

Pooled Saliva Surveillance For SARS-CoV-2

Educational institutions, childcare, eldercare, and businesses benefit from reliable data on SARS-CoV-2 virus prevalence in their workforce, students and residents. Geosyntec provides surveillance data to our clients to understand if small groups such as sports teams, classes, residents, and work teams harbor SARS-CoV-2 and are at risk of further infection. Group surveillance informs operational decisions on outbreak risk mitigation while balancing business continuity. Our approach employs pooled saliva samples from populations of people who interact with each other in the course of their day. Surveillance monitoring involves the collection of anonymous individual samples of saliva that are pooled and analyzed to provide an indication of the presence or absence of SARS-CoV-2 in the pooled population. A negative result clears the entire population as SARS-CoV-2 free at the time of sampling and allows continuation of normal operations. A positive result indicates that some within that pooled population are shedding the virus and also indicates that the others in that pool are at risk. The facility's COVID-19 response plan will guide appropriate actions in the event of a positive result.

Pooled saliva surveillance may be used as a routine monitoring tool to inform the effectiveness of COVID-19 response actions in stemming virus transmission. Several strategies for how to best use pooled saliva surveillance are available and should be tailored to a facility's unique needs. Some example are:

- Schools and daycare facilities--surveillance may be initiated to understand if a known or suspected infected person has infected others in their contact group, such as a classroom.
- Sports teams may use pooled saliva surveillance as a means to clear the team for games.
- Industrial and business operations may use surveillance as a routine, cost effective, non-invasive way to monitor their work force for SARS-CoV-2.
- Residences such as adult living facilities may use surveillance monitoring for their permanent residents in place of invasive individual clinical monitoring. Similarly, staff surveillance may be used to evaluate staff for their potential to introduce SARS-CoV-2 to otherwise closed facilities.

How We Can Help

- Planning to help you use pooled saliva surveillance for the best benefit of your operation.
- Next day results minimize down time and quickly trigger next steps for populations with positive detections.
- Simple collection protocol that small children and seniors can do themselves without frightening and invasive nasal swabs.
- Highly sensitive and reliable results provide confidence in decision making.
- Geosyntec employs the most sensitive method, reverse transcriptase-quantitative polymerase chain reaction (RT-qPCR) analysis for definitively detecting SARS-CoV-2 in pooled saliva samples.
- Positive and negative controls ensure each analysis is accurate and will yield a positive result if the viral RNA is present.

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Pooled Saliva Surveillance Services

- Geosyntec designs and deploys Pooled Saliva Surveillance programs to help maintain business and facility operations and minimize disruption from COVID-19
- Geosyntec's approach to monitoring facility viral prevalence focuses on quickly and accurately detecting SARS-CoV-2 in pooled saliva samples
- Pooled Saliva Surveillance results provide facility management with information necessary to make informed decisions regarding next steps to better protect employee, patron, resident, and student health and manage business continuity goals
- Laboratory Testing
 - A history of client service in providing environmental molecular testing since 2001
 - Geosyntec's genetics testing lab, SiREM, provides SARS-CoV-2 specific pooled saliva surveillance testing
 - SiREM analyzes samples by RT-qPCR, the same method that many public health departments and clinical labs use for medical testing
 - Positive and negative control samples confirm the reliability of the results.
 - Geosyntec recognizes our client's need for data confidence and are sensitive to the implications of the analytical results
- Client Support Services
 - Simple saliva collection procedure and kits
 - Collaboration with your staff to establish an appropriate sampling and analysis plan, based on facility configuration and work schedule
 - Geosyntec's subject matter experts support your staff at public meetings, management presentations and in communicating findings with public health officials and other affected parties such as parents, administrators, human resources personnel, and others

Pooled Saliva Surveillance analyzes populations for the presence or absence of SARS-CoV-2 virus. Surveillance results indicating the presence of SARS-CoV-2 in a sample requires subsequent diagnostic testing of individuals by a laboratory licensed to conduct medical tests.

For more information,
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About Geosyntec

With over 1,500 employees in 80+ locations in the US, Canada, UK, Ireland, and Australia, Geosyntec provides the engineering and science needed to respond to this pandemic.

For additional COVID-19-related services, visit
[geosyntec.com/COVID-19](https://www.geosyntec.com/COVID-19)

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