

# COVID-19 K-12 SCHOOL OPENING AND CLOSING POLICIES: Summary of Established State Thresholds

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## INTRODUCTION

As the country continues to battle the COVID-19 pandemic, ensuring high-quality K-12 education while also minimizing the risk that students, teachers, and staff become infected with the coronavirus is a top priority for governors. A variety of factors go into state and local decision-making regarding the opening of school buildings for in-person learning, including an understanding of the status of disease transmission in the community as well as schools' ability to implement risk mitigation strategies such as mask wearing, social/physical distancing, contact tracing, and modifications to the school infrastructure.

Every state in the nation has developed COVID-19 data dashboards to share the latest information on disease transmission. Data at county or lower levels of geography are particularly important to understanding community spread and to inform school and school district decisions regarding in-person or traditional learning, hybrid learning, or distance or online learning options.<sup>1</sup> A frequently updated scan of state COVID-19 public data dashboards by State Health and Value Strategies (SHVS) shows that all states are compiling and updating data at county or lower levels of geography for key indicators such as cases and deaths.<sup>2</sup>

On behalf of the National Governors Association (NGA), and with support from the Robert Wood Johnson Foundation (RWJF), the State Health Access Data Assistance Center (SHADAC) has developed this resource, which highlights states that have released data thresholds, sometimes referred to as gating criteria or benchmarks, to guide schools, school districts, and other stakeholders in decisions on full or partial school reopening. The resource outlines common measures upon which thresholds are based and explores how measure definitions and thresholds compare across states, provides examples of how guidance has evolved since the 2020-2021 school year began, and includes information on other resources tracking school COVID-19 status and response.

The information presented in this resource draws from SHADAC's review of publicly available information on state websites in late September and early October. States frequently re-assess and revise policy and many states released guidance over the summer months in anticipation of the 2020-2021 school year, which predated the latest guidance from the Centers for Disease Control and Prevention (CDC). These factors suggest adaptations of these policies are likely over time.

# States with Data Thresholds for K-12 School Opening and Closing

Twenty-two states have released school reopening guidance with specific metrics and thresholds to support local decision making on the opening and closing of schools for in-person learning (see box for school reopening key definitions). While most state guidance around school opening and closing thresholds serves as a recommendation to schools and school districts, there are nine states where it appears data thresholds are state requirements. In West Virginia, for instance, the state posts a weekly metric map (on Saturdays) with county-level data on cases per 100,000 population as well as on positivity rates. If case rates are greater than 15 cases per 100,000 people and positivity percentages are greater than 5 percent, in-person instruction in that county is suspended for one week.<sup>3</sup> Iowa's requirement is unique in that all K-12 public schools must provide in-person learning, but if a county's testing positivity rate exceeds 15 percent, a district can apply for a waiver to provide remote learning options. (Approvals in Iowa are granted in two-week intervals.)<sup>4</sup>

In addition to states with specific numeric thresholds, there are 10 states that have released guidance encouraging schools to consider their local communities' COVID-19 risk levels based on various measures, but did not specifically tie decisions about full or partial school reopening to numeric thresholds. For example, Maine developed a color-coded system to categorize its counties' risk level for opening based on a review of both quantitative and qualitative information. There is not a specific formula or strict cutoff point, such as a positivity rate above a particular threshold, or a specific number of new cases per capita that indicates the risk level of a county. School administrators are encouraged to consider all local conditions and make their own decisions.

The interactive map on next page (Exhibit 1) provides a visual depiction of states with data thresholds for K-12 school opening and closing. State-specific guidance in the remaining 18 states, the District of Columbia, and the U.S. territories was not identified. Click on the map for state-by-state information on the measures upon which the thresholds are based, as well as links to state-specific guidance.



**DISTANCE LEARNING:** Students and teachers are separate, usually at home, and use media or technology to facilitate instruction. No or very limited instruction takes place on the school campus. Distance learning can be both asynchronous or synchronous. Other terms used for distance learning include virtual learning, e-learning, and online learning.



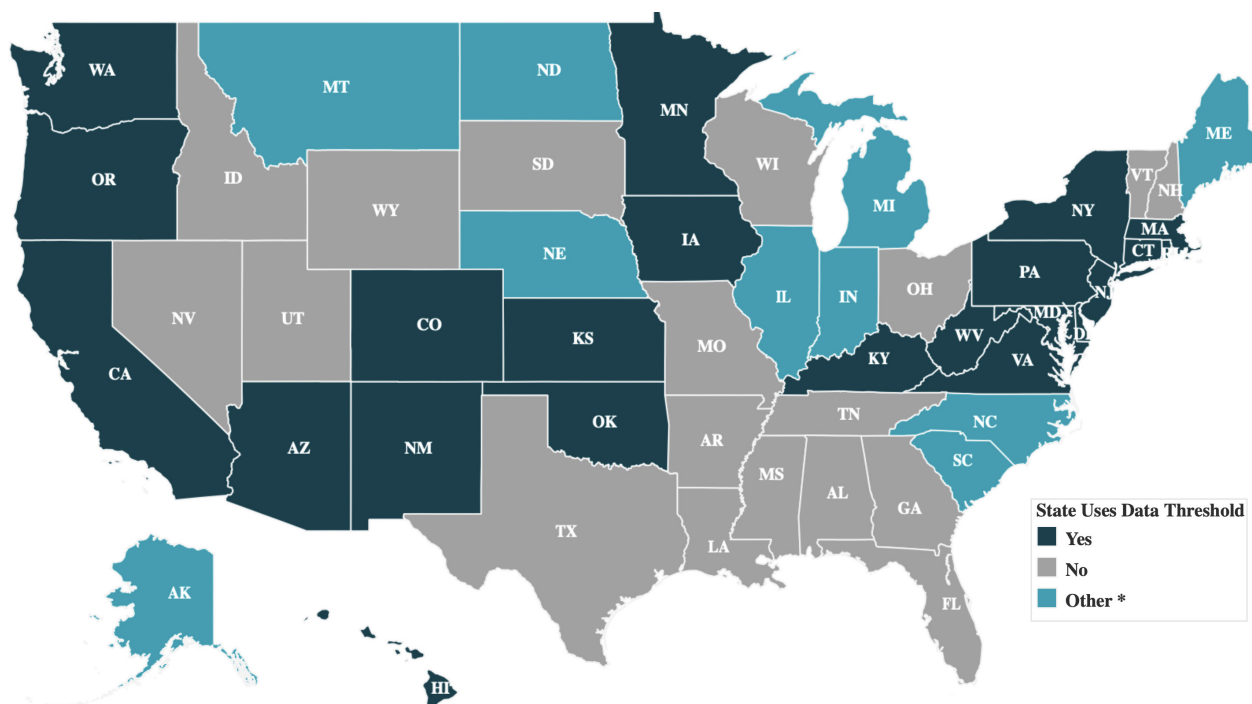
**HYBRID LEARNING:** Instruction that combines both distance learning and traditional in-person learning. For example, schools may choose to invite half of the student body to campus for in-person learning while the other half of the student body participate in learning from a distance, and then the two groups switch learning modes during the week.



**IN-PERSON LEARNING:** Students, teachers, and staff are together on the school campus for instruction (traditional). Both hybrid learning and in-person learning during the pandemic usually are combined with other coronavirus mitigation strategies such as masks wearing, social distancing, good hygiene, regular cleaning, and contact tracing.

While most state guidance around school opening and closing thresholds serves as a recommendation to schools and school districts, there are nine states where it appears data thresholds are state requirements.

## Exhibit 1. States with Data Thresholds for K-12 School Opening



Notes: \*Other is defined as states that indicate risk levels for school openings but do not specify numeric measure thresholds.  
At the time of this scan we did not identify any school opening thresholds or gating criteria for the U.S. territories.  
Source: State Health Access Data Assistance Center review of state websites, October 2020.

## Most Common Measures Informing School Opening and Closing

States track anywhere from one to five individual measures to inform school opening and closing policy decisions, with an average of two measures per state. The most common measures used are new case rates and positivity rates, primarily at the county level. Twenty-one out of twenty-two states base their opening thresholds on new case rates, and 16 out of 22 states base their thresholds on positivity rates. Less common measures used by states include: decline in new cases, hospitalizations that are COVID-related, emergency department visits or hospitalizations for COVID-like illnesses, other measures of hospital capacity, and absenteeism.

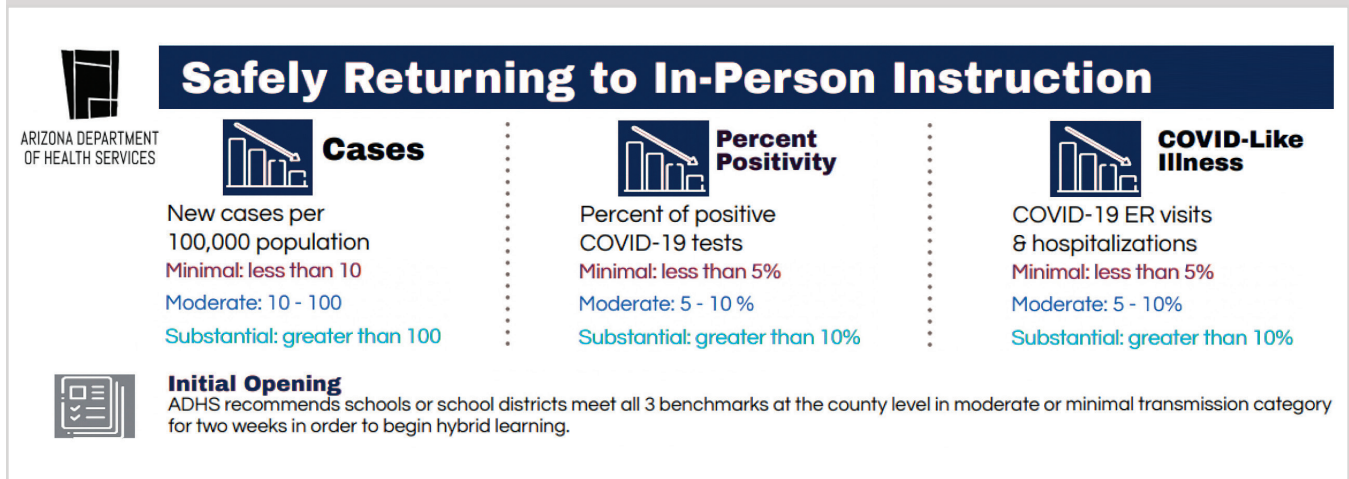
For example, back in early August, the Arizona Department of Education and the Arizona Department of Health Services (ADHS) developed a “roadmap,” which included recommendations for offering in-person instruction based on four county-level public health measures (Arizona refers to them as “benchmarks”), including: case rates over time, decline in case counts over time, percent positive cases, and percentage of hospitalizations for COVID-like illnesses. The state set thresholds for each measure to indicate categories of “minimal,”

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“moderate,” or “substantial” community spread. While schools in Arizona were required to begin the year in a distance learning format, the state laid out recommendations for the county-level conditions under which hybrid learning can begin (Exhibit 2).

In addition to tracking individual measures, six states are calculating a composite measure or using a tiered rating system as part of their opening and closing threshold. For example, New Jersey calculates the “CALI” score (COVID-19 Activity Level Index) for each region of the state, which is based on three measures: case rate, percent of COVID-like illness, and percent of positivity. Each measure is given a value of “low,” “moderate,” “high,” or “very high” depending on where it falls in the threshold range. Values across measures are averaged to calculate the region-specific CALI Score. The state CALI score is an average of the regional CALI scores.<sup>5</sup>

## EXHIBIT 2. Arizona School Opening Metrics



Source: Arizona Department of Health Services. (2020, August 6). Safely returning to in-person instruction [Infographic]. <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/novel-coronavirus/covid-19-safely-return-to-in-person-instruction.pdf>

## Comparison of State Measure Definitions and Thresholds

There is some variation across states in terms of the definitions they use for common measures. For example, new case rates (the average number of new COVID-19 cases divided by the number of people living in the area of interest) are most often reported by states as either 7-day averages (10 states) or 14-day averages (8 states). Only three states report daily new case rates.

New case rates are most often reported at the county level with only two states reporting at lower levels of geography (Connecticut and Rhode Island). Research suggests that COVID-19 transmission risk is lower among younger children as compared to older children and adults.<sup>6</sup> In just four states (Hawaii, Kansas, Minnesota, and Oregon), different thresholds are set for different school settings, i.e., K-5,

middle school, and high school. Exhibit 3 provides Minnesota's recommended policy options based on case rates (14-day averages) by county and varying by school grade level.

Thresholds or data ranges set by states for each measure that guide school reopening decisions vary widely. Exhibit 4 lists the case rate cutoffs for distance learning for the 21 states basing decisions on new case rates. The values that are considered the highest risk and for which distance learning is suggested range from 7 cases per 100,000 people to 500 or more cases per 100,000 people. In addition, states have anywhere from two to four risk level categories below these cutoff rates. The values that are considered lowest risk and for which in-person learning is suggested range from less than 1 case per

## EXHIBIT 3. Minnesota Data and Policy Options for School Learning Modes

Policy Option	Range (14-day case rate per 10,000 people)
In-person learning for all students	0 to less than 10
Elementary in-person, Middle/high school hybrid	10 to less than 20
Both hybrid	20 to less than 30
Elementary hybrid, Middle/high school distance	30 to less than 50
Both distance	50 or more

Source: Minnesota Department of Health. (2020, October 8). Data for K-12 Schools: 14-day COVID-19 Case Rate by County [PDF]. Stay Safe MN. <https://www.health.state.mn.us/diseases/coronavirus/stats/wschooll.pdf>

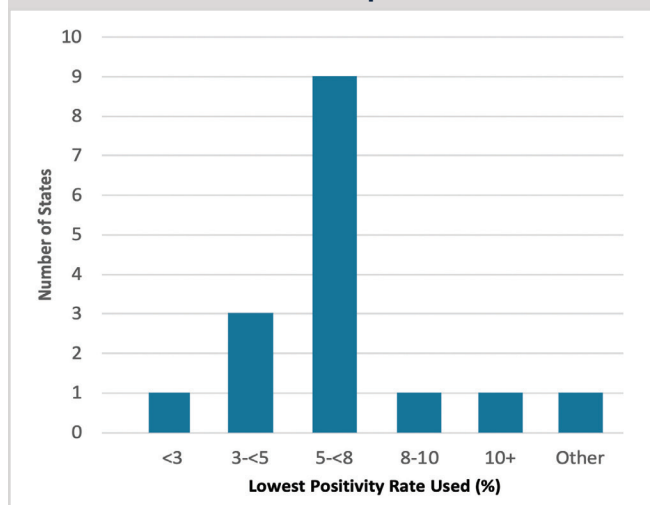
**EXHIBIT 4. State Thresholds for Distance Learning Based on New COVID-19 Case Rates (per 100,000\*)**

State	Case Rate Cutoff for Distance Learning	Lowest Geographic Level and Rate Calculation
Arizona	100+	County-level 7 day average
California	7	County-level 7 day average
Colorado	350+	County-level 14 day average
Connecticut	250*	City/town-level 7 day average
Delaware	100+	State 7 day average rate
Hawaii	360*	Island-level 14 day average
Kansas	151+	County-level 14 day average
Kentucky	25+	County daily rate
Maryland	15+	County daily rate
Massachusetts	8+	County-level 14 day average
Minnesota	500*	County-level 14 day average
New Jersey	>25	County-level 7 day average
New Mexico	8+	County-level 14 day average
New York	>9 percent	Region-level 7 day average
Oklahoma	50+	County daily rate
Oregon	10+	County-level 7 day average
Pennsylvania	10+	County-level 7 day average
Rhode Island	100+	City/town-level 7 day average
Virginia	200+	County-level 14 day average
Washington	75+	County-level 14 day average
West Virginia	25+	County-level 7 day average

Notes: Limited to states with specific case rate cutoffs for distance learning. \*State reports rate as per 10,000 population and SHADAC converted to per 100,000.  
Source: SHADAC review of state websites, October 2020.

100,000 people to less than or equal to 50 cases per 100,000 people. For comparison purposes, the CDC defines the lowest risk category as less than 5 cases per 100,000 and the highest risk category as 200 or more cases per 100,000 people).<sup>7</sup>

State risk thresholds for percent positivity, or the total number of positive polymerase chain reaction (PCR) tests for COVID-19 divided by the total number of PCR tests conducted in a given area over a specific period of time, also vary. Exhibit 5 shows the lowest risk category for positivity rates that is most common among states is between 5 and 8 percent with rates ranging from less than 3 percent (which is consistent with CDC guidance) to over 10 percent.

**EXHIBIT 5. Lowest Positivity Rate Used by State to Control School COVID-19 Response**

Notes: Limited to states with specific positivity rate cutoffs for in-person learning. Other refers to a downward trend in positivity rates over a seven-day period.  
Source: SHADAC review of state websites, October 2020.

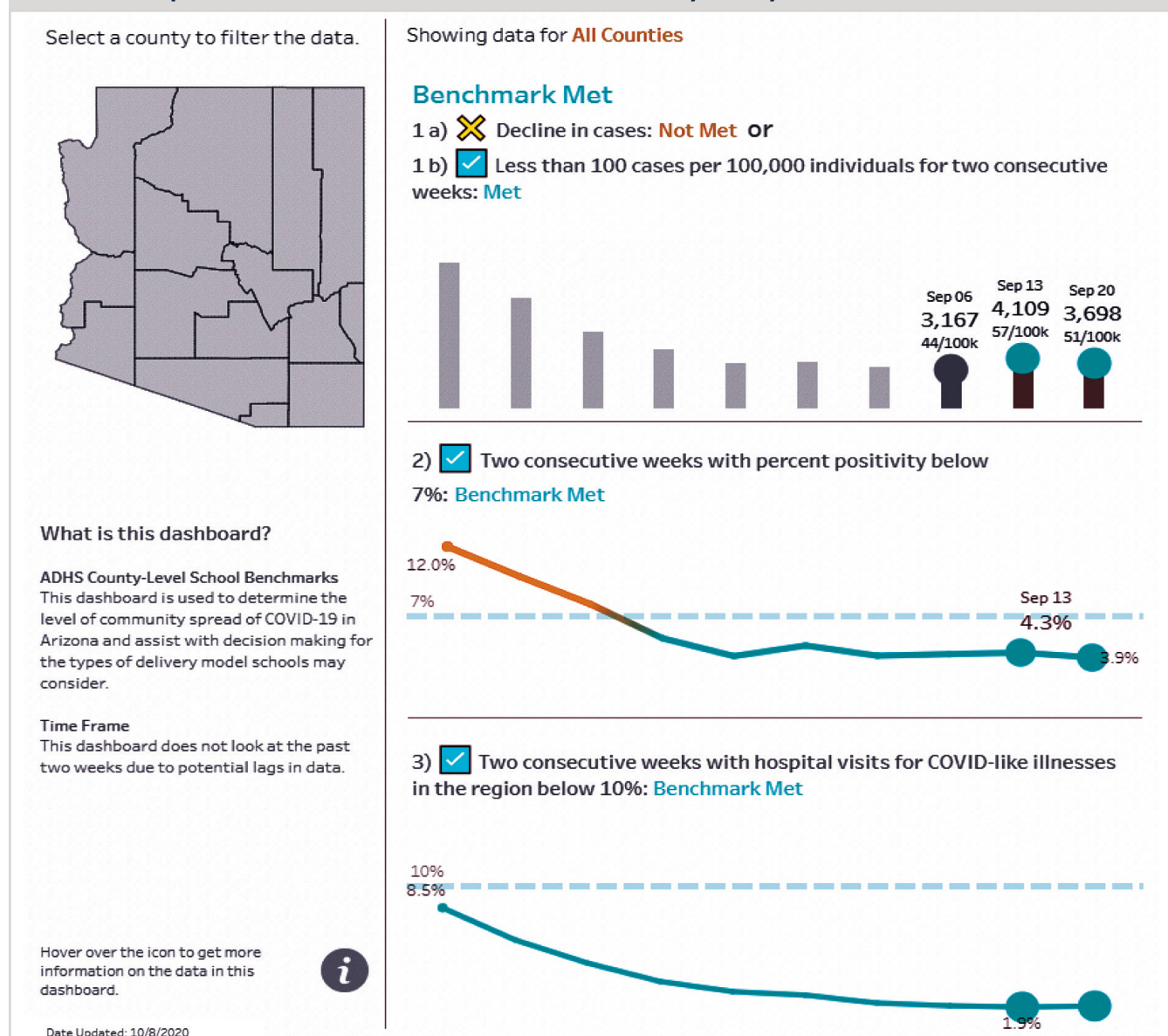


# Reporting of Data Thresholds and Other School-Related COVID-19 Data

States with established thresholds make regular updates, usually weekly, to the COVID-19 related measures upon which their K-12 school opening policies are based. In some cases, data are reported in a static PDF format, like Minnesota, and in other cases data are reported in a dynamic, dashboard format, like Arizona (Exhibit 6). [Arizona](#) and [Minnesota](#) are among nine states (also including [Connecticut](#), [Delaware](#), [Iowa](#), [Kansas](#), [Oregon](#), [Virginia](#), and [West Virginia](#)) that publicly report the status of a school region based on their data thresholds.

Out of all 50 states and the District of Columbia, 20 states were identified as currently reporting COVID-19 cases in school settings on public dashboards. States vary in the level of detail reported, such as whether they identify individual schools or separate the number of student cases reported from staff cases. Ohio is a state, for example, that has not released data thresholds for school opening or closing, and relies on parents/guardians and staff for COVID-19 reporting. Specifically, new and cumulative COVID-19 cases

## EXHIBIT 6. Snapshot of Arizona's School Benchmark Dashboard by County



Source: Arizona Department of Health Services (ADHS). (2020). Schools (Childcare and K-12). Highlighted Infectious Diseases for Arizona. <https://www.azdhs.gov/preparedness/epidemiology-disease-control/infectious-disease-epidemiology/index.php#novel-coronavirus-schools>

are reported to individual schools by parents/guardians and staff; schools report this data to their Local Health Department who submit data to the Ohio Department of Health for compilation and public reporting.

There are several national bodies who are also tracking information on COVID-19 data and response at the school district and school level (see Exhibit 7).

States with school opening and closing data thresholds that report the status of a school region according to their guidance include: **Arizona, Connecticut, Delaware, Iowa, Kansas, Minnesota, Oregon, Virginia, and West Virginia.**

#### EXHIBIT 7. National School-related COVID-19 Tracking Resources

Resource	Description	Link
<b>Brown University and National Public Radio</b> <sup>8</sup>	Compiling a National COVID-19 School Response Dataset and Dashboard, which includes information on school infection rates and school learning modes	<a href="https://statsiq.co1.qualtrics.com/public-dashboard/v0/dashboard/5f62eae4451ae001535c839#/dashboard/5f62eae4451ae001535c839?pagelId=Page_1ac6a6bc-92b6-423e-9f7a-259a18648318">https://statsiq.co1.qualtrics.com/public-dashboard/v0/dashboard/5f62eae4451ae001535c839#/dashboard/5f62eae4451ae001535c839?pagelId=Page_1ac6a6bc-92b6-423e-9f7a-259a18648318</a>
<b>Center on Reinventing Public Education at the University of Washington-Bothell</b> <sup>9,10</sup>	Monitoring school closures due to COVID-19 as well as state guidance and responses to COVID-19	<a href="https://www.crpe.org/current-research/covid-19-school-closures">https://www.crpe.org/current-research/covid-19-school-closures</a> <a href="https://www.crpe.org/current-research/state-responses-covid-19">https://www.crpe.org/current-research/state-responses-covid-19</a>
<b>COVID Monitor</b> <sup>11</sup>	Tracking cases of COVID-19 in schools	<a href="https://experience.arcgis.com/experience/fb52d598982f41faac714b5ebe32e7d1?data_id=dataSource_1-USA_COVID19_School_Monitor_Case_Reports_251%3A2546">https://experience.arcgis.com/experience/fb52d598982f41faac714b5ebe32e7d1?data_id=dataSource_1-USA_COVID19_School_Monitor_Case_Reports_251%3A2546</a>
<b>Education Week</b> <sup>12</sup>	Between July and September 2020, catalogued school opening plans from hundreds of school districts across the country	<a href="https://www.edweek.org/ew/section/multimedia/school-districts-reopening-plans-a-snapshot.html#">https://www.edweek.org/ew/section/multimedia/school-districts-reopening-plans-a-snapshot.html#</a>

## Looking Forward

Addressing school opening and closing policy is fluid for states. In the coming months, more states may decide to set or require adherence to data thresholds or to publicly report the status of schools. States may also change their requirements over time as new information becomes available or unique circumstances emerge. For example, Oregon paused its requirement for a state test positivity rate of less than 5 percent (for three consecutive weeks) in September 2020 due to wildfires and their effect on testing and makes other exceptions to its school in-person learning policy, for example, for smaller counties and special populations, such as students with disabilities.<sup>13,14</sup> In Virginia, the department of health is currently evaluating differences between thresholds used in its Pandemic Metrics dashboard and its dashboard of the CDC's School Metrics to determine whether updates are necessary.

While a great deal has been learned in the eight months since the pandemic began, COVID-19 continues to spread across the country and states remain engaged in significant and evolving response efforts. Some states have recently experienced peak months for volumes of cases and deaths—just as the 2020–2021 school year started and as preparations for the onset of peak cold and flu season begin, which may further complicate response.<sup>15</sup> For these reasons and others, such as our evolving understanding of school-age children's role in COVID-19 transmission, it is important that states continue to advise and monitor the threat of COVID-19 in school settings. Data about the level of community spread and impact of the coronavirus will continue to be key to guiding successful school opening and closing decisions prior to the successful distribution of a vaccine.

## ENDNOTES

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