

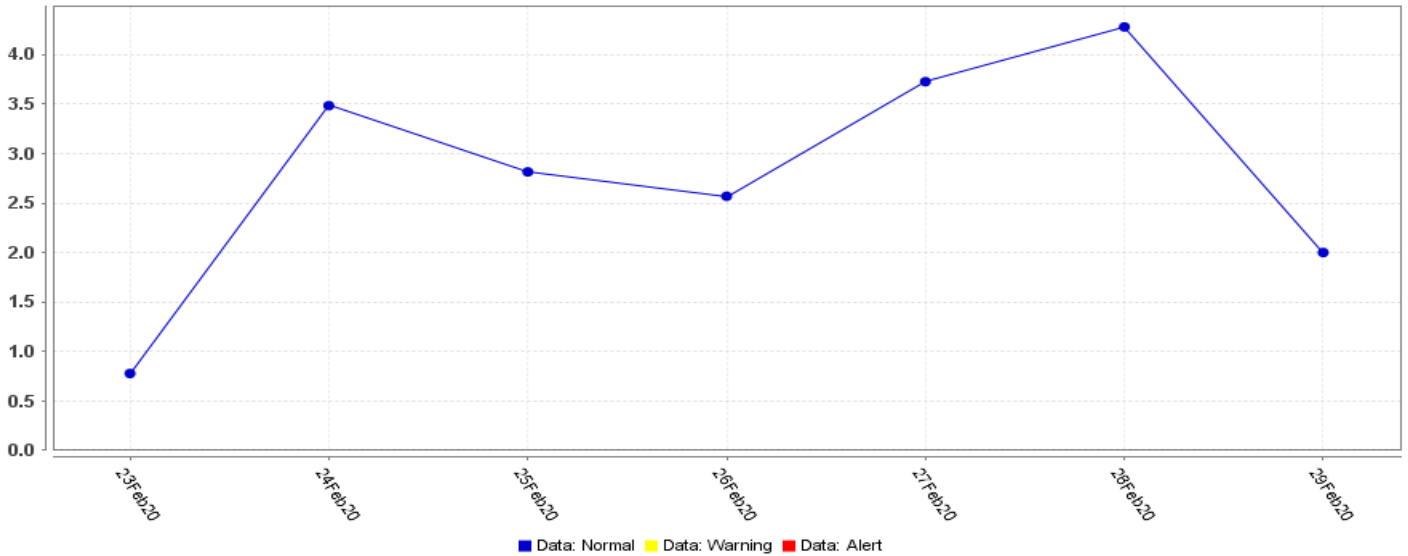


**City of St. Louis Department of Health
Weekly Influenza Surveillance Report
2019-2020 Influenza Season
Week 22 (2/23/2020 – 2/29/2020)**

Influenza Surveillance

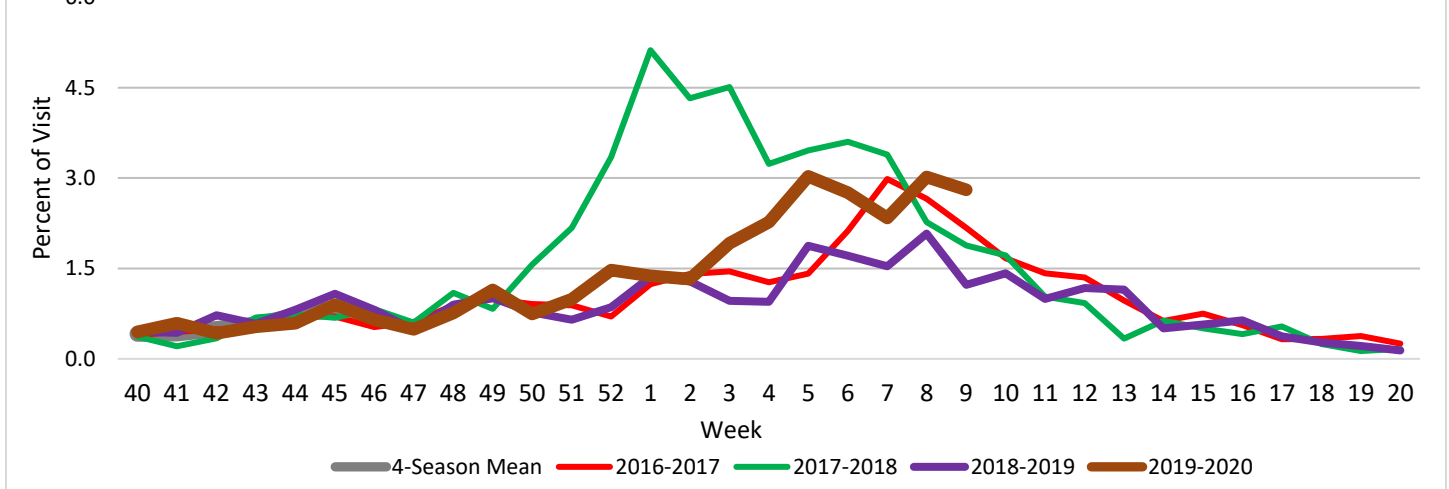
The City of St. Louis Department of Health conducts influenza surveillance using passive, active and syndromic surveillance³. Although influenza illness can take place year-round, the seasonal influenza reporting begins from MMWR Week⁴ 40 of a given year through MMWR Week 20 of the next year. Syndromic Surveillance is conducted through assessing number of cases reported from emergency departments (EDs) of hospitals to Essence database maintained by state with Influenza-like Illness (ILI)¹.

ILI as percentage of daily ED visits - St. Louis City - 2/23/2020 - 2/29/2020



As determined using ESSENCE data, ILIs ranged from 0.778% to 4.28% of daily visits to EDs in the City of St. Louis during the week ending 2/29/2020. The daily number of visits to EDs for ILIs ranged from 4 to 22, with a total visit of 102 during the week ending 2/29/2020.

**Percent of ED Visits for influenza-like Illness (ESSENCE)
City of St. Louis, 2016-2020**



Average of daily visits for ILI as percentage of all visits to EDs in the city of St. Louis during the week ending 2/29/2020 was 2.807%, compared to 1.229% in 2018 and 1.882% in 2017 during the same period.



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Passive Surveillance is conducted through reporting of confirmed influenza cases² from various surveillance sites like hospitals, offices of healthcare providers, and laboratories. As of the current influenza season, for the week ending 2/29/2020, there have been 855 cases of Influenza A and 871 cases of Influenza B with a total of 1726 influenza cases from the City of St. Louis. Both influenza A and influenza B accounted for close to 50% of total influenza cases. The data of the latest two weeks is provisional and is subject to change in the following weeks.

Table 1: Number of Laboratory Positive Influenza Cases by Influenza Type

Influenza Type	Week 18 (1/26/2020– 2/1/2020)	Week 19 (2/2/2020– 2/8/2020)	Week 20 (2/9/2020– 2/15/2020)	Week 21 (2/16/2020– 2/22/2020)	Week 22 (2/23/2020– 2/29/2020)	2019-2020* Season-to-Date	Percentage
Influenza A	123	169	120	185	96	855	50%
Influenza B	132	205	135	151	52	871	50%
Influenza unknown /Untyped	0	0	0	0	0	0	0%
Total	255	374	255	336	148	1726	100%

Table 2: Number of Laboratory Confirmed Influenza Cases by Age Group

Age Group	Week 18 (1/26/2020– 2/1/2020)	Week 19 (2/2/2020– 2/8/2020)	Week 20 (2/9/2020– 2/15/2020)	Week 21 (2/16/2020– 2/22/2020)	Week 22 (2/23/2020– 2/29/2020)	2019-2020* Season-to-Date
0 to 4 years	48	106	42	102	10	360
5 to 14 years	67	126	57	70	15	389
15 to 24 years	31	37	23	26	17	181
25 to 49 years	71	70	94	76	58	495
50 to 64 years	24	22	25	36	36	193
65+ years	14	13	14	26	12	108
Total	255	374	255	336	148	1726

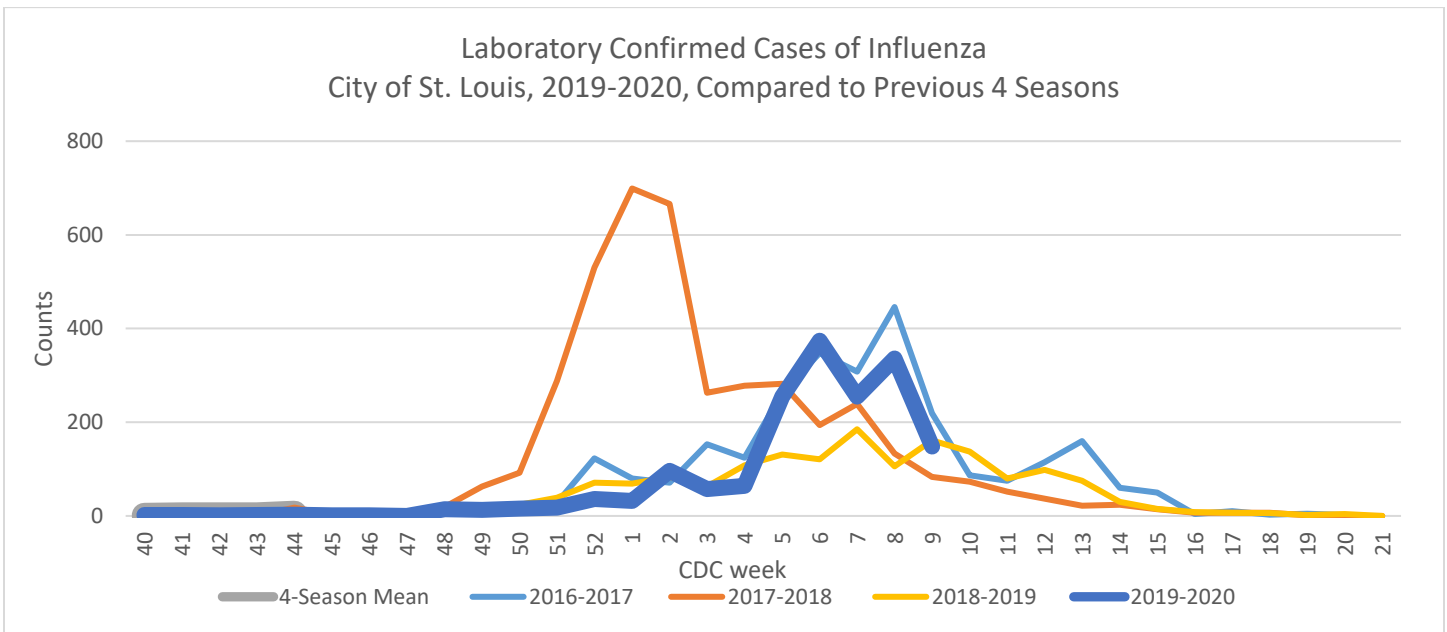


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Table 3: Number of Laboratory Confirmed Influenza Cases by Age Group and Type

For Cases Reported between 09/29/2019 and 2/29/2020

Age Group	Type A		Type B		Unknown Type		Total	
	n	%	n	%	n	%	n	%
0 to 4 years	174	20.4	186	21.4	0	0	350	22.2
5 to 14 years	117	13.7	272	31.2	0	0	374	23.7
15 to 24 years	62	7.3	119	13.7	0	0	163	10.3
25 to 49 years	261	30.5	234	26.9	0	0	436	27.7
50 to 64 years	157	18.4	36	4.1	0	0	156	9.9
65+ years	84	9.8	24	2.8	0	0	96	6.1
Total	855		871		0		1726	



City of St. Louis Influenza Outbreaks:

During the week ending 2/29/2020, there have been two outbreaks of influenza reported to the City of St. Louis Department of Health. One of the outbreaks was in a daycare facility and the other outbreak was in a hospital.



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Weekly Virus/Microbiology Update, St. Louis Children's Hospital:

<http://slchlabtestguide.bjc.org/Default.aspx?url=c07848be-283d-470e-ad0f-4b833e58ebcf>

For additional information on national influenza surveillance, please visit the Centers for Disease Control and Prevention website:

<http://www.cdc.gov/flu/weekly/>

For additional information on statewide influenza surveillance reports, please visit the Missouri Department of Health and Senior Services website:

<http://health.mo.gov/living/healthconditions/communicable/influenza/reports.php>

Definitions

1. Influenza-like Illness (ILI) is a case definition used to conduct surveillance for influenza infections. Hospitals, healthcare providers and laboratories are required to report to the state health department or local public health agency, any patient visit with symptoms of fever 100°F or greater, and cough and/or sore throat as ILI under influenza surveillance requirement.

2. Influenza is confirmed by laboratory tests through the following methods: molecular assays for influenza virus nucleic acids including rapid assays as well as Reverse Transcription-Polymerase Chain Reaction (RT-PCR) and other assays, detection of influenza viral antigen through rapid influenza diagnostic tests as well as immunofluorescence assays for antibodies and isolation of virus through viral culture.

3. Active, Passive, and Syndromic influenza Surveillance

Passive surveillance

Passive Surveillance is conducted through assessing the reports of confirmed influenza cases from various surveillance sites. Typical surveillance sites are hospitals, offices of healthcare providers and laboratories. Influenza is a reportable condition in the state of Missouri and hence these sites are required to report confirmed influenza cases to state health department or local public health agency (city of St. Louis). Passive surveillance helps the health department to keep track of the incidence of influenza cases in the community and facilitates early detection of potential outbreaks.

Active Surveillance

Active surveillance becomes essential when there is suspicion of potential outbreaks from the passive and syndromic surveillance data. It would involve looking for potential cases that are not showing up in the passive surveillance system and also those exposed to the cases followed by implementing appropriate control measures to ensure that influenza situation doesn't rise up to a full-blown epidemic in the community.

Syndromic surveillance

The Department of Health uses the ESSENCE system to conduct syndromic surveillance for ILI at the City of St. Louis hospital emergency departments (EDs). ESSENCE captures data on all ED visits in persons with chief complaints (rather than final diagnoses or positive laboratory tests) of ILI. ILI chief complaints are those which include the word "influenza" or those that the ESSENCE system parses to [fever and (cough or sore throat)]. The syndromic surveillance data presented above include all visits for ILI (regardless of county of residence) to the City of St. Louis hospital EDs that contribute data to the ESSENCE system. Data from private physicians, clinics, or urgent care centers are not included in ESSENCE. Syndromic surveillance contributes to our understanding of the burden of influenza experienced by the health care system, as well as demonstrating the relative impact over time or influenza with respect to other illnesses.

4. Data is reported in epidemiologic weeks established by the CDC's Morbidity and Mortality Weekly Report (MMWR). The MMWR week starts on a Sunday and ends on Saturday. The first MMWR week in a given year will be the week that includes January 1.