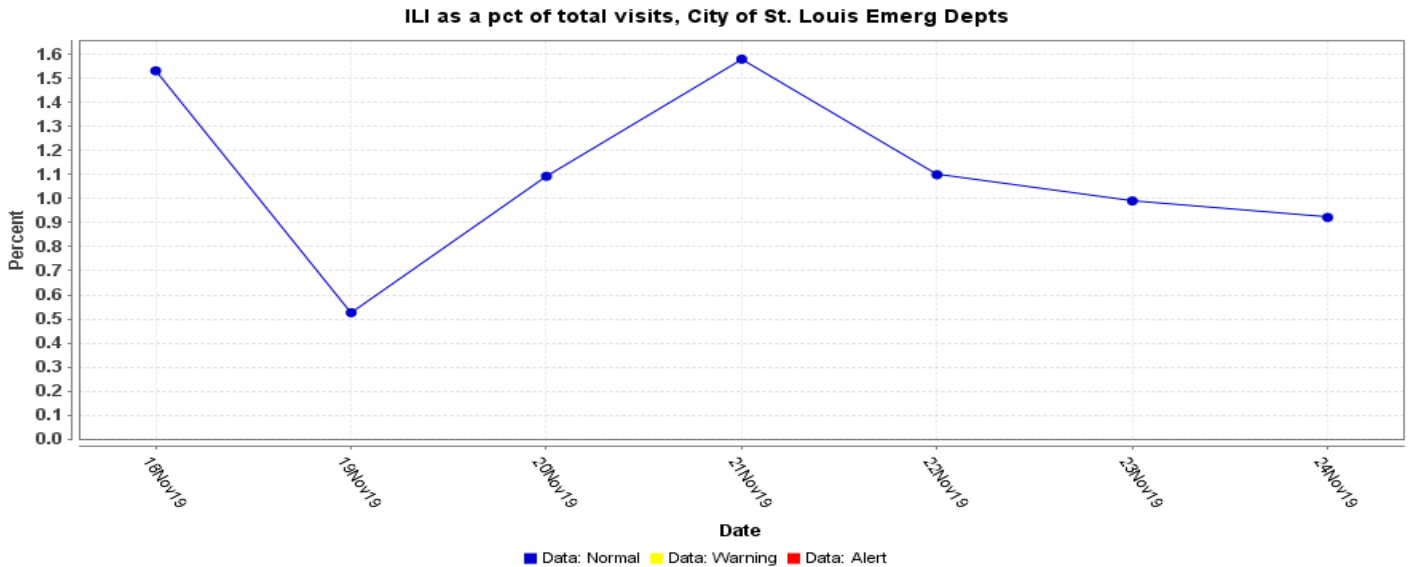




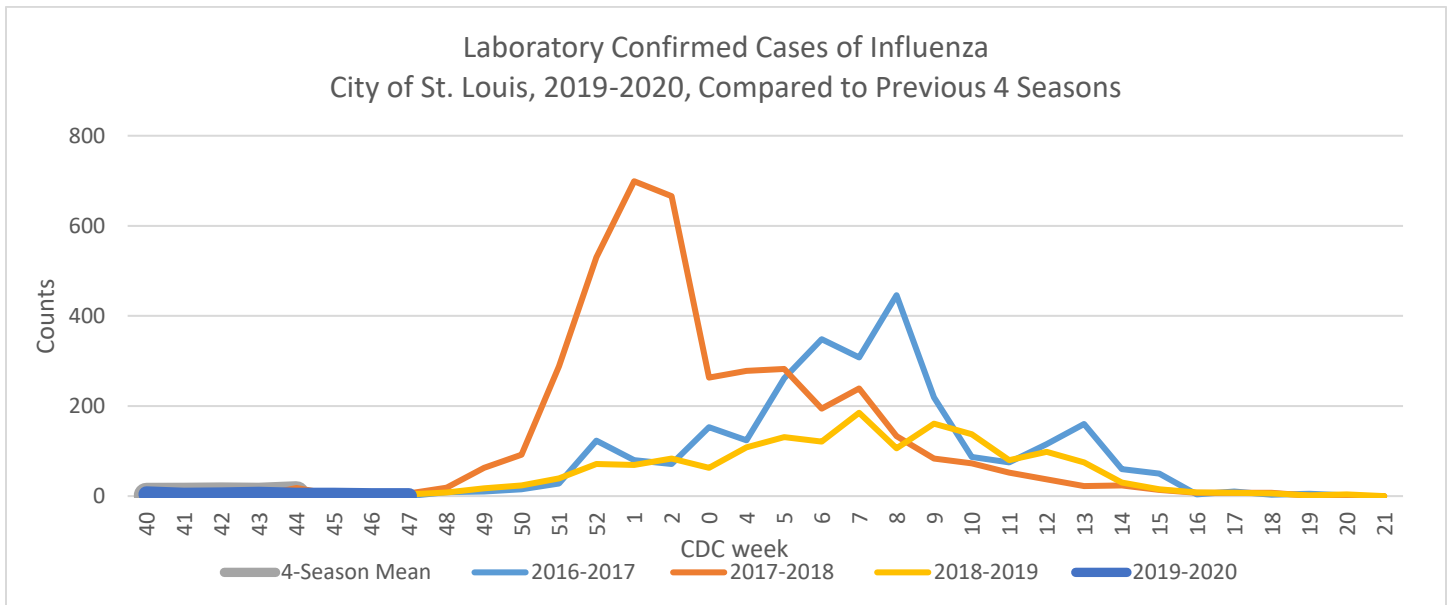
City of St. Louis Department of Health
 Weekly Influenza Surveillance Report
 2019-2020 Influenza Season
 Week 8 (11/18/2019 – 11/24/2019)

Influenza Surveillance

The City of St. Louis Department of Health conducts influenza surveillance using passive, active and syndromic surveillance. Each surveillance method contributes unique information, allowing the Department of Health to have a fuller picture of influenza cases and activity in the City. Although influenza illness can take place year-round, the seasonal influenza reporting begins in week 40 of one year (i.e., 2019) and continues through week 20 of the following year (2020) to capture the data during a complete “flu season”.



As determined using ESSENCE data, Influenza-like Illness (ILI) accounted for 0.526% to 1.579% of daily visits to emergency departments (EDs) of hospitals in the City of St. Louis during the week ending 11/24/2019. The daily number of visits to EDs for ILI ranged from one to three, with a total visit of 15 during the week ending 11/24/2019.



Average percentage of ED visits for ILI during week ending 11/24/2019 (week 45) was 1.06%, compared to 0.476% in 2018 and 0.604% in 2017, for week 45.



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Active Influenza Surveillance

Surveillance sites reported no new cases in the week ending 11/24/2019. As of the current flu season, there have been seven cases of Influenza A and five cases of Influenza B. Overall for the 2019-2020 influenza season, influenza A accounted for 58% of total influenza cases while influenza B accounted for 42% of total influenza cases for the week ending on 11/24/2019.

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

Influenza Type	Week 1 (9/29/2019–10/6/2019)	Week 2 (10/7/2019–10/13/2019)	Week 3 (10/14/2019 – 10/20/2019)	Week 4 (10/21/2019–10/27/2019)	Week 5 (10/28/2019 – 11/3/2019)	Week 6 (11/4/2019–11/10/2019)	Week 7 (11/11/2019–11/17/2019)	Week 7 (11/18/2019–11/25/2019)	2019-2020* Season-to-Date	Percentage
Influenza A	1	1	0	3	1	1	0	0	7	58%
Influenza B	3	0	2	0	0	0	0	0	5	42%
Influenza unknown /Untyped	0	0	0	0	0	0	0	0	0	0%
Total	4	1	2	3	1	0	0	0	12	100%

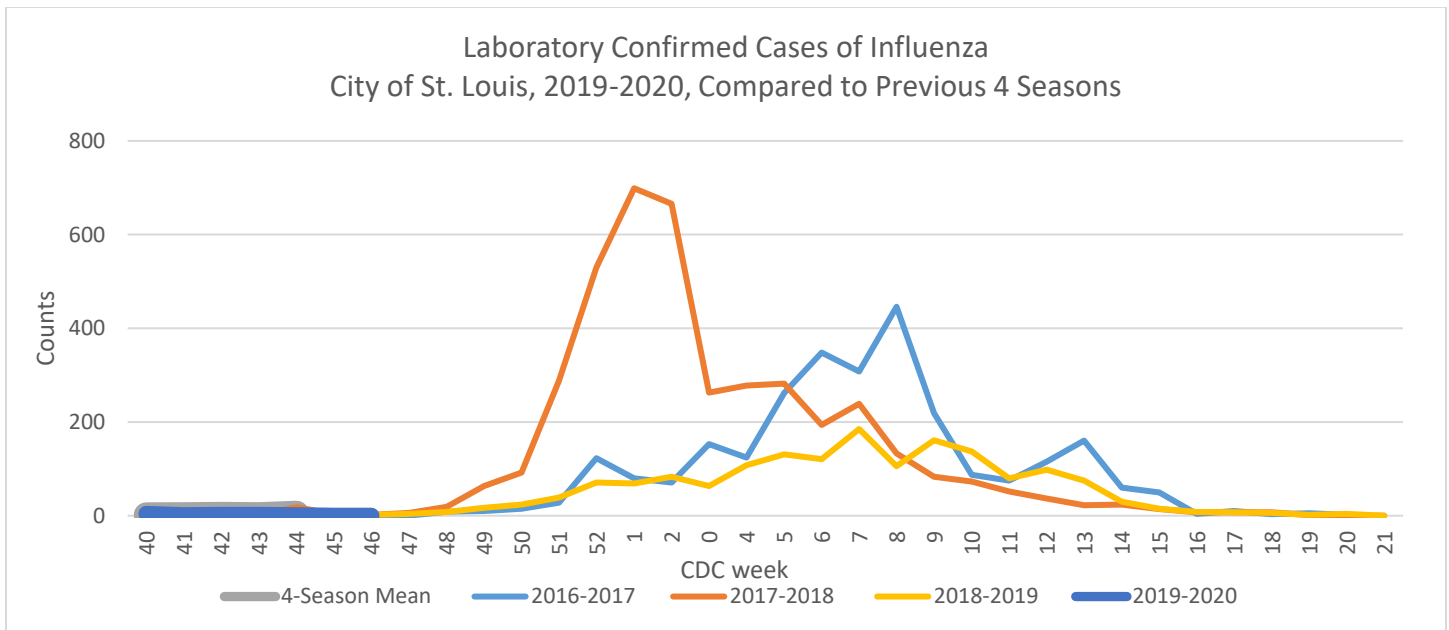
Table 2: Number of Laboratory Confirmed Influenza Cases by Age Group

Age Group	Week 1 (9/29/2019–10/6/2019)	Week 2 (10/7/2019–10/13/2019)	Week 3 (10/14/2019 – 10/20/2019)	Week 4 (10/21/2019–10/27/2019)	Week 5 (10/28/2019 – 11/3/2019)	Week 6 (11/4/2019–11/10/2019)	Week 7 (11/11/2019–11/17/2019)	2019-2020* Season-to-Date
0 to 4 years	2	0	0	1	0	0	0	3
5 to 14 years	0	0	0	0	0	0	0	0
15 to 24 years	1	0	0	2	1	0	0	4
25 to 49 years	0	0	1	0	0	1	0	2
50 to 64 years	1	0	0	0	0	0	0	1
65+ years	0	1	1	0	0	0	0	2
Total	4	1	2	3	1	1	0	12



Table 3: Number of Laboratory Confirmed Influenza Cases by Age Group and Type
 For Cases Reported between 11/11/2019 and 11/17/2019

Age Group	Type A n (% of total)	Type B n (% of total)	Unk Type n (% of total)	Total n (%)
0 to 4 years	1	2	0	2
5 to 14 years	0	0	0	0
15 to 24 years	4	0	0	1
25 to 49 years	1	1	0	2
50 to 64 years	0	1	0	1
65+ years	1	1	0	2
Total	7 (58)	5 (42)	0	12 (100)



Passive Influenza Surveillance

There were no cases of influenza in the week of 11/18/19 – 11/24/19. For the 2019-2020 influenza season, influenza A accounted for 58% of total influenza cases while influenza B accounted for 42% of total influenza cases.

City of St. Louis Influenza Outbreaks:

Of the week ending 11/24/2019, there have been no outbreaks of influenza reported to the City of St. Louis Department of Health.



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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

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.

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.

Active, Passive, and Syndromic influenza Surveillance

Passive surveillance

Influenza is a reportable condition in the state of Missouri; positive influenza tests are reported to the City of St. Louis year-round. City of St. Louis Department of Health conducts passive influenza surveillance by collecting and aggregating data on all positive influenza tests in City of St. Louis residents. Passive surveillance provides information on the true burden of influenza illness in City of St. Louis, but is limited by variations in testing and reporting practices. If diagnostic tests are not conducted on patients presenting to healthcare providers with influenza-like-illness, or if test results (e.g., of rapid influenza tests) are not reported to DPH, those persons will not be included in the passive surveillance data. Thus, passive surveillance is likely an underestimate of the true burden of influenza illness in the City of St. Louis.

Active Surveillance

The City of St. Louis Department of Health conducts active influenza surveillance through a network of sentinel providers. This network is geographically distributed throughout the City, comprised of a wide range of care providers, designed to capture a representative sample of provider types. Although active influenza surveillance does not capture the true magnitude of disease burden, it allows for year-to-year comparisons of influenza data. The Department of Health can then assess trends in influenza data, as well as the relative magnitude of disease burden with respect to previous influenza seasons. Further, the Department of Health works closely with sentinel sites throughout the influenza season, making the active surveillance data less susceptible to bias arising from testing or reporting variation. Because of these advantages, active surveillance using a network of sentinel providers is the primary method of influenza surveillance utilized by the City.

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.