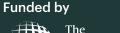


Testing as an Alternative to Quarantining: Key Considerations and Best Practices for Implementing Test to Stay





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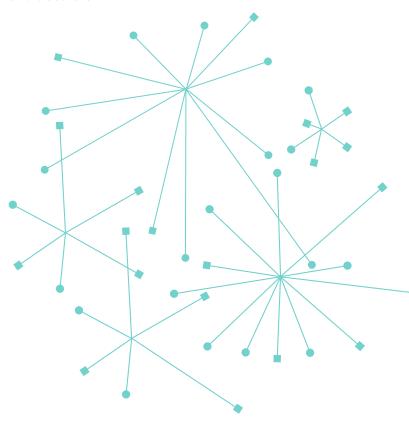
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Key Takeaways

- Preliminary evidence collected during the Covid-19
 Delta wave suggests Test to Stay can safely increase in-person school days for close contacts who would otherwise have to quarantine at home; however, technical and equity considerations need to be accounted for to ensure equitable access to the program.
- Test to Stay is most effective as part of a layered Covid-19 mitigation approach, combining strategies such as physical distancing, improved ventilation, masking, routine testing, and school-located vaccinations to create a safer school environment. Test to Stay can also help identify in-school situations where spread is more likely to occur.
- The core elements of Test to Stay are similar across different states and schools, though there are different approaches to designing and implementing technical parameters, identifying and allocating funding and staff, and communicating with parents and families.
- Based on interviews with public health officials who manage Test to Stay programs in Illinois, Massachusetts, and North Carolina, we identified four key implementation strategies: 1) align existing financial mechanisms to support Test to Stay programs; 2) reallocate funding to ensure underfunded schools can access resources and staffing; 3) communicate the benefits of the program, how it works, and why it is safe for families and students; and 4) develop culturally appropriate responses that account for local contexts and family views.
- As more infectious variants may make Test to Stay less effective, further assessment that accounts for the Omicron context and any future spikes in case rates or waves of new variants is needed. Nevertheless, because Test to Stay involves testing close contacts frequently, it will quickly become apparent if the strategy is still useful.

Introduction

As schools reopened for in-person instruction for the 2021-2022 academic year, students, families, and teachers expressed concerns about the effectiveness of Covid-19 safety protocols and the burden of quarantines. In 2021, states reported lower in-person student attendance compared to previous years, with students missing in-person days due to quarantine after being identified as close contacts of classmates who tested positive for Covid-19. For example, in Illinois, student attendance dropped 1.5 percentage points (from 94 percent in 2019 to 92.5 percent in 2021) since the start of the pandemic, which amounts to over 25,000 fewer students attending school, either in-person or virtually. The rapid spread of the Omicron variant has exacerbated staff and student absences. Factors underlying these

absences include increased community transmission, hospitalizations, and quarantines, continued concerns regarding spread in schools, and difficulty in accessing rapid antigen or PCR tests. In addition to vaccinations, use of higher-quality masks, and ventilation upgrades, it is critical to include a testing infrastructure as part of a layered mitigation approach to make schools safer for students, teachers, and other school staff.

State policymakers and school administrators across the U.S. began piloting programs in 2021 to safely increase in-person instruction time that otherwise would be lost to quarantining students who did not ultimately test positive for Covid-19. Under a **Test to Stay** program (also called a "close contact testing program"), certain

close contacts of a person who tests positive for Covid-19 undergo repeated testing after an exposure and can stay in school as long as they continue to test negative (see specific criteria for program eligibility in Figure 1). Recently, the Centers for Disease Control and Prevention (CDC) published a <u>statement</u> on Test to Stay and released results from pilot programs, noting that it can be a valuable additional mitigation strategy for increasing Covid-19 related safety for in-person instruction.

In this issue brief, we provide states considering Test to Stay programs in K-12 schools practical guidance on key technical and health equity strategies to inform planning, design, and implementation efforts. Preliminary evidence collected during the Delta wave shows Test to Stay can increase in-person attendance, minimize school-related disruption, increase access to testing, and address concerns regarding safety with in-person instruction. However, Test to Stay programs may produce

unintended consequences unless programs address technical and equity considerations in the planning and design phases of program development. Potential unintended consequences include overburdening staff and exacerbating existing disparities among underfunded schools that lack sufficient staff, space, or tests to launch a Test to Stay program due to existing systemic inequities. Furthermore, similar to other mitigation strategies, ongoing monitoring of community transmission, Covid-19 case counts, and other social impacts is needed to reassess safety and respond to variants as they emerge.

Key Elements of Test to Stay Programs

How it Works: In participating schools, anyone who is defined as an eligible close contact and who has consented (or whose parent or guardian has consented on their behalf) to participate in Test to Stay undergoes repeated testing instead of quarantining at home. Schools most commonly use rapid antigen tests for Test to Stay, though some have used PCR tests as well. The frequency and number of tests given to a close contact after exposure varies by state, but generally spans about a week and is followed by symptom monitoring through day 14 following the exposure. People who continue to test negative and remain asymptomatic can continue participating in standard in-person instruction. If any test is positive, or if the person becomes symptomatic, they must return home and follow applicable isolation protocols. The CDC has offered additional guidance here.

How it's Funded: States have multiple options for funding Test to Stay, including CDC's Epidemiology and Laboratory Capacity (ELC) Reopening Schools Supplement. This \$10 billion in ELC funds was allocated to state health departments, which in turn distribute funds to school districts, local health departments, or even directly to testing vendors as they see fit. ELC funds allow states to provide schools with tests, couriers between schools and labs if needed, and software to track consents, test results, and schedules for repeated testing. The funds also can be used to hire and train staff to support these efforts. States can expand resources further by accessing **Elementary** and Secondary School Emergency Relief (ESSER) Fund resources. ESSER funds can be used similarly to purchase tests, hire staff to administer testing, and support a variety of other in-school mitigation strategies. Learn more about allowable uses of ESSER funding here.

Test to Stay State Examples

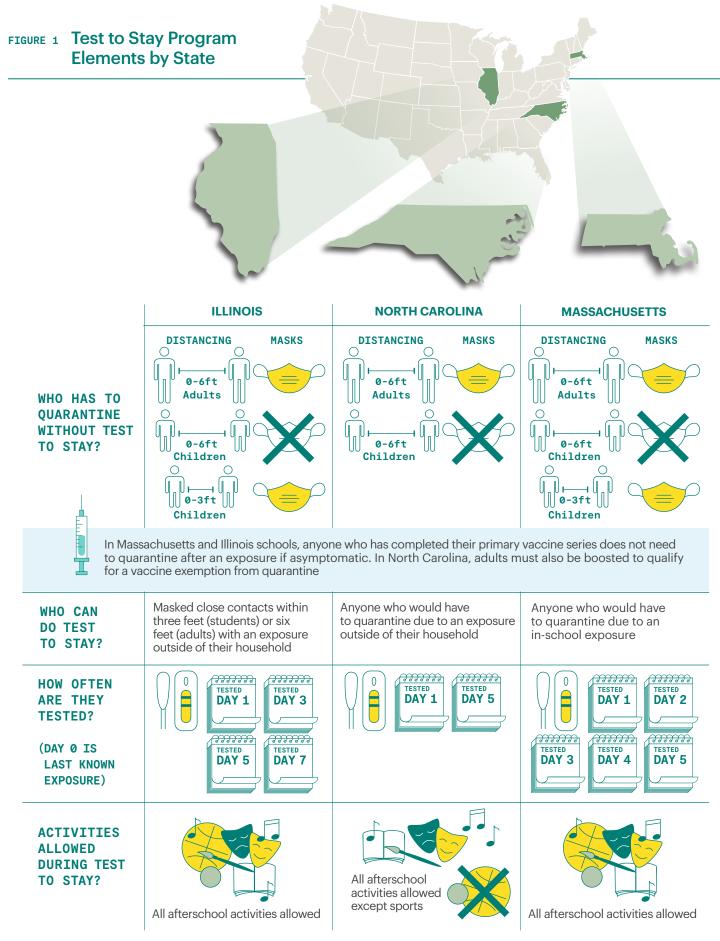
We interviewed state and school leaders from Illinois, Massachusetts, and North Carolina to illustrate different policy choices states have made regarding Test to Stay. In addition, we interviewed leaders at ABC Science Collaborative, African American COVID Taskforce (AACT+), and Latinx Advocacy Team & Interdisciplinary Network for COVID-19 (LATIN-19). Figure 1 summarizes key elements of each approach, including eligibility, duration, and frequency of testing; steps if a person tests negative; and steps if a person tests positive. Figure 2 and Figure 3 illustrate Test to Stay procedures and other Covid-19 mitigation strategies in two school districts. Illinois and Massachusetts have state-wide school mask mandate; North Carolina does not have a state-wide school mask mandate but initially piloted Test to Stay in schools with local mask mandates.

School districts in **Illinois** can participate in the state's routine screening program offered by <u>SHIELD Illinois</u>, which now includes Test to Stay. The state designed its Test to Stay program in coordination with CDC during summer 2021 and initiated the program at the start of the 2021-2022 school-year. All K-12 schools in Illinois are eligible to participate in Test to Stay, and both staff and students can opt-in if their school offers the program. By late October 2021, nearly 200 schools had opted in to Test to Stay, representing over 19,000 students enrolled in the program—an average consent rate of about 70 percent among eligible students. Schools receive tests free of charge and can opt either for third-party operations and staffing support or an \$8 reimbursement for each test performed by school staff.

Massachusetts offers all K-12 schools multiple options for Covid-19 testing, including diagnostic testing for symptomatic individuals and/or routine weekly screening testing. Massachusetts added Test and Stay – the state's term for what is commonly known as Test to Stay – to its testing offerings in fall 2021. Approximately 2,200 schools have opted to conduct Test and Stay testing, the vast majority of them combining Test and Stay with at least one other

testing strategy. Massachusetts has contracted with testing vendor CIC Health to address <u>challenges</u> related to staffing and managing administrative burden associated with testing. The testing vendor hired over 2,000 new employees to support these efforts alongside school nurses and other school staff. Along with additional staffing support from the testing vendor, a few districts have district-wide testing teams that are deployed to schools specifically to administer Test and Stay.

North Carolina began a Test to Stay pilot in five school districts and one independent school in October 2021, aiming to collect data on key outcome metrics to inform a potential future statewide program. These pilots were part of a research study sponsored by the ABC Science Collaborative and funded by a National Institutes of Health (NIH) grant, in collaboration with North Carolina's Department of Health and Human Services (NCDHHS). The study tracked positivity rates among students and staff who participated in the Test to Stay program, (i.e., "in-school secondary attack rates"), positivity rates among their in-school close contacts (i.e., "tertiary attack rates"), and the number of averted missed in-person school days among Test to Stay participants. After initial data demonstrated the pilot programs increased in-person school days without increased risk of Covid-19 spread in schools, North Carolina recently decided to expand Test to Stay. The state now plans to pilot Test to Stay in seven schools without mask mandates to test safety and efficacy in that context to determine if the program can be expanded to schools without mask mandates. Any school in the state can arrange for Test to Stay.



Updated as of January 10, 2022

FIGURE 2 Procedures for Test and Stay in Holyoke **Public School District, Massachusetts**



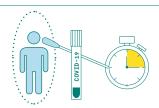
School notified of a new infection



Contact tracer identifies individual as a close contact of someone who tested positive



School nurse notifies district testing coordinator, who dispatches staff to the school within hours to administer tests



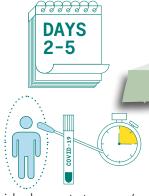
Individual reports to nurse's office for test, waits 15 min for results



If positive sent home, follows returns to in-perisolation protocols



If negative son instruction



Individual reports to nurse's office for another test and a symptom check at the start of each school day, waits 15 minutes for their results



If positive sent home, follows isolation protocols



If negative returns to in-per-



Individual reports to nurse's office for symptom check at the start of each school day

6-10



If symptomatic sent home, follows returns to in-perisolation protocols



If asymptomatic son instruction



WHO DOES WHAT IN TEST TO STAY?

School Nurse

Conducts routine testing

Conducts symptom monitoring

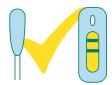
Conducts contact tracing when someone tests positive

District Testing Staff

Deploy to schools to conduct daily testing for those testing and staying

FIGURE 3 Linking Test to Stay to Other Mitigation Measures in Woodland Public School District, Illinois

Test to Stay should be just one of many strategies schools use to reduce the spread of Covid-19. Here are a few ways Woodland School District 50, a small school district serving about 5,000 students in Illinois, weaves in Test to Stay with other mitigation measures to reduce the risks associated with in-person instruction and streamline their program.



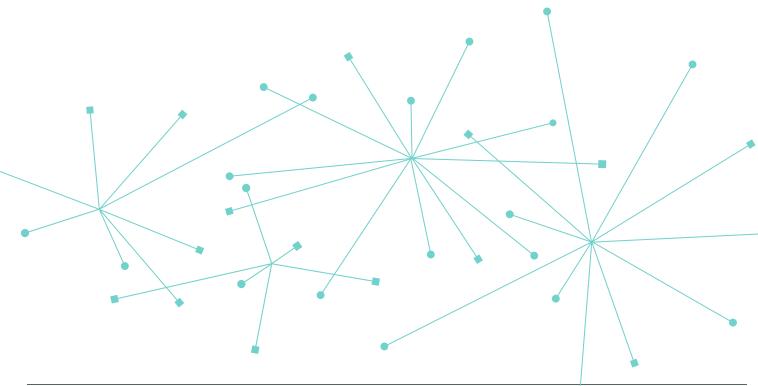
Woodland Schools conduct weekly screenings of all students using PCR tests provided through Illinois SHIELD. When screening coincides with a test day for students participating in Test to Stay, the students undergo their usual PCR screening instead of a separate antigen test, saving time and resources.



Students in the district have been assigned seats in classrooms and on buses to ensure proper distancing whenever possible. This arrangement also enables rapid contact tracing for Test to Stay, since teachers and staff know which students are likely to have been in close contact.



Only masked close contacts are eligible for Test to Stay in Illinois, while unmasked close contacts are always required to follow quarantine protocols. This adds an extra incentive for masking compliance, as parents and students know they are less likely to have to miss school for quarantine if they maintain proper masking throughout the school day.



Preliminary Evidence from Test to Stay Programs

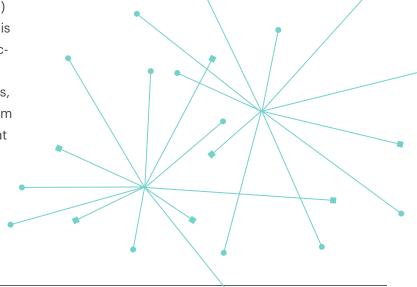
Preliminary evidence collected in schools deploying Test to Stay programs during the Delta wave generally showed that these schools did not experience increased case rates; very few secondary and tertiary infections occurred among participating schools; and students were able to stay in school in person for many days that would otherwise have been missed due to quarantine. One key to success, noted by all three states, was robust participation in the programs.

Illinois: Illinois' Test to Stay program started in August 2021 with a small group of school districts, but enrollment grew rapidly and reached 195 participating schools by late October 2021. The state surveyed schools throughout the semester to collect preliminary data on participation and positivity rates. Per those surveys, as of late October 2021, about 19,000 Illinois students had enrolled in Test to Stay, and just over one-third had been identified as close contacts and undergone testing. Among close contacts who participated in Test to Stay, just two percent (139 students) tested positive. The other 98 percent of close contacts completed the testing series without testing positive, permitting thousands of in-person student-days that would otherwise have been missed due to quarantine.

North Carolina: Through December 13, 2021, participating schools in the North Carolina pilot had performed 883 tests as part of their Test to Stay programs, with only six positive results. No cases of in-school transmission from a study participant (i.e., someone testing and staying in school) to another student or staff member occurred during this period, and within-school transmission rates for participating schools were nearly identical to other schools in the state. Following these encouraging initial results, NCDHHS expanded Test to Stay from a small pilot program to a formal testing option for all schools statewide that have mask mandates.

Several CDC studies released in December 2021 presented similar results. A study of Los Angeles County, California schools found that schools that adopted Test to Stay "did not experience increases in Covid-19 incidence," and "no tertiary transmission was identified" from students who stayed in school and were repeatedly tested instead of quarantining. Another CDC study of Lake County, Illinois schools found a positivity rate of just 1.5 percent among students who were close contacts and participated in Test to Stay, and no tertiary infections in schools. Researchers estimated Test to Stay in Lake County allowed students more than 8,000 in-person student-days that would otherwise have been lost due to quarantine. This conversion rate is lower than the conversion rates of two to four percent reported by the two school districts we interviewed

Additional data analysis of Test to Stay programs may illuminate patterns through which transmission in the school setting is more likely (e.g., lunch, busing, extracurriculars, or interactive class activities or gaps related to other mitigation measures). For example, initial data from **North Carolina's** pilot program found that the most common location for exposures was during lunch time, but also that individuals exposed during athletic activities were more likely to test positive. Findings like these have the potential to inform additional mitigation measures outside of Test to Stay, such as greater distancing in the cafeteria or more frequent testing for student athletes.



Technical and Equity Considerations for Planning, Design, and Implementation

Test to Stay offers many potential benefits, yet state policymakers and school administrators should account for key technical and equity considerations associated with Test to Stay along with strategies states and schools can use to address those considerations.



Consideration

Test to Stay can be resource-intensive because the program requires efficient in-school contact tracing, additional testing that is unpredictable on a day-to-day basis, and additional administrative work (e.g., data and results reporting, keeping track of which students need to be tested and when). Schools may incur extra costs associated with purchasing more tests and may need to hire extra staff (or pay existing staff for extra hours) to implement Test to Stay. Without additional funding or staff to offset the increased workload, Test to Stay has the potential to overburden school nursing or testing staff who are also experiencing an increase in Covid-19 positivity due to greater community transmission. Even schools with robust routine testing programs in place may face logistical challenges, as Test to Stay entails administering tests multiple times per week on a less predictable schedule, in contrast to a more regimented once-weekly screening testing program.

Strategy

Align existing funding mechanisms to support Test to Stay programs. CDC's ELC Cooperative Agreement awards annual funding to states and localities to support vector-borne disease response efforts including surveillance, detection, prevention, and communication. Ten billion dollars in supplemental funding has been allocated to state health departments to support testing in K-12 settings. Like ESSER funds, ELC funds are versatile, as they can be used to subsidize the costs of tests and staff needed to implement Test to Stay. ELC and ESSER funds also can support reallocating resources to underfunded districts with insufficient resources to implement a Test to Stay program. Massachusetts used ELC funds to purchase tests and to contract a testing vendor to provide schools with staffing support for their tests. The state also used ELC funds to provide some districts, like Holyoke Public **School District,** centralized testing teams to be deployed to administer rapid tests for Test to Stay at no cost to the school-alleviating staffing and financial burden. If administering Test to Stay along with existing testing strategies would overwhelm in-school staff, a centralized testing team dedicated to Test to Stay that can be deployed to schools on an as-needed basis may ease the burden across an entire school district. In North Carolina, NCDHHS uses ELC funds to provide additional testing supports to K-12 schools on an opt-in basis including: state-contracted vendor testing; independent, school-conducted testing; and funding for temporary school health staff for public schools. Schools included in the Test to Stay pilot can immediately begin Test to Stay, while schools not in the pilot are eligible to opt in to StrongSchoolsNC to receive free antigen tests from NCDHHS and request additional funding for staff to start up their own programs.

2

Consideration

Test to Stay can increase access to in-person learning and testing in a school environment; however, without adequate resource reallocation, a Test to Stay program could exacerbate disparities among schools with a greater proportion of Black or Latinx student or other marginalized student populations. Schools that have been systemically underfunded due to redlining and segregation often are overcrowded and have poorer ventilation, which increases risk of Covid-19 transmission. Furthermore, education, health, and legal experts, including the NAACP-Legal Defense and Educational Fund, have noted that the inequitable effects of the Covid-19 pandemic on Black and Latinx children need to be addressed through equitable resource allocation and implementation of public health measures.

Strategy

Reallocate funding to ensure underfunded schools can access resources and staffing. Funding and staffing a Test to Stay program is a major barrier to statewide implementation, as start-up costs can be significant (e.g., costs of purchasing rapid tests, costs of paying staff or personnel to administer tests or oversee self-testing). Furthermore, even if funding is available, the hiring and training processes for new staff can be onerous. Illinois has partnered with the CDC Foundation to hire external staff and public health nurses to help with Test to Stay in underfunded schools. The CDC Foundation is deploying staff nationally through its Crush COVID campaign, which helps schools rapidly hire and onboard new staff. This strategy enables more schools to have the funding or resources to implement Test to Stay. Massachusetts also has conducted proactive outreach to schools, particularly to underfunded schools, to make sure they have sufficient resources and to customize support for school-specific needs.

3

Consideration

Obtaining consent to participate in Test to Stay requires navigating a wide range of views regarding in-person instruction and other Covid-19 mitigation measures designed to create a safer in-person school environment. Past surveys have highlighted opposing views in parental attitudes and concerns regarding returning to in-person instruction and keeping Covid-19 mitigation efforts in place, and those differences appear to persist. A recent RAND survey showed Black and Latinx parents were more supportive of implementing Covid-19 mitigation measures, such as masking, upgrading ventilation, and vaccinations for teachers for in-person instruction, than non-Hispanic White parents. These

differences are likely due to Covid-19 concerns, including safety and disproportionate trauma of Covid-19 on Black and Latinx families and children, such as the increased likelihood of losing a parent or caregiver. In addition, the decision to return to in-person instruction is mediated by the fact that Black and Latinx students experience racism and greater inequities at school (e.g., disparities in disciplinary action). Varying attitudes toward mitigation measures can make it difficult to design testing strategies that satisfy all families' expectations.

Strategy

Communicate the benefits of the program, how it works, and why it is safe for families and students.

As Test to Stay is more complex than some routine screening programs, schools should establish clear communication with students and families regarding the safety and efficacy of the program, and how students' privacy will

be protected. Schools can include information on how Test to Stay works when soliciting consent at the start of the school year or semester or when a student is identified as a close contact. In **North Carolina** and **Illinois**, eligible students and staff who did not initially opt in to the program are given another chance to choose Test to Stay instead of quarantine after an exposure. In addition to online materials or handouts, schools can organize virtual town hall meetings to explain the program to parents, guardians, and students and answer their questions. Key elements to include in messaging for Test to Stay programs include explanations of who will conduct testing, what type of test will be used, how test results will be communicated, what will happen if a student tests positive, and how student health data will be protected.

Strategy

Develop culturally appropriate responses that account for local context and family views: A first step to effective communication and messaging is for schools to communicate in the preferred language of parents, guardians, and students. However, messaging needs to account for cultural nuances and different concerns, rather than solely

relying on direct translation of materials. Schools and states also can connect Test to Stay information to other supportive resources in the event that isolation is required (see Box 1). Strategies that solicit engagement and incorporate feedback from families at every stage of the Test to Stay design process is critical for acceptance and uptake. Massachusetts conducted focus groups, oversampling participants from historically marginalized populations, to receive feedback on messaging and parental concerns. Similar to the national RAND survey, data suggest that Black and Latinx parents were more supportive of Covid-19 mitigation strategies. Lastly, schools and states should talk about Test to Stay as being part of a layered Covid-19 mitigation approach to respond to parental concerns regarding safety. This communication should include how Test to Stay is combined with other Covid-19 mitigation strategies like symptomatic and screening testing, physical distancing, improved ventilation, masking, and school-located vaccinations, which work together to create a safer school environment. For example, since early in the pandemic, Illinois supported universal masking and required testing for anyone presenting with symptoms of Covid-19.

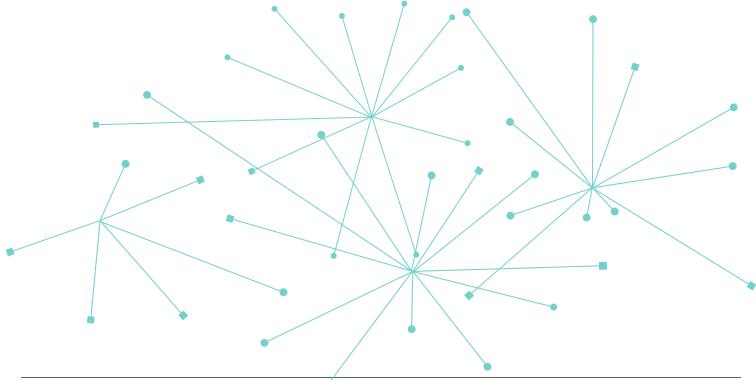
BOX 1: WRAP-AROUND ISOLATION SUPPORTS

Though Test to Stay can avert quarantine for many students and staff, people who test positive must still follow isolation protocols. A robust system of wrap-around supports for students and staff in isolation can increase the likelihood that people are able to adhere to isolation guidelines and reduce the risk of further spread in the school and the surrounding community. However, Black and Latinx families and students have experienced systemic inequities in accessing childcare, broadband for remote learning, and social and financial supports to be able to effectively isolate or quarantine. Schools can partner with public health agencies to distribute at-home tests to the student for the family to identify if other household members have Covid-19. This strategy would require additional state or local investment but could be accomplished through allocating American Rescue Plan Act (ARPA) funding that was directed to states to expand testing access. Schools may consider additional strategies to best support students who need to isolate. For example, **North Carolina** offers a Pandemic Electronic Benefit Transfer (P-EBT) card to families with children who would receive free or reduced-price meals in school but temporarily lose access to those meals due to isolation or quarantine. The P-EBT can be used to purchase food at all stores that accept EBT, alleviating a potential added financial burden of quarantine for these families.

Conclusion

A Test to Stay program implemented alongside other essential Covid-19 mitigation strategies (e.g., school-located vaccinations, upgraded ventilation in schools, and masking) can increase the number of days of in-person instruction by creating an alternative to quarantine. However, further study of Test to Stay in the context of Omicron is needed to determine how level of infectiousness influences the effectiveness of the strategy in increasing in-person school days and limiting transmission within schools. Similar to other Covid-19 mitigation strategies, Test to Stay also will require ongoing monitoring and evaluation in the context of any future spikes in case rates or waves of new variants. Nevertheless, because Test to Stay involves testing close contacts frequently, it will quickly become apparent if the strategy is still useful.

Preliminary evidence collected during the Delta wave shows Test to Stay programs can help to maintain in-person instruction safely while increasing access to testing. Given concerns about potentially exacerbating existing inequities, it is critical that policymakers develop policy responses that intentionally embed the technical and equity considerations discussed above in the planning, design, and implementation phases of the program to fully harness the benefits of Test to Stay. Practical guidance from Illinois, Massachusetts, and North Carolina demonstrates varying approaches that states and district and school administrators can consider to ensure equitable access to the strategy and streamlined implementation. Key takeaways from these early adopter states can inform future efforts as more states and school districts adopt and adapt Test to Stay to keep K-12 students safely in school.

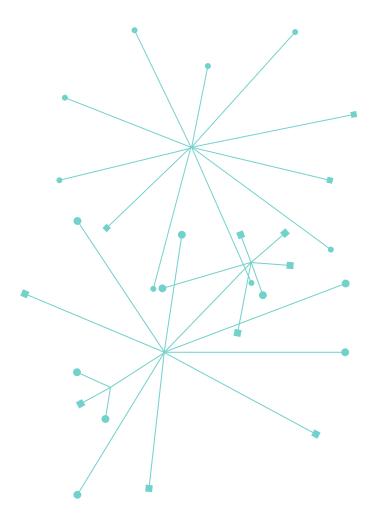


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