



## WEBINAR

### **COVID Mitigation in Schools:**

How Testing, Tracing, and Tracking Mitigate Learning Loss

## Webinar Logistics

- **ALL Phone lines**, except for the phone lines of the presenters, **are muted and will remain muted** throughout the duration of the webinar.
- All questions will be fielded using the **Chat Feature**.
  - Please take the time now to locate the chat box on your screen. If you don't see the chat box, click on the chat tab and it should appear.
  - Although you may have questions for a particular presenter, we ask that you **please send your questions to ALL PANELISTS** in the pull-down menu. Type in your message and then Press Send.
  - We encourage you to post your questions as they arise, and we will answer them during the Q & A segment.
- We are recording today's session to share with other educational leaders.



## Introductions

**Christina Andrianopoulos, MBA**

Grapefruit Health, Vice President Communication & Business Operations



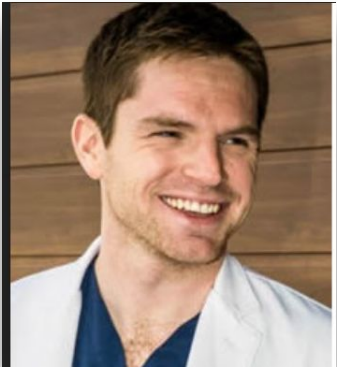
Welcome to an elite organization offering cutting-edge  
Health Care Services for education,  
corporate and community.

- ❖ Services include turnkey COVID-19 Testing, Screening and Emergency Response, Contact Tracing-Infectious Disease Programs, Telehealth and Surveillance, and Compliance Oversight.
- ❖ We are a team of world-class healthcare professionals including infectious disease specialists with extensive experience in epidemiology, contact tracing, and public health.
- ❖ Our mission is to provide comprehensive healthcare solutions aimed at alleviating the administrative burden of COVID-19 contact tracing and outbreak response with a specialty in helping schools and organizations.
- ❖ Since the onset of the pandemic we have developed testing programs and administered over \$1 million tests to people in the communities we serve.





# COVID Mitigation in Schools: How Testing, Tracing, and Tracking Mitigate Learning Loss



Presented by  
**Dr. Richard Pescatore,**  
Co-Founder and Chief Medical Officer of Grapefruit Health

**Dr. Shelly Viramontez,**  
Superintendent and Chief Executive Officer,  
Campbell Union School District, CA



- How does Testing, Tracing and Tracking Mitigate Learning Loss
- What is Test and Stay
- Campbell Union School District Case Study
- Questions
- Final Thoughts
- How you can get in touch with us to learn more



Grapefruit works **alongside** schools across the country, helping them stay open and secure while preventing COVID. With turnkey testing services and contact tracing support, these school-based COVID mitigation solutions seamlessly integrate critical COVID countermeasures with **minimal disruption** to the school environment.

Schools and districts are stretched thin, have **staffing shortages** and are working to address the impact of school closures. They cannot also be saddled with managing COVID testing. Partnering with an **expert** allows **educators** to focus on what they know best.



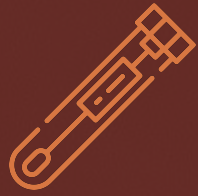


“

**This is a game changer  
for how we learn to live  
with COVID.**

—Superintendent, Lebanon City Schools

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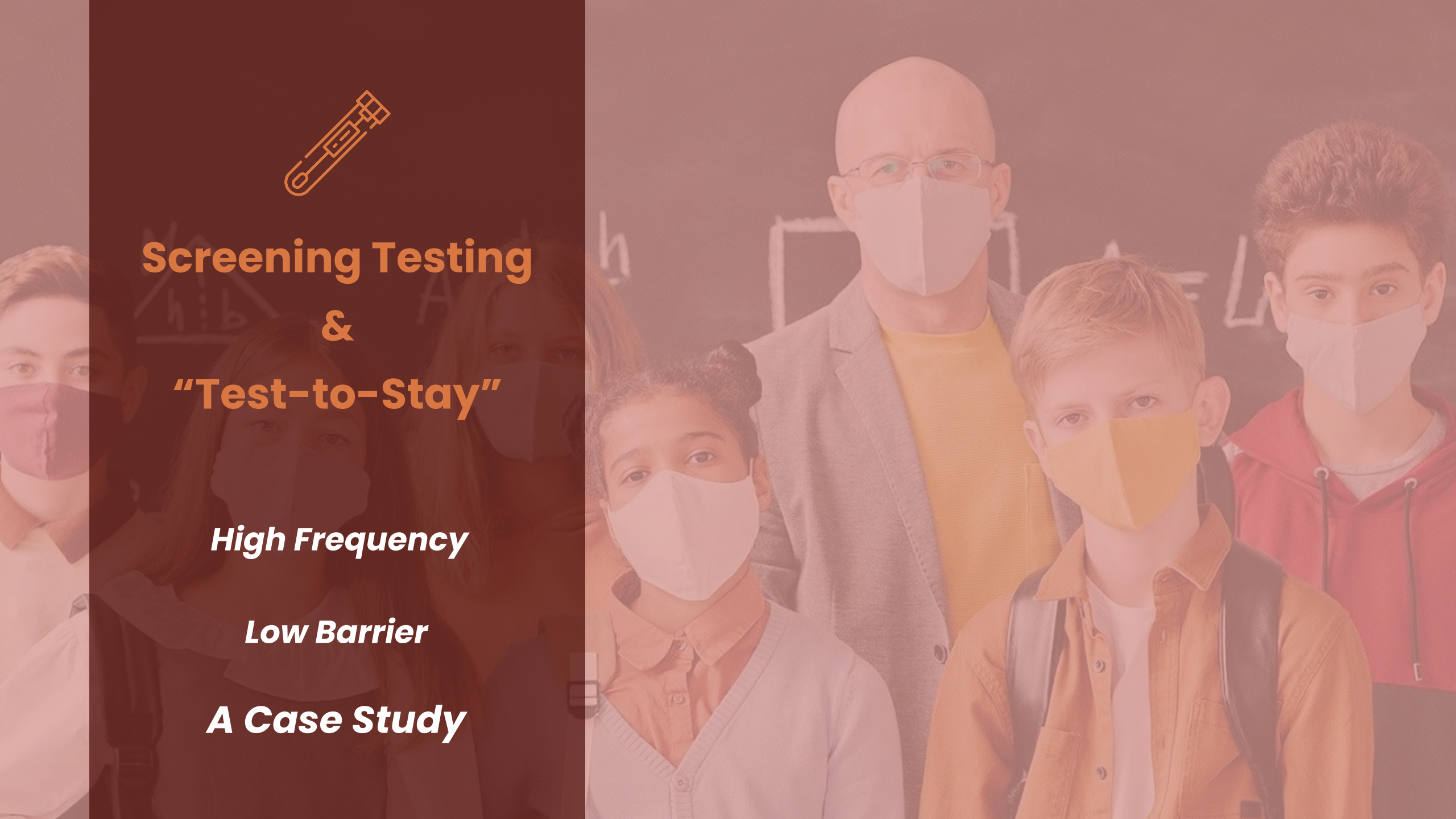


# Screening Testing & "Test-to-Stay"

*High Frequency*







*Low Barrier*

*A Case Study*





# CUSD Demographic Information, 2019-2020 School Year

Category	#/Statistic	Notes/Compelling Information
 <b>CUSD Enrolment</b>	6974	
 <b>Average Daily Attendance</b>	6730	<ul style="list-style-type: none"> <li>6730/6974 = 95.6% average daily attendance</li> </ul>
 <b>Students on Free/Reduced Lunch (%)</b>	40.9%	<ul style="list-style-type: none"> <li>551 CUSD students on free or reduced lunch programs able to continue to attend in person instruction</li> <li>6,616 meals provided to CUSD students that they would not have otherwise had</li> </ul>
 <b>English Learners (%)</b>	26%	<ul style="list-style-type: none"> <li>350 CUSD students with English as a second language able to continue in person instruction/immersion</li> <li>2103 days saved for CUSD English learners</li> </ul>
 <b>Ethnic Diversity Index</b>	54	<ul style="list-style-type: none"> <li>There is a moderate amount of ethnic diversity at CUSD</li> </ul>
 <b>Total Amount of Money (USD) Saved with Modified Quarantine</b>	<b>\$53,181.37</b>	

## What does it look like in practical use?

Grapefruit's team of physicians, advanced providers, and epidemiologists work with your educational and administrative leadership to build out the testing **solution that makes sense for your district**. For some districts, that's weekly screening testing of all individuals at no cost, while for other organizations, it's leveraging ESSER or ELC funding to build out contact tracing and testing response teams to quickly identify and isolate outbreaks.



## CUSD Information (2019-2020 data)

### General Information

12 Schools

8 Elementary Schools

2 TK - 8 schools

2 middle schools

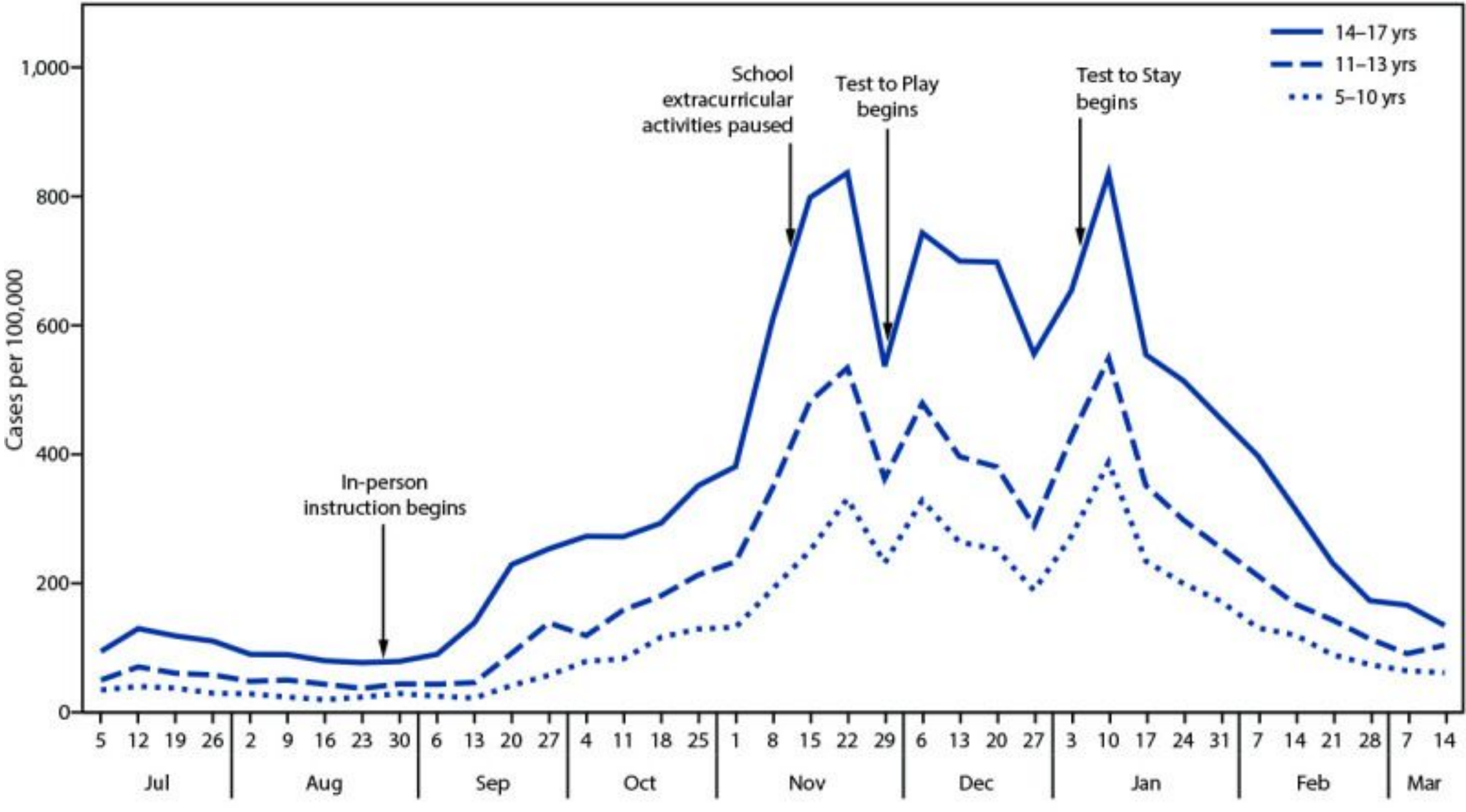
Elementary School  
District, K-8

Northern California

CUSD Students are

60.3%

Less likely to be infected





1

### Why is “test to stay” more practical and efficient than having students completely quarantine?

There are some studies to show that for every student that we’ll “catch” with quarantine we’ll have up to 50 more students that we’ll “**over-quarantine.**” That’s nearly 50 students out of school, nearly 50 families with a significant interruption to the daily routine...and while contact tracing and quarantine are critical and effective public health tools, they’re a **broad sword**. By using frequent testing to quickly identify anyone who may be infected with COVID, we can more narrowly **target** our interventions, which prevents the harmful effects of isolation and quarantine, but does so safely, and in an **evidence-based** manner.



2

### What were some of the setbacks from having students quarantine? What effect did it have on them?

Excessive use of quarantine causes children to **fall behind** educationally and cuts at-risk kids off from an important support network. For example, in our schools about 41% of students placed into quarantine would typically qualify for **free or reduced lunch programs**--that’s thousands of meals for some students that they may not otherwise have access to. Quarantine has **adverse effects** on productivity and mental health, as well. School is where our children get their education, but also where they grow socially, access critical human services systems, and navigate fundamental waypoints of childhood and adolescence.



3

### Why did Campbell Union School District implement this?

**Staff** were stretched thin. There were challenges to fully staff positions and there were many educational needs that staff needed to focus on. While we were planning for accelerating learning loss, we knew that **keeping students safely in school** as much as possible was our best response. Having a robust testing process provided our **families with assurance** that their students classmates would be monitored and students could attend school regularly and safely. Partnering with an experienced medical expert took pressure off of our nurses and principals. Allowing them to **focus on educational needs**.



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### Where else in the U.S. is this being done?

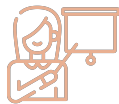
“Test to stay” has erupted in various forms **across the country**, with state- or district-specific variations, but all with the purpose of helping keep kids **safe and in school**. Schools everywhere are using high-frequency, low-barrier testing to quickly identify individuals infected with COVID-19 and stop the virus in its tracks, while allowing safe in-person learning to continue for everyone.



5

### How does it help students, teachers, staff, parents, more?

The benefits of test-to-stay and screening testing programs begin with the students--mitigating learning loss and preventing the known harms of restrictive quarantine. Teachers and staff rest easy with **60-80% reductions in transmission** that we've documented in Grapefruit schools. Screening testing and test-to-stay help keep schools open and keep kids in those schools---maintaining safety while preventing the impacts of school closures and virtual or home schooling.



6

### What have been some of the challenges?

Implementation of testing within CUSD hasn't been without its challenges and opportunities for improvement. Early on, we identified the need for **increased staffing and stronger IT resources** to facilitate testing on-site and expedite students and staff through the testing process--in recognition of the fact that every moment spent testing is one spent away from the learning environment.

The ongoing **collaboration and partnership** between Grapefruit and CUSD has highlighted the need for iterative quality and process improvements. Both focused on the key goal of keeping students in class safely as much as possible.



7

### How does this method keep everyone safer?

Frequent, rapid testing of individuals potentially exposed to COVID-19 helps **quickly identify** individuals who are infected and could potentially pass on the virus while allowing everyone else to **safely return** to their daily tasks. In our partnership with Campbell Union School District, for example, our epidemiologists found students at CUSD were **60.3% less likely to be infected** with COVID-19 because routine screening was performed, and **8088 days of in person instruction were saved** with "test to stay" programs. In the space of two months, more than \$50,000 in direct and indirect healthcare costs were saved, really reinforcing that **"an ounce of prevention is worth a pound of cure."**



8

### Where can parents learn more about this?

More and more articles are published every day detailing the **benefits and safety** of test-to-stay and screening testing programs within schools.

The CDC states "Regular testing, along with COVID-19 vaccination, helps **protect students**, staff, family members, and others who are not currently vaccinated against COVID-19 or are otherwise at risk for getting seriously sick from COVID-19."

Find out more at [www.grapefruittesting.com](http://www.grapefruittesting.com)!



>10,000 tests/month

A total of 20,166 samples were tested from 7114 participants - 2443 school-based staff members [34.34%] and 4671 students [65.66%] enrolled for in-person learning

- 18384 [96.12%] = students
- 1782 [8.84%] = staff/teachers

Average # close contacts/case → potential of “saved” cases

School Screening	Case	Control	Total
Exposed	99	7015	7114
Unexposed	191	5339	5530

- $RR = \frac{A(A+B)}{C(C+D)}$
- $99/7114 = 0.139$  0.01391622
- $191/5530 = 0.35$  0.03453888
- $RR = 0.139/0.35 = 0.397$  0.

**Students at CUSD were 60.30% less likely to be infected with COVID-19 in the surveyed population because routine screening was performed.**

# Science and Support Behind Test-to-Stay

## Introduction/Background

- COVID-19 is global pandemic with social, psychological, economic, educational impacts
- Transition from in-person to at-home/remote or hybrid instruction
- Development of vaccine has allowed gradual return to in-person instruction
- Studies in schools have shown at-school COVID-19 screening and testing to be effective and safe

### Study 1: Case study in Utah public schools

- Highlights:
  - 95% of high school extracurricular activities were completed
  - 109,752 in-person instruction student days were saved
- Reduce number of COVID-19 cases that external tests fail to detect
- Reduce number of students being sent home for at-home/remote learning during quarantine

### Study 2: Mathematica/RAND Corporation

- **Screening Testing Reduces Infections by ~50%**
- Community engagement in program design is essential for acceptance.
- The logistical and regulatory requirements for conducting screening testing in schools are **complex and challenging** to navigate, and schools would benefit from substantial support and coordination from local, state, and national education and public health authorities.

- **1348** participated in MQ since GFT started
  - **8088** days of in person instruction saved
- **172** teachers/staff
- **99** cases
- **40.9%** on free/reduced lunch program
  - **551 CUSD** students on free or reduced lunch programs able to continue to attend in person instruction
  - **6 days** a week/2 meals a day = 6,616 meals provided to CUSD students that they would not have otherwise had
- 26% English learners
  - 350 CUSD students with English as a second language able to continue in person instruction/immersion
  - 2103 days saved for CUSD English learners
  - Most common languages other than English:
    - Spanish (20.5% of English learners speak Spanish)
- The full cost of addressing students' new academic and social-emotional needs normally lost to self-quarantine at home
  - \$53,181.37 Total Saved with in-school screening and MQ
- Ethnic Diversity Index score: 54

### • Study 3: Lancet/England

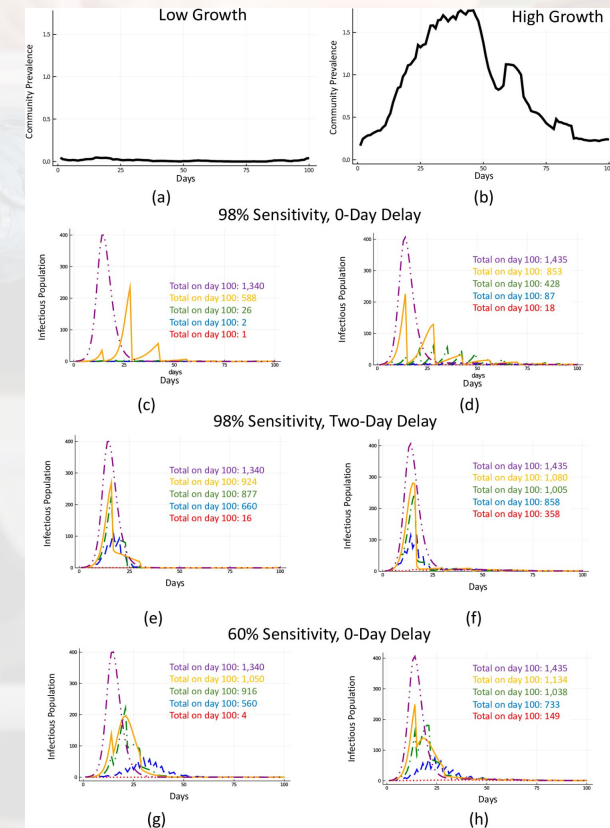
Open-label, cluster-randomised, controlled trial

Standard Practice vs “Test-to-Stay”

Supervised daily testing with lateral flow devices as an alternative to self-isolation for close contacts was non-inferior for control of SARS-CoV-2 transmission.

**School absence was reduced where testing was available**

### • Study 3: PLOS One



# Benefits of at-school testing

- Social
- Emotional/psychological
- Educational
- Economic
  - Cost of staying at home
  - Reduced/free lunch program

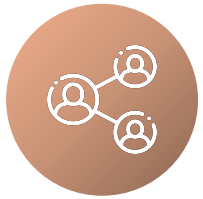
## Public Health Significance



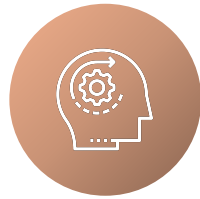
- COVID-19 is here to stay for now
- Benefits of in-person education vs at-home/remote and hybrid education
- Need to adapt best practices to mitigate impacts of pandemic on K-12 and college level education



# Benefits of in-school testing



Social



Psychological



Economic



Educational

Testing in schools is one of the most effective measures we can take to keep our children safe and in school.

60–80% reduction in SARS-CoV-2 infection in schools performing screening or mitigation testing.

“Because interruption of in-person instruction and extracurricular activities can negatively affect children, strategies that safely facilitate student participation in these activities are important.



Regular testing also means parents or guardians get notified if their child tests positive, allowing them to **plan for treatment** and take steps to protect the rest of the family from COVID-19.



Regular testing will help **keep students in the classroom** and allows them to take part in the other activities they love.

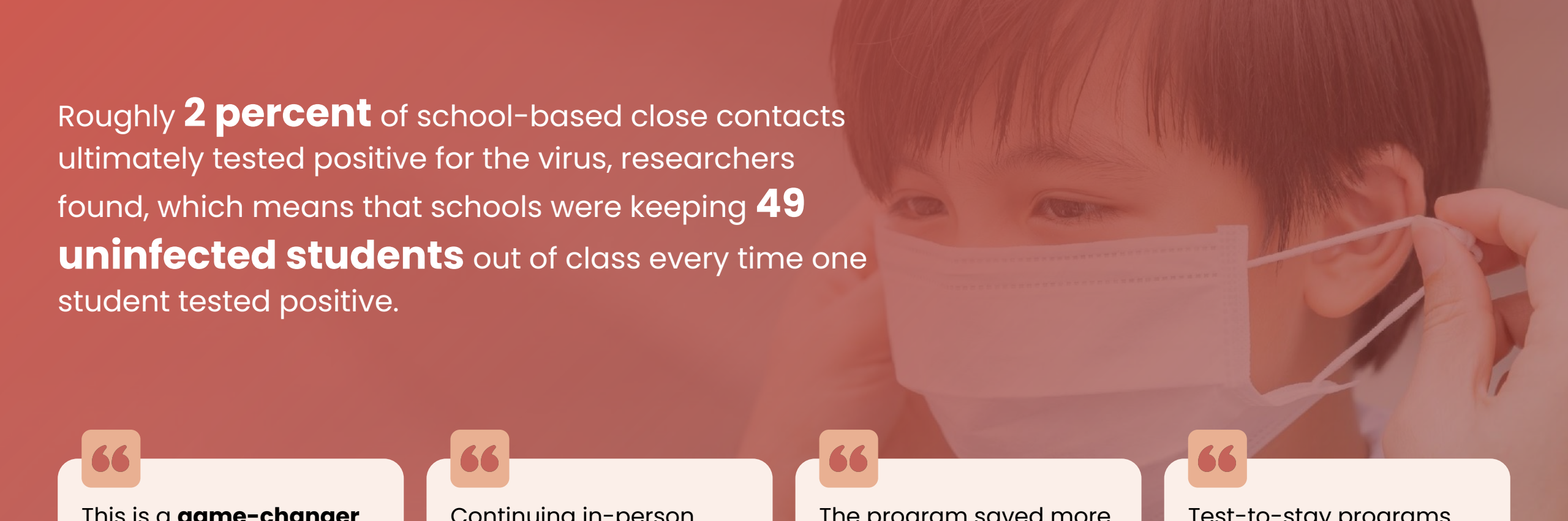


New evidence from Mathematica and RAND Corporation supported by the Rockefeller Foundation, finds that regular COVID-19 testing in primary and secondary education is **critical to getting students back to in-person learning.**

“We want schools to be the safest place in a community next to the home, and widespread in-school COVID-19 testing helps make that possible

*–Dr. Rajiv J. Shah,*

*President of the Rockefeller Foundation*



Roughly **2 percent** of school-based close contacts ultimately tested positive for the virus, researchers found, which means that schools were keeping **49 uninfected students** out of class every time one student tested positive.

“

This is a **game-changer** for how we learn to live with Covid.

*--Isaac SeEVERS*

“

Continuing in-person learning in these schools was **the right call**

*--Dr. Adam Hersh,*

“

The program saved more than **100,000** in-person student-days last winter,

*--CDC MMWR*

“

Test-to-stay programs are most feasible when paired with other safety measures...

*Experts said.*



# Test to Stay

01



Federally, State, and Locally-compliant Test-to-Stay program

02



Response and Symptomatic Testing

03



Cloud-based digital contact tracing and testing management infrastructure

04



Learning Loss Mitigation

05



CLIA Compliant



Thank you!

# Questions and Answers



Contact Us

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