



A Comprehensive COVID Solution for Schools

All of us are concerned with by recent news of COVID-19 of increasing COVID-19 cases in school age children. As the fall semester began, hospitalizations of children were exploding compared to earlier waves of the pandemic, and it looks like we are looking at another wave as the spring semester begins in January. Clearly, the delta variant has had a big impact. Even more alarming is the nearly 30% of all children who contract COVID-19 in schools will transmit it back to family members who are more vulnerable to the virus (such as parents, grandparents, and siblings or friends with various medical conditions).

The CDC has given broad guidelines about effective mitigation measures for schools which include screening to promptly identify cases, clusters, and outbreaks. Unfortunately no federal or state agency has given specific instructions about exactly how to implement effective screening. In fact, testing has often been done too late and triggered by an obvious outbreak as a defensive reaction to an already bad situation. Schools need a preventive plan. Prevention could stop an outbreak before it affects a whole class or school. Prevention can enable seamless uninterrupted operations.

The key to Prevention is surveillance. Surveillance testing improves both prevention against outbreaks and mitigation against severe outbreaks should infections occur. Properly interpreted positive and negative test outcomes have value in prevention because they allow leaders to use their resources most efficiently and bolster confidence of in the community. To use a sports metaphor, systematic surveillance is playing offense instead of defense.

After a year and a half of dealing with COVID-19, there is a new understanding of how virus infection takes place, a new understanding of the role of surveillance testing to control the epidemic, and the advent of virus sequencing that is allowing us to fight back against the delta variant.

The Water Lens Difference:

- Detection of both symptomatic and asymptomatic SARS-COV-2 infection before a cluster outbreak occurs
- Utilizes pooled saliva screening, which is more efficient and less expensive than individual level testing
- Employ an integrated testing solution that is superior to a singular screening or an individual testing strategy
- Surveillance reduces the risk of a large outbreak
- Reduces the level of student absenteeism and lowers parent and family anxiety
- Surveillance sequencing determines sources of transmission and viral strain information



The Water Lens' Solution is a vertically integrated strategy for early detection and mitigation. Our solution combines three distinct approaches: Wastewater surveillance, pooled saliva testing, and viral genome surveillance.

- Wastewater Surveillance – a natural pooled sample from an entire building or school that enables early detection of virus in the population
- Pooled Saliva Testing – Using just a simple mouth rinse, pooled saliva testing reduces costs and increasing efficiency compared to individual testing -- and focuses on the sources at the office or classroom level, avoiding shutdowns and enabling efficient, targeted quarantines.
- Saliva testing – better acceptance than nasopharyngeal swabs, while retaining high sensitivity and specificity
- Viral genome surveillance - learn whether viral transmission has occurred in school clusters; learn which strain or strains are present.
- Same day results – will enable rapid response and mitigations
- Play Offense – Find the asymptomatic cases before full blown outbreak and hospitalizations
- Proactive – Focus interventions on transmission rather than symptomatic illnesses