The MARI Difference

Developing new technology tools to increase speed of reaching contacts.

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Who We Are

The Public Health Institute (PHI) and the Oregon Public Health Institute (OPHI) created the Tracing Health program in the spring of 2020 to meet the needs of the COVID-19 pandemic and to mitigate the exacerbation of health inequities in California and the Pacific Northwest. Tracing Health combines best practices and an equity driven approach to provide a suite of COVID-19 support services to health departments and school systems who are navigating COVID-19 response and recovery.

Developing MARI

Early in the pandemic, contact tracing in California was being conducted by local health departments mostly using the state-wide CalCONNECT system, developed and managed by the California Department of Public Health (CDPH). The complexity of multiple data exchange points meant that positive COVID-19 cases were often taking several days to become available to staff for timely contact tracing. As part of launching a clinically integrated contact tracing model, Tracing Health developed an internal data exchange system to interface directly with data from testing laboratories operating in specific service counties with the aim of getting to cases more quickly and to encourage isolation and provide resources.

After just 6 weeks of development, Tracing Health launched the Microbe Awareness and Risk Intervention (MARI) database on December 7th, 2020 and immediately began accepting positive COVID case information for enhanced contact tracing. As a stand-alone system, MARI data is stored locally on secure servers and utilizes HIPAA-compliant confidentiality standards. With the clinically integrated model and the MARI system working in combination, the timeliness of contact tracing has improved substantially. Contact tracers are making calls to people who are infected within 24 hours of receipt of a positive test result seven days a week. This rapid notification model initially reached people three-to-four days faster, allowing for earlier isolation, earlier interruption of transmission, and ideally a smaller total number of contacts. The MARI system facilitates community-wide care as an important part of the COVID-19 containment strategy for our counties.

With MARI's ease of customization and updatable software, and its ability to capture additional data fields that are not available in CalCONNECT, it's clear that MARI will continue to stay relevant and adaptable for future uses. Since its launch, the PHI/Tracing Health Data Operations team has been continuously upgrading the system with workflow enhancements informed by the insight of contact tracers using the system.

The turnaround time from a positive test to when the case is contacted has gone from five days to as little as ten hours

While MARI has been a significant chapter in the Tracing Health story, the full benefits of the system are still being explored for further implementation beyond the COVID-19 pandemic. MARI has enabled Tracing Health to be of service to both those infected and their contacts in the many communities where we work. We believe that the MARI system will continue to evolve and be a vital resource for COVID-19 response and a model platform for contact tracing responses in the future.