

Update on Covid-19 in Schools

St. Louis County, Missouri

Saint Louis County Department of Public Health

December 14, 2021

1. Key Findings

- Case counts are rising sharply among both students and staff. For the week ending 12/04/2021, staff cases were at their highest and student cases were at their second-highest for the current school year.
- There were 551 pediatric COVID cases diagnosed in St. Louis County in the week ending 12/04/2021 – more than in any single week since November 2020.
- COVID-19 is spreading unchecked in St. Louis County. Because of this, mitigation measures including vaccination, masking, keeping kids home when they are sick, and getting tested remain critical for keeping our school communities safe.

2. Aggregate School Reporting

These data cover the reporting period 08/22/2021 through 12/04/2021 (corresponding to Week 1 through Week 15 of most public school districts). Because these data are self-reported in aggregate to DPH by schools and school districts, the data provided below are most certainly an underestimate of the true number of staff and student cases and those in quarantine due to school-related exposures. However, because the number of schools and school districts who report data to DPH generally remains consistent from week-to-week, we can use the trends in the observed data to gain a fuller understanding of the impact of COVID-19 on our school communities. One notable exception in this consistency occurred in the reporting periods around the Thanksgiving holiday. Fewer schools reported to DPH during the weeks ending 11/20/2021 and 11/27/2021 and data for those two weeks should be interpreted with caution. For the week ending 12/04/2021, reporting returned to its pre-Thanksgiving level. Because of the dip in reporting, percent change compared with the previous two weeks is not included in this update.

Please see Section 4 for additional information on the data sources.

Staff cases (Table 1)

- During the week ending 12/04/2021, there were 95 staff cases self-reported by schools to DPH.
- Reported staff cases in Week 15 were at their highest for the current school year and were 70% higher than the previous highest count (56 staff cases, occurring in August/September).

Student cases (Table 1)

- During the week ending 12/04/2021, there were 402 student cases self-reported by schools to DPH.
- The reported student case counts for Week 15 represented the second-highest count for the current school year. Only the week ending 09/18/2021 had a higher number of reported student cases (423 cases).

People in quarantine due to school-related exposures (Table 1)

- During the week ending 12/04/2021, there were 1,514 staff and students self-reported by schools to DPH as being in full or modified quarantine due to a school-related exposure.
- This represents the highest number of quarantines due to a school-related exposure since the beginning of October.
- Many students aged five to 11 years will reach fully vaccinated status by mid-December. Because fully vaccinated, asymptomatic people are not required to quarantine following an exposure, we anticipate that the number of people in quarantine should drop in the coming weeks.

In-school transmission reports (Table 2)

- In-school transmission continues to be reported to DPH, although the number of reports has declined as compared with earlier in the school year.
- While many of the reported instances of likely in-school transmission have resulted in only a single secondary case of infection, others have generated multiple secondary COVID-19 cases.

- There is great variation in reporting instance of in-school transmission among public school districts and private schools. Additionally, many families may choose not to have their children tested after being notified of a COVID case in their child’s classroom. Because of this, it is likely that the true number of in-school transmissions is significantly higher than what is reported to DPH.

Table 1: Case counts for public and private K-12 schools, by week

Date week ending	Total staff cases	Total student cases	# in quarantine due to school-related exposures
8/28/2021	56	245	1411
9/4/2021	54	333	1641
9/11/2021	56	373	1886
9/18/2021	56	423	2095
9/25/2021	51	337	1524
10/2/2021	31	251	1243
10/9/2021	47	223	946
10/16/2021	30	208	1148
10/23/2021	32	201	1148
10/30/2021	25	176	1152
11/6/2021	45	215	921
11/13/2021	47	252	1194
11/20/2021*	41	244	1399
11/27/2021*	26	217	600
12/4/2021	95	402	1514

*Data from these weeks should be interpreted with caution due to significant declines in the number of schools self-reporting due to the Thanksgiving holiday.

Table 2: Occurrences of in-school transmission

Reporting period	# of reported occurrences
8/23 - 9/4	17
9/5 - 9/18	14
9/19 - 10/2	13
10/3 - 10/16	10
10/17 - 10/30	12
10/31 - 11/13	9
11/14 - 11/27*	6
11/28 - 12/11	6

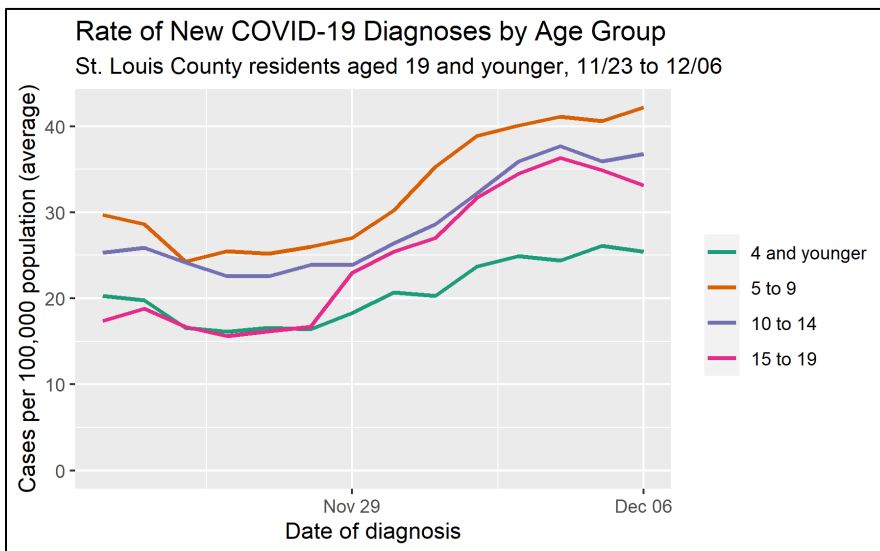
*Schools were off for all or part of this reporting period for the Thanksgiving holiday.

3. Youth Cases in St. Louis County Residents

These data cover the reporting period 11/23/2021 through 12/06/2021. Please see Section 4 for additional information on the data sources.

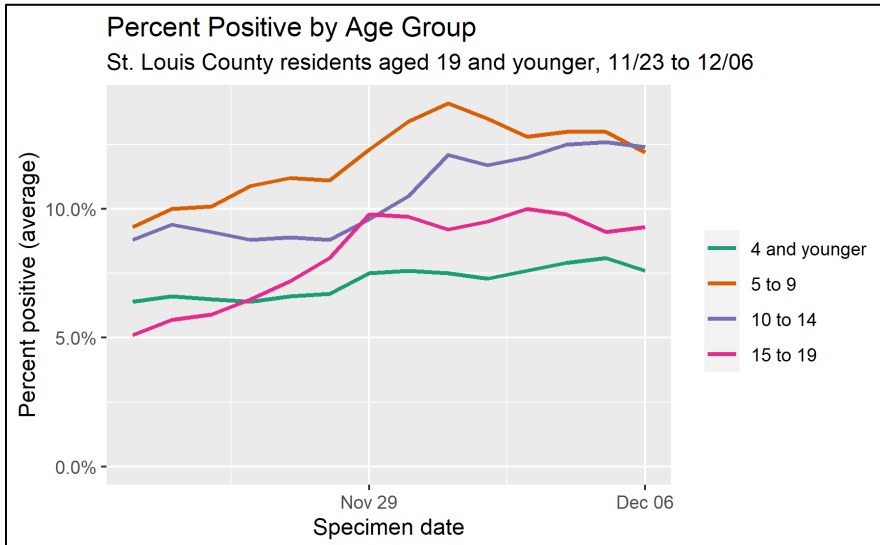
Rates of newly diagnosed COVID infections increased in all youth age groups, including an almost-doubling of case rates among 15–19 year olds.

- 0–4 years old: 25.1 cases per 100,000 per day
- 5–9 years old: 42.2 cases per 100,000 per day
- 10–14 years old: 37.7 cases per 100,000 per day
- 15–19 years old: 34.7 cases per 100,000 per day

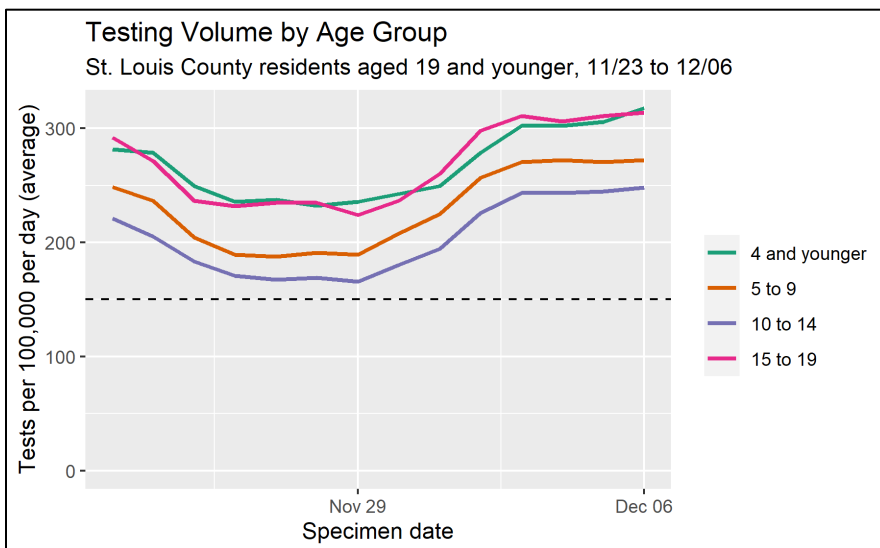


PCR positivity rates rose among all youth age groups between 11/23/2021 and 12/06/2021, despite simultaneous increases in rates of testing.

- 0–4 years old: 7.7 percent positive
- 5–9 years old: 12.4 percent positive
- 10–14 years old: 12.6 percent positive
- 15–19 years old: 9.7 percent positive



Rates of PCR testing increased among all youth age groups between 11/23/2021 and 12/06/2021, despite brief declines of the Thanksgiving weekend. Currently, PCR testing rates range from 246 tests per 100,000 per day among 10–14 year-olds to 318 tests per 100,000 per day among 0–4 year-olds. High positivity rates indicate that more testing is urgently needed to identify additional cases among youth and bring transmission under control through isolation and quarantine.



4. Notes on the Data

Aggregate School Reporting

Each week, K-12 public and private schools self-report the following information to DPH for the previous week:

- Total number of student COVID cases, regardless of whether the student became infected after exposure at home, at school, etc.;
- Total number of staff COVID cases, regardless of whether the staff member became infected after exposure at home, at school, etc.; and
- Total number of students/staff in quarantine due to school-related exposures.

The information is de-identified (i.e., it does not include information that identifies the individual) and aggregated (e.g., only the totals for each school are submitted). Whether an exposure is considered school-related is determined by the school's investigation of a particular person's likely source of exposure. School related exposures include: in-classroom; other academic; before/after care; school sports and extracurricular activities; school events or trips; etc. Anyone in quarantine due to non-school exposures (club sports, household exposures, other non-school activities) is not included in the quarantine number reported to DPH. Schools also submit a report to DPH when their investigations determine that there has been likely in-school transmission (i.e., someone who was exposed in school subsequently became a case due to that exposure). Someone who was exposed in school and subsequently became a case due to that exposure is considered a *secondary school case*. In order to assess whether an infection is due to likely in-school transmission, school and DPH investigations are conducted to rule out other likely sources of exposure (e.g., household, socializing outside of school, non-school activities, etc.). Only when likely transmission from other sources is eliminated is someone considered a secondary school case.

Although the majority of students and staff at St. Louis County schools are also residents of the County, these aggregate numbers also include student/staff cases from other jurisdictions who attend or work at St. Louis County schools, as well as students/staff from other jurisdictions who are in quarantine due to an in-school exposure at a St. Louis County school. Students or staff who attend or work at schools outside of St. Louis County are not included in the aggregate reports submitted to DPH.

A large St. Louis County school district experienced a technical difficulty during one week in September. Because omitting this school's data for that week would prevent week-to-week comparisons, data were imputed for that school for that week by averaging the weeks immediately before and after. Additionally, fewer schools reported to DPH during the weeks ending 11/20/2021 and 11/27/2021 and data for those weeks should be interpreted with caution. For the week ending 12/04/2021, reporting returned to its pre-Thanksgiving level.

Youth Cases in St. Louis County Residents

Data are collected daily and include all new cases among St. Louis County residents ages 19 years and younger (in accordance with age groups defined by the U.S. Census Bureau). These data include all youth cases, regardless of whether they attend a school in Saint Louis County. Additional information can be found in the Youth Supplement section of [DPH's Bi-Weekly COVID-19 Trends Report](#).