

COVID-19 Trends in St. Louis County

09/17/2020

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Overall Trends

	8/18–8/31	9/1–9/14
1. Rate of new cases	●	●
2. Trend in new cases	●	●
3. Contacts per case*	●	●
4. Test positivity rate	●	●
5. Hospital admissions	●	●
6. Deaths	●	●
7. Daily tests	●	●
8. Hospital capacity	●	●

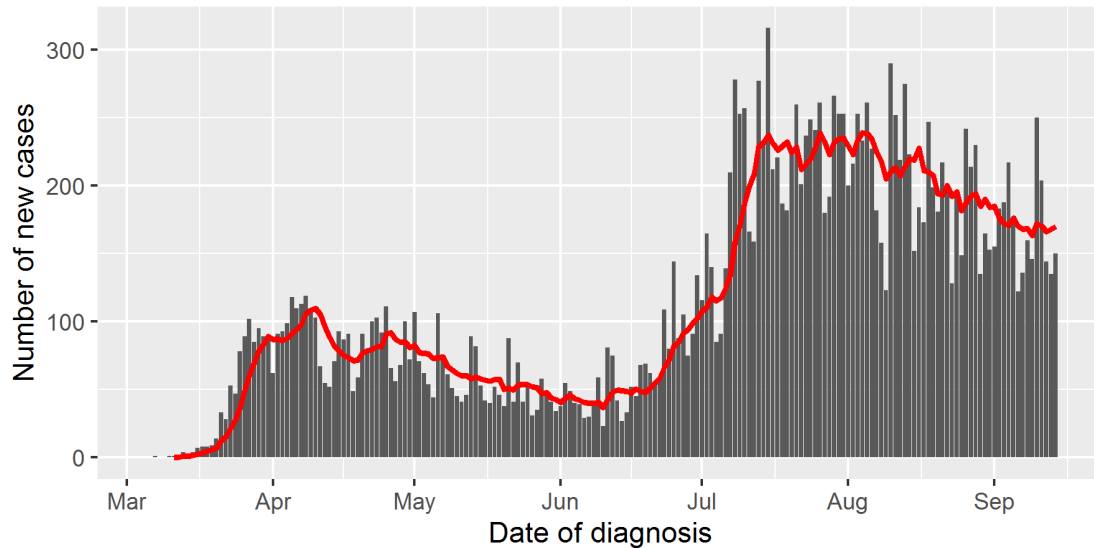
NOTE: To account for reporting and data entry delays, this report focuses on data about COVID-19 cases diagnosed and laboratory specimens collected for COVID-19 testing through 09/14. Unless otherwise specified, all averages are seven-day rolling averages. Data are current as of 09/17. *Indicator still in development

New Cases

The average number of new COVID-19 cases diagnosed among St. Louis County residents decreased by 8 percent between 09/01 (184.9 new cases per day) and 09/14 (169.9 new cases per day). Despite this continued decline, the average rate of new diagnoses (17 cases per 100,000 residents per day) remains very high.

Reported COVID-19 Cases Over Time

St. Louis County residents

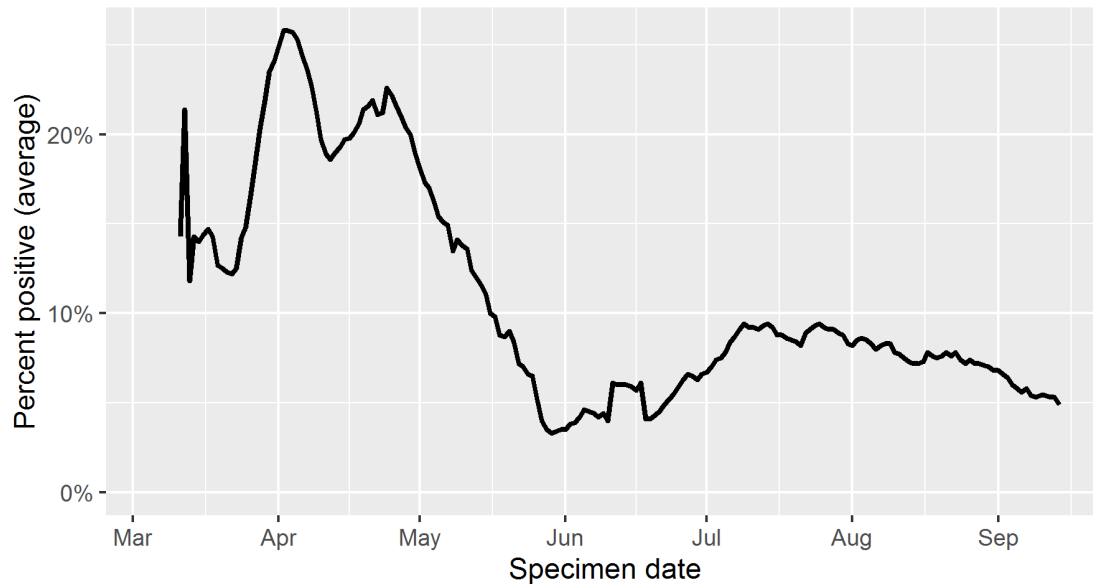


The red line is a rolling seven-day average.

Test Positivity Rate

The COVID-19 positivity rate as of 09/14 is 4.9 percent. The positivity rate among St. Louis County residents has gradually but steadily fallen since August, but 09/14 marks the first time the positivity rate has been below 5 percent since June.

Proportion of Specimens Testing Positive for SARS-CoV-2 RNA St. Louis County residents



Hospital Admissions

Based on data released by the Pandemic Task Force and [analyzed by Dr. Christopher Prener at St. Louis University](#), average new hospitalizations for COVID-19 at SSM, BJC, Mercy, and St. Luke's hospitals in the St. Louis metro area decreased by 22.5 percent between 09/01 (40 admissions per day) and 09/14 (31 admissions per day).

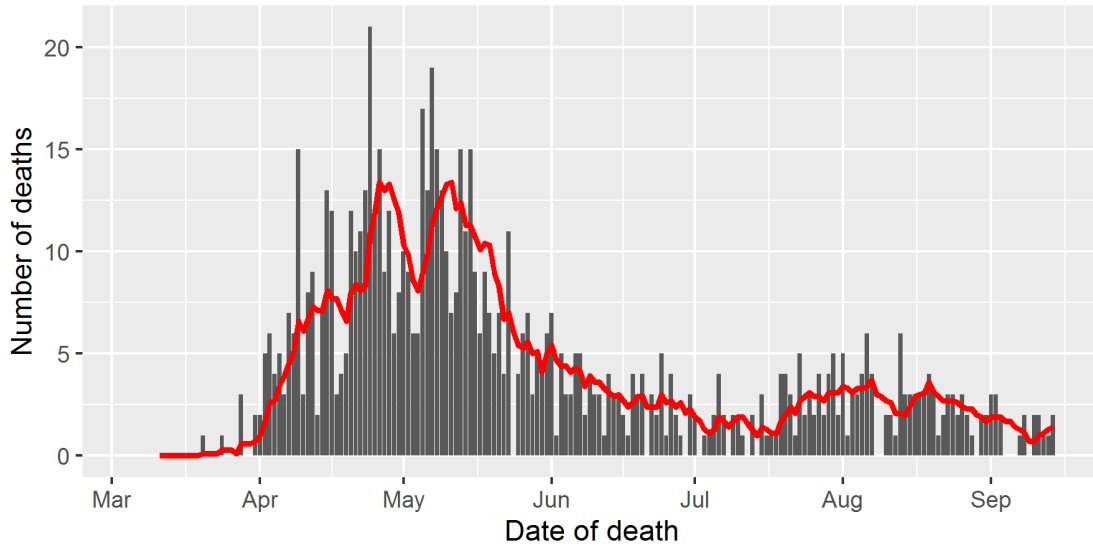
St. Louis County DPH is still developing its ability to more specifically track COVID-19-associated hospitalizations among St. Louis County residents.

Deaths

COVID-19-associated deaths decreased by 26 percent between 09/01 (1.9 deaths per day) and 09/14 (1.4 deaths per day).

Reported COVID-19 Associated Deaths Over Time

St. Louis County residents



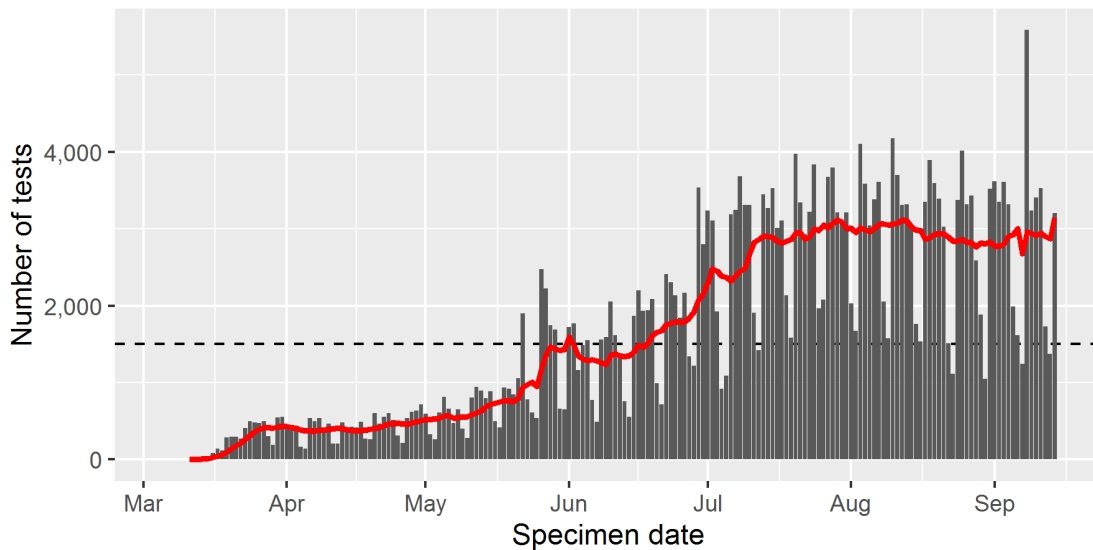
The red line is a rolling seven-day average.

Tests per Day

As of 09/14, the average number of specimens being collected for confirmatory COVID-19 testing from St. Louis County residents is 3,150 per day, which is 210 percent of St. Louis County's target of 1,500 tests per day (approximately 150 tests per 100,000 residents per day).

COVID-19 Tests per Day

St. Louis County residents



The red line is a rolling seven-day average.

Hospital Capacity

According to data released by the Pandemic Task force, 67.9 percent of the inpatient beds at SSM, BJC, Mercy, and St. Luke’s hospitals in the St. Louis metro area are filled as of 09/14.

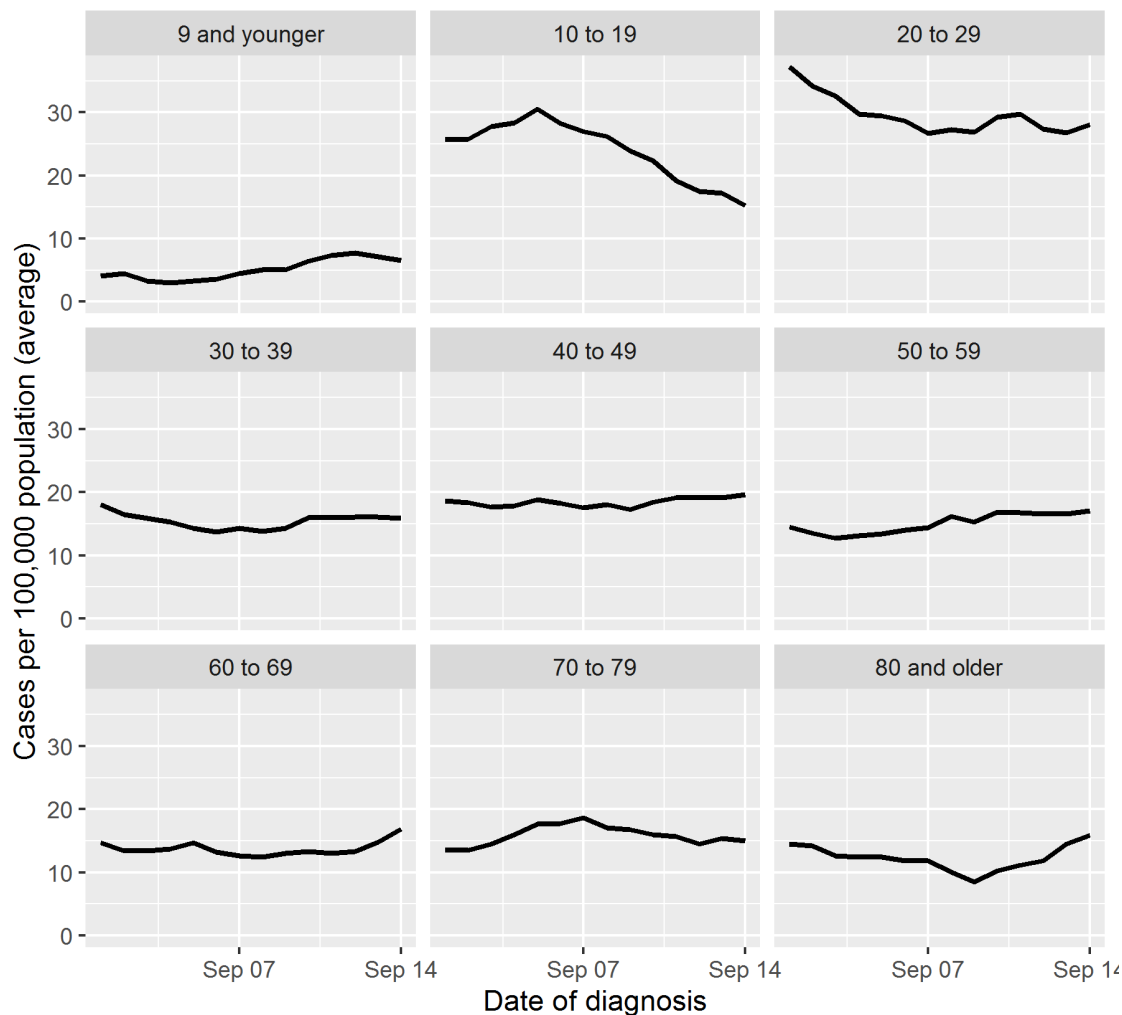
Demographic Trends

Age Groups

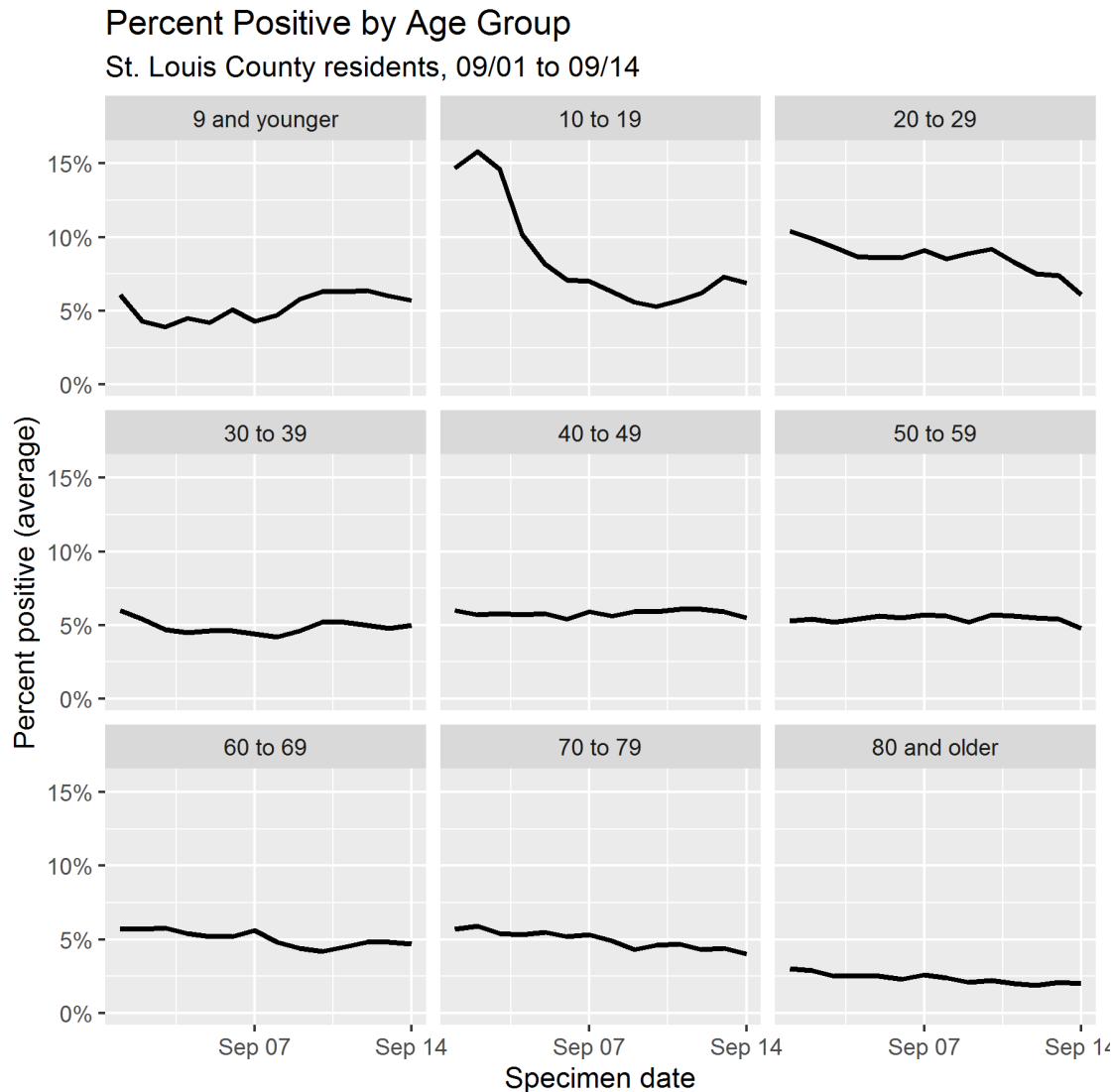
Between 09/01 and 09/14, new COVID-19 diagnoses decreased among 10–19 year-olds (–41 percent), 20–29 year-olds (–25 percent), and 30–39 year-olds (–12 percent). Average new diagnoses increased slightly among all other age groups. The rate of new diagnoses remains highest among people aged 20–29 years (28.1 cases per 100,000 per day) and lowest among children aged 9 years and younger (6.5 cases per 100,000 per day). Rates are currently between 15 and 20 cases per 100,000 per day for all other age groups.

Rate of New COVID-19 Diagnoses by Age Group

St. Louis County residents, 09/01 to 09/14



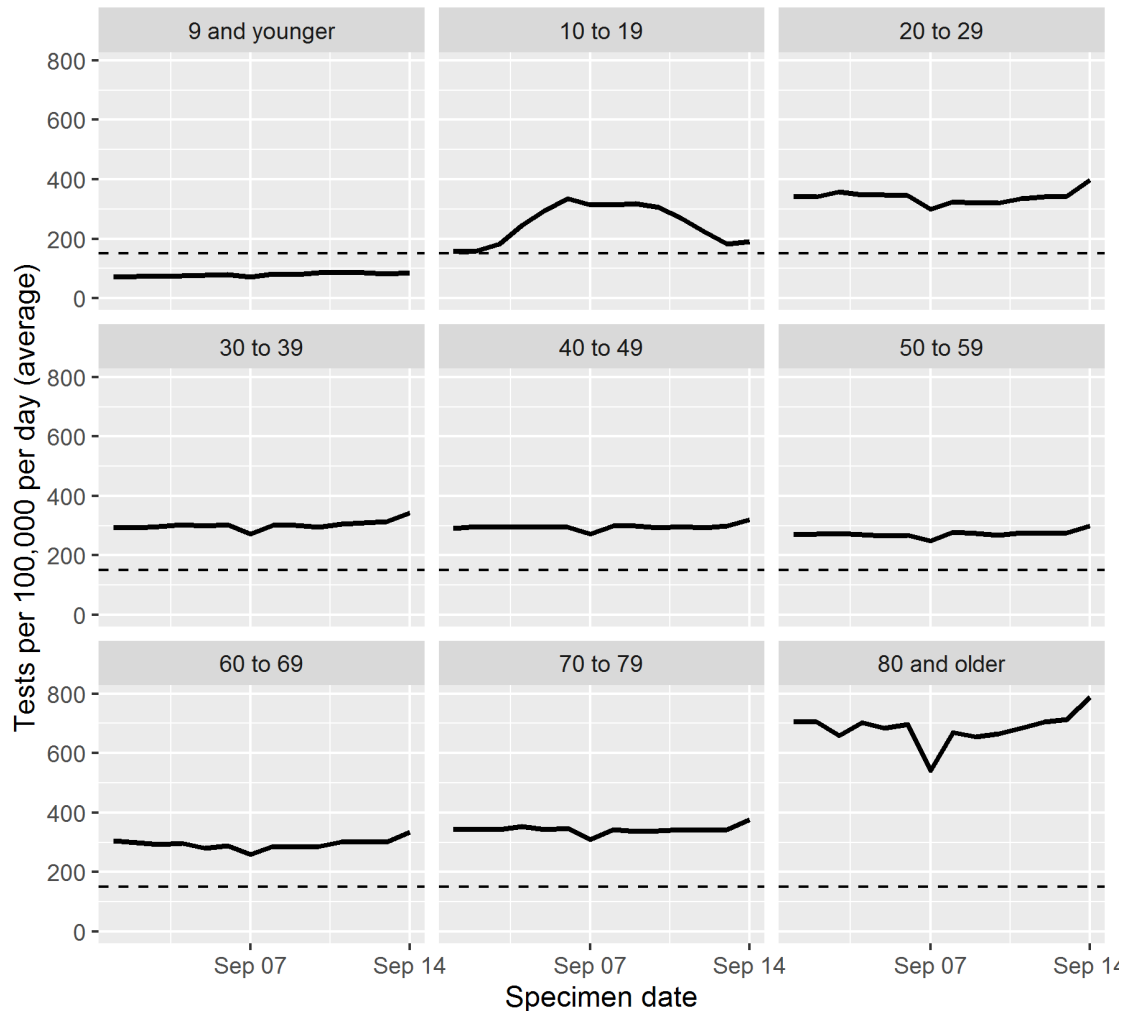
Positivity among people tested for COVID-19 decreased dramatically from 15 percent to 6.9 percent among 10–19 year-olds between 09/01 and 09/14, but this age group still has the highest positivity rate among St. Louis County residents. Positivity also decreased considerably among 20–29 year-olds (from 10.4 to 6.1 percent) in the same period. Positivity among people aged 80 years and older has fallen to 2 percent, and positivity is between 4 and 6 percent for all other age groups.



Testing coverage is currently below St. Louis County’s target of 150 tests per 100,000 population per day for children aged 9 years and younger (86.8 tests per 100,000 per day). Testing coverage is at or above that threshold for all other age groups. Testing coverage remains very high (789 tests per 100,000 per day) among people aged 80 years and older, due in part to the aggressive COVID-19 surveillance and prevention strategies being implemented in long-term care facilities.

Testing Volume by Age Group

St. Louis County residents, 09/01 to 09/14

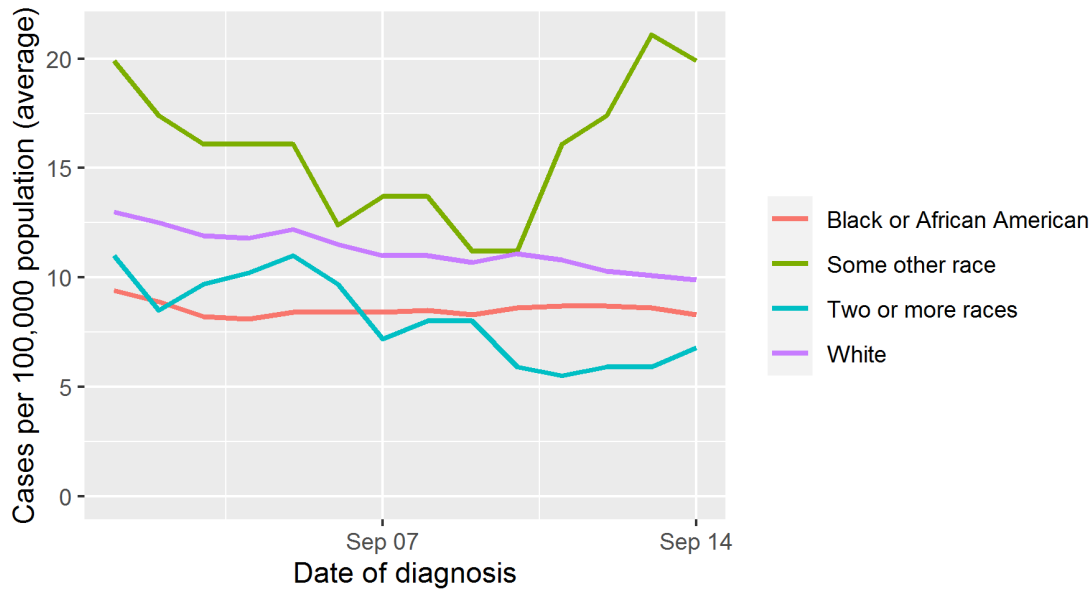


Race

Between 09/01 and 09/14, the average rate of new COVID-19 diagnoses decreased by 12 percent among Black or African American residents of St. Louis County, by 24 percent among white residents, and by 38 percent among multiracial residents. New diagnoses fluctuated considerably among people who identified their race as something other than the five U.S. Census Bureau categories, but began and ended the fourteen-day surveillance period at the same level (19.9 cases per 100,000 per day). As of 09/14, rates of newly diagnosed cases are highest among residents identifying as “some other race,” followed by white (9.9 cases per 100,000 per day), Black or African American (8.3) and multiracial residents (6.8).

Racial groups with fewer than one case diagnosed per day (Asian, American Indian/Alaska Native, and Native Hawaiian/Other Pacific Islander) have been excluded from this analysis.

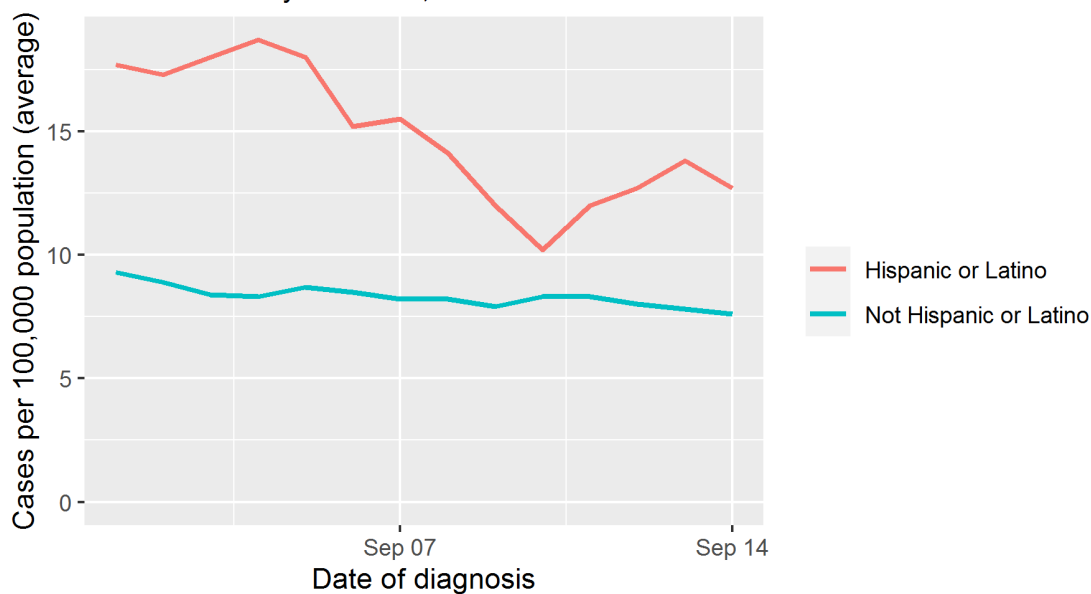
Rate of New COVID-19 Diagnoses by Race
St. Louis County residents, 09/01 to 09/14



Ethnicity

Between 09/01 and 09/14, rates of new COVID-19 diagnoses decreased by 28 percent among Hispanic or Latino residents of St. Louis County and by 18 percent among non-Hispanic residents. The average rate of new diagnoses among Hispanic residents (12.7 cases per 100,000 per day) is currently 1.7x the rate among non-Hispanic residents (7.6 cases per 100,000 per day).

Rate of New COVID-19 Diagnoses by Ethnicity
St. Louis County residents, 09/01 to 09/14



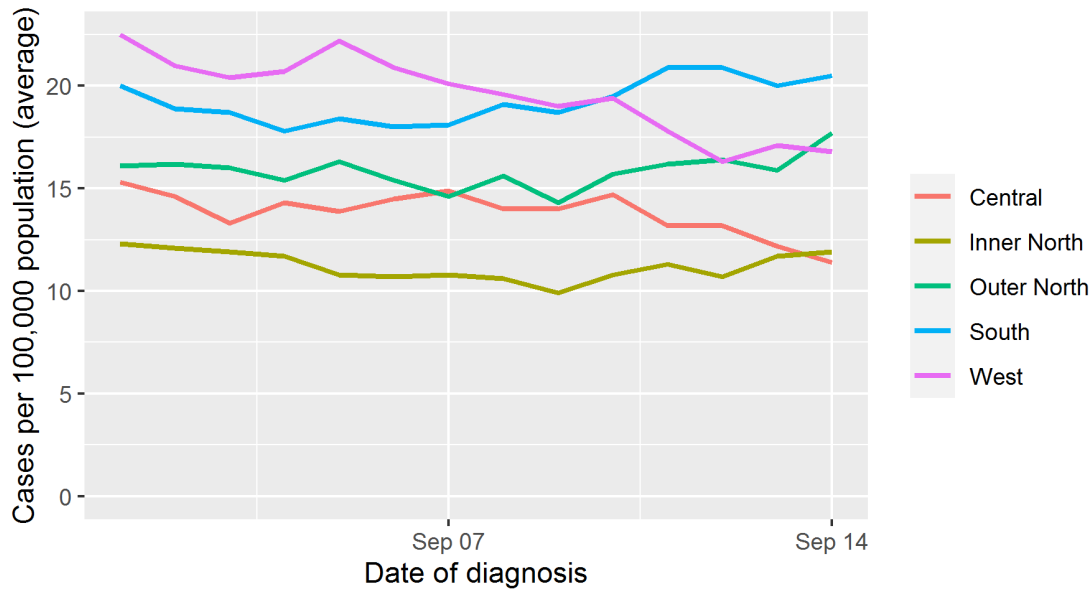
Region

St. Louis County DPH often divides the county by ZIP Code into five regions, based on economic and demographic factors, for the purpose of measuring broad geographic trends below the county level.



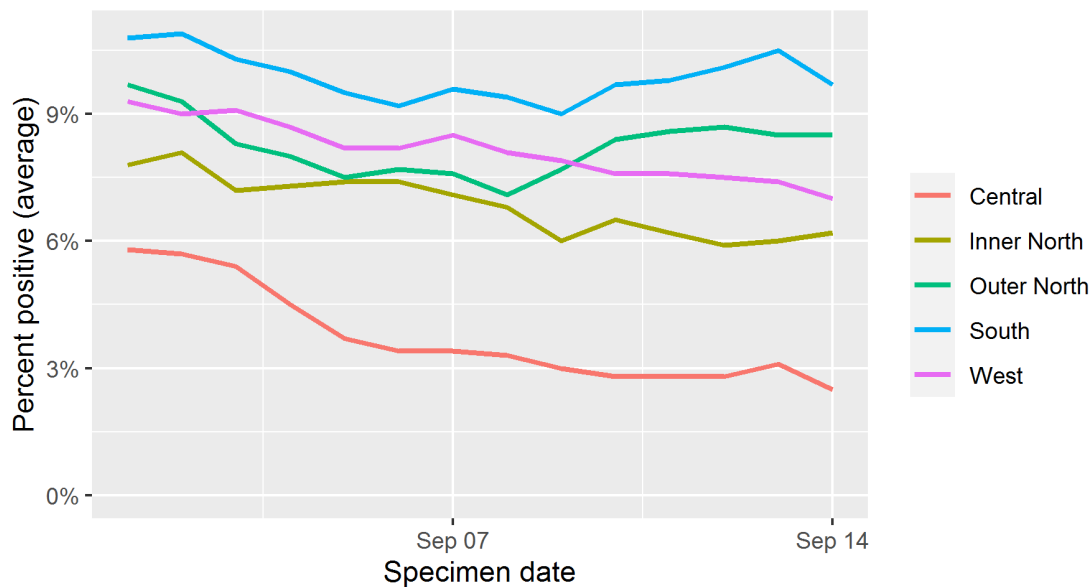
Between 09/01 and 09/14, rates of new COVID-19 diagnoses increased by 10 percent in the Outer North region and by 2.5 percent in the South region, while decreasing in the other three regions. Currently, the average rate of new diagnoses is highest in the South region (20.5 cases per 100,000 per day) and lowest in the Central region (11.4 cases per 100,000 per day).

Rate of New COVID-19 Diagnoses by Sub-County Region St. Louis County residents, 09/01 to 09/14



COVID-19 positivity decreased in all five regions of St. Louis County between 09/01 and 09/14. As of 09/14, the positivity rate is highest in the South region (9.7 percent), followed by the Outer North (8.5 percent), West (7.0 percent), Inner North (6.2 percent), and Central regions (2.5 percent).

Percent Positive by Sub-County Region St. Louis County residents, 09/01 to 09/14

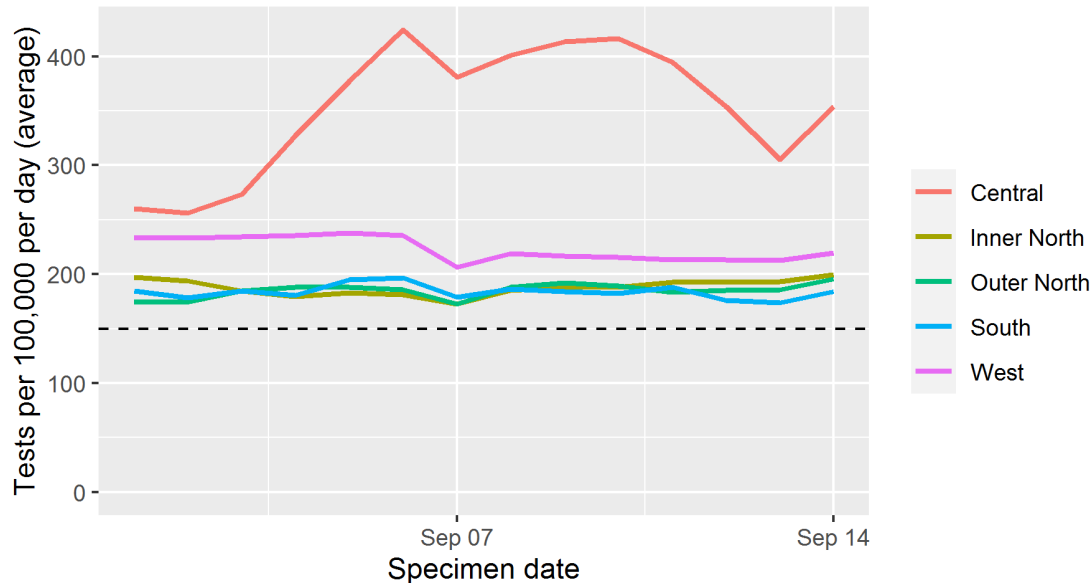


As of 09/14, testing coverage is highest among residents of the Central region (354 tests per 100,000 per day). Coverage is similar across the other four regions, ranging from 184 tests per

100,000 per day in the South region to 219 in the West region. Testing coverage continues to exceed St. Louis County’s target of 150 tests per 100,000 population per day among residents of all five regions.

Testing Volume by Sub-County Region

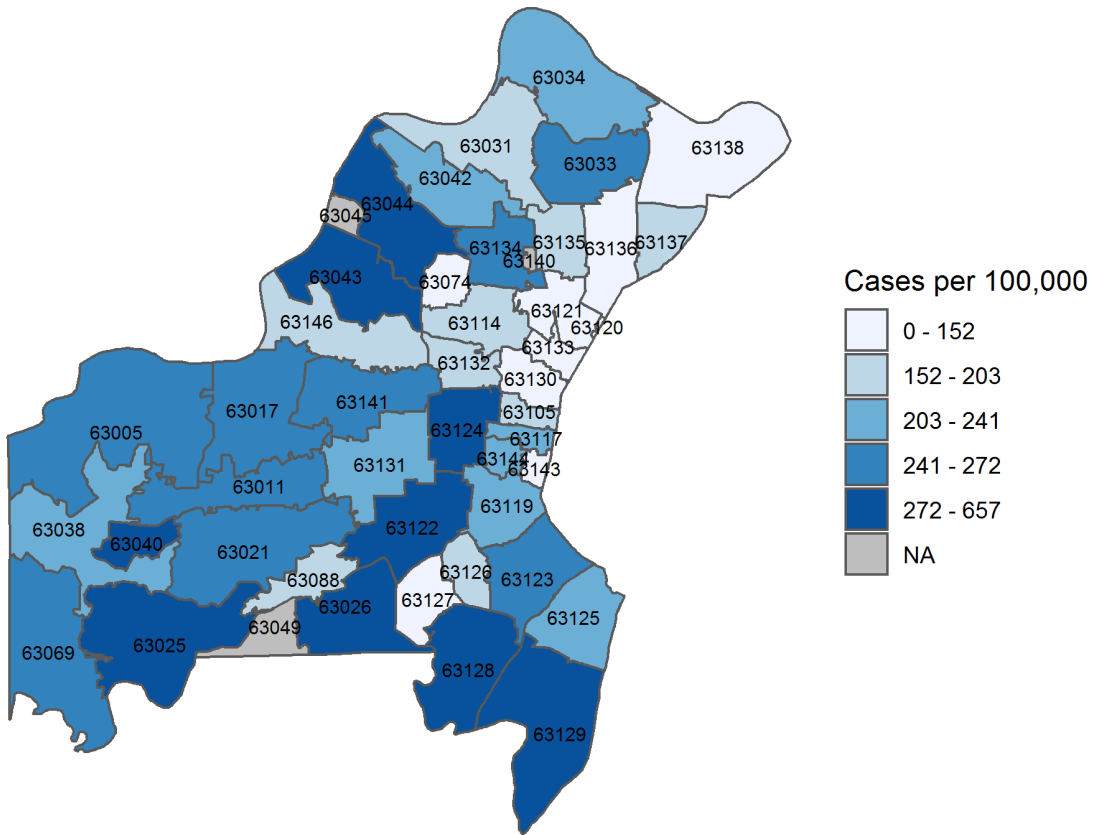
St. Louis County residents, 09/01 to 09/14



ZIP Code

Between 09/01 and 09/14, the rate of new diagnoses among St. Louis County residents ranged from 0 (63120) to 657 per 100,000 (63025). See below for a map of COVID-19 rates by ZIP Code tabulation area (ZCTA) over a fourteen-day period. ZCTAs have been excluded from the analysis if they had between one and four cases diagnosed between 09/01 and 09/14 or if their residential population is less than 100 people. For counts and rates of new and cumulative COVID-19 cases by ZIP Code, please visit St. Louis County’s [COVID-19 statistics dashboard](#) or [Open Government page](#).

Rate of New COVID-19 Diagnoses by ZIP Code
St. Louis County residents, 09/01 to 09/14



Youth Supplement

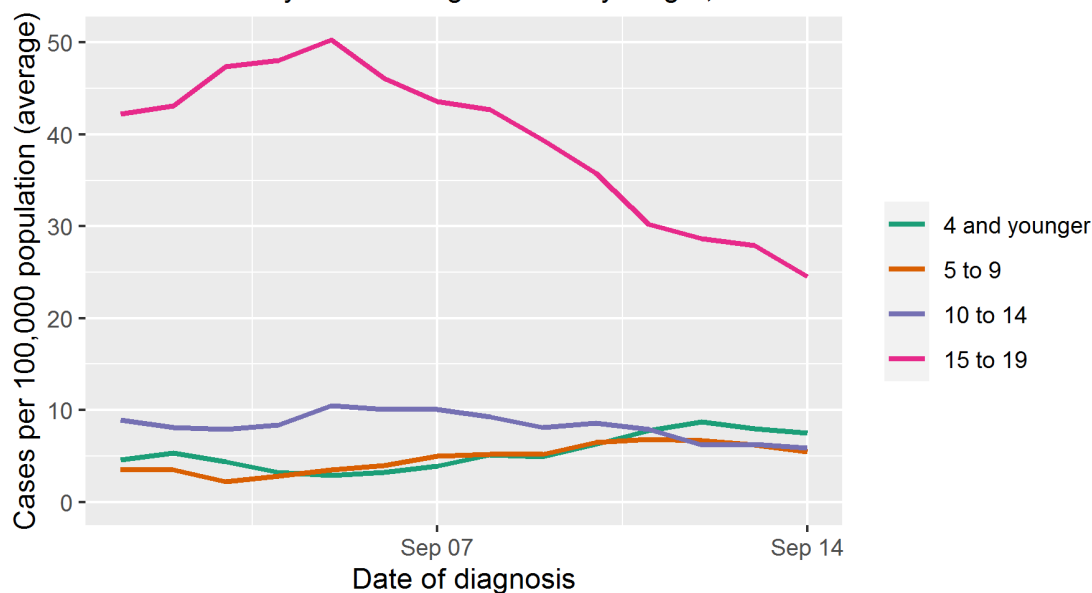
Given the close attention being paid to youth sports and the start of the 2020–2021 school year, the following section takes a closer look at COVID-19 trends among St. Louis County residents aged 19 years and younger.

Cases by Age Group

The average rate of new COVID-19 diagnoses among St. Louis County youth ages 15–19 fell by 42 percent between 09/01 (42.2 cases per 100,000 per day) and 09/14 (24.5 cases per 100,000 per day). Despite this downward trend, however, rates among this group remain 3–5x higher than rates among younger age groups. Over the same period, average daily diagnoses increased among children aged 4 years and younger (+63 percent) and 5–9 years (+57 percent) and decreased by 34 percent among children aged 10–14 years. For all three of these age groups, these are changes of +/- 3 cases per 100,000 per day in absolute terms.

Rate of New COVID-19 Diagnoses by Age Group

St. Louis County residents aged 19 and younger, 09/01 to 09/14

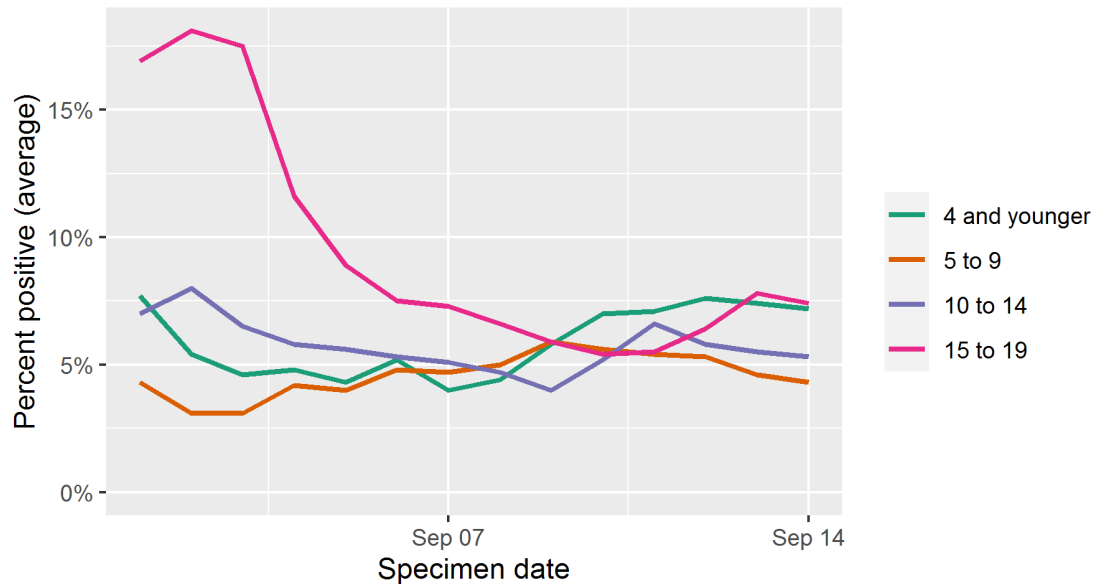


Positivity by Age Group

COVID-19 positivity decreased from 16.9 to 7.4 percent among 15–19 year-olds in St. Louis County between 09/01 and 09/14. As of 09/14, positivity rates among St. Louis County youth are similar across age groups, but this finding is complicated by significant disparities in testing coverage between 15–19 year-olds and all other age groups.

Percent Positive by Age Group

St. Louis County residents aged 19 and younger, 09/01 to 09/14

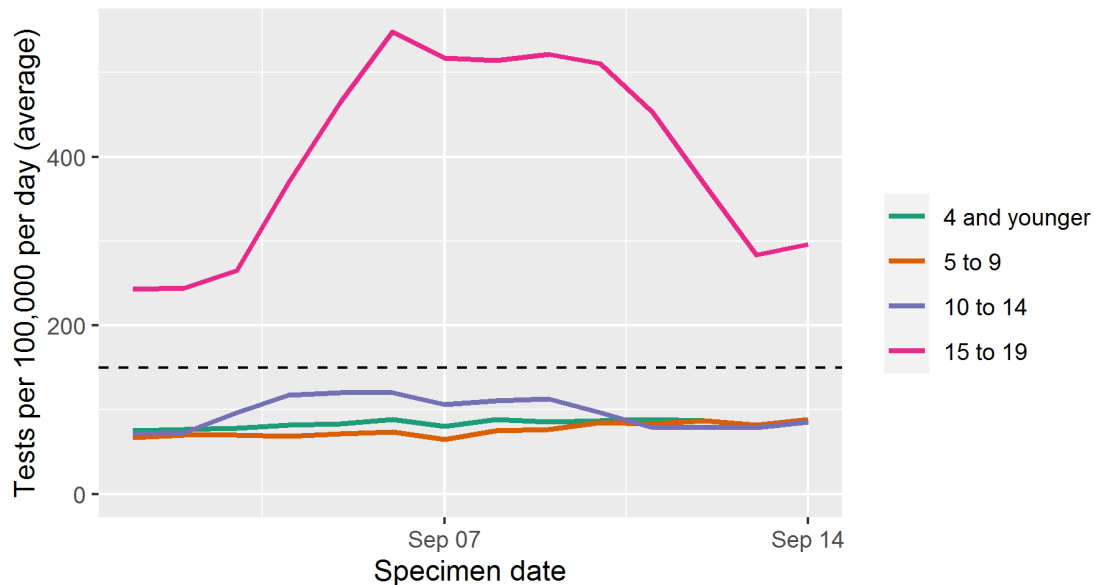


Testing Coverage by Age Group

As of 09/14, testing coverage is well below St. Louis County’s target of 150 tests per day per 100,000 population among youth aged 14 years and younger. Testing coverage among 15–19 year-olds fluctuated considerably between 09/01 and 09/14 but remains comfortably above the target level.

Testing Volume by Age Group

St. Louis County residents aged 19 and younger, 09/01 to 09/14

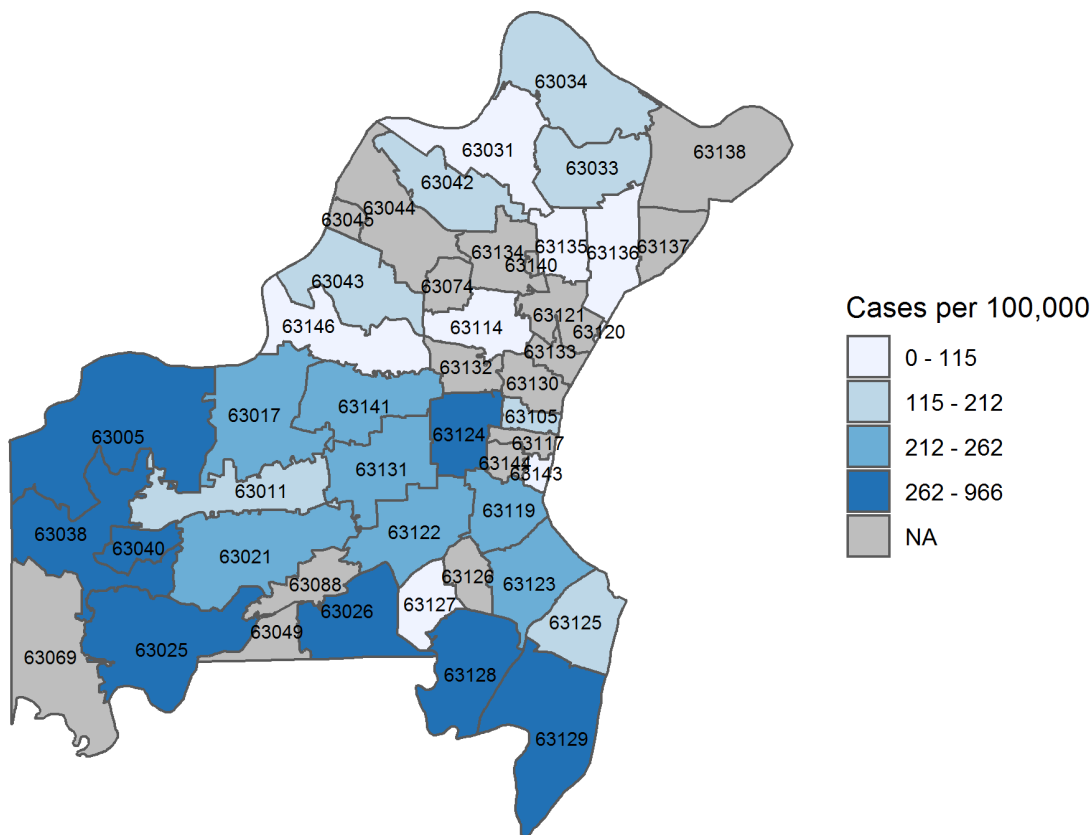


Cases by ZIP Code

Between 09/01 and 09/14, the rate of new COVID-19 diagnoses among St. Louis County youth ranged from 0 cases (63120, 63127, and 63143) to 966 cases per 100,000 (63025). While there is considerable variation, most of the ZIP Codes with the highest rates among youth over the last two weeks are in the South and West regions of the St. Louis County. See below for a map and data table of COVID-19 case counts and rates among St. Louis County youth by ZIP Code tabulation area (ZCTA). ZCTAs have been excluded from the analysis if they had between one and four youth cases diagnosed between 09/01 and 09/14 or if their youth population is less than 100 people.

Rate of New COVID-19 Diagnoses by ZIP Code

St. Louis County residents aged 19 and younger, 09/01 to 09/14



ZIP Code	Youth cases, last 14 days	Youth population	Youth cases per 100,000 population, last 14 days
63025	25	2589	965.6
63040	13	2735	475.3
63124	11	2576	427.0
63026	25	6459	387.1
63128	23	6205	370.7

63005	20	5705	350.6
63129	32	12159	263.2
63038	5	1906	262.3
63123	26	10009	259.8
63119	23	9434	243.8
63021	37	15202	243.4
63131	12	5039	238.1
63017	22	9768	225.2
63122	25	11155	224.1
63141	10	4703	212.6
63011	23	10867	211.6
63105	8	4116	194.4
63042	9	4885	184.2
63125	10	7557	132.3
63033	16	12636	126.6
63043	6	4783	125.4
63034	5	4150	120.5
63114	11	9698	113.4
63031	13	14652	88.7
63146	5	5943	84.1
63135	5	6736	74.2
63136	6	13840	43.4
63120	0	193	0
63127	0	1252	0
63143	0	1443	0

Impact on Schools

In addition to individual case data among youth in Saint Louis County, DPH also works with schools and school districts to understand the impact of COVID-19 at the school level. The information below is derived from reports from and discussions with individual schools and school districts. It includes K-12 schools, both public and private, that reported to DPH a positive case and/or a contact among staff or students from 9/1/2020 through 9/15/2020.

- Thirty-nine students tested positive for COVID-19. Among these:
 - At least 31 resulted in school-related exposures to staff, students, or both. These exposures resulted in over 200 students and staff members being placed on quarantine.
 - The remaining students tested positive for COVID-19, but without any school-related exposure or transmission to staff or students.
 - Fifty-nine-percent of cases were among high school students, 15% were among middle school students, and 26% were among elementary school students.
- Fourteen staff members tested positive for COVID-19. Among these:

- At least five resulted in school-related exposures to staff, students, or both. These exposures resulted in more than 225 students and staff members being placed in quarantine.
- The remaining staff members tested positive for COVID-19, but without any school-related exposure or transmission to staff or students.
- More than 50 students and staff were required to quarantine after exposure to positive cases that were not school-related. The majority of these missed in-school instruction, activities, or work due to their quarantine.
- Although we know that school-related transmission has occurred, we are still looking into how many secondary cases resulted from school-related transmission.

Indicators and Thresholds

Indicator 1: Rate of new cases

Data are collected daily and include all new cases among St. Louis County residents. This is the rolling seven-day average of new confirmed or probable cases diagnosed among St. Louis County residents per 100,000 population.

- Red: Greater than 8 cases per 100,000
- Yellow: Between 4 and 8 cases per 100,000
- Green: Less than 4 cases per 100,000

Indicator 2: Trend in new cases

Data are collected daily and include all new cases among St. Louis County residents. This is the change in the seven-day rolling average of new confirmed or probable COVID-19 cases over a fourteen-day period.

- Red: If cases are increasing (more than a 10% increase) during the fourteen-day period.
- Yellow: If cases are flat (less than a 10% change in either direction) during the fourteen-day period.
- Green: If cases are decreasing (more than a 10% decrease) during the fourteen-day period.

Indicator 3: Number of non-household contacts per case

This is an average of the total number of contacts divided by the total number of cases (using a 7-day moving average), where the number of cases and contacts is taken from our case investigation and contact tracing databases.

- Red: If the average number of non-household contacts is increasing (more than a 10% increase) during the fourteen-day period.
- Yellow: If the average number of non-household contacts is flat (less than a 10% change in either direction) during the fourteen-day period.
- Green: If the average number of non-household contacts is decreasing (more than a 10% decrease) during the fourteen-day period.

Indicator 4: Percent positivity

Data on the number of positive and negative PCR tests for COVID-19 are provided daily by the Missouri Department of Health and Senior Services. This metric is the proportion of SARS-CoV-2 PCR tests that were positive over a rolling seven-day period.

- Red: Greater than 10 percent positive
- Yellow: 5 percent to 10 percent positive
- Green: Less than 5 percent positive

Indicator 5: New hospital admissions

Data on the number of new hospital admissions provided daily by the regional pandemic task force across the four major hospital systems. This metric uses the 7-day moving average of new COVID-19 related hospital admissions.

- Red: If new hospital admissions are increasing (more than a 10% increase) during the fourteen-day period.
- Yellow: If new hospital admissions are flat (less than a 10% change in either direction) during the fourteen-day period.
- Green: If new hospital admissions are decreasing (more than a 10% decrease) during the fourteen-day period.

Indicator 6: Number of COVID-associated deaths

Data are collected daily and include all COVID-19 associated deaths among Saint Louis County residents. This is the change in the seven-day rolling average of COVID-19-associated deaths over a fourteen-day period.

- Red: If deaths are increasing (more than a 10% increase) during the fourteen-day period.
- Yellow: If deaths are flat (less than a 10% change in either direction) during the fourteen-day period.
- Green: If deaths are decreasing (more than a 10% decrease) during the fourteen-day period.

Indicator 7: Percent of test target

This is the rolling seven-day average of COVID-19 PCR tests conducted among St. Louis County residents, relative to St. Louis County's target of 150 tests per 100,000 population per day.

- Red: Less than 50 percent of the target
- Yellow: Between 50 and 99 percent of the target
- Green: 100 percent of the target or greater

Indicator 8: Hospital bed capacity

Data about hospitalizations are provided daily by the Pandemic Task Force. Calculating this metric is dependent on those data continuing to be collected and available.

- Red: Occupancy is more than 80 percent (extremely low availability of beds).
- Yellow: Occupancy is between 60 and 80 percent (low availability of beds).
- Green: Occupancy is below 60 percent (sufficient availability of beds).