Missouri Weekly Influenza Surveillance Report
2021-2022 Influenza Season[1]

Week 4: January 23, 2022 – January 29, 2022

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

Summary:

- The estimated influenza activity in Missouri is Widespread[2].

- During Week 4, a total of 1,073 laboratory-positive[3] influenza cases (941 influenza A, 127 influenza B and 5 untyped) were reported. A season-to-date total of 17,866 laboratory-positive influenza cases (15,890 influenza A, 1,862 influenza B, and 114 untyped) have been reported in Missouri as of Week 4. The influenza type for reported season-to-date cases includes 89% influenza A, 10.4% 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 3.74% during Week 4, with the most common subtype being A(H3N2) (Figure 5).

- Influenza-like illness (ILI) activity for Week 4 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 3.16% (Figure 6).[4]

- Fourteen influenza-associated deaths have been reported in Missouri as of Week 4.[5]

- Four influenza or ILI-associated outbreaks have been reported in Missouri as of Week 4.

- 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.

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

[2]Widespread 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.

[3]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.

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

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

Surveillance Data:

Interactive Maps

The jurisdiction-specific influenza data are provided though 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 4**
- **Reported Week-specific Rate per 100,000 Population, CDC Week 4**
- **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 2-4 (January 9, 2021 – January 29, 2022)[*]

Influenza Type	Week 2	Week 3	Week 4	2021-2022[*] Season-to-Date
Influenza A	1,568	1,293	941	15,890
Influenza B	243	282	127	1,862
Influenza Unknown Or Untyped	6	4	5	114
Total	1,817	1,579	1,073	17,866

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 4 (January 23, 2022 – January 29, 2022)[*‡]

Age Group	Week 4 Cases	Week 4 Rate[‡]	2021-22[*] Season-to-Date	2021-2022[*] Season-to-Date Rate[‡]
00-04	151	41.02	2,378	646.06
05-24	535	34.21	9,017	576.53
25-49	215	11.06	3,525	181.41
50-64	88	7.33	1,578	131.48
65+	84	7.91	1,368	128.81
Total	1,073	17.48	17,866	291.10

[†]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 4 (January 23, 2022 – January 29, 2022)[*‡]
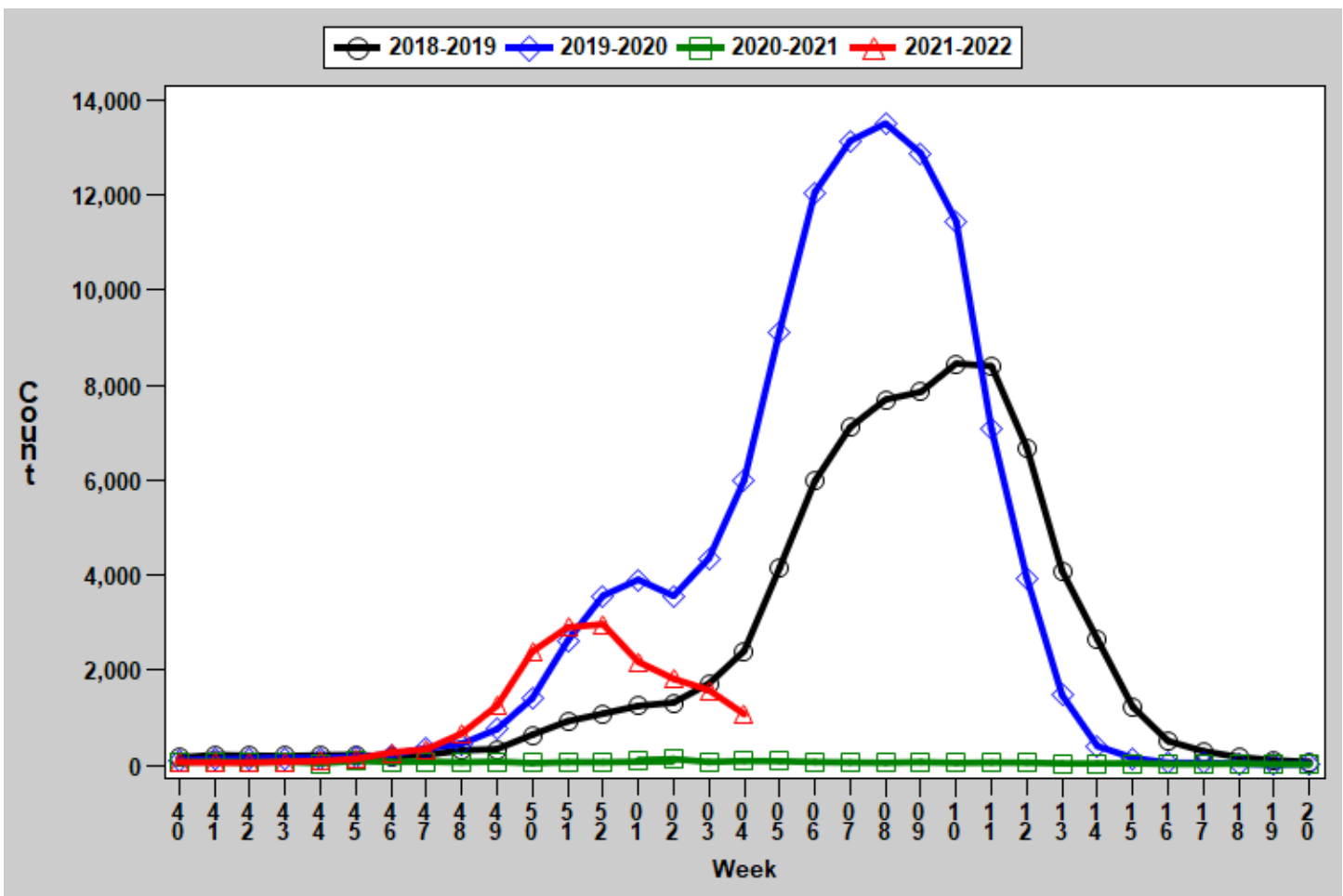
Region	Week 4 Cases	Week 4 Rate[‡]	2021-22[*] Season-to-Date	2021-22[*] Season-to-Date Rate[‡]
Central	134	19.86	2,416	358.02
Eastern	316	13.93	6,084	268.28
Northwest	147	8.98	3,565	217.81
Southeast	113	26.13	2,178	503.66
Southwest	363	34.55	3,623	344.84
Total	1,073	17.48	17,866	291.10

[†]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)
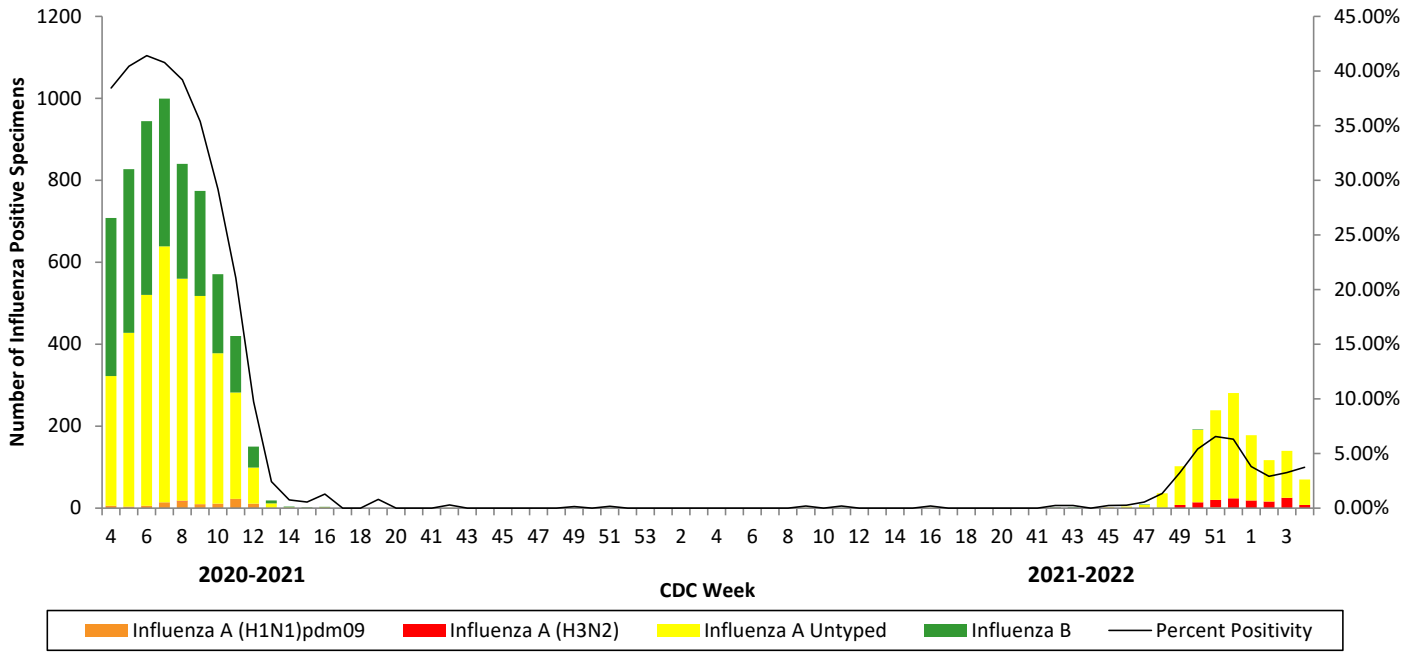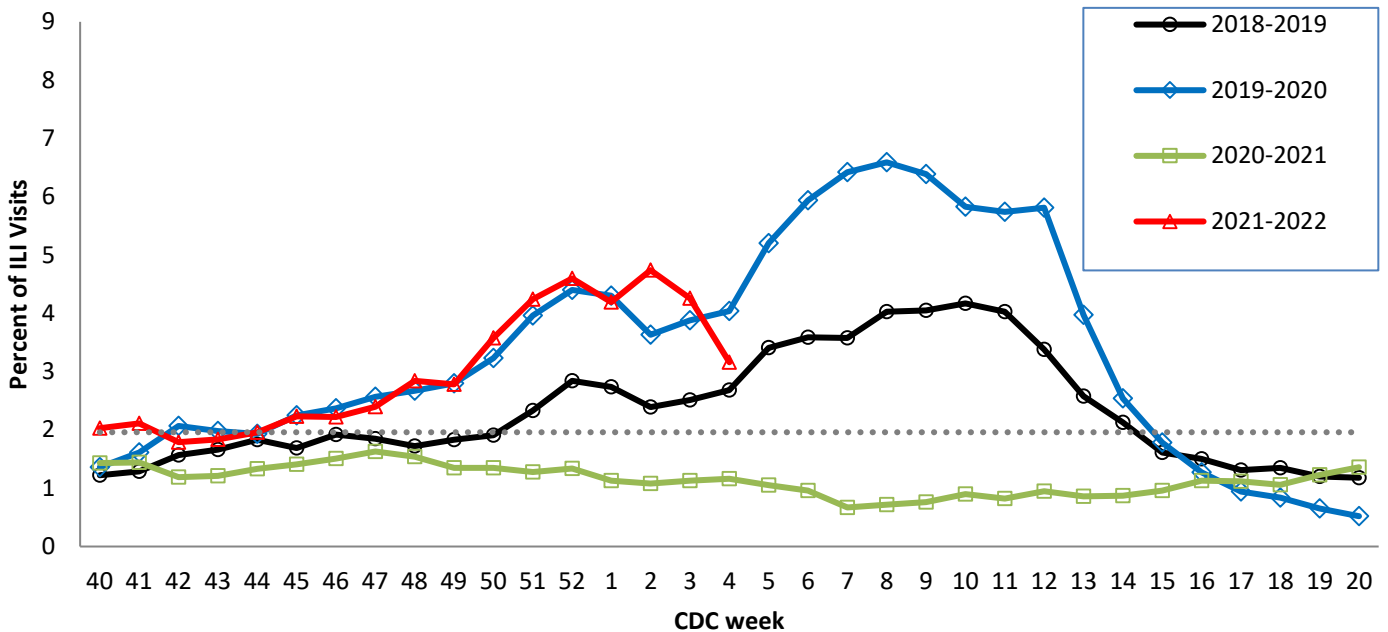[‡]Incidence Rate per 100,000 population

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)

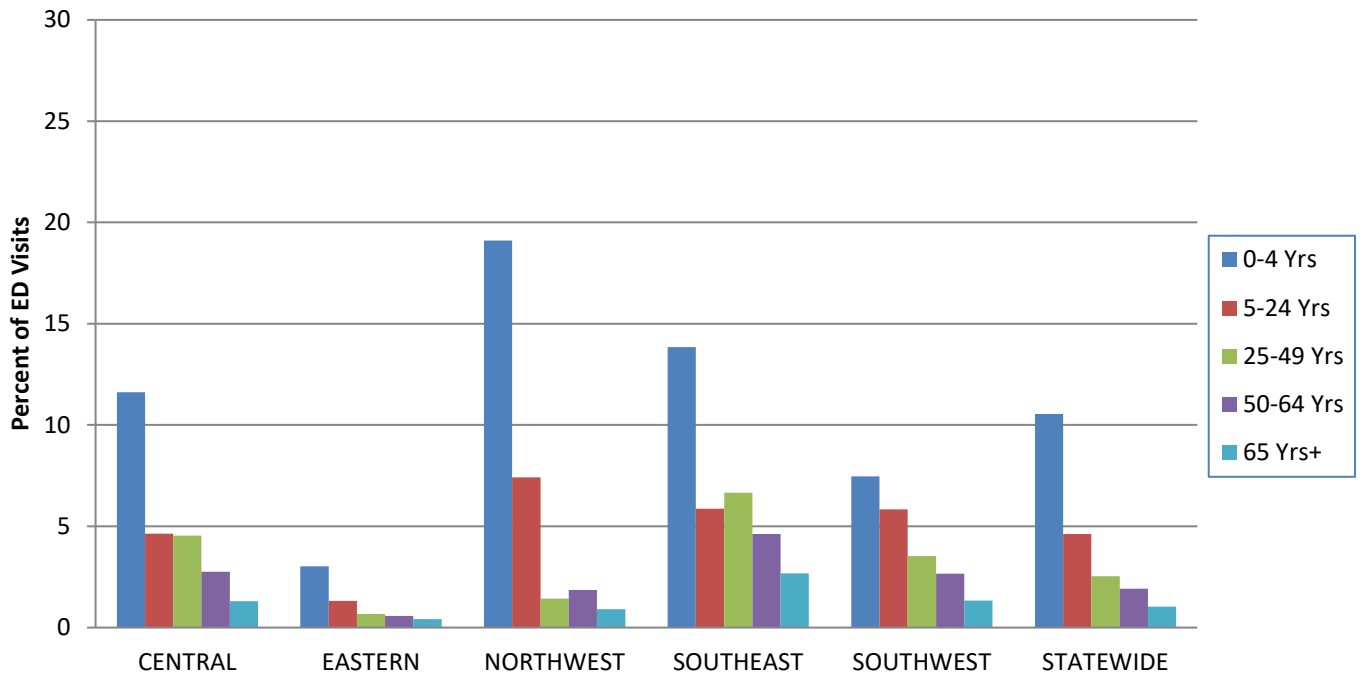**Figure 5. Season-to-Date PCR (+) Tests for Influenza in Missouri**

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 29, 2022 (Week 4).

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.
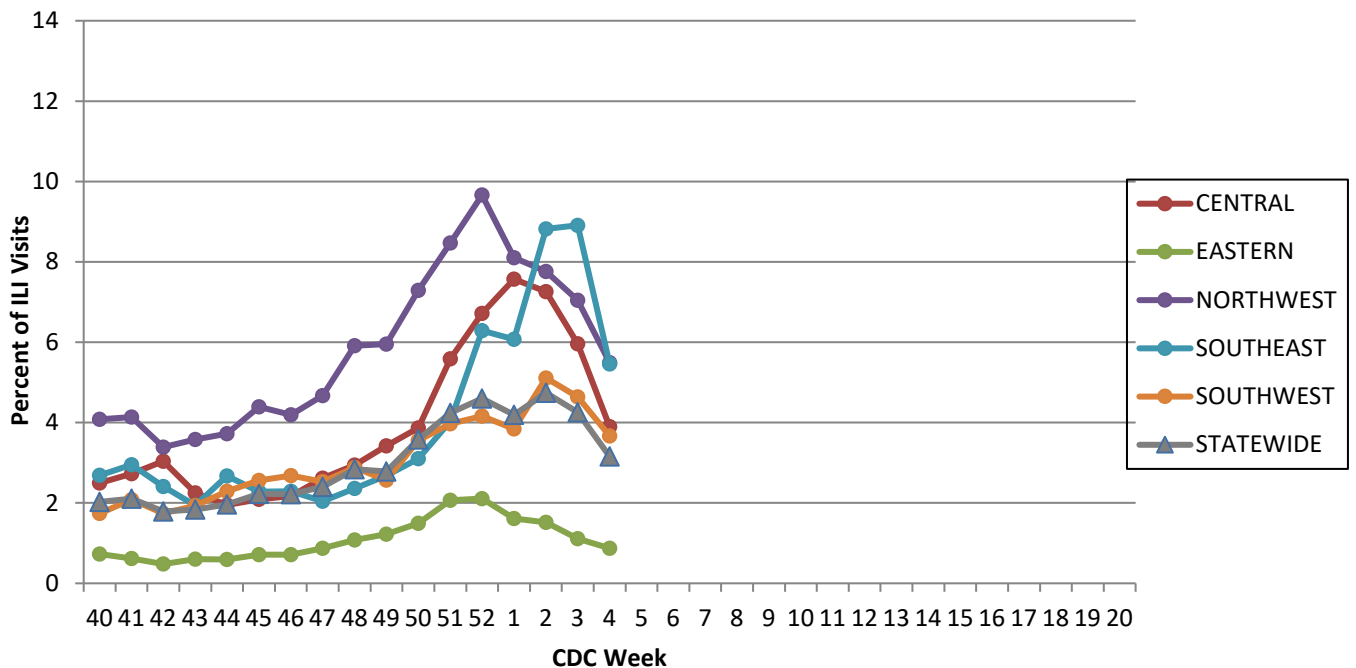
Figure 7. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Age Group, Region and Statewide, Week 4, 2021[*]

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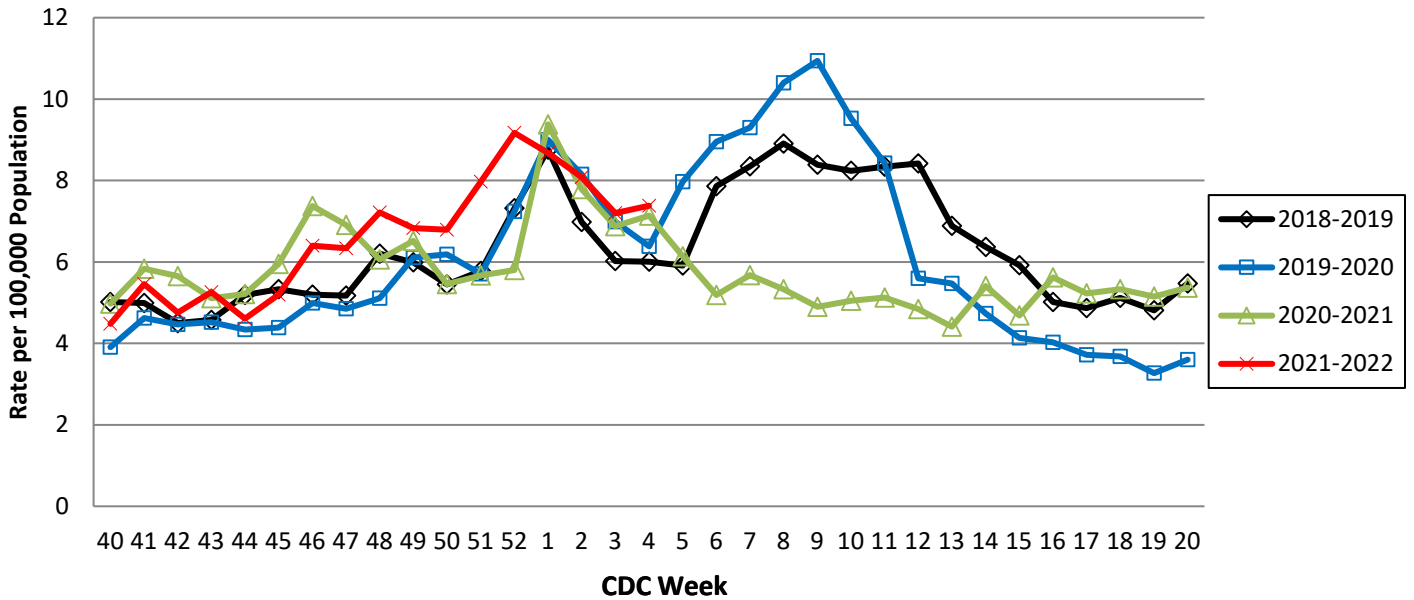
Figure 8. Percentage of Emergency Department (ED) Visits for Influenza-like Illness (ILI) in ESSENCE Participating Hospitals, by Region and Statewide, 2021-2022 Influenza Season[*]

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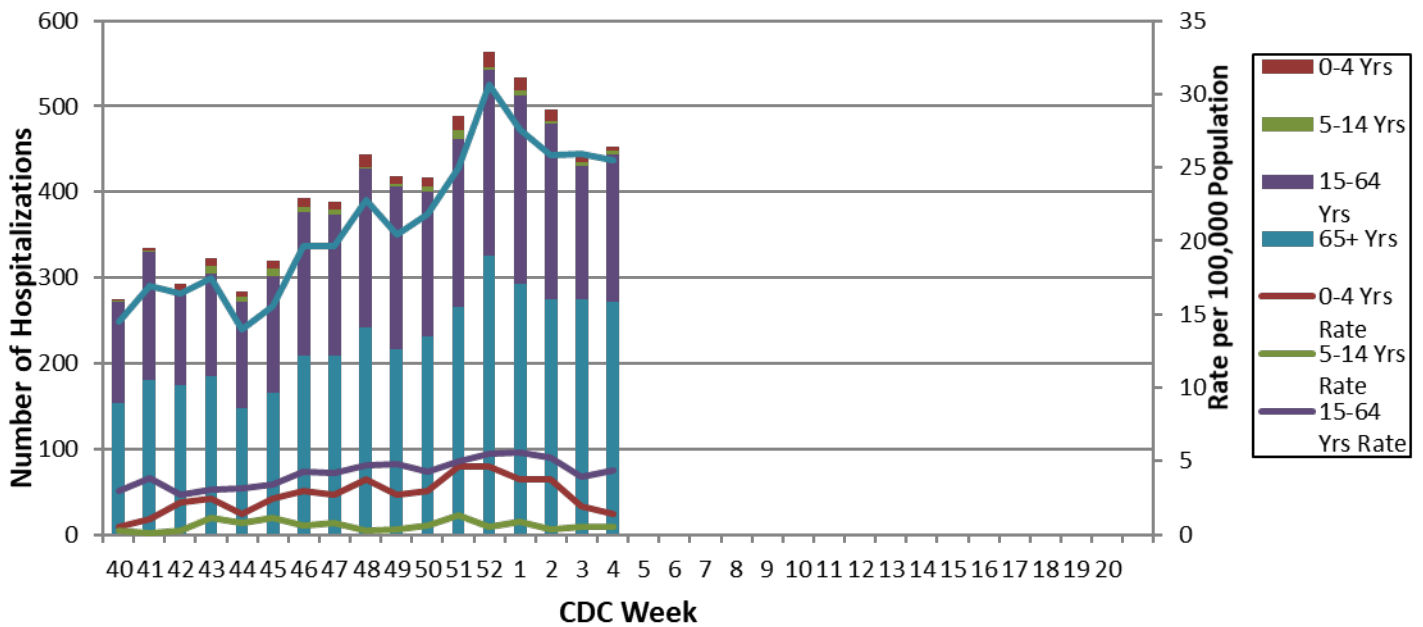[*]The ILI data from a small number of sites located in the Northwest Region of the state is temporarily unavailable in ESSENCE. Therefore, the ILI data for the Northwest Region should be interpreted with caution.

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 4, 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/