

COVID-19 testing at K-12 schools across Pennsylvania

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CATEGORY: **Epidemiology and Laboratory Capacity (ELC)**

The Pennsylvania Department of Health partnered with Concentric by Ginkgo (Ginkgo) to provide COVID-19 testing at K-12 schools across the Commonwealth. The program provided schools with real-time access to diagnostic test results enabling school and public health leaders to make critical decisions to mitigate community outbreaks and spread.



The “What”

Seeing a need to support in-school testing efforts to mitigate the spread of COVID-19, the Pennsylvania Department of Health (PADOH) solicited vendor responses using funding from Epidemiology and Laboratory Capacity for the Prevention and Control of Emerging Infectious Diseases (ELC) cooperative agreement. Concentric by Ginkgo became one of the Department’s preferred testing partners, working with K-12 schools across the state to deploy end-to-end testing services during both the 2021-2022 and 2022-2023 school years.

Pennsylvania’s 750+ public and charter school districts represent diverse communities across city, rural, and suburban locales. COVID-19 infection and spread posed a threat to in-school learning for students and required swift development and deployment of school-based testing programs to protect critical in-school learning hours and keep students and staff healthy and in school. In partnership with PA DOH, Concentric offered a flexible set of solutions to meet the schools’ diverse needs and made in-school screening and diagnostic testing for COVID-19 accessible and available to all schools within the state (with the exception of Philadelphia County which operates outside the scope of the PADOH). The program was focused on one critical mission: keeping schools open.



Ginkgo established partnerships with six testing laboratories across Pennsylvania to optimize testing turnaround times and performance, and with four staffing organizations to provide in-school testing support to any school that requested additional resources to carry-out the testing program.

The “So What”

PADOH was able to leverage the strengths of private partners to quickly and effectively stand up a comprehensive diagnostic in-school testing program for SARS-CoV-2 throughout the state, focusing on equitable access to testing across rural and urban school districts. Several effective test modalities were offered to school districts by the state, and schools selected different test

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modalities, or combinations of multiple, based on how they would fit into their health and safety plans and how they would complement schools’ operational bandwidth.

Over the course of the two-year program, PADOH was able to screen close to 250,000 students and staff for SARS-CoV-2 using pooled PCR testing, individual polymerase chain reaction (PCR) testing, and individual rapid antigen testing, totaling >80,000 tests in total with an average positivity rate of 6% across all testing modalities (roughly 2% disease prevalence). Likewise, Ginkgo worked with PADOH to distribute over 1 million over-the-counter rapid antigen tests to school communities across the state to facilitate at-home testing for staff, students, and faculty.

In the 2022-23 school year, 638 schools across 27 of the 29 Intermediate Units in Pennsylvania enrolled in the program.

Throughout the course of the program, PA DOH provided schools with real-time access to diagnostic test results through the online testing platform, enabling school leaders to make critical decisions on quarantine measures to mitigate community outbreaks and spread. Schools’ Test Champions were able to easily login to view PCR test results from our partner laboratories, with an average turnaround time from test registration to result of roughly 30 hours. A quick turnaround time enabled fast response to positive test results and reduced loss of learning hours for students.

The “Now What”

Public/private partnerships are integral to deploying rapid, effective, and equitable diagnostic testing programs across congregate and community settings. Maintaining flexible, base-line programs with private sector partners ensures PA DOH readiness capacity in the event of an outbreak.

Prioritizing ELC funding to establish baseline infrastructure and partnerships will shorten response time, amplify public sector surge capacity, and enable both scaling and rapid deployment of diagnostics and supporting bioinformatics. This capability fundamentally enables local and state public health officials to respond to emerging and established threats.

Key contributors to this project include PADOH COVID-19 Response team, PADOH Division of School Health, PA DOH Policy Office, PA Dept of Education (PDE), Concentric by Ginkgo, Pennsylvania Association of Intermediate Units.