Why does COVID-19 testing in K-12 schools still matter?
Welcome to today’s session!

Why does COVID-19 testing in schools still matter?

Today’s speakers:

Mara Aspinall
Professor of Practice, Biomedical Diagnostics
Arizona State University
Managing Director, Health Catalysts Group

Karen Cormier
Senior Marketing Manager, Genetic Testing
Solutions Group, Thermo Fisher
Introducing

Mara Aspinall

Professor or Practice, Biomedical Diagnostics
Arizona State University
Managing Director, Health Catalysts Group
Agenda

- The Good, the Bad and the Ugly
- School In-Person Index
  - Where did we end in the Spring
- School COVID Safety
  1. Vaccination
  2. Mitigation
  3. Confirmation
- School Funding Options for Testing
The Good, the Bad and the Ugly

- **The Good**
  - Cases are way down from a year ago (but recent surge from Delta is very concerning)
  - 50%+ of US adults are vaccinated (80% for teachers)
  - 25-35% of 12–17-year-olds are vaccinated
  - Vaccines are highly effective (50-90% depending on variant)

- **The Bad**
  - Only 50% of adults and net 15% of all kids are vaccinated
  - Few mitigation measures remain in place
  - Delta Variant is more transmissible than any variant we have seen so far

- **The Ugly**
  - All viruses mutate – more mutations will come
  - At least 20% and maybe 50+% people are completely asymptomatic
The Making of a Variant

mRNA strand is 29,903 bases long

...UUU UUA AAC CGG...

A random “Mutation” occurs

mRNA strand is 29,903 bases long

...UUC UUA AAC CGG UUA...

No change because UUU and UUC code the same protein

...UUC UUA AAC CGG UUA...

This mutation changes the protein and a new “Variant” is born

More mutations occur

No effect on infectivity, virulence, severity or mortality

“VARIANT OF NOTE”

Growing its presence in the viral population

“VARIANT OF INTEREST”

Early confirmation of effect on patients

“A new STRAIN” is born

Consensus that a variant is significant and well established
SARS-CoV-2 Variants: Five Questions

1. Make tests less accurate? A few
2. Increase cases and deaths? Yes
3. Make treatments ineffective? Some
4. Vaccine effectiveness? Reduced
5. Raise hurdle for herd immunity? Yes

High Rate of Asymptomatic Cases Require Testing Vigilance

20-60% ASYMPTOMATIC ADULTS CASES (ALL COVID INFECTIONS)

- 19% of 213 isolated Korean contacts; Ct same in asymptotics
- 20% (17-25%) in 79 paper meta-study
- 32% College students asymptomatic of whom 19% infected others, close to symptomatics with 25% onward infection
- 40-45% “narrative review”
  - 43% Icelandic adult screening – at time of testing
  - 42% Vo’ Italy - tracked and confirmed over time
  - 46.5% Diamond Princess
  - 60% USS Roosevelt & Charles de Gaulle (younger, fitter population)
  - 52.2% Seattle WA Nursing home
- 52% of 3105 PCR+ of 19.4 million international arrivals to China

1Ra et al, BMJ 8/17/20
2Buitrago-Garcia et al; PLOS Medicine 9/22/20
3Krieg et al; medRxiv 7/8/21
4Oran/Topol; Annals of Int Med 9/1/20
5Ren et al; JAMA 2/2/21

Many studies - Wide variation

Source: Buitrago-Garcia et al; PLOS Medicine 9/22/20
High Rate of Asymptomatic Cases Require Testing Vigilance

<table>
<thead>
<tr>
<th></th>
<th>ASYMPTOMATIC</th>
<th>PRE-SYMPTOMATIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle WA community screening</td>
<td>38%</td>
<td>22%</td>
</tr>
<tr>
<td>Child contacts of confirmed cases in Korea</td>
<td>7%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Similar viral loads

Long post-infection viral shedding (19-20 days)

*Pre-symptomatic at time of diagnosis, developed symptoms median 2.5 days post COVID-19 diagnosis.
2Han et al; JAMA Pediatrics 1/2021.
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Returning to Classroom Instruction (K-12 Schools)

U.S. K-12 LEARNING PLAN TRENDS

- **2.1%** Virtual Instruction
- **28.2%** Hybrid Instruction
- **69.7%** Traditional Instruction

Source: Burbio
In-Person Index of Schools: Nationwide

In-Person Index:
Weighed Average of Instruction Type by School.
Index weights % virtual instruction schools at 0, % hybrid instruction schools (2-3 days a week in-person) at 50 and % traditional schools (5-days in person) at 100

Source: Burbio – Accessed July 2021
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Younger Age Groups are Less Vaccinated, and May Stay That Way

THE WALL STREET JOURNAL
Young Americans aren’t getting vaccinated, jeopardizing COVID fight

Source: CDC COVID data tracker, data July 12, 2021

Fully Vaccinated

<table>
<thead>
<tr>
<th>Age Group</th>
<th>1st Eligible 5/12/21</th>
<th>1st Eligible 4/20/21</th>
<th>1st Eligible 1/12/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;12</td>
<td>0.0%</td>
<td>0.1%</td>
<td>33.5%</td>
</tr>
<tr>
<td>12-15</td>
<td>8.6%</td>
<td>24.9%</td>
<td>90.6%</td>
</tr>
<tr>
<td>16-17</td>
<td>37.1%</td>
<td>45.5%</td>
<td>80.7%</td>
</tr>
<tr>
<td>18-24</td>
<td>41.6%</td>
<td>55.1%</td>
<td>65.8%</td>
</tr>
<tr>
<td>25-39</td>
<td>47.0%</td>
<td>55.1%</td>
<td>56.1%</td>
</tr>
<tr>
<td>40-49</td>
<td>56.1%</td>
<td>64.7%</td>
<td>64.7%</td>
</tr>
<tr>
<td>50-64</td>
<td>65.8%</td>
<td>74.5%</td>
<td>80.7%</td>
</tr>
<tr>
<td>65-74</td>
<td>76.9%</td>
<td>86.5%</td>
<td>76.9%</td>
</tr>
<tr>
<td>&gt;75</td>
<td>86.5%</td>
<td>86.5%</td>
<td>86.5%</td>
</tr>
</tbody>
</table>

1st Dose only

Not yet Eligible

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<th>Age Group</th>
<th>1st Eligible 5/12/21</th>
<th>1st Eligible 4/20/21</th>
<th>1st Eligible 1/12/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;12</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.1%</td>
</tr>
<tr>
<td>12-15</td>
<td>24.9%</td>
<td>24.9%</td>
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<td>76.9%</td>
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<td>&gt;75</td>
<td>86.5%</td>
<td>86.5%</td>
<td>86.5%</td>
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</tbody>
</table>

Source: CDC COVID data tracker, data July 12, 2021
In a Highly Vaccinated Population – Israel
COVID Spikes in Unvaccinated Middle and High School Children

**TRENDING YOUNGER**

With the majority of adults in Israel now vaccinated, just over half of the country's new COVID-19 cases in the month up to 5 July were in people aged 19 and under.

**Proportion of recent COVID-19 cases in Israel by age group**

- 0-9: 11.8%
- 10-19: 39.6%
- 20-29: 8.5%
- 30-39: 6.8%
- 40-49: 11.4%
- 50-59: 8.2%
- 60-69: 8%
- 70-79: 4.6%
- 80-89: 1%
- 90+: 0.1%

Sources: Population from UN Statistics Summary, all genders; COVID cases from Nature Briefing July 8th, 2021; Vaccination from Ministry of Health Haaretz announcement 7th July, 2021
School options: Testing vs. Quarantine – Testing Wins

**Control Group**
76 UK High Schools
10 days Quarantine
• 338 index cases identified
• 5097 contacts
• 22,466 lost school days
• 1.8% days lost

**Intervention Group**
86 UK High Schools
5 days daily antigen tests
• 450 index cases
• 6721 contacts
• 22,378 lost school days
• 1.47% days lost

**101 UK High Schools**
13,500 Staff
186,500 Students
11,800 contacts

Intervention Group: 40% fewer student days lost and 60% fewer COVID related staff absences

Source: adapted from data in Young et al, A cluster randomised trial of the impact of a policy of daily testing for contacts of COVID-19 cases on attendance & transmission in UK secondary schools

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Rise of the Delta $\delta$ Variant

**SARS-COV-2 LINEAGES: NATIONAL NOWCAST ESTIMATES**

**VARIANT TIMEFRAME TO REACH DOMINANT U.S. STRAIN**

$\alpha$ (B.1.1.7) 3 months

$\delta$ (B.1.617) 1 month

and is powering the surge among the unvaccinated

Source: https://covid.cdc.gov/covid-data-tracker/#variant-proportions
mRNA Vaccine Protection Persists as Variants Emerge

“90+% effective in a real-world setting”
- *CDC MMWR 3/29/21*

- 80% effective after first dose
- 3,950 healthcare personnel, tested weekly; asymptomatic and symptomatic identified
- One tenth the cases after vaccination (161 cases without 16 cases with vaccine)
- Consistent with Israel data, UCLA Health workers and others

Vaccine confirmed effective against α, β & γ variants

...and appear to remain effective against δ variant at lower level

* Single data point, sharply lower than prior month’s 90+%, may be revised up
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Mitigations

- HEALTH CHECKS / RESPIRATORY ETIQUETTE
- HANDWASHING
- CLASSROOM / SCHOOL BUILDING HYGIENE
- SURVEILLANCE / MONITORING
- PHYSICAL DISTANCING 6 / 3 FEET
- MASKING
UPDATE

Given new evidence on the B.1.617.2 (Delta) variant, CDC has updated the guidance for fully vaccinated people. CDC recommends universal indoor masking for all teachers, staff, students, and visitors to K-12 schools, regardless of vaccination status. Children should return to full-time in-person learning in the fall with layered prevention strategies in place.

CDC – July 27th
Current School Mask Policy Around the Country

- **22% Masks required** (school-wide state mandate)
- **20% Mask mandates banned** (local districts do NOT have flexibility to mandate masks)
- **55% No mask mandate but allows local flexibility** (state lifted mask mandate; local districts have flexibility to mandate masks)
- **3% Vaccine contingent** (vaccination status determines mask use; local districts have flexibility to mandate masks)

Source: Burbio – July 22, 2021
Mitigations

- Health Checks / Respiratory Etiquette
- Handwashing
- Classroom / School Building Hygiene
- Surveillance / Monitoring
- Physical Distancing 6 / 3 Feet
- Masking

Testing remains critical to supplementing any mitigation strategy.
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Multiple technologies and systems needed to meet school demand and diversify the supply chain

### TYPES OF SCREENING TESTING:

<table>
<thead>
<tr>
<th>Technology</th>
<th>Testing Location</th>
<th>Strategy</th>
<th>Time to Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOLECULAR/NAAT (&quot;PCR&quot;)</td>
<td>Lab</td>
<td>Pooled</td>
<td>24-48+ hours</td>
</tr>
<tr>
<td></td>
<td>On-site/Rapid</td>
<td>Pooled</td>
<td>15-90 minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individual</td>
<td></td>
</tr>
<tr>
<td>Antigen</td>
<td>Lab</td>
<td>Individual</td>
<td>24 hours</td>
</tr>
<tr>
<td></td>
<td>On-site / Self</td>
<td>Individual</td>
<td>&lt; 30 minutes</td>
</tr>
<tr>
<td></td>
<td>Lateral Flow Test</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Both options: data management handled by test provider
Choosing The Right Testing Strategy

<table>
<thead>
<tr>
<th>Model-estimated &gt;90% infection transmission reduction</th>
<th>Model-estimated 80-90% infection transmission reduction</th>
<th>Model-estimated 70-80% infection transmission reduction</th>
<th>Model-estimated 60-70% infection transmission reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing daily</td>
<td>Testing every 1-3 days</td>
<td>Testing every 1-3 days</td>
<td>Testing every 3-7 days</td>
</tr>
<tr>
<td>Daily testing with 80%+ sensitive tests and results in one day</td>
<td>Daily testing with 70%+ sensitive tests and results in one day</td>
<td>Daily testing with 85%+ sensitive test and results in two days</td>
<td>Testing every three days with 70%+ sensitive tests and results in one day</td>
</tr>
<tr>
<td>OR Daily testing with 70%+ sensitive tests and immediate results</td>
<td>OR Testing every three days with 80%+ sensitive tests and immediate results</td>
<td>OR Testing every three days with 97%+ sensitive tests and results in one day</td>
<td>OR Weekly testing with 97% sensitive test and immediate results</td>
</tr>
</tbody>
</table>

MORE THAN ONE WAY TO GET THE SAME RESULT

Combination of:
- Test sensitivity
- Test frequency
- Time to results
- Logistics
- Costs


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Fast & Frequent Wins Over Slow & Sensitive

TEST AROUND SYMPTOM ONSET

WHAT DO SCHOOLS DO: RUBBER HITS THE ROAD – OPERATION OVERVIEW

There are 4 key steps to executing K-12 NTAP, but each component within the key steps must be designed and executed based on individual needs of the school.

<table>
<thead>
<tr>
<th>Key steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Coordination &amp; administration</td>
</tr>
<tr>
<td>• Establish key positions &amp; roles</td>
</tr>
<tr>
<td>• Hire, train and build partnerships with local public health officials</td>
</tr>
<tr>
<td>• Create a communication plan for updates and changes to the process</td>
</tr>
<tr>
<td>• Receive authorization and registration for testing</td>
</tr>
<tr>
<td>2) Testing modality selection</td>
</tr>
<tr>
<td>• Choose testing partner(s)</td>
</tr>
<tr>
<td>• Finalize protocols for Step 1 Asymptomatic Screening and Step 2 Follow-up Testing for positive pools</td>
</tr>
<tr>
<td>• Decide on Initiation Testing</td>
</tr>
<tr>
<td>3) Facility set-up</td>
</tr>
<tr>
<td>• Set-up on-site, centralized, decentralized or other physical models</td>
</tr>
<tr>
<td>4) Results reporting</td>
</tr>
<tr>
<td>• Decide reporting strategy</td>
</tr>
<tr>
<td>• Establish procedures for reporting positive results and confirmatory testing</td>
</tr>
</tbody>
</table>

Considerations for tailoring design and execution

- Local epidemiology
- Student population needs (age, special needs, etc.)
- Access to approved contracts and vendors
- Proximity to labs
- Human and financial resources
- Number of students, teachers and staff

For additional resources to support school operations and planning, see: Testing for America
REGULAR TESTING IN SCHOOLS CAN REDUCE INFECTION

Evidence from Mathematica, supported by The Rockefeller Foundation, found that weekly testing of all students, teachers and staff can reduce in-school infections by an estimated 50%.
Participants strongly supported the use of testing to confidently return to in-person learning

SURVEY RESULTS (% agree/strongly agree)

<table>
<thead>
<tr>
<th></th>
<th>Parents</th>
<th>Students</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing students, staff and teachers on a regular basis is important to ensure that school can remain open and the WIS community can be as safe as possible</td>
<td>91.8</td>
<td>95.1</td>
<td>92.6</td>
</tr>
<tr>
<td>Post-launch: I am open to being part of a pooled testing protocol once or twice a week, with an individual confirmatory test required if the pool is positive</td>
<td>90.3</td>
<td>93.4</td>
<td>98.8</td>
</tr>
<tr>
<td>I feel that students or teachers who refuse to be tested individually or as part of a pool on a frequent basis should not be allowed to attend in person classes</td>
<td>80.4</td>
<td>83.13</td>
<td>74.1</td>
</tr>
</tbody>
</table>

Baseline testing increased confidence of safety of in-person learning

Reported Confidence in Wellesley Public Schools

Sources: WBUR, WPS Viral Testing Information, Covid-19 Testing in K-12 Brochure, UnitedHealth Group
SCHOOL PREVALENCE RATES ARE 10X LOWER THAN COMMUNITY RATES

Aggregate data across multiple schools and their contiguous communities shows average school positivity is 0.25% to 0.5% while surrounding community positivity is ~ 7.23%*

CDC and others support a return to in-person schooling, citing low prevalence rate in schools as a key part of the justification

Disclaimer: It is important to note that community testing is an opt-in process, and the actual community positivity may be different

*Calculated by aggregating data collected by Ginkgo, CiC Health and JCM Analytics

Sources: New York State Dashboard, NYC Dept. of Education Testing Report, USA Today, CDC
SUCCESSFUL K-12 TESTING: MASSACHUSETTS SCHOOLS

Program overview:

- **Weekly testing** for every classroom across the state (900K+ students)
- Students and staff **self-swab** with a lower nasal swab
- **10+ swabs pooled together** and run using an accurate molecular test
- Samples processes at **local and regional labs**
- **Follow-up testing** for individuals in positive pools using Abbot BinaxNOW

Initial data:

154 school districts have rolled out testing

940 or 50% of public schools participating

~13,000 tests in first week of testing

Sources: Boston Globe, Boston Herald, WPS Viral Testing Information, Mass. DoE
SUCCESSFUL K-12 TESTING: BALTIMORE CITY SCHOOLS

Baltimore City Schools have been utilizing weekly testing with different systems for elementary, middle and high schools

**Current status:**
- ~10K students and staff tested
- 750+ pools
- 78 schools (soon to be 110)

**Elementary and middle schools:**
- Students and staff self-collect with lower nasal swabs
- 5-25 individuals pooled together
- Samples processed at local or regional lab
- Results ~24 hours from when samples arrive at the lab
- If a positive result, classrooms will quarantine for 2 weeks and follow up with individual PCR tests

**High schools:**
- Students and staff self-collect individual saliva samples
- Samples processed at a mobile lab in DC
- Results ~8 hrs from when samples arrive at the lab
- Individuals and close contacts will quarantine for 2 weeks if a positive result

**Common characteristics:**
- Weekly testing
- Parent consent is required for in-person learning, which includes Covid-19 screening/testing

Sources: Concentric by Ginkgo, CBS Baltimore, Fox 5 News
SUCCESSFUL K-12 TESTING: DELAWARE PUBLIC SCHOOLS

School testing in Delaware, a collaborative effort between the Delaware Health and Social Services and Department of Education, has successfully demonstrated a scalable, in-person, low-resource program utilizing BD antigen tests. This program started in a handful of public charter schools and has quickly expanded across the state with buy-in from parents, staff and administrators.

**Current status:**
- **75+** public schools participating
- **33%** of schools in Delaware
- **5,000+** students and staff tested

**Easy to implement:**
- Flexible program implemented by school staff. Estimated need for 2-3 FTE / 1,000 people
- Automated results reporting expected to simplify workflow further

**Return to school:**
- Positive cases have been identified without impacting school opening
- Schools see parents switching back from virtual to in-person education

**Key learnings**

- Prioritizing communication to all stakeholders throughout the process is key
- Students can be introduced to swabbing in a drive-through environment with parents nearby
- Focusing on logistics is crucial. Walk-up service may work well for older students, while classroom service may fit for cohorted and youngest students
- Self-swabbing under observation with oldest students improves throughput and logistics
- Clear guidance on obtaining consent and addressing legal requirements early is critical
- Continuous feedback from all stakeholders can make the program sustainable
- Objective assessment of test results minimizes staff confusion and improve logistics
- Reporting and documentation is a significant resource challenge. Automating reporting may save 2 FTE time

**Sources:** NCES, Delaware Health and Social Services
A collaboration between Color and Perkin Elmer to provide access to high-quality, fast PCR testing for public and private schools throughout California started with a focus on testing staff and has expanded to include students and student athletes. The program led by the California Department of Public Health has supported statewide onboarding for all school districts and standardized a scalable model across diverse populations.

Key learnings:

- Standardized, state-level onboarding of over 1,000 districts helps provide clean, school-level data to the state for public health planning and interventions.
- Creating plug-and-play processes such as pre-assembled testing kits significantly reduces errors during sample collection and increases scalability.
- One-time consent and HIPAA authorization early is critical to streamline testing processes.
- In-house staff can be trained at scale to support sample collection and program administration when coupled with easy-to-use software and centralized support infrastructure.
- Clear funding models help improve access for underserved populations.
- In addition to capacity requirements, key pieces of successful implementation also include coordinated onboarding, shipping and information management between testing partners.
- Simplified logistics and consistent, easy-to-understand processes has supported effective use of time and resources and increased time spent in the classroom in K-12 California schools.

Map of CA K-12 schools testing

10,000+ Schools eligible for program

1,600+ School staff trained

50,000+ K12 tests in less than 6 weeks

Source: Color, California Dept. of Education
SUCCESSFUL K-12 TESTING: OHIO SCHOOLS

Ohio schools for the blind, deaf pilot new COVID-19 testing program for children

Alissa Widman Neece: The Columbus Dispatch
Published 9:46 a.m. ET Jun. 8, 2021 | Updated 11:49 a.m. ET Jun. 8, 2021

View Comments

4 pilot locations for ReadyCheckGo are currently underway with challenging test scenarios including the local schools for the deaf and the blind.

35 additional schools have already signed up for the ReadyCheckGo testing program, with more to come.

Opt-in rates for testing have doubled over the summer and they anticipate maximum participation come fall.

Students have adapted to the simple process and testing has become second nature – in fact, with self-swabbing, students claim to feel more empowered.

“We might be done with COVID, but COVID isn’t done with us.”

“This is quick and painless and really just reassuring.”

“It’s not scary. It just feels like a tickle or a tingle...There’s nothing to worry about.”

“The good news is testing now literally takes only a minute or two out of each kid’s day.”
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## School Federal Funding Options

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<tr>
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</thead>
<tbody>
<tr>
<td><strong>K-12 Schools Covered</strong></td>
<td>Public, Private &amp; Charter</td>
<td>Public, Private &amp; Charter</td>
<td>Public</td>
</tr>
<tr>
<td><strong>Focus: Settings Covered?</strong></td>
<td>All K-12 Schools and Summer Programs</td>
<td>Underserved Populations including Schools and Congregant Settings</td>
<td>Underserved Schools</td>
</tr>
<tr>
<td><strong>Funding</strong></td>
<td>$10 billion (CDC to State, large local &amp; territories’ Depts of Health)</td>
<td>$650 million (HHS / DOD to 4 regional Coordination Hubs)</td>
<td>$255 million (Direct service / not a reimbursement program)</td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>April 2021 – July 2022</td>
<td>May – November 2021</td>
<td>April – September 2021</td>
</tr>
<tr>
<td><strong>Test Technology Choice</strong></td>
<td>Technology agnostic: Up to schools / districts / States</td>
<td>Input from HHS / DoD and schools / districts – may differ between hubs</td>
<td>Primarily individual PCR today</td>
</tr>
</tbody>
</table>

### Sources:
- Rockefeller Foundation
- HHS
- Open & Safe Schools.org
- OESE

Updated July 14, 2021
Over $10B is available to expand COVID-19 testing in schools

<table>
<thead>
<tr>
<th>State</th>
<th>Funds available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
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Source: Biden Administration to Invest More Than $12 Billion to Expand COVID-19 Testing | HHS
Distribution of $10B Government Funding for School Testing

American Rescue Plan Act of 2021 for Epidemiology and Lab Capacity for School Testing

Source: CDC COVID-19 Funding

85%
To fund or provide materials (e.g., test kits, PPE, staffing, etc.) and services (e.g., sample collection, laboratory testing, etc.) to increase screening testing in all K-12 schools (public or private) within the recipient’s jurisdiction.

15%
For coordination, management, technical assistance, monitoring, and data collection and reporting activities to support K-12 screening testing programs.
Vaccines do not eliminate the need for sustained vigilance

**Vaccine efficacy**
- No vaccination is 100% effective
- Identify, quarantine and treat those with COVID-19

**Duration of protection**
- Duration of protection unknown beyond 6 months
- No long-term data have yet been reported

**Non-vaccinated**
- Not everyone will be vaccinated
- Adult hesitancy and (currently) no vax for children < 12 years

**Mutations**
- Can impact vaccine efficacy

**Surveillance is essential to avoid recurrence**

Introducing

Karen Cormier
Senior Marketing Manager, Genetic Testing Solutions Group, Thermo Fisher
New Literature Available to Affiliates:

Letter Template
Importance of Testing

3 Educational Articles
Importance of Testing

NTAP Summary

FAQs for School Administrators
Questions
Thank you