

PLAYBOOK for Pooled PCR Testing



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Introduction

COVID-19 testing in K-12 schools remains a powerful tool for preventing transmission of COVID-19 and allows schools to provide full in-person instruction for students of all ages for the school year.

Both the State of California and the Federal Government have made substantial investments in testing infrastructure to support schools, which will allow schools to be prepared for changes in pandemic dynamics, including community outbreaks, a change in the virus that increases cases, or limitations in vaccine uptake. The California Department of Public Health (CDPH) and the California COVID-19 Testing Task Force (TTF) have developed a program to fund and support COVID-19 testing in California K-12 schools in three primary modalities: Individual PCR Testing, Antigen Testing, and Pooled PCR Testing.

This Playbook provides an overview of the Pooled PCR Testing modality and provides guidance for K-12 schools wishing to implement this testing program.

What Are the Testing Options that California Offers for Schools?

One of the challenges in controlling COVID-19 is that individuals who are asymptomatic and pre-symptomatic can still spread the virus. Identifying asymptomatic and pre-symptomatic COVID-19 infections in staff and students can help prevent and mitigate outbreaks in schools.

The various testing methods for COVID-19 include a) Individual PCR Testing; b) Antigen Testing; and c) Pooled PCR Testing. There are several considerations in choosing the best testing modality for each school. Please find a brief overview of each modality below.

The Individual PCR Testing program uses molecular (PCR) testing, the most sensitive testing technology available, and involves collecting test samples from students and staff and sending the samples to a laboratory to be processed individually. Test results are typically returned in 24-48 hours. For more information, please see the [CDPH School-Based PCR Testing Playbook](#).

The Antigen Testing Program uses rapid antigen tests, which are slightly less sensitive than molecular tests but are highly likely to detect individuals who are the most infectious. In this program, the antigen tests are performed at a school testing site and the results are available within 15 minutes. For more information, please see the [CDPH School-Based Antigen Testing Playbook](#).

The Pooled PCR Testing Program employs the same molecular (PCR) technology as the Individual PCR Testing program. However, instead of

processing each tested person's sample individually, Pooled PCR Testing reduces the resources and time required for testing by combining, or pooling, samples from self-contained groups of students and staff to be tested together.

The decision about which testing method is best for each school should be made in consultation with the local health department as well as with district education leadership and staff. Additional information on testing programs for schools can be found at <https://schools.covid19.ca.gov/>, and at <https://testing.covid19.ca.gov/school-testing/>.

Overview of Pooled PCR Testing

Pooled PCR Testing Methodology

Pooled testing is an approach where specimens from all students in one group (up to 25) are combined and tested with a single PCR test.

- If the test for all the specimens is negative, all students in that pool have a negative test result.
- If the test for all specimens is positive, a reflex rapid antigen test is conducted for each individual in the pool, to confirm which individual or individuals from the pool are positive, allowing for isolation of those infected people.
- Parents provide consent to the testing based on a timeframe set by the school or district.

The advantage to this approach is that during specimen collection, students do not need to be registered individually, substantially reducing time spent on testing. Since COVID-19 rates in K-12 schools have been low even during times of high community prevalence, the pooled test is infrequently positive, and so the need for subsequent individual reflex antigen testing is uncommon.

Benefits, Considerations, and Applicability of Pooled PCR Testing

Pooled PCR Testing is one option for a COVID-19 testing program for California Schools. There are benefits, considerations, and applicability details that schools are encouraged to evaluate, which are summarized below.

Benefits

As determined by CDPH, Pooled PCR Testing is:

- **Simple:** Children as young as kindergarteners have been shown to be capable of administering self-swabs.
- **Quick:** Testing an entire classroom can take less than 10 minutes and can be done in the classroom, minimizing interruption of instructional time.
- **Accurate:** PCR testing for COVID-19 has been demonstrated to be both highly specific and highly sensitive.
- **Efficient:** By pooling samples, lab processing time is minimized, which in turn reduces costs.

Considerations

Pooled PCR Testing involves:

- **Aggregated results:** If a pooled sample test result is positive, the test from the pool cannot be used to identify the individual who is infected, which leads to a need for subsequent testing.
- **Variable turn-around time:** Molecular testing needs to be performed in specialized laboratories and results are generally available in 1-2 days

Applicability

As determined by CDPH, Pooled PCR Testing is applicable to:

- K-12 students
- K-12 staff
- Sports teams

Pooled PCR testing can also be used for modified quarantine testing. For additional information regarding other testing options available to California schools, please review the [K-12 School-Based COVID-19 Testing Strategies document](#) and the [TTF Schools Testing website](#).

Roles and Responsibilities

The School's Responsibilities

All schools and districts participating in Pooled PCR Testing maintain the following responsibilities:

- Develop and continually update a coherent Testing Plan, coordinating as needed with their Local Health Jurisdiction
- Complete the Pooled Testing Application Form; Sign and submit the Participatory Confirmation Agreement
- Secure consent for student testing, as applicable
- Complete onboarding and training processes with Ginkgo, as applicable
- Provide supplies and resources for pooled sample collection (e.g. laptops and masks)
- Facilitate Pooled PCR Testing implementation:
 - **Public and charter schools** and districts/networks are eligible to receive full support from Ginkgo, including provision of staffing for sample collection.
 - **Private and independent schools** are eligible to use Ginkgo's system but are not eligible for staffing-related support as a part of this program.

The State's Responsibilities

The Testing Task Force will maintain the following responsibilities:

- Ensure that each school has a contracted vendor for Pooled PCR Testing for testing supplies and, for eligible public and charter schools, support staffing
- Hold contract with vendor and provide funding for Pooled PCR Testing programs

Concentric by Ginkgo's Responsibilities

Ginkgo is the TTF designated vendor for Pooled PCR Testing in K-12 schools.

For all schools, Concentric by Ginkgo will provide the following support and resources:

- Pooled Testing supplies
- Shipping process to deliver samples to PCR lab network for testing

- Access to results via Concentric by Ginkgo portal
- Result reporting to CalREDIE database
- All relevant training and instructional materials
- Support center with reference articles and live support
- Additional information and resources for families
- Collection of parent/guardian consent via the Concentric by Ginkgo portal

For public and charter schools, Ginkgo can also provide:

- On-site staffing support to facilitate both pooled sample collection and reflex antigen testing

Initiating a Pooled PCR Testing Program: 4 Steps

Step 1: Identifying Testing Needs

There are several factors to consider as a school/district determines its specific testing needs. For a detailed overview of the available options and key considerations, please see the [School Testing Considerations](#) document from CDPH or contact SchoolTesting@cdph.ca.gov to attend office hours sessions held by program representatives for additional information.

For additional support and to engage directly with representatives from the TTF or Concentric by Ginkgo, submit the [Pooled PCR Testing Application Form](#). Schools that are only seeking additional information and are not ready to enroll in the program should select "I would like to know more about the pooled testing program" on the first page of the form.

Step 2: Apply for Pooled PCR Testing

Once a district or school decides that Pooled PCR Testing is the most appropriate option, schools may begin the process of initiating a program by completing the steps outlined below.

1. Complete the [Pooled PCR Testing Application Form](#):
 - i. Select "I would like to sign up for the pooled testing program" in response to the question on the form's first page
 - ii. Next, provide initial information including organization name, type, and size, and a point of contact
 - iii. Then, provide supplemental information for each school/site within the organization, such as additional identification and contact information, specifics pertaining to the number and grade level of students to be tested, and other logistical details for the organization's testing program.
 - iv. Once the Application Form is submitted, the point of contact will receive a submission confirmation email to verify the information provided in the form.
2. Upon approval of their application from the TTF, schools may sign and submit the Participatory Confirmation Form via a DocuSign link emailed to the point of contact.
3. Approved schools that have submitted their Participatory Confirmation Form will be contacted by a representative from Concentric by Ginkgo to

finalize the school/district's enrollment in California's Pooled PCR Testing Program and to initiate the process of onboarding testing site(s)

Step 3: Onboarding A Pooled PCR Testing Program

In this phase, schools will begin working with Ginkgo to stand up their Pooled PCR Testing programs. Schools may need to identify specific staffing and other logistical needs and determine how those needs will be met, including the following:

Staffing

- Identify school testing staff. Schools that receive testing staff support from Ginkgo will still need to identify school staff to oversee the Pooled PCR program at their respective schools.
- Discuss roles and responsibilities with Test Supervisors, Test Observers, Test Takers, and Test Champions

Training and Informational Materials

Test Champions at each site will need to attend a brief Onboarding session where they will:

- Set up access to the Concentric website
- Receive access and instructions for obtaining parental consent

Schools staff who perform reflex rapid antigen testing through Concentric will also need to undergo rapid antigen training.

Test Champion: Consent and Registration

- Distributes and collects consent forms using the Concentric platform
- Match consented individuals to pooling groups
- Generate list of consented individuals by pooling group for Test Supervisor

Preparation for Test Day

- Provide school testing information to Concentric
- Communicate with parents about the pooled testing program and the purpose of pooled testing results
- Gather required supplies, including laptops (with USB-A or USB-C port) and WiFi access, masks, hand sanitizer, disinfectant solution (as needed), paper towels (as needed), gloves (if handling samples). Please review the School Supply Checklist attached to the end of this playbook for more information.

- Verify that provided equipment is ready and functional (e.g. barcode scanners)
- Remind and prepare students for testing day

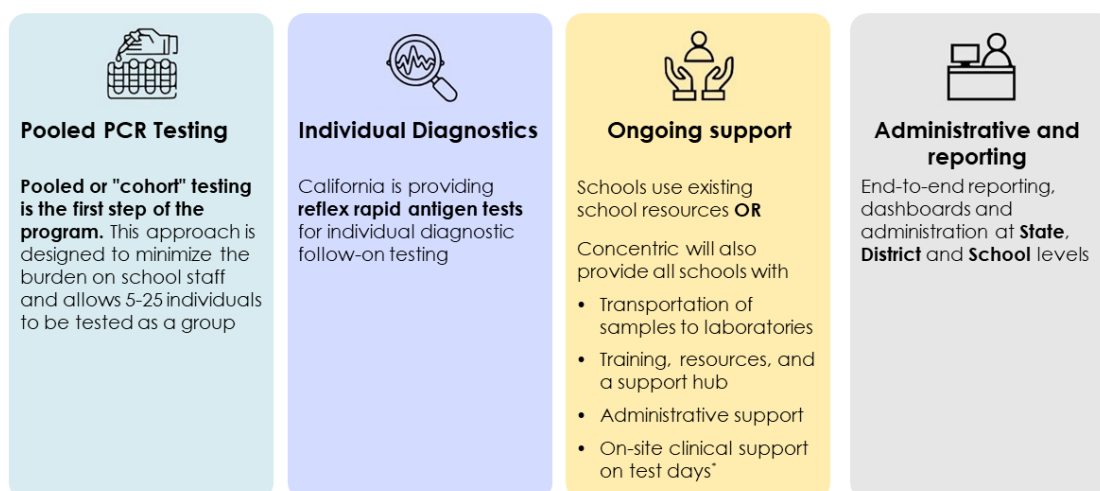
Step 4: Begin Testing

The following graphic provides an overview of the four key elements of the Pooled PCR Testing process, with details for each element provided below, per guidance from TTF and Concentric by Ginkgo.

Pooled PCR Testing Details

The Pooled PCR approach to testing is designed to minimize administrative tasks for school staff as it allows 5-25 individuals to be tested as a group. The following is an overview of the process that will occur each week, according to guidance from the State's vendor partner Ginkgo:

Pooled PCR Testing: Four Key Elements



*On-site clinical support for testing days only available to public and charter schools; private schools must coordinate their own staffing

Collecting Samples for Testing

- Depending on specifics determined at the school and organization level, pools of students selected for testing on a given day will convene at a central testing site within the school or a team of testing staff will circulate to collect samples from individual classrooms.
- All consented students in a pool will swab their noses with short swabs. All swabs from a given pool will be collected in a single tube – the "pooling" step, which will be labeled with the pool name or identifier. On average, the samples for an entire pool can be collected in around 5-10 minutes.

- The tubes containing each pool's samples will be delivered to a member of Concentric by Ginkgo's network of laboratories to be tested, and each pool will be provided with one result, accessible after 24-48 hours through the school's Concentric by Ginkgo portal.
- No further action is needed while waiting for results. Only positive pools will result in next steps, which vary by school.

Individual Diagnostics

If a pooled sample returns a positive result, then rapid antigen tests will be administered to each member of the pool for individual diagnosis. Positive individuals are isolated and close contacts identified for quarantine as is consistent with each school's local health jurisdiction's policies. Please see the FAQs below for questions regarding individual diagnostics. For additional details regarding state guidance, review [COVID-19 Public Health Guidance for K-12 Schools](#).

Ongoing Support

Per TTF and Ginkgo guidance, all schools will be supported by Concentric by Ginkgo for the critical components of their Pooled PCR Testing programs, including:

- Provision of testing supplies and pooled sample processing
- Sample delivery to laboratories
- A support hub with trainings, informational materials, and individualized assistance

Program Administration and Reporting

Concentric by Ginkgo will provide all participating schools with end-to-end reporting, data dashboards, and administration at the school, district, and state levels.














In the Concentric portal, schools will have access to:

- Concentric platform training modules
- Pooled PCR testing inventory orders
- Consent forms submitted digitally or uploaded manually

Schools will have access to the following data:

- Pooled PCR test information: Name, ID number, collection date and time, test location, and test result

- Rapid antigen test information: Registration and test result

	Add & Manage test takers?	Order supplies & change test schedule?	Download historical test kit data?	Create organizations & locations?	Invite test champions & test supervisors?	View test results (Pooled & Individual)?	Register test kits?	Enter Rapid Antigen results?
Test Champion with Administrative Access (e.g. superintendent/ principal / school physician / human resources manager)	 Check	 Check	 Check	 Check	 Check	 Optional		
Test Champion (e.g. superintendent / principal / school clinician)	 Check	 Check	 Optional			 Optional		
Test Supervisor (e.g. school administrator)							 Check	 Optional
Over 18 Test Taker Rapid Antigen & PCR test types						 Can view own results		

FAQs

The answers included below are in accordance with published guidance by the California Testing Task Force.

1. **Who should participate in pooled testing?**

Only asymptomatic students and staff should participate in pooled testing. Symptomatic people should not be tested in a pool and should be individually tested and isolated until their COVID-19 status is known. Individuals who had a positive viral test in the past 90 days and are now asymptomatic do not need to be retested as part of a screening testing program: testing should be considered again if it is more than 90 days after the date of onset of the prior infection, or if new symptoms occur. For individuals who develop new symptoms consistent with COVID-19 during the three months after the date of initial symptom onset, if an alternative etiology cannot be identified, then retesting for SARS COV-2 can be considered in consultation with infectious disease or infection control experts.

Asymptomatic students in school on a modified quarantine (See [K-12 Schools Guidance](#), Safety Measures for K-12 Schools #9) may participate in pooled testing.

2. **What should I do if my child has any symptoms?**

If a child is symptomatic, they should not participate in a pooled test. Instead, symptomatic individuals should receive a diagnostic test – either an individual PCR or rapid antigen test.

3. **Does an unvaccinated staff member's pooled test participation meet the requirements for the [State Public Health Order](#) requiring unvaccinated school workers to undergo diagnostic testing?**

No. A pooled test is not considered diagnostic and does not meet the Public Health Order requirements.

4. **Do students and staff need to quarantine until the pool test results are returned?**

No. Pooled testing provides surveillance testing capabilities to schools, meaning that participating students and staff do not need to be isolated or quarantined unless an individual positive follow-up result is returned.

5. **Do individuals in a positive pool need to quarantine while they are waiting for individual diagnostic test results?**

No. Students and staff who are part of a positive pool do not need to quarantine while they await their rapid antigen test unless they are symptomatic. It is possible that individuals that had COVID-19 (knowingly or

unknowingly) but are no longer contagious will cause some pooled tests to come back positive, and every test has a chance of false positives. Individuals who receive positive individual test results will need to be isolated as described [here](#).

6. What happens if reflex rapid antigen tests for positive pool members are all negative?

If all rapid antigen follow-up test results are negative it is likely that the individual who was positive in the pool has a lower viral load and is less likely to be infectious. If this occurs, schools may conduct a second rapid antigen test on all individuals in the pool no sooner than the next day, but within 2 days. Alternatively, schools may conduct individual PCR tests for all individuals in the pool.

7. What follow-up test options exist for students or staff who live far away from school?

Asymptomatic students or staff members in a positive pool should return to school as usual to receive follow-up testing. These individuals do not have to be isolated or quarantined and can ride on buses or take their normal transportation method to school if they are not symptomatic.

8. What if follow-up testing can't be performed on every member of a positive pool?

If not all members of a positive pool are able to receive follow up rapid antigen tests (e.g., some are on vacation or otherwise absent), schools should test members of the positive pool who are present. Schools and districts should determine policies for students or staff where individual testing is refused or impractical, especially if they are symptomatic. Members of a positive pool who are not immediately available for follow-up testing with the rest of their pool should receive follow-up testing per normal protocol as soon as it is possible to do so.

9. For whom do consent forms for the Pooled PCR Testing program need to be collected, and what do the consent forms cover?

All pooled testing participants should have a completed consent form. Consent forms should be filled out electronically prior to the start of testing. A paper copy version can be found [here](#).

10. Do school districts have to apply for a CLIA waiver or a CLIA license?

No.

11. Are there any recommendations for private schools in organizing/contracting testing support staff?

Many schools throughout the nation use the Ginkgo platform and testing kits to conduct pooled testing but have no operational support. The biggest benefit of a pooled testing approach is how quickly a classroom can be tested with minimal time constraints. Independent schools that are not eligible for boots on the ground support can still receive all training and customer service resources.

12. How long does it take to get the test kits once we enroll?

7-10 days.

13. Is the limit for pooled testing 25 people? What is recommended for creating pools among classrooms larger than 25 individuals?

Yes, the minimum is 5 and the maximum is 25. If a classroom is larger than 25 individuals, the classroom can be split into multiple smaller pools.

14. Are schools going to be required to order test kits each week or are they are going to be sent out automatically?

Concentric will supply schools with 4 weeks of inventory based on their testing plans. Schools will be responsible for placing inventory reorders and can place them as needed.

For additional FAQs, see the TTF Schools Testing FAQ page [here](#).

School Supply Checklist

Schools will need to provide the following supplies in preparation for testing day:

- Laptop (with USB-A or USB-C port)**
- Wi-Fi access**
- Masks**
- Hand sanitizer**
- Disinfectant solution**
- Paper towels**
- Gloves (if handling samples)**

Ginkgo, the Pooled PCR Testing provider, will provide any additional equipment or supplies needed for testing day.