

# Influenza Surveillance Report

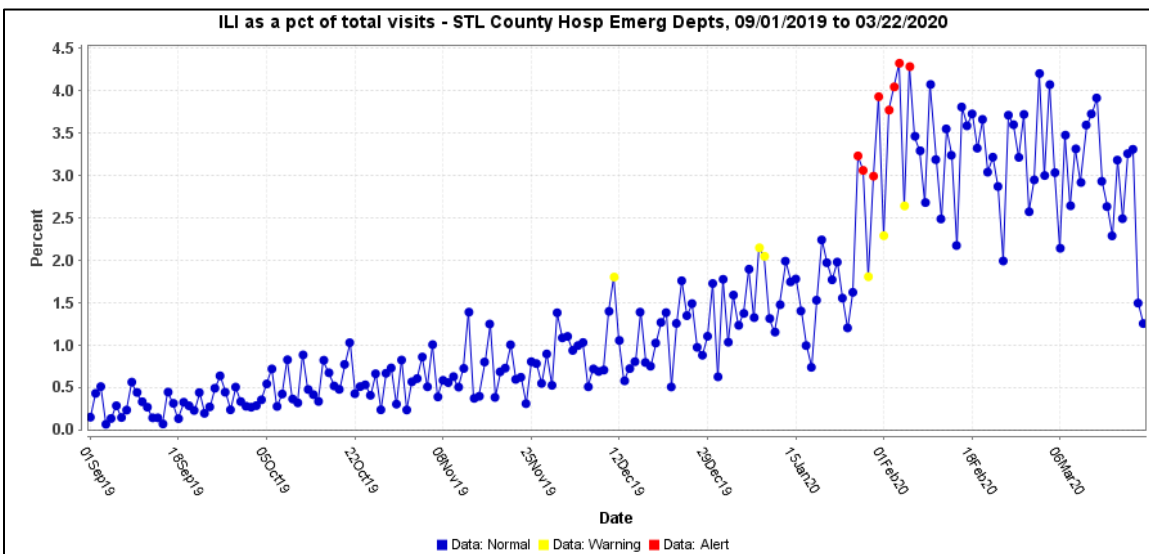
Saint Louis County Department of Public Health  
Week Ending 03/22/2020 – Week 12



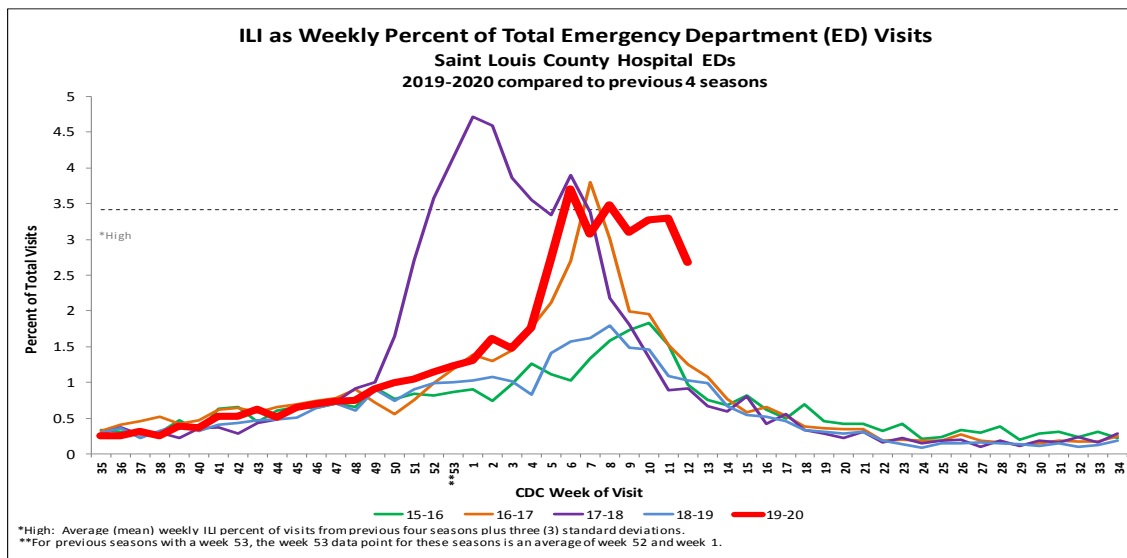
## Influenza Surveillance

The Saint Louis County Department of Public Health (DPH) conducts influenza surveillance using three methods – *passive surveillance*, *active surveillance*, and *syndromic surveillance*. Each surveillance method contributes unique information, allowing DPH to gain a fuller picture of influenza activity in Saint Louis County. Although influenza illness occurs year-round, DPH’s seasonal influenza reporting begins in week 40 of one year (e.g., 2019) and continues through week 20 of the following year (e.g., 2020) in order to capture data throughout a typical “flu season.” For additional information on the three types of influenza surveillance, please see the notes at the end of the report.

## Syndromic Surveillance for Influenza-Like-Illness (ILI)



As determined by ESSENCE, ILI accounted for 1.25% to 3.31% of daily visits to Saint Louis County hospital emergency departments (EDs) during the week ending 03/22/2020. The number of visits to local hospital EDs for ILI ranged from 10 to 38 per day during the week ending 03/22/2020.



ILI as a weekly percentage of all visits in Saint Louis County hospital EDs was 2.68%, compared to 1.03% in 2019 and 0.92% in 2018, for week 12.

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Saint Louis County Department of Public Health, Week Ending 03/22/2020



## Active Influenza Surveillance

Surveillance sites reported 102 cases of influenza A and 73 cases of influenza B for the week ending 03/22/2020. Influenza A accounted for 58.3% of influenza cases (vs. 41.7% for influenza B) for the week ending 03/22/2020 and 62.0% of cases for the week ending 03/15/2020. Overall for the 2019-2020 influenza season, influenza A has accounted for 51.6% of influenza cases.

## Influenza Cases by Report Week and Type

### Saint Louis County Residents Only

For Cases Reported between 09/30/2019 and 03/22/2020

Week Ending	Type A	Type B	Unk Type	Total
10/6/2019	3	3	0	6
10/13/2019	3	4	1	8
10/20/2019	1	4	0	5
10/27/2019	1	3	0	4
11/3/2019	3	0	0	3
11/10/2019	5	1	0	6
11/17/2019	10	1	0	11
11/24/2019	12	8	0	20
12/1/2019	3	13	0	16
12/8/2019	19	39	0	58
12/15/2019	21	52	0	73
12/22/2019	51	84	0	135
12/29/2019	92	134	0	226
1/5/2020	89	140	0	229
1/12/2020	122	156	0	278
1/19/2020	154	234	0	388
1/26/2020	248	257	0	505
2/2/2020	423	503	0	926
2/9/2020	511	600	0	1111
2/16/2020	479	459	0	938
2/23/2020	536	471	0	1007
3/1/2020	617	343	0	960
3/8/2020	472	265	0	737
3/15/2020	369	226	0	595
3/22/2020	102	73	0	175
<b>Total</b>	<b>4346</b>	<b>4073</b>	<b>1</b>	<b>8420</b>

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Saint Louis County Department of Public Health, Week Ending 03/22/2020



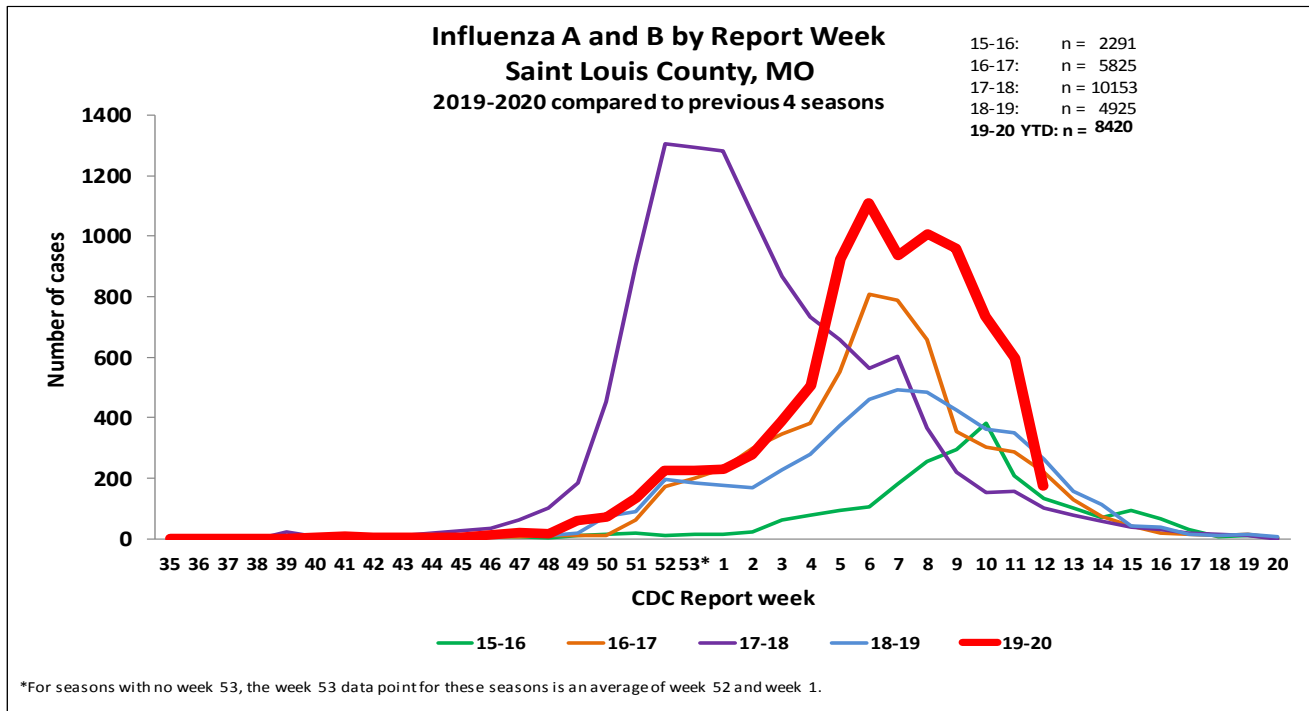
## Influenza Cases by Age and Type

### Saint Louis County Residents Only

For Cases Reported between 09/30/2019 and 03/22/2020

Age Group	Type A n (% of total)	Type B n (% of total)	Unk Type n (% of total)	Total n (%)
00 to <02	305 (4)	303 (4)	0 (0)	608 (7)
02 to 04	455 (5)	578 (7)	0 (0)	1033 (12)
05 to 14	733 (9)	1338 (16)	0 (0)	2071 (25)
15 to 24	373 (4)	722 (9)	0 (0)	1095 (13)
25 to 49	1307 (16)	894 (11)	1 (0)	2202 (26)
50 to 64	658 (8)	128 (2)	0 (0)	786 (9)
65+	515 (6)	110 (1)	0 (0)	625 (7)
<b>Total</b>	<b>4346 (52)</b>	<b>4073 (48)</b>	<b>1 (0)</b>	<b>8420 (100)</b>

## Influenza A and B Cases by CDC Report Week, 2019-2020 Compared to the Previous Four Seasons

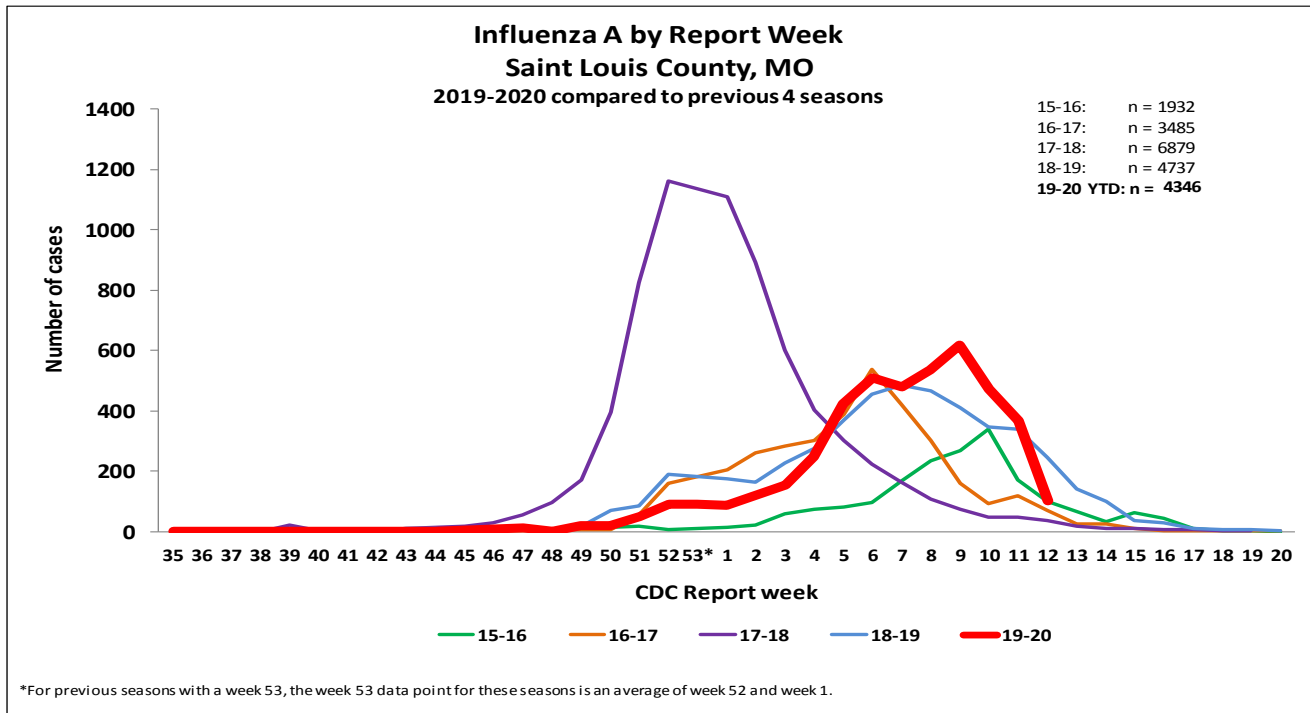


# Influenza Surveillance Report

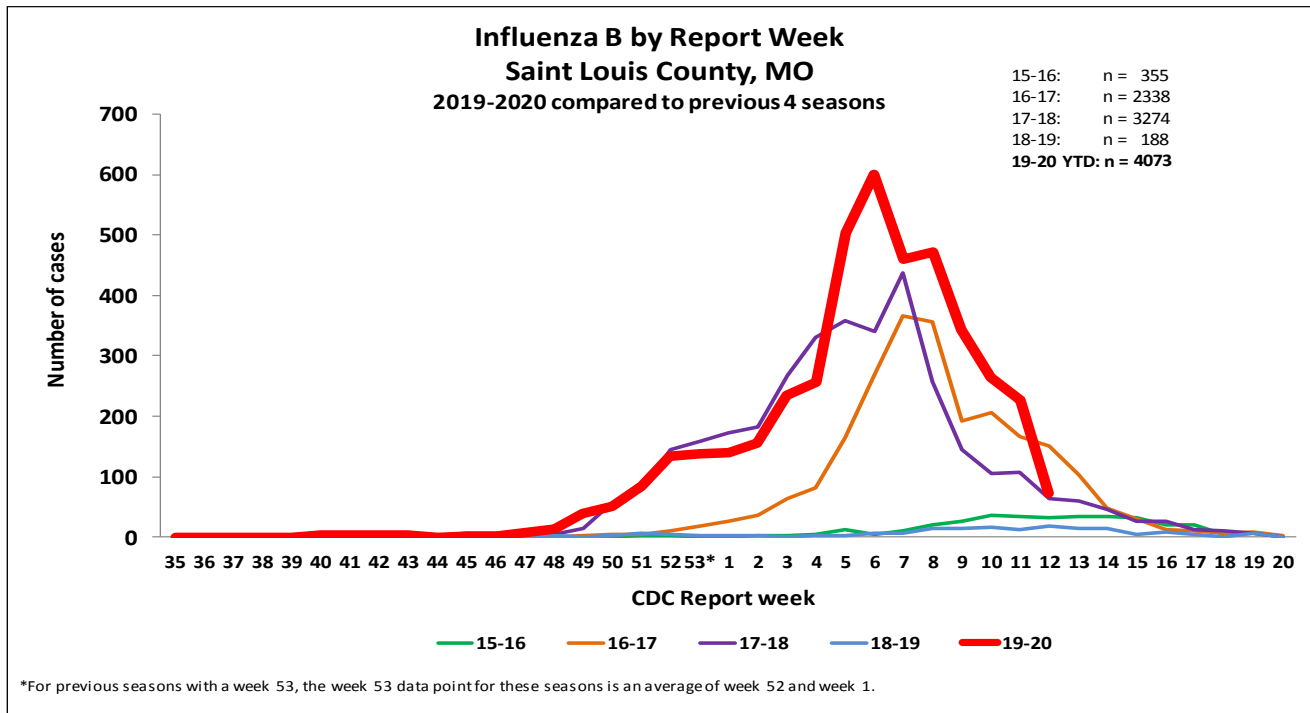
Saint Louis County Department of Public Health, Week Ending 03/22/2020



## Influenza A Cases by CDC Report Week, 2019-2020 Compared to the Previous Four Seasons



## Influenza B Cases by CDC Report Week, 2019-2020 Compared to the Previous Four Seasons

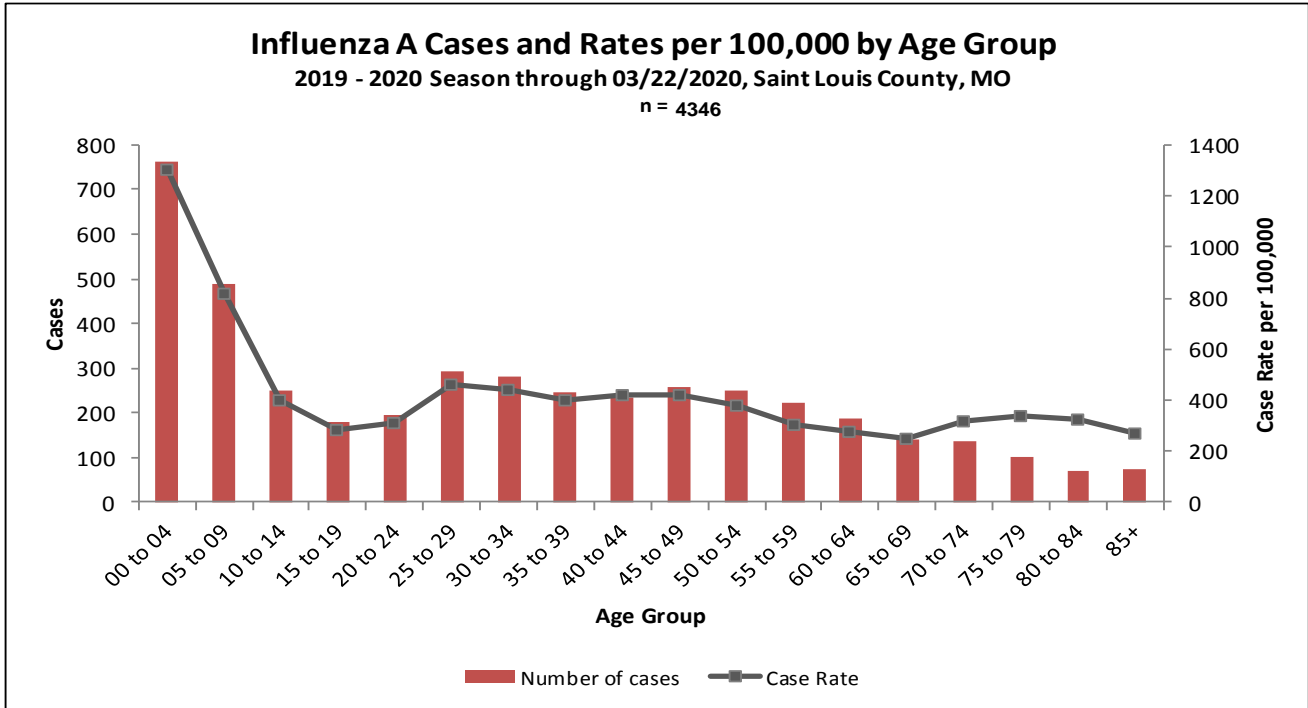


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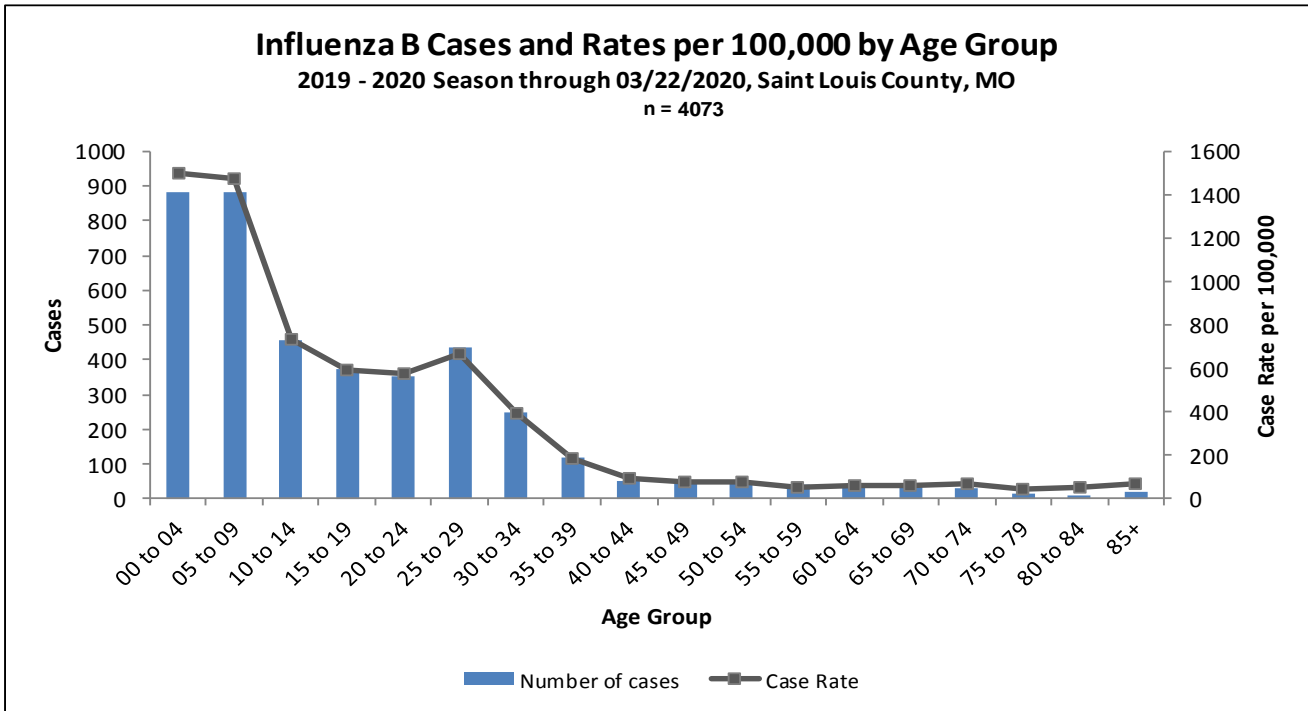
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## Influenza A Cases and Rates by Age Group



## Influenza B Cases and Rates by Age Group

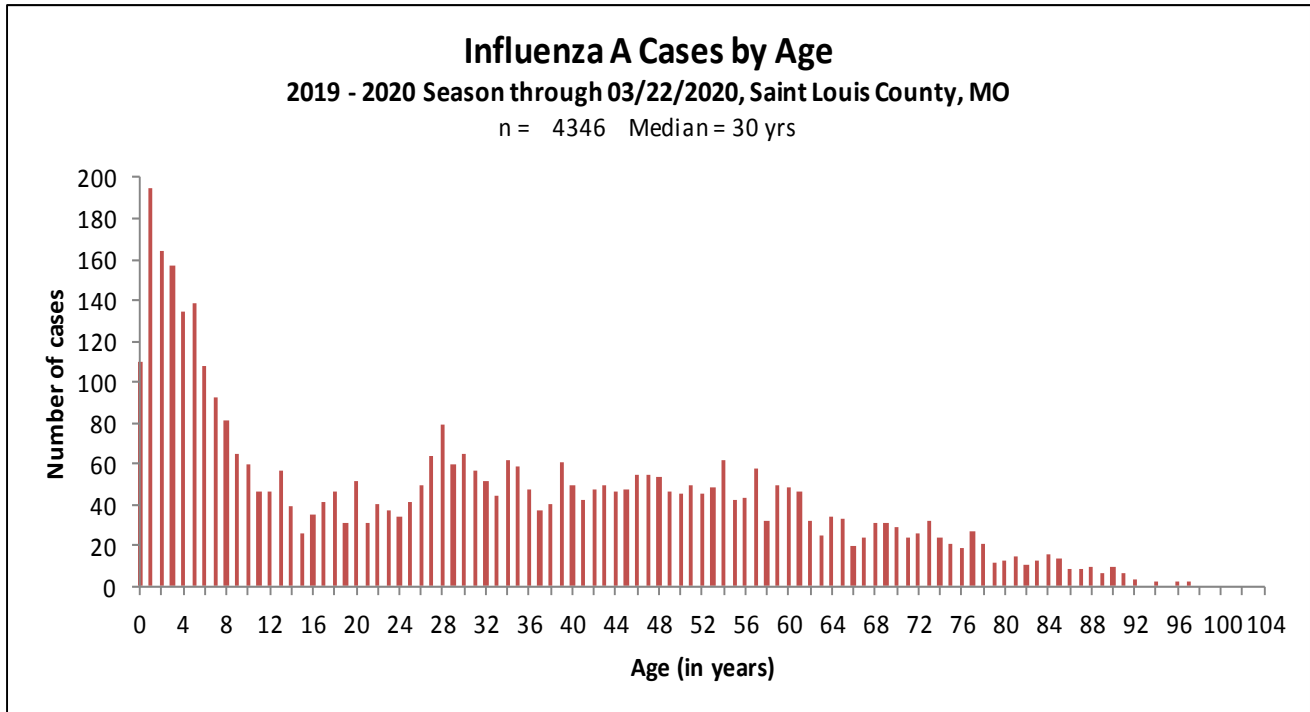


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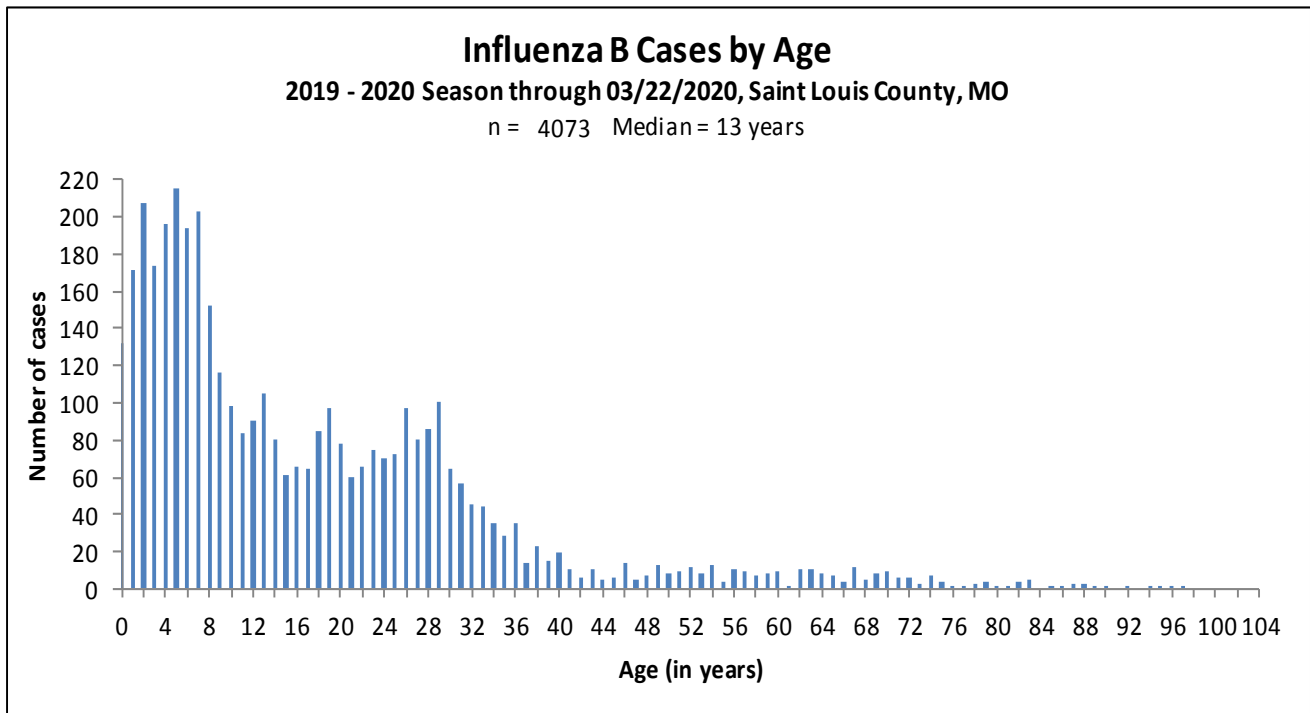
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## Influenza A Cases by Age



## Influenza B Cases by Age



# Influenza Surveillance Report

Saint Louis County Department of Public Health, Week Ending 03/22/2020



## Overall (Active + Passive) Influenza Surveillance

Two-hundred eighty-five total cases of influenza A and 190 total cases of influenza B were reported to DPH during the week ending 03/22/2020. Influenza A accounted for 60.0% of total flu cases reported to DPH (vs. 40.0% for influenza B) for the week ending 03/22/2020. Influenza A accounted for 62.1% of total influenza cases for the week ending 03/15/2020. Overall for the 2019-2020 influenza season, influenza A has accounted for 52.5% of total influenza cases.

## Influenza by Report Week and Type

### Saint Louis County Residents Only

For Cases Reported between 09/30/2019 and 03/22/2020

Week Ending	Type A	Type B	Unk Type	Total
10/6/2019	5	4	0	9
10/13/2019	7	8	1	16
10/20/2019	7	12	0	19
10/27/2019	5	6	0	11
11/3/2019	8	3	0	11
11/10/2019	13	8	0	21
11/17/2019	19	5	0	24
11/24/2019	19	24	0	43
12/1/2019	9	23	0	32
12/8/2019	33	59	0	92
12/15/2019	39	73	0	112
12/22/2019	83	89	0	172
12/29/2019	137	188	0	325
1/5/2020	135	190	0	325
1/12/2020	186	235	0	421
1/19/2020	246	344	0	590
1/26/2020	387	382	0	769
2/2/2020	657	781	0	1438
2/9/2020	898	953	0	1851
2/16/2020	832	824	0	1656
2/23/2020	799	700	0	1499
3/1/2020	1026	620	0	1646
3/8/2020	853	501	0	1354
3/15/2020	563	344	0	907
3/22/2020	285	190	0	475
<b>Total</b>	<b>7251</b>	<b>6566</b>	<b>1</b>	<b>13818</b>

# Influenza Surveillance Report

Saint Louis County Department of Public Health, Week Ending 03/22/2020



## Saint Louis County Influenza Outbreaks:

As of the week ending 03/22/2020, there have been two outbreaks of influenza reported to DPH. One outbreak occurred in a healthcare setting and the other in a school.

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

<http://slchlabtestguide.bjc.org/Default.aspx?url=7693270d-73a4-404a-8102-c9526a521dda>

*\*courtesy of Gregory Storch, MD, and the St. Louis Children's Hospital Clinical Laboratory*

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

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

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

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

## Active, Passive, and Syndromic Influenza Surveillance

### Passive surveillance

Influenza is a reportable condition in the state of Missouri; positive influenza tests are reported to DPH year-round. DPH conducts passive influenza surveillance by collecting and aggregating data on all positive influenza tests in Saint Louis County residents. Passive surveillance provides information on the true burden of influenza illness in Saint Louis County, but is limited by variations in testing and reporting practices. If diagnostic tests are not conducted on patients presenting to health care 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 Saint Louis County.

### Active surveillance

DPH conducts active influenza surveillance through a network of sentinel providers. This network is geographically distributed throughout the county, comprised of a wide range of care providers, and 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. DPH can then assess trends in influenza data, as well as the relative magnitude of disease burden with respect to previous influenza seasons. Further, DPH 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 DPH.

### Syndromic surveillance

DPH uses the ESSENCE system to conduct syndromic surveillance for ILI at Saint Louis County 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 ten Saint Louis County 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 of influenza with respect to other illnesses.