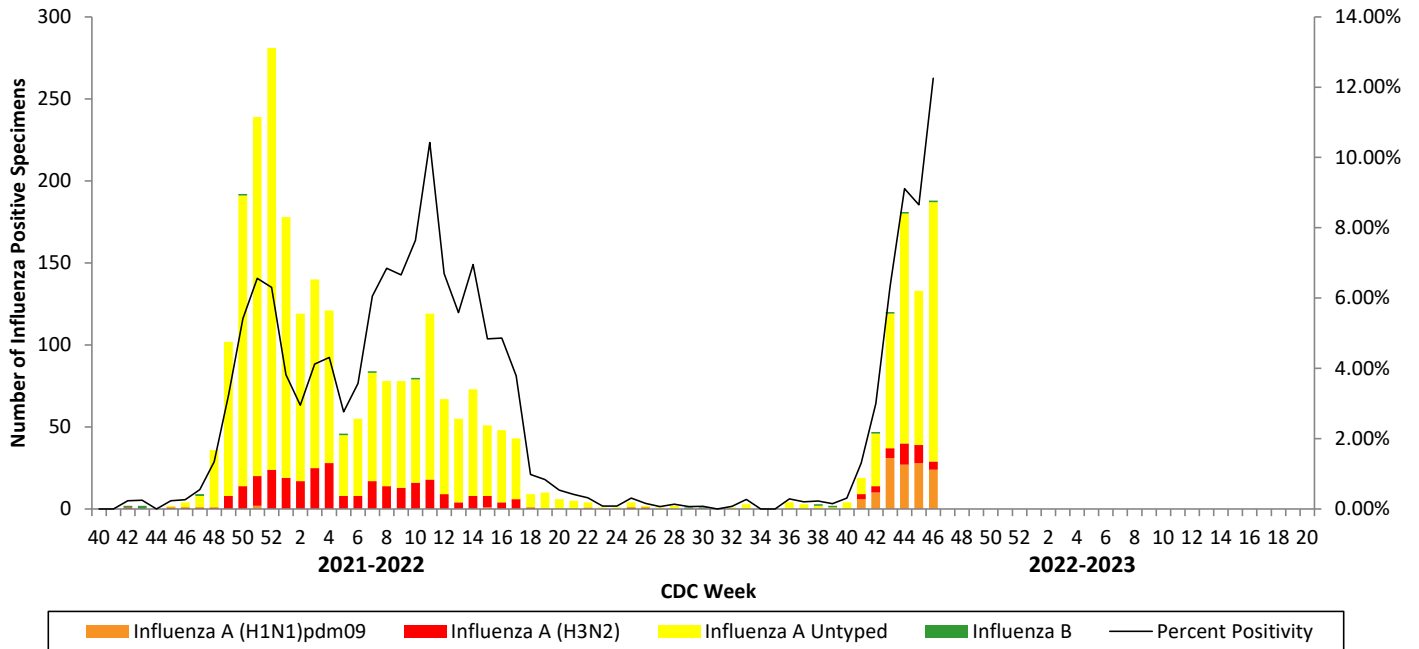
Figure 4. Number of Laboratory-positive[†] Influenza Cases by CDC Week, Missouri, 2019-2023*



[†]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.

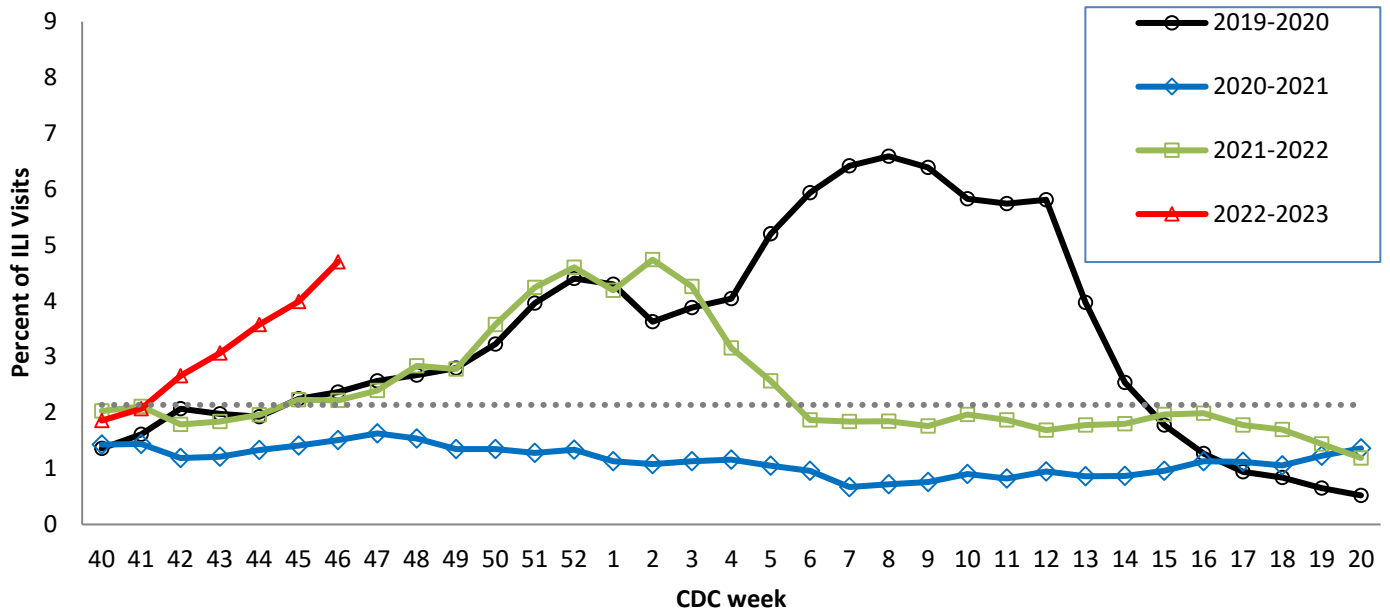
^{*}2022-2023 season-to-date through the week ending November 19, 2022 (Week 46).Data Source: Missouri Health Information Surveillance System (WebSurv)

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



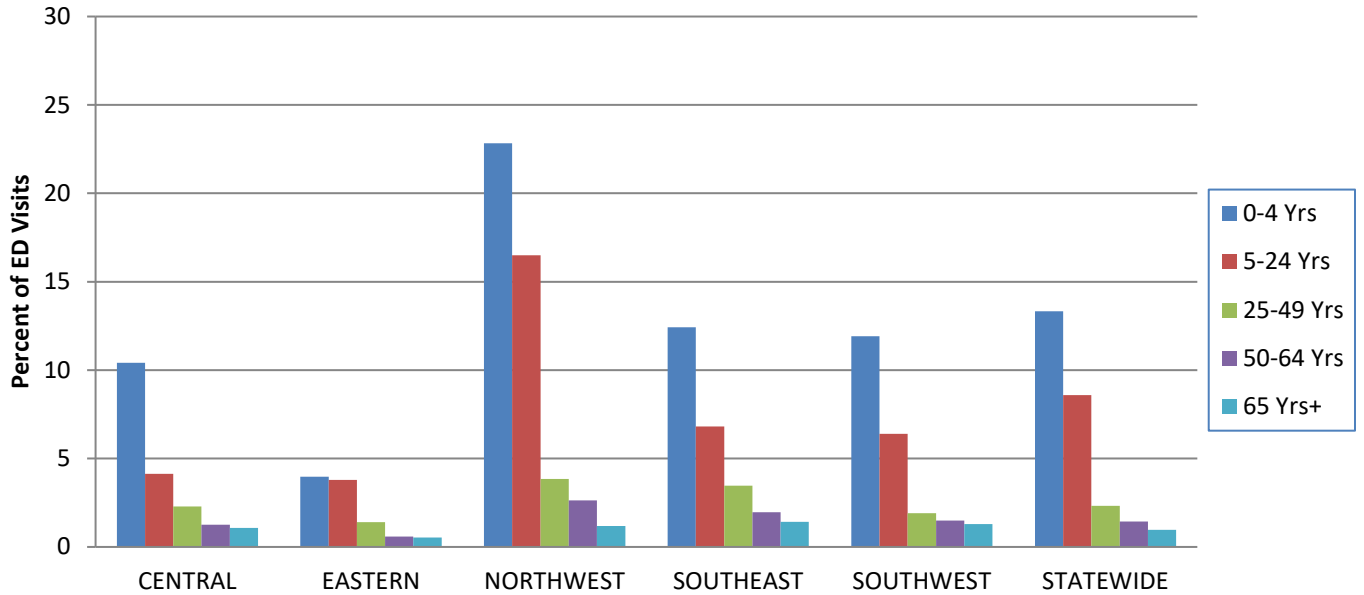
Data Source: National Respiratory and Enteric Virus Surveillance System (NREVSS), Centers for Disease Control and Prevention (CDC). 2022-2023 season-to-date through the week ending November 19, 2022 (Week 46).

Figure 6. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, 2019-2023 Influenza Seasons**



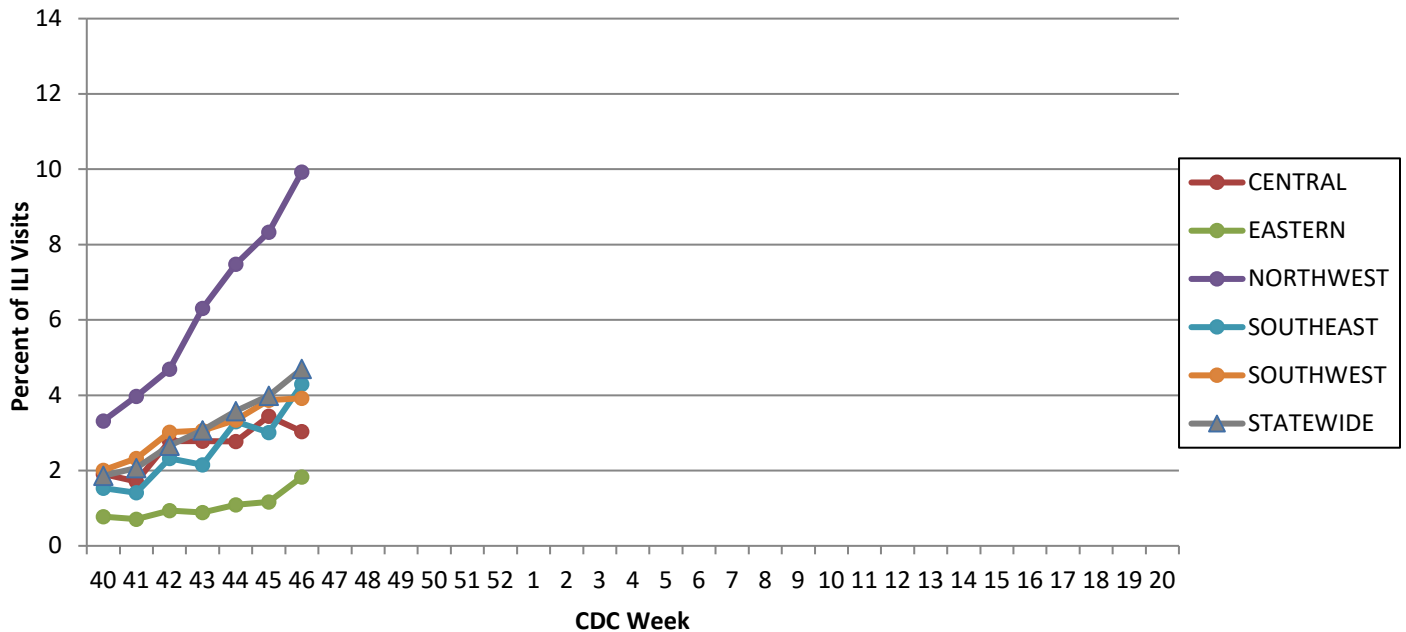
**The ESSENCE ILI Baseline is the mean percent of ILI visits for each week during the previous three flu seasons when percentage of ILI visits were less than 2% of total visits, plus two standard deviations. Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease 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 46, 2022*



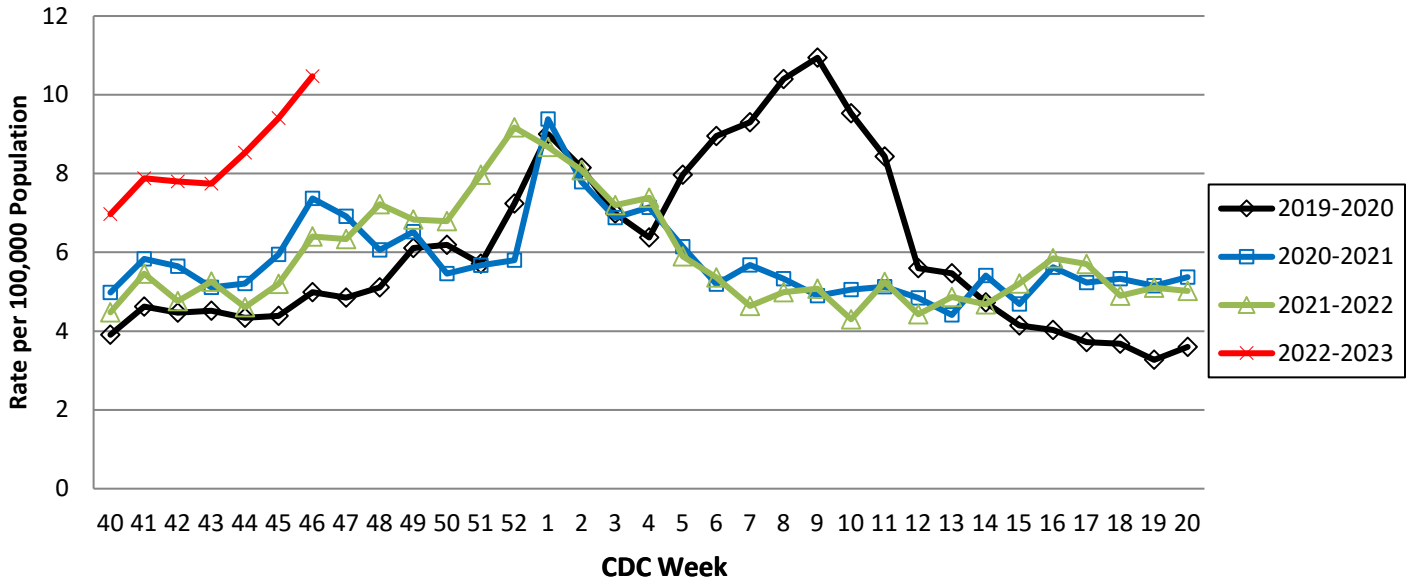
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest 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, 2022-2023 Influenza Season*



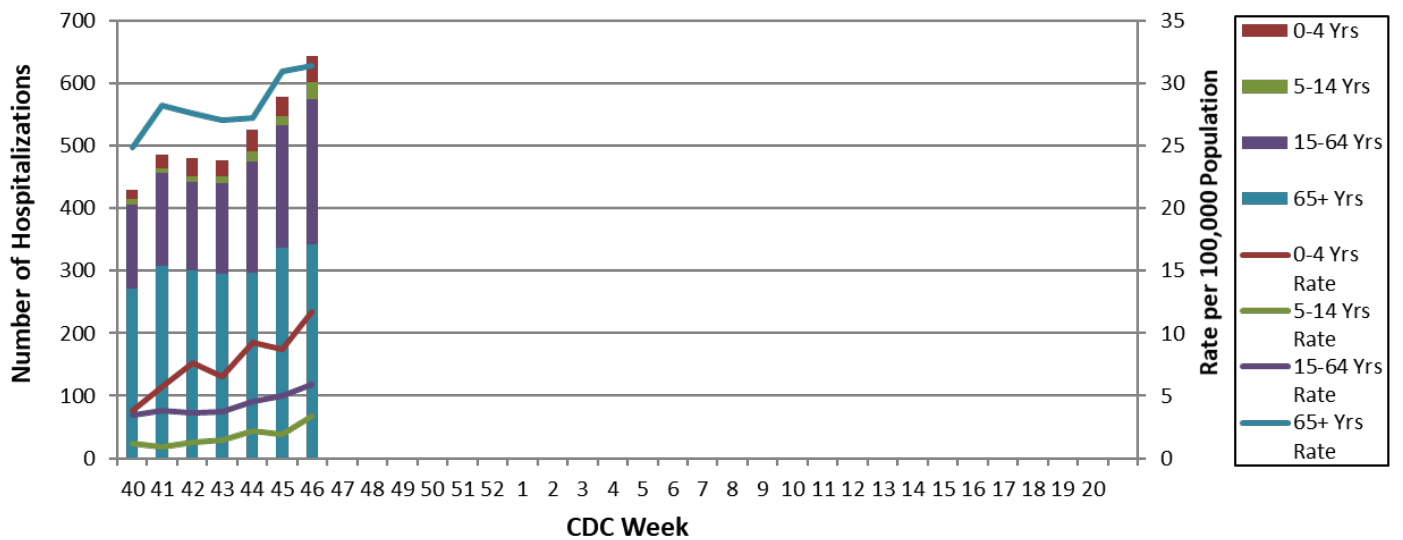
Data Source: Missouri Department of Health and Senior Services (DHSS), Bureau of Reportable Disease Informatics, ESSENCE version 1.20.
 *The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest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

Figure 9. Weekly Rate of Patients Hospitalized with Influenza and/or Pneumonia Syndromes in Missouri Hospitals, 2019-2023 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 46, 2022-2023 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/