



RapidTest K-12

Implementation Guide

The Quick Guide to Successfully Setting Up a State
Covid K-12 Testing Program



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PROGRAM OVERVIEW

As the COVID-19 pandemic continues, finding ways to safely reopen schools for in-person learning is a pressing need. Schools provide a critical outlet for children through education, safety, nutrition, behavioral health care and important social interaction. Incredible efforts have been made to transition to virtual learning for education continuity, but in-person instruction remains essential for children, their families, and communities.

Returning children to in-person learning environments requires ensuring staff and student safety. Conducting rapid COVID-19 antigen tests at schools for assurance and symptom-induced testing is a cost effective, easy, and reliable way to ensure student and staff safety.

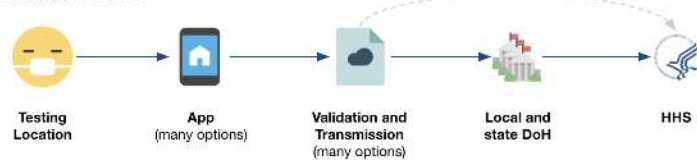
Utilizing rapid COVID-19 antigen tests requires adherence to state and federal reporting regulations. These regulations instruct test administrators to report all test results to the relevant health authorities in a timely manner. Schools are encouraged to use sponsored technologies that ease administrative burdens and comply with reporting requirements. The information found in this implementation guide will outline the steps required to successfully develop an application-supported testing program at K-12 schools that keeps teachers and children safe.

App supported testing program playbook

Project Sequence

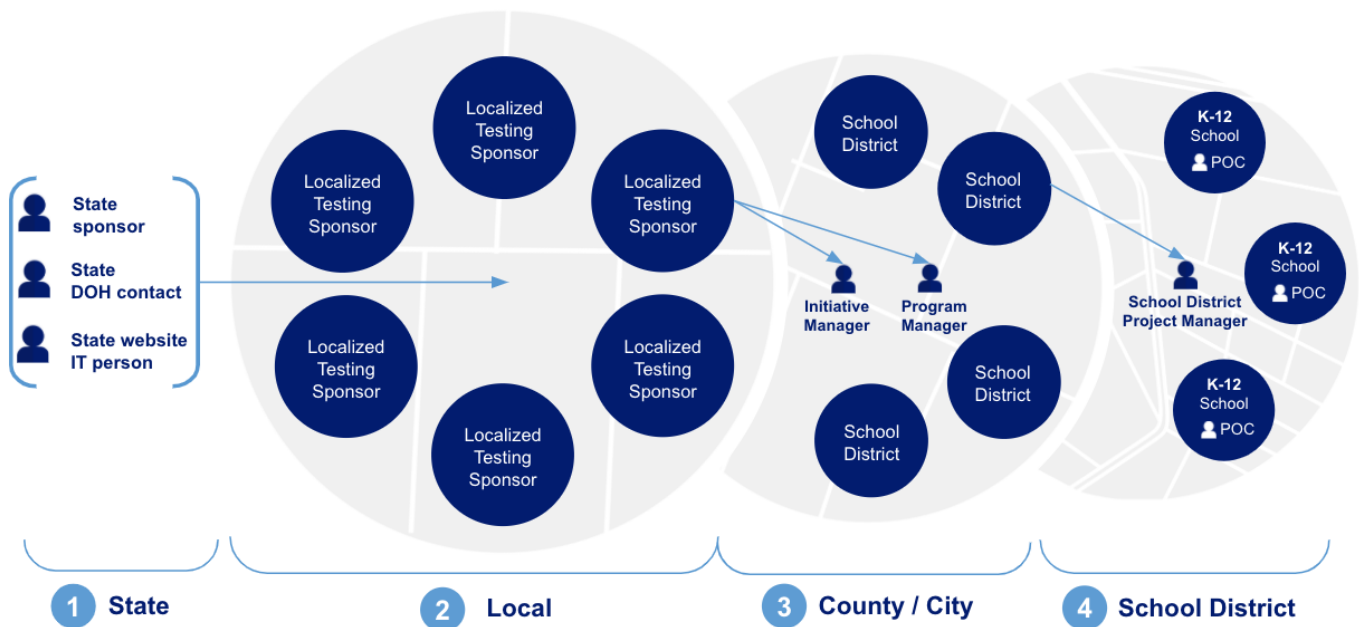
- 1 Create testing initiative:**
 - Acquire test inventory
 - Obtain CLIA waivers
 - Create a testing plan
- 2 Select reporting app/infrastructure:**
 - DIY/Open source
 - Managed deployment
 - Full service
- 3 Build architecture:**
 - Stand up app/infrastructure
 - Connect data piping to local and state DoH
- 4 Launch testing program:**
 - Training
 - Upload participants
 - Begin COVID testing

Architecture



| Stakeholder | Responsibility | Example Concerns |
|-------------------------------------|--|--|
| Testing Locations; e.g., Schools | Daily use and administration | Ease of use, health, training |
| Local Sponsor; e.g., CHOP | Funding, program administration, distribution of tests | Reporting, scalability, adoption, cost |
| App Vendor; e.g., STRAC | App development, data reporting, maintenance, support | Bandwidth, contracting |
| State DoH; e.g., PA DoH | Requirements for reporting | Reporting |

ROLES AND RESPONSIBILITIES



Designating responsible individuals at each level of the system is essential for a successful end-to-end testing and reporting program.

RapidTest K-12 Implementation Playbook

State

| Department of Health Contact | State Sponsor [Optional] | State IT [Optional] |
|--|--|---|
| <ul style="list-style-type: none">• Provide reporting requirements / guidance• Provide guidance for school district selection | <ul style="list-style-type: none">• Provide technology funding• Procure and distribute tests for local sponsors | <ul style="list-style-type: none">• Technical Implementation (see "Technical Implementation") |

Local Sponsor

| Initiative Manager | Program Manager |
|--|---|
| <ul style="list-style-type: none">• Procure and distribute additional tests• Coordinate Sponsor's supporting staff (e.g. test admins)• Coordinate with state roles, including DOH• Own reporting program KPIs• Nominate participating school districts | <ul style="list-style-type: none">• Manage test distribution• Coordinate with district Project Managers• Distribute supplemental training materials• Manage total list of schools involved in their program• Manage list of test administrators involved in their program |

District

| Project Manager / Lead |
|--|
| <ul style="list-style-type: none">• Provide Program Manager with the list of participating schools in their district• Provide Program Manager with the list of test administrators in their district• Coordinate district-wide test distribution and request additional tests from the program manager• Train school Program Leads on test administration and reporting and coordinate school training sessions |

School

| Program Lead |
|--|
| <ul style="list-style-type: none">• Run school-wide training sessions for test administrators• Operational rollout at each school (table setup, etc)• Set up program communication channels with parents and other school stakeholders |



TECHNICAL IMPLEMENTATION

IMPLEMENTATION OPTIONS

There are multiple options, varying in technical and procurement complexity, to develop an app to support a K-12 testing program. The options are meant to provide flexibility for you to choose the approach that best meets a program's needs.

| Option | Description | Technical Complexity | Contracting Complexity |
|---------------------|--|---|--|
| Full Service | Partner directly with a vendor to build, host, and handle all collateral services including reporting details. | None: All development, hosting, data transfer, and HIPAA compliance completed by vendor. | High: External contracting for technical team |
| Managed | Partner with a vendor that provides technical resources to leverage open sourced code and build an application hosted and maintained internally. | Low: The vendor manages deployment. Details of data transfer assisted by vendor | High: External contracting for technical team |
| Open Source | Using open source code, duplicate the point-of-care application with an in-house development team, DIY data transfers. | High: Requires deployment and configuration, data transfer, and HIPAA compliance. | None: No external contracting |

Each choice for technical implementation should consider the different support options available. Open sourced options have less support included while a full-service implementation will include technical and user support.

RapidTest K-12 Implementation Playbook

| | Open Source | Managed Deployment | Full Service |
|--------------------------------|-------------|--------------------|--------------|
| User & Tech Support | | | |
| Helpdesk support line | ○ | ○ | ● |
| FAQ and training manual | ◐ | ◐ | ● |
| Hosted training sessions | ○ | ○ | ● |
| Managed support website | ○ | ○ | ● |
| Program Support | | | |
| Branding / design + | ○ | ● | ● |
| Operations support | ○ | ◐ | ◐ |
| Account administration | ○ | ◐ | ◐ |
| Site Registration | ○ | ◐ | ◐ |
| Implementation Support | | | |
| Development guidelines | ◐ | ● | ● |
| Reporting mechanism | ○ | ● | ● |
| Reporting guidelines | ○ | ● | ● |
| Review of lessons learned | ◐ | ● | ● |
| Continuous assessment | ◐ | ● | ● |

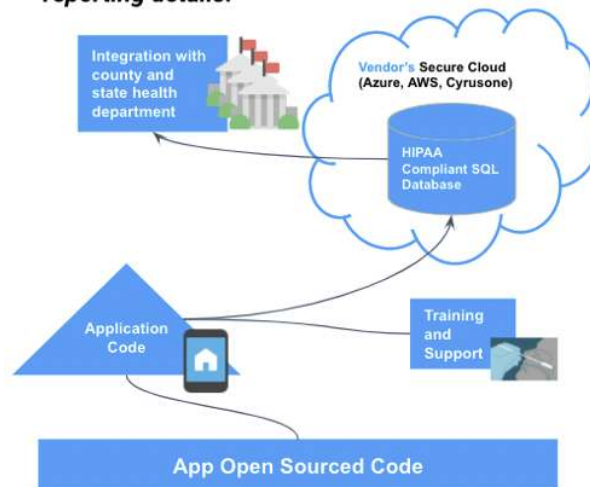
Vendor support level

- Performed entirely by **vendor**
- ◐ High support from **vendor**
- ◑ some support from **vendor**
- Performed entirely by **sponsor**

FULL SERVICE

A full service deployment option requires no technical resources. All data hosting and services are handled completely by the vendor.

Partner directly with a 3rd party that will build, host, and handle all collateral services including reporting details.



Blue denotes work is performed by vendor
Orange denoted work is performed by sponsor

RapidTest K-12 Implementation Playbook

Application Setup

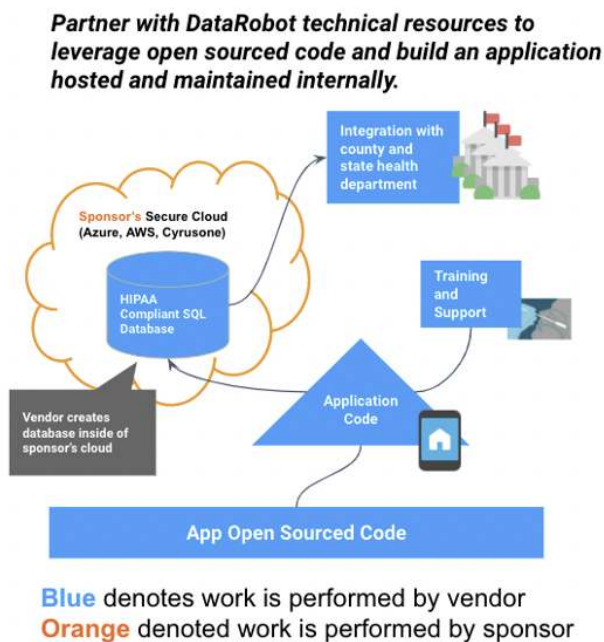
1. Contract vendor
2. Vendor stands up system
3. Develop Analytics and Reports (if required)
4. Enroll Users

Support

All technical and user support is handled by the vendor.

MANAGED

A managed deployment requires a contract with a third party with a fully staffed technical team including backend, cloud, frontend resources, and someone to manage development. These team members must have knowledge of Docker, Linux, and existing cloud services. The sponsor must also have a cloud hosting infrastructure, but the vendor will create the DB instance within the sponsor's cloud.



RapidTest K-12 Implementation Playbook

Application Setup

1. Contract vendor
2. Provision cloud environment (Azure, AWS, or Cyrusone)
3. Provide vendor cloud access
4. License barcode scanning software used by source code (Scandit)
5. Vendor deploys application
6. Develop Analytics and Reports (if required)
7. Enroll Users

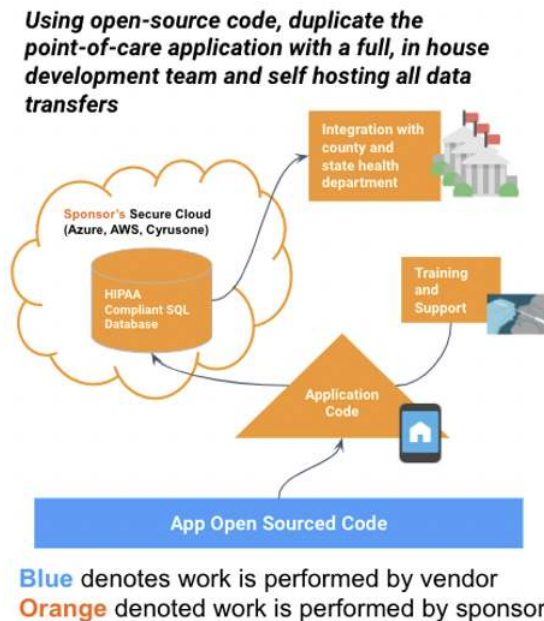
Support

Contact your vendor for application support and for support with reporting systems connections and requirements. Contact your cloud provider for environment support.



MANUAL OPEN SOURCE

Manual, open sourced deployment requires a fully staffed technical team including backend, cloud, and frontend resources as well as someone to manage the development. These team members must have knowledge of Docker, Linux, and existing cloud services. The sponsor must also provide the database and cloud hosting infrastructure.



Application Setup

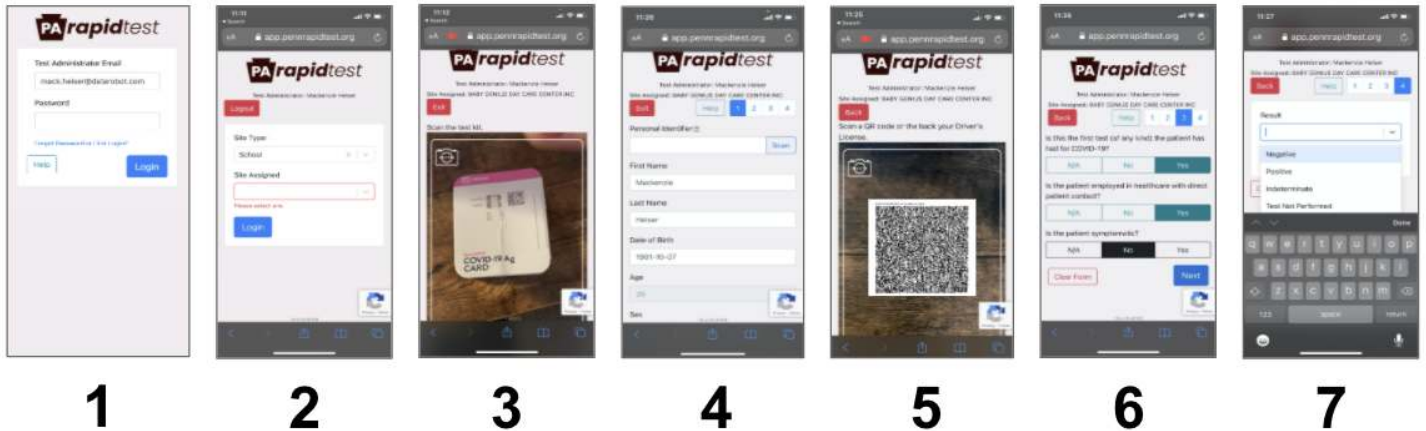
1. Select the open sourced application to develop
2. Review and tailor open source code
3. Provision cloud environment (Azure, AWS, or Cyrusone)
4. Stand up HIPAA compliant Microsoft SQL database in cloud environment
5. License barcode scanning software used by source code (Scandit)
6. Deploy application code
7. Register testing sites and enroll users
8. Connect to county and state reporting systems
9. Develop analytics and reports (if required)
10. Enroll Users



TRAINING MATERIALS

USING THE APP

ENTERING TEST RESULTS



1. Login to the application site on a smartphone or ipad
2. Select the testing site
3. Hover the camera over the COVID-19 test
4. Fill out the form with patient information
5. OR click 'Scan' and hover the phone over a patient QR code
6. Answer the patient health questions (symptoms, etc)
7. Select the test result and submit

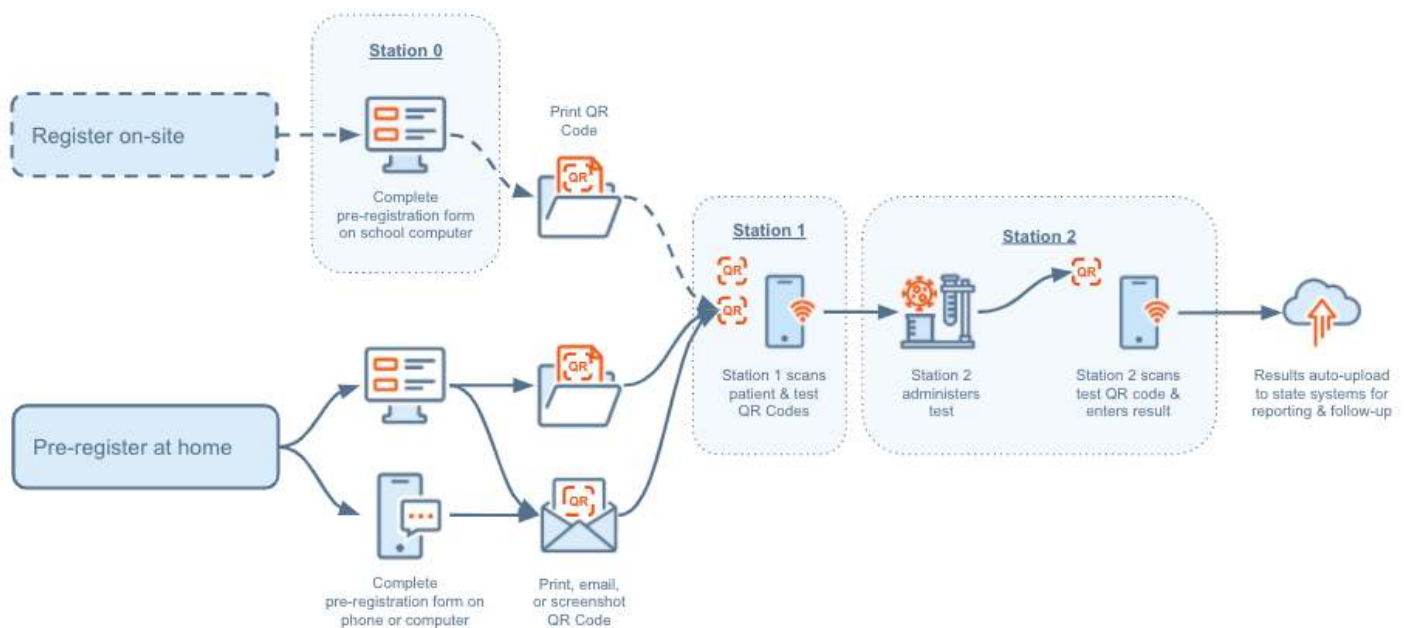
CREATE YOUR TEST ACCOUNT

1. Sign up to receive an account through your program administrator
2. Check your email for a welcome email
3. Click the link in the email
4. Click 'Forgot password or first login?'
5. Enter your email address
6. Return to your inbox, open the reset password email and click the link
7. Set a password
8. If this does not work, contact support

ONSITE TESTING GUIDANCE

TESTING STATION SETUP

A testing process as outlined below will minimize errors and shorten wait times:



STUDENT PRE-REGISTRATION

The application requires patient information to report a test. The fastest way to record patient information is for students to pre-register with an online form. The form generates a QR code, which the test administrator scans before administering the test. When in-advance form submission is not feasible, administrators must manually enter the student's information.

To pre-register, visit the registration site and complete the form. This site can be found by typing 'register.' in front of the application URL (e.g. "register.pennrapidtest.org"). You must pre-register if you do not have a driver's license.

Fill out all information on both pages of the form and hit "submit". You will receive a QR code that you must bring (via screenshot, picture, printing, etc) to the testing site for the Test Administrator to scan.

Note: Pre-registration does NOT cover appointments/sign ups or Consent forms. Please contact your testing site for additional forms and appointment scheduling.

STAFFING TESTING STATIONS

To quickly process patients for assurance testing, set up two stations to conduct discrete tasks:

- Station 1: QR code and test scanning
- Station 2: Test administration and result entry

FREQUENTLY ASKED QUESTIONS



USING THE APP

1. What types of devices can be used with the app?
 1. iOS and Android smartphones are recommended, but the application should work with all devices
 2. Laptops are not recommended for use
2. How do I get an account?
 1. Contact your program administrator to receive an account
3. Can I share an account with someone else?
 1. No, accounts must be unique
4. Can we scan the test and patient info then later return to enter the test result?
 1. After scanning a test and entering patient information, save before exiting the form. You can then recall the test and patient information by re-scanning the test code.
5. I'm seeing a blank page when I click the links in the welcome email. What do I do?
 1. Ensure that you are not blocking all cookies on your Android or iOS device.
 1. Android Version: Chrome - > Settings (: upper left corner) -> Site Settings under Advanced -> Cookies -> Allow Cookies
 2. iOS/Safari -> Settings -> Safari -> Block All Cookies
 3. If you are connected to WiFi, turn it off and try again using cellular data.
6. What if my school is not listed in the app?
 1. If a school is not listed, contact your program administrator. They will be able to add the school using <http://rapidtestingapps.org/>
 2. Information for program administrators to add an account can be found at <http://rapidtestingapps.org/>
7. Does the app accept details about invalid results?
 1. If there is a defect with the device, record results by selecting 'Indeterminate' for the test result
 2. Defect types are not currently reported through the app and should be reported directly to the test manufacturer

REPORTING AND FOLLOW-UP

1. How is personal data handled?
 1. No personal data remains or is stored on the device
 2. Data is sent and stored from the host's data centers
 3. Personal information is included in reports to state and federal authorities
2. What happens if I enter the wrong result?
 1. You have one hour after your initial results upload to amend test results by repeating the upload process.
 2. If more than 1 hour has passed or you cannot amend the results through the app, contact your local health authorities.
3. How long will it take to get the results?
 1. Within 2 hours of result upload, results are emailed and texted to the email address and phone number included in the patient information.
4. What is the proper procedure when there is a positive test result?
 1. Please see CDC guidelines. <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html>
5. Can I see the data for my school's tests?
 1. Contact your program administrator for information on accessing reporting data

ADMINISTRATIVE CONSIDERATIONS

1. How frequently should students and staff be tested?
 1. This varies per program, please contact your district administrator
2. What kind of PPE should test administrators use?
 1. Gloves should be used when running each test and handling specimens and should be changed (with hand hygiene practiced each time) in between tests
 2. A basic medical/surgical mask
 3. For symptomatic testing and/or for testing of children, it may be advisable to wear goggles or a face shield to protect against aerosols, should the testing subject sneeze or cough within a 6 foot range of you.
3. Do we need permission from families to test the students required?
 1. Please contact your district administrator for this information

