Project SafeSchools

Planning for the 2022-2023 school year

Ms. Leeanna Crocker & Dr. Emily Haroz
Land acknowledgement
Significance

1. Native Americans have faced some of the highest COVID related health disparities of any racial or ethnic group.
2. Most schools serving Native American youth were closed until March or April of 2021.
3. School closures have resulted in massive learning loss and raising concerns related to physical and mental health.
4. Keeping schools safely open, is paramount to helping students learn, grow and thrive.
Project background

• Since 2021, JHU has partnered with schools that serve Native communities in the Southwest to facilitate implementation of COVID-19 testing and support other safe return to in-person learning efforts.

• The work is also focused on understanding the educational, social, emotional, physical and mental health impacts of returning to in-person learning for Native American youth ages 4-16 years.

• The partnership with the Whiteriver Unified School District began in the spring of 2021.
Our work is rooted in community engagement: CAB
School, community, research partnerships
Partnering Practice & Research
Local Approvals

20+ approval letters from community agencies
3 IRBs
Quarterly meetings at agency councils, chapter houses, and IRBs
Planning for 2022-2023: Weaving a basket to keep our schools safe
Encourage vaccination

What’s the best way to prevent serious illness from COVID?

Get VACCINATED!

COVID-19 vaccines are safe and available for everyone 6 months and older!
Vaccination resources

https://caih.jhu.edu/resource-library/

Health Resource Library for Native American Communities

Tribal Leaders  Community Members  Healthcare Workers  See All

Search ...  All Topics  All Material Types  Submit

226 results | Clear Filters

Featured Resource

Social Media Toolkit

COVID-19 vaccines are safe and available for everyone 6 months and older!

Featured Resource

Factsheets

Kids and COVID-19 Vaccines: What Parents and Caregivers Need To Know

Featured Resource

Social Media Toolkit

Protect Your Summer Plans With A Booster
How schools can help with vaccine uptake

Host vaccine clinic(s) during the summer, and/or as a back-to-school event
• Important for new pediatric boosters

Communicate about family-friendly clinics—many planned for spring and summer
• Send community clinic information home with students via flyers
• Send robocalls and texts to families with community clinic information
• Share community clinic information via school/district email, social media, website, etc.

Provide an opportunity for parents to opt-in to receiving help booking a vaccine appointment for their children/family
Masking still plays a role!

1. Made of medical-grade materials, like N95, KN95, and KF94.
2. Fits snugly on sides of the face.
3. Has a nose bridge to keep mask tight around nose.

When rates are high, consider masking, particularly inside to help stop the spread!
Enhance ventilation
Consider adding testing strategies
## Testing approaches

<table>
<thead>
<tr>
<th></th>
<th>Screening Tests</th>
<th>Surveillance Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rapid Antigen Tests At Schools</td>
<td>Rapid Antigen Tests at Home</td>
</tr>
<tr>
<td>What tests?</td>
<td>Abbot Binax Now Ellume Home Test Kits</td>
<td>Abbot Binax Now Ellume Home Test Kits</td>
</tr>
<tr>
<td>Frequency</td>
<td>2x per week, symptomatic testing, test-to-stay</td>
<td>1-2x per week, backpack programs, test-to-stay</td>
</tr>
<tr>
<td></td>
<td>1x per week</td>
<td></td>
</tr>
<tr>
<td>Sensitivity/Specificity (asymptomatic)</td>
<td>Binax: 70.2/99.6(^1) Ellume: 91/96(^2)</td>
<td>Binax: 70.2/99.6(^1) Ellume: 91/96(^2)</td>
</tr>
<tr>
<td></td>
<td>96/100(^3)</td>
<td></td>
</tr>
</tbody>
</table>

---

**Teachers & Staff**

**Students**

**Both**
## Logistics of antigen tests

<table>
<thead>
<tr>
<th>Situation</th>
<th>CLIA Certificate of Waiver Required?</th>
<th>Reporting to DPH Required?</th>
<th>Provider’s Order Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BinaxNOW “Professional” or other official point of care test, any testing reason</td>
<td>Yes</td>
<td>Varies by state</td>
<td>Yes</td>
</tr>
<tr>
<td>Self-test sent home, any testing reason</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Self-test performed and result interpreted at school by the individual being tested, any testing reason</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Self-test performed or result interpreted by third party (e.g., staff), any testing reason</td>
<td>Yes</td>
<td>Varies by state</td>
<td>Yes</td>
</tr>
</tbody>
</table>
PCR POOLING: SENSITIVITY

Studies comparing the sensitivity of pooled versus individual tests confirm that **PCR pooling is more than sufficient** for asymptomatic screening tests and has **similar sensitivity to individual testing**. In April 2021, the FDA recommended that best practice for the use of antigen tests is serial testing – two tests within 24 to 36 hours.

A study conducted by *The Broad Institute* found comparable levels of detection when samples are pooled or individually tested.

**Results show** that the sensitivity was comparable for pooled and individual/single samples.

**Notes on the graph:**
- 10 samples were pooled together to compare sensitivity $N1$ and $N2$ samples look for Covid-19 virus genome and $RP$ samples look for human genome (control).
- A lower Ct value means a higher amount of virus genome is present.
- The RP Ct is significantly lower in the pool as expected since human genomic material is present on both positive and negative swabs.

**UnitedHealth Group**

A study by the *UnitedHealth Group* showed pooled testing had comparable performance to individual PCR testing.

**Results show** that up to 15 samples could be pooled together to reduce costs and supplies while maintaining accuracy of results.

Sources: *Pooling for SARS-CoV2 Surveillance: Validation and Strategy for Implementation in K-12 Schools*, Bethany L. Hyde, Ethan Berke, Prat Verma
RAPID ANTIGEN: USE FOR POOL DECONVOLUTION

Given the speed, accuracy, price and widespread availability, some schools are using rapid antigen testing as a way for recommended follow-up testing to support the pooled test program.

[Graph showing the percentage of positive PCR tests accompanied by a positive BinaxNOW test, by viral load.]

When compared to PCR tests, BinaxNOW is accurate in detecting COVID-19 in children with moderate to high viral loads, even if they are asymptomatic. These children are the most likely to be highly contagious and transmit the disease.

Sources: Massachusetts Department of Elementary and Secondary Education, BinaxNOW Study, Covid Response Advisors
“Test to Stay” programs

- Instead of quarantines for close contacts, students get tested everyday
- One group had close contacts quarantine for 10 days; Other group was allowed to return to school and was tested.
- No difference between groups in terms of COVID-19 incidence
- Test to stay group had more learning days
Evidence for testing approaches
Weekly testing can improve detection of cases in schools

Testing can help stop school transmission even in communities with high incidence rates

Estimated COVID-19 transmission reduction in schools under different testing scenarios and community incidence rates

- Single antigen testing
- Pooled PCR testing
- Serial antigen testing

200 cases per 100,000 people in the last 7 days
15 cases per 100,000 people in the last 7 days
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%

Cumulative COVID-19 infections among students and staff in high schools

Source: Mathematica
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%*

<table>
<thead>
<tr>
<th>NYC</th>
<th></th>
<th>Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.53% positivity rate in K-12 schools</td>
<td>5.60% positivity rate in community</td>
<td>0.5% positivity rate among teachers</td>
</tr>
<tr>
<td>4% positivity rate across the state</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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, GIC Health and JCM Analytics

Sources: New York State Dashboard, NYC Dept. of Education Testing Report, USA Today, CDC
**TESTING BRINGS STUDENT, PARENT AND TEACHER CONFIDENCE**

“I feel more safe now knowing solid facts about who has it and that the people who have it are not at school. So, it’s keeping everything safer.” - Parent

Participants strongly supported the use of testing to confidently return to in-person learning

<table>
<thead>
<tr>
<th>SURVEY RESULTS (百分比: 有 &amp; 非常有)</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

![Graph showing reported confidence in Wellesley Public Schools](image_url)

Reported Confidence in Wellesley Public Schools
- Pre-Testing
- Post-Testing

Sources: WBUB, WPS Viral Testing Information, Covid-19 Testing in K-12 Brochure, UnitedHealth Group
What did/does mitigation look like in schools?

Family Engagement/Communication:
Providing personal, direct communication to families led to high participation in Whiteriver Elementary School’s testing program. The school worked closely with Indian Health Services and the local White Mountain Apache tribe to create a system that works for their community.

Leanna Crocker
CNA Whiteriver Elementary School, Whiteriver, AZ
Resources for schools serving Native American communities

COVID-19 School Testing Toolkit
Johns Hopkins Center for American Indian Health

https://caih.jhu.edu/schoolresources/
Project SafeSchools

Working together to make in-person learning safer for ALL.