

# Indicators of Community Transmission

During the COVID-19 pandemic, states, tribes, localities, territories and school districts have asked CDC for guidance to inform decision-making about when and how to safely open schools.

Given the likely association between levels of community transmission of SARS-CoV-2 and risk of SARS-CoV-2 exposure in schools<sup>1,16</sup>, a **first step** in determining when and how it is safe to reopen involves assessing the level of community transmission. School administrators, working with local public health officials, should assess the level of risk in the community and the likelihood of a case in a school facility, the likelihood that a case would lead to an outbreak, and the consequences of in-school transmission.

CDC recommends the use of two measures of community burden to determine the level of risk of transmission: total number of new cases per 100,000 persons in the past 7 days; and percentage of nucleic acid amplification tests (NAATs), including RT-PCR tests that are positive during the last 7 days. The two measures of community burden should be used to assess the incidence and spread of SARS-CoV-2 in the surrounding community (e.g., county) and not in the schools themselves. If the two indicators suggest different levels, the actions corresponding to the higher threshold (in Table 2) should be chosen. The transmission level for any given location will change over time and should be reassessed weekly for situational awareness and to continuously inform planning.

**Table 1. CDC Indicators and Thresholds for Community Transmission of COVID-19<sup>1</sup>**

Indicator	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days <sup>2</sup>	0-9	10-49	50-99	≥100
Percentage of NAATs that are positive during the past 7 days <sup>3</sup>	<5.0%	5.0%-7.9%	8.0%-9.9%	≥10.0%

<sup>1</sup>If the two indicators suggest different levels, the actions corresponding to the higher threshold should be chosen. County-level data on total new cases in the past 7 days and test percent positivity are available on the County View tab in [CDC's COVID Data Tracker](#).

<sup>2</sup>Total number of new cases per 100,000 persons within the last 7 days is calculated by adding the number of new cases in the county (or other community type) in the last 7 days divided by the population in the county (or other community type) and multiplying by 100,000.

<sup>3</sup>Percentage of positive diagnostic and screening NAATs during the last 7 days is calculated by dividing the number of positive tests in the county (or other administrative level) during the last 7 days by the total number of tests resulted over the last 7 days. Additional information can be found on the [Calculating Severe Acute Respiratory Syndrome Coronavirus 2 \(SARS-CoV-2\) Laboratory Test Percent Positivity: CDC Methods and Considerations for Comparisons and Interpretation](#) webpage.

<sup>4</sup>Previously, CDC provided guidance for schools through the Indicators for Dynamic School Decision-Making. The current indicators and thresholds are an update to that document that reflect a focus on the past 7 days, and four (rather than five) categories of community transmission.

While risk of exposure to SARS-CoV-2 in a school may be lower when indicators of community spread are lower, this risk is also dependent upon the implementation of school and community mitigation strategies, including requiring universal and correct use of [masks](#), [physical distancing](#), [handwashing and respiratory etiquette](#), [cleaning](#) and maintaining healthy facilities, and [contact tracing](#) in combination with isolation and quarantine. If community transmission is low but school and community mitigation strategies are not implemented, then the risk of exposure and subsequent transmission of

SARS-CoV-2 in a school will increase. Alternately, if community transmission is high, but school and community mitigation strategies are implemented and strictly followed as recommended, then the risk of transmission of SARS-CoV-2 in a school will decrease.

Success in preventing COVID-19 in schools begins with and is connected to preventing transmission in communities. Schools and communities must implement a layered approach that adheres to multiple mitigation strategies and adjust them as needed to reduce COVID-19 risk for students, teachers, school staff, families, and the community. In areas of low or moderate community transmission, the spread of SARS-CoV-2 infection in schools is low when consistent use of layered mitigation strategies is in place.

When communities implement and strictly adhere to mitigation strategies, the level of community transmission is slowed. This will in turn enable schools that are open for in-person learning to stay open and help schools that have not yet reopened to return to in-person instruction. The application and utility of these indicators are inextricably linked to both schools and communities following recommended mitigation strategies.