

Considerations for Monitoring and Evaluation of Mitigation Strategies Implemented in K-12 Schools

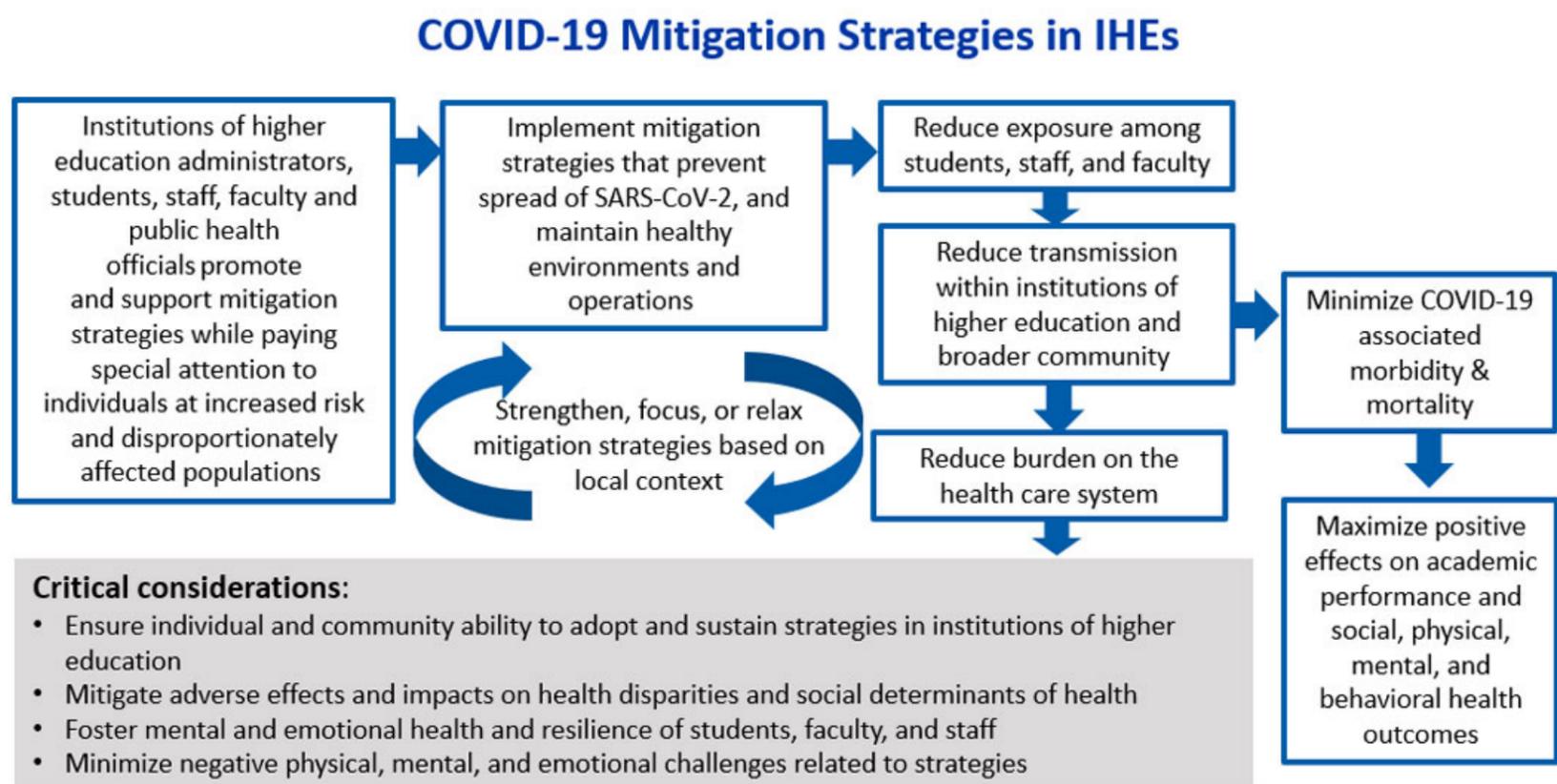
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Overview

As K-12 schools reopen for in-person instructions, it is important to have systems in place for the monitoring and evaluation of COVID-19 [mitigation strategies](#). This resource provides example evaluation questions, indicators, and data sources to help state and local public health and education agencies, school and district administrators, and evaluation professionals monitor and evaluate the implementation and impact of [COVID-19 mitigation strategies](#) implemented in K-12 schools on the transmission of SARS-CoV-2, the virus that causes COVID-19.

CDC’s [Preparing K-12 School Administrators for a Safe Return to School in Fall 2020](#) provides considerations on strategies to prevent SARS-CoV-2 transmission. Schools may consider implementing COVID-19 mitigation strategies as they reopen, including, but not limited to, requiring students, faculty, and staff to [wear masks](#), restricting [mixing between groups](#), integrating [safe and effective cleaning and disinfection](#), communicating [prevention messaging](#), ensuring [social distancing](#) (e.g., maintaining a distance of at least 6 feet from others) as much as possible, limiting [large group gatherings](#) (e.g., assemblies, orientation), enhancing [ventilation](#) in school buildings, and [reinforcing hand hygiene](#). These mitigation strategies promote health and safety, and implementation may be tailored to the needs and situation of each school, with special attention to [individuals at increased risk for severe illness](#) and [disproportionately affected populations](#). The figure below provides an abbreviated and tailored version of the [logic model for U.S. Community Mitigation Strategies for COVID-19](#) for K-12 schools.



[View Text Description](#)

Monitoring and Evaluation Findings May Be Useful to K-12 Schools

Monitoring and evaluation provides practical information for state and local public health and education agencies, school and district administrators, and evaluation professionals to make timely decisions to support health and safety of all students, faculty, and staff and to promote [health equity](#).

Education and public health agencies, in collaboration, may use the example evaluation questions, indicators, and data sources below to develop a monitoring and evaluation protocol and determine a scope feasible for their situation. These are not exhaustive lists of questions, indicators, or data sources, and they may be adapted to align with community priorities and needs.

CDC's [Checklist of Key Considerations When Planning for Monitoring and Evaluation of COVID-19 Mitigation Strategies Implemented in K-12 Schools](#) provides actionable considerations for determining the scope of a monitoring and evaluation plan.

Conducting monitoring and evaluation may help K-12 schools examine their unique circumstances and make the best proactive decisions for their students, teachers, and staff, including:

- Identify which factors help or hinder effective implementation of COVID-19 mitigation strategies in K-12 schools to reduce the spread of SARS-CoV-2
- Inform allocation of resources to effectively reduce the spread of SARS-CoV-2 in schools
- Identify and communicate about needs for additional resources and support to effectively implement mitigation strategies in schools
- Understand which mitigation strategies are effective in schools to reduce the spread of SARS-CoV-2, to maximize the positive outcomes while minimizing related negative consequences
- Ensure the needs of [individuals at increased risk](#) and [disproportionately affected populations](#) are met
- Inform decision-making about strengthening, focusing, and relaxing mitigation strategies (e.g., determining the optimal schedule for cleaning and disinfecting frequently touched surfaces in the school)
- Assess how different populations participate in, and are affected by, school-based mitigation strategies to ensure the health and safety of all students, faculty, and staff and to promote [health equity](#)
- Share data and lessons learned about practices to prevent and reduce spread of SARS-CoV-2 with key stakeholders, including local policy makers, education and health agency officials, school board members, superintendents, surrounding community, other district leaders, families, and caregivers

Potential Data Sources

Education and public health agencies, in collaboration, determine the best way to collect data for their local jurisdiction that reflects circumstances in their communities. State and local data already being collected are potential monitoring and evaluation data sources¹. These data may include policies (e.g., stay-at-home orders, mass gathering restrictions, mask-wearing requirements, school or district policies and recommendations) and school administrative records¹ (e.g., past and current student and faculty absenteeism, school cancellations, school plans for reopening, standardized testing scores). Primary data may also be collected, including from school-developed surveys, school district administration surveys, interviews, focus groups, health department community surveys, and others. CDC has several data sources related to school health that are available to health departments and school districts, including the [CDC COVID-19 Data Tracker](#)² and the [Youth Risk Behavioral Surveillance System \(YRBSS\)](#)³.

Example Questions, Indicators, and Data Sources

Here are example questions, indicators, and data sources that may be used to monitor and evaluate COVID-19 mitigation strategies implemented in K-12 schools.

1. Which mitigation strategies are being implemented in K-12 schools in my area (i.e., school, district, city, state), and how and when are they

implemented?

Related qualitative and quantitative indicators

- Policies, implementation, and adherence to mitigation strategies in schools to prevent and reduce the spread of SARS-CoV-2 among students, faculty, and staff, including but not limited to the following:
 - Use of distance learning, including [hybrid](#) designs, vs. in person
 - [Symptom screening procedures](#) (at-home vs. in-school)
 - [Social distancing](#) strategies in school, including modified layouts, physical barriers (e.g., desk dividers), one-way hallways, reduced class sizes, etc.
 - Modifications to class (i.e., [cohorting or podding](#)) and school operations (e.g., traffic flow in hallways, single entry/exit)
 - Plans to teach, reinforce, and/or require behaviors that reduce spread such as [hand hygiene](#) or [use of masks](#) for students, faculty, and staff
 - Protocols for [cleaning and disinfection](#) of frequently -touched surfaces and reducing sharing of common objects
 - Improvements to [ventilation](#) systems in buildings to optimize air flow
 - Availability and use of appropriate resources (e.g., masks, hand soap, hand sanitizer) to promote behaviors that reduce spread of SAR-CoV-2 for faculty staff, and students
 - Modifications for meals and food service, such as pre-plating and staggered meal service
 - Modifications to large gatherings, after-school sports, after-care, school events, field trips, and extracurricular activities
 - Considerations for students, faculty, and staff with [developmental and behavioral disorders](#), with [disabilities](#), or at [increased risk for severe illness from COVID-19](#)
 - Modifications of [transportation](#) to and from school, including school arrival and dismissal procedures, carpooling, changes to school bus service, and accessible transportation for students, faculty, and staff with disabilities
 - Plans for risk communication within schools, including posting of signs in visible locations, broadcast announcements, and provision of educational materials in accessible formats for individuals with disabilities or limited English proficiency
 - Policies for [SAR-CoV-2 testing in school](#) or upon returning to school
- Plans for and implementation of educational sessions and professional development for students, faculty, and staff regarding COVID-19
- Plans for and implementation of communication with parents, caregivers, and guardians on prevention of COVID-19 at school
- Policies and plans for absenteeism, excused absences, and sick leave for students, faculty, and staff, including encouraging to stay home when sick, changes to remote learning, methods for students to make up lessons, and having back-up staffing plans
- Policies and infrastructure for isolation of symptomatic students, faculty, and staff
- Policies and plans in place for response to positive cases in students, faculty, and staff, including:
 - Notification to public health departments

Potential data sources

- School/District policies and recommendations
- School administrative records
- School-developed surveys
- School district administration surveys

- Isolation of and safe transport of suspected/confirmed cases including a designated isolation area with a dedicated bathroom, if possible
- Notification and engagement of parents, caregivers, and guardians, and sharing of deidentified information with broader community
- Appropriate disinfection of areas used by sick persons
- Notification and quarantine guidance for [close contacts](#)
- Approach to return to school for cases and [close contacts](#), including [individuals at increased risk for severe illness](#)
- Thresholds for school and classroom closure
- Plans for communication and collaboration with local and state public health officials
- Plans for staying informed about increases/decreases in cases in the community and nearby schools/school districts
- Modifications to social, behavioral, mental health resources and support for students, faculty, and staff

2. What are the facilitators, barriers, and factors that affect implementation of mitigation strategies in K-12 schools?

Related qualitative and quantitative indicators

- School characteristics and infrastructure, including but not limited to the following:
 - School size, number of students
 - Range of class sizes, student-faculty ratio
 - Nurses
 - Availability of water for handwashing
 - Availability of classrooms with windows that open and other ventilation capacity
 - Availability of space or designated area to evaluate and isolate individuals who might be sick
 - Ability for single entry and single exit or one-way traffic flow in hallways
- Ability to provide accommodations for specific populations of students, faculty, and staff for whom mitigation measures are not feasible or require additional adaptation
- Available funding and resources to implement mitigation strategies
- Available technology to support mitigation strategies
- Available supplies, including cleaning and disinfection supplies, soap and water, hand sanitizer, and masks
- Number and types of staff available to support the implementation (e.g., substitute faculty, bus drivers, school nurses, counselors, and other staff) of COVID-19 school mitigation strategies
- School, staff, and parent willingness and ability to adopt virtual technology or use alternative teaching or learning methods if needed
- Knowledge, attitudes, and practices for mitigation strategies among parents, caregivers, guardians, students, faculty, and staff
- Misinformation or perceived [stigma](#) around COVID-19
- Parental or community attitudes and involvement

Potential data sources

- School-developed surveys
- School administrative records
- School policy records
- Qualitative study (i.e., interviews, focus groups)
- [CDC COVID-19 Data Tracker](#)²

- Parental or community attitudes and involvement
- Staff retention and/or attrition rates

3. Which factors contribute to K-12 schools' decisions to strengthen, focus, or relax mitigation strategies over time?

Related qualitative and quantitative indicators

- Availability of resources to implement mitigation strategies, including but not limited to:
 - Funding
 - Technology
 - Staff availability and hours
 - Supplies, including cleaning and disinfection supplies, soap and water, hand sanitizer, and masks
 - Educational materials
- Readiness, needs, or community risk assessments findings
- Guidance from public health or education agencies
- Levels of SARS-CoV-2 transmission within the school and community (e.g., percent positivity, trends in case counts, number and size of outbreaks in K-12 schools)

Potential data sources

- School/District policies and recommendations
- School administrative records
- Health department guidance
- [CDC COVID-19 Data Tracker²](#)

4. What is the association between implementation of mitigation strategies and minimizing COVID-19 associated morbidity and mortality in K-12 schools?

Related qualitative and quantitative indicators

- Number/percent of students who have been kept home, isolated in-school, and sent home for COVID-19 like symptoms
- Number of students, faculty, and staff who test positive for SARS-CoV-2, and number given clinical diagnosis of COVID-19 (including dates of diagnosis)
- Number of days missed by students, faculty, and staff due to COVID-19
- Number of hours from onset of symptoms to isolation in school or at home
- Number of hours from school notification of positive case to notification of [close contacts](#) (someone who was within 6 feet of an infected person a total of 15 minutes or more) and initiation of quarantine measures
- Number of days the school closed or cancelled classes due to COVID-19
- Number of students, faculty, staff, and caretakers who were hospitalized due to COVID-19
- Number of students, faculty, staff, and caretakers who died from COVID-19
- Number and size of outbreaks (defined as at least 2 positive cases with a known connection) in school

Potential data sources

- [CDC COVID-19 Data Tracker²](#)
- School administrative records
- Health department community survey
- School reporting
- Case surveillance

5. What is the relationship between implementation of mitigation strategies and academic achievement and social, behavioral, and mental health outcomes in K-12 schools?

Related qualitative and quantitative indicators

- Markers of academic achievement⁴, including (but not limited to) standardized test scores, school absenteeism, graduation rate, dropout rate, and GPA
- Other indicators of student achievement, such as mastery of college preparedness skills, career readiness skills, grade-specific education competencies, and developmental stages (i.e., cognitive, language/communication, fine/gross motor, and social/emotional skills)
- Rates of disciplinary action (suspensions, expulsions, or detentions) for violation of school rules (fighting, bullying, and other prohibited behavior)
- Number and percent of students, faculty, and staff who report feeling stress related to COVID-19 or that COVID-19 has had a negative impact on their mental health
- Number and percent of students, faculty, and staff who have sought mental health care or resources for stress and coping
- Occurrence of suicide ideation and attempts by students, faculty, and staff

Potential data sources

- School administrative records
- Standardized test results
- Qualitative study (i.e., interviews, focus groups)
- Survey
- [CDC COVID-19 Data Tracker](#)²
- [Youth Risk Behavior Surveillance Survey \(YRBSS\)](#)³
- Longitudinal COVID-19 Adolescent and Parent Survey

6. What, if any, impact have mitigation strategies had on health disparities or social determinants of health for students, faculty, or staff in K-12 schools?

Related qualitative and quantitative indicators

- Indicators of changing disparities among students, faculty, and staff assessed separately or in combination by age, gender, race and ethnicity, geography, disabilities, and markers of socioeconomic status, including but not limited to the following:
 - Number of eligible students who participate in free- or reduced-price lunch program
 - Percent decrease or increase in reports of child abuse and domestic violence
 - Rates of COVID-19 cases
 - Rates of school absenteeism
 - Number of students, faculty, or staff who have ability to utilize mitigation guidelines
 - Number of students who have access to resources for remote learning (e.g., internet access)
 - Number of students, faculty, or staff who have supplies to support behaviors that reduce spread and maintain healthy environment (e.g., soap, hand sanitizer, masks, and [cleaning and disinfection](#) supplies)
 - Number of students, faculty, or staff who have mental health and healthcare services
 - Number of students referred/enrolled in support programs

Potential data sources

- School administrative records
- Health department community survey
- Qualitative study (i.e., interviews, focus groups)
- Survey
- [CDC COVID-19 Data Tracker](#)²
- [Youth Risk Behavior Surveillance Survey \(YRBSS\)](#)³
- Longitudinal COVID-19 Adolescent and Parent Survey⁵

- number of students referred/enrolled in support programs
- Number and percent of students, faculty, and staff experiencing housing instability and homelessness
- Number and percent of students, faculty, and staff experiencing food insecurity

Additional Resources

- [Implementation of Mitigation Strategies for Communities with Local COVID-19 Transmission](#) describes the considerations for implementing community mitigation to reduce or prevent SARS-CoV-2 transmission.
- [An Approach for Monitoring and Evaluating Community Mitigation Strategies for COVID-19](#) includes a logic model that describes how mitigation strategies are implemented by governments, organizations, and individuals, and how these strategies are related to reducing COVID-19 morbidity and mortality.

Footnotes

[1] Indicators and data sources may be tailored to align with the context of the intended evaluation and local communities, including what is important and feasible to assess and what data are available. Some data may be available at the district level and may not need to be collected from schools independently. When accessing school and individual records, it is critical to maintain confidentiality and privacy of the student or staff member as required by the Americans with Disabilities Act and the Family Education Rights and Privacy Act (FERPA). Any access to information in education records without consent need to conform with current FERPA requirements and authorizations.

[2] For indicators related to COVID-19 Epidemiology, Community Characteristics, Healthcare Capacity, and Public Healthcare Capacity being tracked, refer to existing data sources: [CDC COVID Data Tracker](#) or <https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/surveillance-data-analytics.html> as well those being monitoring in your school districts and state/local jurisdiction.

[3] A national school-based survey conducted by state, territorial, local education, health agencies, and tribal governments. [YRBSS](#) monitors six categories of health-related behaviors. Data are collected at the school district level but not from all schools. The data collection will resume in January 2021; however, data may not be available for use until later in the year.

[4] The extent to which academic achievement is being assessed may vary during COVID-19 pandemic as states may postpone or cancel standardized achievement tests, and districts and schools may suspend some graduation or academic requirements.

[5] The Longitudinal COVID-19 Adolescent and Parent Survey collects data on multiple topics (e.g., experiences with COVID-19 and mental health) among adolescents ages 12-19 and parents of youth ages 5-12. Data are collected using the [NORC AmeriSpeak](#)  online panel. Baseline data collection will occur in September 2020 with follow-up with the same sample in March 2021. Data may not be available for use until later in 2021.