BACKGROUND

To make testing more equitable, we must expand access through decentralization. While disparities in accessing COVID-19 testing sites have improved over the pandemic, we have much more progress to make. Increased availability of home-based testing presents an important opportunity to help address persistent gaps in access and improve the overall testing landscape.

Home-based testing can address privacy and logistical concerns, which are of particular importance for historically marginalized communities who face major barriers to testing, including insurance status, immigration status, transient living situations, language barriers, and fear of lost work or income. If more testing is conducted at home, the burden on community testing sites will be lowered, expanding capacity and reducing exposure and infection risk to testing site staff.

TYPES OF HOME-BASED TESTING

At-home collection
- At-home sample collection (nasal swab or saliva) with sample processing and delivery of results carried out by a third-party provider (“swab and send” model)

At-home testing
- Sample collection (nasal swab or saliva), processing, and results delivered within 15-30 minutes all within the home setting

IMPLEMENTATION CONSIDERATIONS

Best practices for home-based testing:
- For at-home collection, sample collection kits should have clear instructions in multiple languages, pre-paid overnight shipping, guidance on how to proceed after obtaining results and how to access social supports. Kits should also include informational materials on COVID-19 transmission, prevention, and vaccination.
- Labs must guarantee processing capacity for every at-home collection kit to ensure that individuals utilizing them can obtain timely results (<24 hours from receipt at lab).

Public health departments should consider the following gaps in existing guidance and systems. Clear guidance is needed for:
- Labs, local health departments, and other implementers on how testing data should feed into state epidemiology systems to enable case investigation, contact tracing, and linkage to wraparound social services (care resource coordination) for positive results.
- How to navigate reporting of false positives and confirmatory testing for antigen tests with lower specificity (if a first antigen test is positive, but a confirmatory test determines the individual is negative).

STRATEGIES TO ADVANCE EQUITY

Expanding home-based testing for communities that experience barriers to the traditional testing landscape could make access to testing significantly more equitable. According to the Surgo Foundation, “As of January 2021, 7.5 million people live in counties with no test sites, and over 15 million people have to travel 10 or more miles to reach their nearest site. ... Indigenous Americans, ... are nearly twice as likely to live in a county with no reported test sites.”

Other factors aside from number of testing sites and distance to a site can inequitably constrain access, such as limited testing site hours appropriate for essential workers, language barriers, fear of lost income as a result of required isolation, and fear of needing to disclose immigration status. Home-based testing programs should be explicitly designed
to mitigate these barriers and expand equitable access:

- Home-based testing should be free and accessible to communities.
  - All testing materials and instructions should be provided in multiple languages and tailored to local population needs.
  - When possible, prioritize tests with home-collection methods that do not require a telehealth consult or supervision from a provider to eliminate the need for an internet connection or smartphone/computer.
  - When possible, provide an option to be notified of testing results by phone, in addition to by email.
  - Sample collection kits should include pre-paid shipping labels and sample drop-off points should be conveniently located.
  - Connect home-based testing programs to care resource coordination programs that arrange wraparound social supports for those who need assistance to safely isolate or quarantine.

To reduce stressors on in-person testing sites, at-home sample collection testing can be effective for individuals who are able to safely quarantine at home while awaiting test results, considering slightly longer turnaround times due to shipping and processing. These populations include:

- Office employees working from home while waiting to return to work
- Asymptomatic individuals in quarantine after travel

Importantly, home-based tests can support the general population to make informed decisions about their movement and social behavior within the community.

**AVAILABILITY OF HOME-BASED TESTING**

For real-time information on FDA EUA for home-based testing, visit the FDA’s website and filter results for “home”

- The FDA has granted Emergency Use Authorization (EUA) to 44 home-based tests
  - 42 molecular tests (41 using home-collection)
  - 2 antigen tests (Ellume COVID-19 Home Test and Abbott’s BinaxNOW COVID-19 Ag Card Home Test)
    - The Ellume COVID-19 Home Test is the first fully at-home, over-the-counter COVID-19 test

**Home-based testing programs around the country:**

Jurisdictions are making home-based testing available to their residents. Several states, including Wyoming, Minnesota, Wisconsin, New Mexico, South Dakota, and Delaware, have partnered with Vault Health for their home-based testing programs. Vault Health uses two FDA EUA authorized saliva-based COVID-19 tests, Infinity BiologiX and Spectrum Solutions. These programs are at-home collection models, and generally require the following of clients:

- An internet connection and smart-phone or computer access for a remotely supervised saliva collection
- Email address (to receive results)
- Photo ID
- Ability for client to transport collection kit to UPS for shipping

These requirements can act as barriers to individuals looking to access home-based testing who do not have a stable internet connection, for example. Most of these statewide programs are available at no cost to their residents, and do not require health insurance. Specimens collected at home are sent to a lab with prepaid, expedited shipping. Results are communicated by email to clients within 24-72 hours after arrival at the lab.

**Home-based testing for identified contacts of COVID-19 confirmed cases:**

New York City’s Test & Trace Corps program, run by NYC Health + Hospitals, offers free, opt-in home-based testing to all contacts of confirmed COVID-19 cases in NYC. The program uses Fulgent Genetic’s at-home test, now included as part of Test & Trace Corps “Take Care Package”, which also contains PPE, cleaning supplies, and monitoring equipment like a thermometer. The “Take Care Package” is one piece of Test & Trace Corps efforts to support cases and contacts to safely isolate and quarantine at home. The test is also an at-home collection model, although it does not require remote supervision of specimen collection, which is a nasal swab. Once clients collect their sample, they drop it off through FedEx or can contact Test & Trace Corps to collect the sample from their home directly. Test kits are processed Monday—Thursday and turnaround time is expected to be 24-48 hours. Individuals are notified of their results through their Picture Genetics portal account.

The ideas presented in this document reflect the latest public health thinking and scientific evidence as of February 2021. You are advised that the COVID-19 vaccine landscape remains highly fluid, and it is your responsibility to ensure that decisions are made based on the most up-to-date information available. Partners In Health does not provide medical advice, diagnosis or treatment in the United States. The information, including but not limited to, text, graphics, images and other material contained in this document, are intended for informational purposes only.