

OPTIMIZING COVID-19 TESTING SCHEDULES WITH ASSURE SENTINELTM





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Testing is the key to controlling the spread of COVID-19

We developed the **Assure Sentinel[™] COVID-19** test to address the central problems that limit repeated testing: Our saliva-based testing protocol makes painless, routine testing possible on any scale, without the need for nasal swabs. As organizations begin routine testing, questions naturally arise about how many people should be tested, how often testing should occur and to what degree testing will lower infection rates.

The key to mitigating the spread of the virus in a low prevalence population is **regular**, **consistent testing**. Ideally, regular testing detects infected employees **before they are infectious** and can spread the disease to uninfected employees.



Once an individual is exposed to SARS-CoV-2, the virus that causes COVID-19, an average of 3 to 4 days passes before that person becomes infectious, or can spread the virus to someone else. Ideally, regular COVID-19 testing may detect infection before an individual becomes infectious, limiting the spread of the disease.

Developing the most effective testing strategy requires understanding the size, safety, culture and dynamics of your organization. Using information about your sites, Kailos can model the effects of different testing strategies on the infection rate within your employee population.

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How does Kailos model the infection rates of employees and determine the optimal testing frequency?

Kailos has developed an algorithm for evaluating plan options that takes several factors into account:

- + Virus prevalence in the community.
- + Viral exposure risk category. Examples:
 - High public interaction settings present a higher viral exposure risk.
 - Low public interaction settings present a lower viral exposure risk.
- + Employee adherence to CDC guidelines. Examples: Social distancing, mask compliance, etc.
- + Number of employees per business location.

Example 1

Testing only 17% of an entire workforce every five days for three months could reduce the number of infected people up to 25%.*

Example 2

For a small business with 50 employees, a variety of testing strategies were modeled to understand effectiveness in viral suppression over the course of a quarter.* The following graphic illustrates that the projected number of COVID infections can be dramatically reduced (up to 95%) depending on the total number of tests performed over 90 days.

*Not a company specific-scenario. For illustration purposes only.



ASSURE SENTINEL[™] COVID TESTING MODELING QUESTIONNAIRE

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8.	My primary objective for COVID-19 testing at my organization is:
7.	Are individuals present at your organization on weekends? Are weekend sample collection and shipment feasible at your sites?
6.	Do you know the current community COVID-19 positivity rate? This figure helps us model the population so we can better estimate the initial infection rate and optimize testing schedules. Kailos can estimate this figure if data is not available.
5.	If an employee tests positive, is it possible for everyone at their site to be tested the following day?
4.	When we report someone is positive for COVID-19, will the infected employee immediately quarantine at home?
3.	Are there any limits or barriers to collecting samples from a subset of your entire workforce in a single workday? Do you have a preferred testing schedule in mind? For example, would you prefer to test a subset of employees every three days or every five days? Understanding sample collection flexibility will help us tailor an optimized testing strategy for your organization.
2.	How many different sites does your organization have? What is the estimated number of people at each site? These can be completely different locations or different buildings at the same location that have minimal interaction between them.
1.	What is the total number of employees that will potentially be on-site? Please include a total count even if they are not subjected to testing.