

A Summary of HIV Self-Testing Program Models and Lessons Learned

Rupa R. Patel, MD MPH^{1*} and Tai Edward Few, M. Div^{2*}
Katherine Curoe, MPH¹
Kari Duff, MPH³
Helen Burnside, MS²
Gillian Miles, MPH⁴

- 1. Washington University in St. Louis School of Medicine
- 2. Denver Prevention Training Center, Public Health Institute at Denver Health
- 3. Public Health Institute at Denver Health
- 4. Centers for Disease Control and Prevention

Background

The U.S. Department of Health and Human Services launched <u>Ending the HIV Epidemic: A Plan for America</u> (EHE) initiative in 2019, which aims to end the HIV epidemic by 2030. The EHE plan has four main strategies to help achieve this goal: diagnose, treat, prevent, and respond. The first EHE strategy aims to diagnose HIV as early as possible through accessible and routine testing.

In 2018, there were 37,968 diagnoses of HIV infection.² During the ongoing COVID-19 pandemic, implementing and utilizing HIV self-testing (HIVST)—where individuals use HIV tests and receive results in their home or a private location of their choosing³—has become a priority for identifying new cases of HIV because of its accessibility and availability for people who cannot otherwise get an HIV test.

There are two ways of conducting HIVST in the United States.³ The first is the only U.S. Food and Drug Administration (FDA)-approved rapid, oral self-test that produces results in 20 to 40 minutes.⁴ The second way is through self-collected dried blood spots (DBS) from a fingerstick.⁵ The DBS sample is then sent to a laboratory for testing, and results are delivered by laboratory staff or a healthcare provider. HIVST has been utilized more often since early 2020 due to the COVID-19 pandemic.⁶ Agencies have had to adopt quickly, adapt, and implement HIVST as in-person testing was slowed or stopped.^{6,7} This resource has been developed so that agencies interested in expanding or initiating HIVST programs can learn from health departments (HDs) and community-based organizations (CBOs) with existing programs.

Approach

In an effort to document HIVST program models in the United States, two capacity building agencies, funded by the Centers for Disease Control and Prevention (CDC), had conversations with HD and CBO staff. Through the CDC's PS19-1904: Capacity Building Assistance (CBA) for High Impact HIV Prevention Program integration, Denver Prevention Training Center (PTC), Washington University in St. Louis (WashU), and other CBA providers are funded to deliver HIV prevention workforce capacity building to state and local HDs, CBOs, and healthcare providers. CBA-funded staff from the Denver PTC and WashU contacted state HDs and CBOs directly funded by the CDC that were conducting HIVST. The Denver PTC and WashU CBA staff collected program standard operating procedures and information regarding HIVST service delivery and staff training.

In total, 57 agencies (29 state HDs and 28 CBOs) were contacted via email to discuss their HIVST programs. CBA staff had conversations with 42 agencies (23 state HDs and 19 CBOs), each lasting 30–60 minutes, between July and September 2020. Among the 23 participating HDs, nine were directly implementing HIVST programs; 12 were implementing HIVST through partner agencies they were funding; and two were implementing HIVST through TakeMeHome.* Conversations covered topics such as (1) if/how agencies screen for eligibility, (2) type of HIV test used, (3) distribution methods, (4) follow-up and linkage to prevention/care resources, (5) data collection and management, and (6) incentives. Discussions were summarized to produce this executive summary and a descriptive table (See Appendix A).

Summary of HIV Self-Testing Program Components

This summary provides an overview of the different program components that make up HIVST programs in the U.S.

- 1. **Priority Population:** Some agencies target their HIVST programs to particular populations. The priority population is commonly defined by funding sources, the overall client base served by the agency, and HIV epidemiology in the agencies' geographical location of interest.
- 2. Eligibility Criteria: Agencies may choose to restrict who is eligible to receive an HIVST. This may result from staff capacity and/or financial resource limitations and the priority population of interest. Agencies that restrict eligibility typically do so on the basis of demographics, HIV risk factors, and time since last HIV test.
- 3. How Clients Request an HIVST: Clients can request an HIVST in a variety of ways. Many contact the agency via phone call, email, or social media message or attend an event hosted by the agency. Others complete online surveys posted on an agency's website and other advertisements. Agencies can adopt Health Insurance Portability

^{*}TakeMeHome© is a program developed by Building Healthy Online Communities, NASTAD, and Emory University. It allows partnered state and local health departments to provide HIV self-testing to their community members.

and Accountability Act (HIPAA)-compliant online survey platforms, such as REDCap[®], for client test requests and receipt of test results. Similarly, agencies can use smartphone applications (apps). However, online requests for the test can be a barrier for individuals who do not have access to broadband internet or electronic devices. Lastly, medical providers can refer clients to HIVST programs.

- **4. Type of HIVST:** Agencies commonly use the only FDA-approved HIV test for self-testing, the OraQuick® In-Home HIV Test⁴ hereafter referred to as *oral HIVST*. The HIV testing window period for detection of HIV infection with this oral fluid test is estimated at three months. With this test, the client can feel confident with a negative result if their last HIV exposure was at least 90 days prior to using the test; this compares with 45 days using an antigen/antibody lab-based blood test. Agencies can also use DBS collection for HIVST programs, where clients draw blood from a finger prick, place it on a piece of filter paper, and mail it to a laboratory for testing. DBS collection allows testing for both HIV and sexually transmitted infections (STI).
- 5. **Distribution of HIVSTs:** Agencies use three main distribution methods: mail delivery, staff delivery, and pick-up at their location. The agency, manufacturer, or a third party can mail HIVSTs in a discreet package to the client.
- 6. Additional Materials Included with the HIVST: Many agencies customize the test kits they distribute by including their informational materials. These could include written instructions on how to operate the test, what HIV is and how it is treated, information on pre-exposure prophylaxis (PrEP)¹¹ and post-exposure prophylaxis (PEP)¹², education on the principles of "undetectable equals untransmittable" (U=U) and treatment as prevention (TasP)¹³, information on the agency itself, and linkages to local care and other resources. Some agencies also provide prevention items such as condoms, lubricant, cloth masks, and harm reduction kits (e.g., cotton balls, alcohol pads, and aluminum rinse caps).
- 7. How to Obtain Test Results: Some agencies seek to obtain the HIVST result. Some use a HIPAA-compliant online survey that the client completes; others have staff call clients to obtain their HIV test result. Both methods rely on the client to self-report. Other agencies offer the client a phone or video call (using HIPAA-compliant platforms, such as Zoom®'s healthcare version) as the client completes their self-test. Using this method, agencies can verify the client's test result by seeing them perform the HIV test. This model also allows for immediate post-test counseling and linkage to preventive care or treatment. Similarly, some agencies have staff deliver the HIVST to the client who takes the HIVST test in their car and then brings the result to the staff member. This model also allows for immediate linkage to care and/or prevention resources. If agencies use mail-in HIVSTs with DBS collection, staff can obtain the result from the client or through the laboratory with the client's consent.
- **8. Linkage to Care:** For the purposes of this project, linkage to care is defined as the agency following up with the client to help them find and schedule confirmatory testing, HIV care, or PrEP care after an HIVST.
- 9. Data Collection Platform: Agencies use a variety of programs to collect and store clients' demographics, contact information, HIVST results, and other information. While some use paper forms, many use online survey and data management databases such as REDCap, SurveyMonkey®, Microsoft Excel®, and CDC's Evaluation Web. Many agencies utilize both pre-test and post-test surveys to collect information on program outcomes. When surveys are not used, agencies collect information from clients during phone or video calls. All the client information collected by agencies is kept confidential and stored securely.
- 10. Marketing: Agencies advertise on social media, websites, dating apps, customized agency testing apps, and radio. They also use print advertising strategies by placing information in magazines, at bus stations, on billboards, business cards, and flyers. Some digital platforms, such as Facebook Live[®], enable testers to be on a call and to have real-time conversations with clients. This allows demonstration and instruction on how to use a test. Agencies may target their marketing to prioritized populations by utilizing social media and websites that are popular among those populations and by pinpointing specific geographic areas. To ensure marketing materials are tailored to priority populations, agencies can host a virtual focus group to receive community members' feedback.

- 11. Incentives: Some agencies provide incentives to increase the number of clients who use HIVST and the number of clients who report test results. Gift cards are the most common form of incentives and can be provided to each individual or raffled off to a few individuals. Other common incentives are water bottles, hand sanitizers, and other agency-branded items. Incentives can be given at the time clients receive an HIVST or after the client reports their test result.
- **12. Staff Training:** The degree of training specific to HIVST varies by agency. Some provide a one-time training for new program staff while others provide on-going/recurring trainings throughout the year. Some trainings include a pre- and post-test evaluation to assess staff HIVST program knowledge and competency.

Overview of HIVST Programs[†]

State Health Department HIVST Programs

The HIVST programs directly implemented by nine HDs are similar; each requires clients to complete an online survey to request a test and limits eligibility (mostly due to residency). All HDs use the oral HIVST and distribute them by mail. None of the programs collects DBS for laboratory HIV testing; however, one HD indicates they may in the future. Many HDs note they have chosen the oral HIVST because it is readily available without having to create a contract with a laboratory, and they have chosen distribution by mail because it allows them to reach clients statewide. One HD collaborates with the oral HIVST test manufacturer, OraSure Technologies, to mail the tests; the others mail the tests themselves. Most HDs include prevention and linkage materials with the HIVST, such as test instructions, HIV and PrEP information, and local care resources. Two of nine HDs provide condoms with the test. Most HDs obtain test results through online surveys. Four HDs opted not to collect test results. Limited staff capacity prevents most HDs from following up with clients by phone/video to link them to care, so they include local resource referrals with the test. HDs commonly rely on social media and advertisements on websites and dating apps to market their HIVST programs.

Community-Based Organization HIVST Programs

Most CBOs follow similar models. Many do not restrict eligibility for HIVST. CBOs that have eligibility requirements report that it is due to their funding sources' priority populations. All CBOs provide the oral HIVST. Most organizations offer multiple distribution methods for the tests and materials: via mail, delivery by staff, or pick-up at the organization. All CBOs use phone calls, video calls, and/or surveys to obtain test results and to follow up with clients. Phone and video calls allow staff to assist the client as they are taking the test and provide a way to verify test results and swiftly link clients to HIV or PrEP care if needed. CBOs report that walking clients through how to use the test and answering clients' questions in real-time reduces client stress. Some CBOs recommend clients to call while testing as part of their telehealth HIVST program, however, most of the time, CBOs offer calls with their clients as an option to ensure client privacy and comfort. CBOs provide local resources and referrals via a phone or video call or in the test package. In terms of marketing, most CBOs use social media and flyers distributed at places such as bars and other CBOs. Many find that social media is the most effective marketing strategy.

HIVST Program Examples[†]

The programs highlighted below include both HD- and CBO-led HIVST models and practices around the United States. These examples vary greatly and are influenced by their geographic location, funding source priorities, whether an HD or CBO, organization size, staff capacity, priority population served, overall resources, and other factors. HDs and CBOs created innovative HIVST practices in a short amount of time, effectively compensating for halted in-person testing.

Program Examples from Health Departments

Virginia Department of Health

Virginia Department of Health (VDH) has two different HIVST programs: one out of VDH, and a second through VDH-funded CBOs. The VDH program (described here) is the core distribution program and provides the oral HIVST to Virginia residents who have not received an HIVST from the program in the past 90 days. Clients request the test through a public REDCap survey, and VDH mails the test along with condoms and lubricant, a brochure on PrEP, and a region-specific referral document. VDH obtains test results through a REDCap survey sent two weeks after the client requests the test. If the client notes on the follow-up survey that they did not initiate HIV care after

[†] These sections describe the HIVST programs at the time of the conversations (July-September 2020).

receiving a positive test result but would like to, they can provide consent for VDH to reach out to them. VDH markets the HIVST program on their <u>website</u> and social media and dating apps.

Baltimore City Health Department

The Baltimore City Health Department (BCHD) has an HIVST and STI self-collection program called *I Want the Kit* (IWTK). IWTK is available in Maryland, Washington DC, and Alaska; BCHD oversees the Maryland portion of the program. Residents of Baltimore City who are at least 17 years old can request the oral HIVST and/or a self-collection kit for chlamydia and gonorrhea testing on Iwantthekit.org. OraSure Technologies mails the test directly to the client. The HIVST comes with instructions on how to use the test and information and linkage resources on HIV, PrEP, and mental health. BCHD does not obtain HIV test results or follow up with clients, as the main objective of IWTK is to provide low-barrier access to testing. Clients who use the HIVST can remain anonymous to reduce the barrier of stigma. If a client has a positive confirmatory test, their information is captured in the Enhanced HIV/AIDS Reporting System (eHARS\(^1\)) and they receive follow-up care. IWTK is marketed on dating apps, at bus stations, and on billboards.

Philadelphia Department of Public Health

The Philadelphia Department of Public Health (PDPH) provides HIVST directly to individuals and to CBO partners. Persons eligible are residents of Philadelphia who are at least 16 years old and have not requested a test through its program in the past 6 months. Individuals request an oral HIVST by completing an online form at phillykeeponloving.com. PDPH staff mail the test or individuals may pick them up at a partnering CBO location. The package contains agency-created inserts explaining the test results, local care resources, and information on U=U, TasP, and PrEP. PDPH does not collect test results or follow up with individuals, although their CBO partners do.

Nebraska Department of Health and Human Services

Nebraska Department of Health and Human Services (NDHHS) provides guidance and funding for eligible Nebraska HIV counseling, testing, and referral sites to provide HIVST. NDHHS collaborates with one CBO, one local HD, and one rural community-based healthcare clinic to provide the oral HIVST. Individuals at least 19 years old are eligible to receive the tests. Tests can be requested by phone calls to the sites. Clients receive tests by mail or pick them up curbside at the sites. Sites offer the option of video or over-the-phone support to clients while they use the test. Included with the tests are flyers on risk reduction (including PrEP), condoms, test instructions, and site-specific documents (e.g., release of information forms for confirmatory testing and/or linkage to care). To obtain test results, site staff call clients at least three times. Depending on the result, staff link clients via phone or video call to confirmatory testing or PrEP care. Sites are expected to do their own marketing for HIVST; they advertise on various platforms, such as radio, social media, and dating apps. NDHHS conducts virtual training on program protocol and HIVST for new staff at participating sites.

Program Examples from Community-Based Organizations

Equitas Health

Equitas Health has clinical care and testing locations throughout Ohio. They collaborate with the Ohio Department of Health (ODH) to create a statewide HIVST program called *Test at Home with OHIV* (TAHO). Men who have sex with men, transgender or non-binary persons, persons who inject drugs, and/or cis-gender women diagnosed with an STI in the last 12 months are eligible to receive an oral HIVST. Persons must also be residents of Ohio, at least 16 years old, and have not requested an HIVST from TAHO or tested for HIV in the last 90 days unless they use injection drugs. Clients request a test and eligibility is screened through a publicly available SurveyMonkey survey at OHIV.org. Equitas Health mails the test, along with condoms, information on PrEP, linkage to HIV and PrEP care, location-based resources, and test instructions. Staff receive test results through a SurveyMonkey survey sent two weeks after the client requests the test. Individuals who complete the follow-up survey are eligible to receive a \$100 gift card that is raffled off once per quarter. Staff only follow up with clients if they receive an HIV-positive test result and express interest in the after-testing survey. Equitas Health and ODH market TAHO through social media, dating apps, bus and radio print ads, and an audio bus commercial. The advertisements were developed with the input of a virtual focus group. Equitas Health has developed 10 staff training modules, evaluating learning competencies through pre- and post-training tests.

[‡] eHARS is a browser-based, CDC-developed application that assists health departments with HIV reporting.

Howard Brown Health

Howard Brown Health (HBH), based in Chicago, Illinois, has developed an HIVST program that is available to everyone in the United States. Individuals request a test through a Smartsheet® form on the HBH website. The oral HIVST is provided via mail. Transient youth (only) can pick up the test package in-person at HBH. Included with all tests are condoms, lubricant, safe injection kits, a cloth mask, hand sanitizer, a fact sheet on sex during COVID-19, instructions on how to use the test, agency contact information, and a link to the post-test survey where self-reported results are captured. Clients are offered the option to video call with staff while testing. Staff link local clients to confirmatory testing, HIV care, and PrEP care at HBH if the client expresses interest in PrEP on the pre-test survey. HBH markets their program on social media and dating apps. They plan to transition to DBS collection using a self-test kit called myLAB BoxTM which allows both STI and HIV testing.

Legacy Community Health

Legacy Community Health, located in Houston, Texas, provides oral HIVST to eligible individuals, i.e., those who self-identify as HIV-negative, have not had a potential HIV exposure within the past 72 hours, have no symptoms of acute HIV infection, and indicate that they have a safe place to test. Individuals request a test through a Google survey on their website. Legacy Community Health protocol dictates a staff member calls the individual to screen for eligibility and to schedule a video call a week later if they are eligible. The staff mails the test to eligible individuals including a copy of the consent form, educational materials (PrEP, PEP, and TasP), condoms, cloth masks, and agency contact information. During the video call, the client takes the test and the staff member provides counseling and offers to link them to confirmatory testing and HIV care or PrEP care, depending on the test result. The program is marketed on social media and a billboard. Staff are trained on the HIVST program and are required to pass an internal competency evaluation.

Iris House: A Center for Women

Iris House is located in New York City, New York. State residency is the only requirement to receive a test. Iris House distributes the oral HIVST via mail or pick-up at the organization. Staff obtain test results through a video or phone call while the client is taking the test. Linkage to confirmatory testing and care is offered within 24 hours for those with a positive test result. Clients are offered immediate PrEP care at Iris House or linkage to another PrEP-offering location based on the client's preference. The client receives a \$25 gift card after completing a voluntary client experience survey. Iris House markets their program through social media and paper marketing, such as flyers. Staff are provided one training session on HIVST and the program protocol.

Atlanta Harm Reduction Coalition

The Atlanta Harm Reduction Coalition (AHRC) is located in Atlanta, Georgia. AHRC provides HIVST (1) at the clinic with a medical assistant present, (2) in its mobile health unit, and (3) by request via pick-up, mail, or staff delivery. AHRC provides the oral HIVST to any individual who requests one. Individuals request an HIVST by contacting the agency via email, text, phone call, or social media. The test package includes condoms, lubricant, the agency's contact information, and a PROMISE Role Model Story. PROMISE is an evidence-based intervention for the prevention of HIV, and the role model story is a personal account of how an individual has made a positive behavior change to reduce risk of HIV. AHRC receives the test result by video or phone call with the client as they take the test or by a phone call that occurs after the client completes testing on their own. If an AHRC staff member is not present when the test is taken, the client will be called up to three times to obtain their test result if the client has not self-reported. Clients are offered confirmatory testing within 24 hours and PrEP care onsite. AHRC markets their program on social media and flyers. Staff are trained on HIVST and how to counsel, engage, and link clients to treatment and preventative care.

Program Example from Health Facilities

Public Health Institute at Denver Health

Public Health Institute at Denver Health (PHI Denver) is a local public health agency that collaborates with Denver's Department of Public Health and Environment and Colorado's Department of Public Health and Environment. PHI Denver's HIVST program requires individuals to be at least 18 years old and reside in the Metro Denver area to

receive a test. The client requests a HIVST by completing a REDCap survey. Once the survey has been completed, the staff emails a code to the client that they can use to redeem an HIVST online at shop.oraquick.com. OraSure Technologies then mails the oral HIVST to the client. The package includes targeted geolocation-specific resources for confirmatory testing, PrEP care, and outreach testing services. The client can report their test result through a REDCap follow-up survey or by calling the agency. Only clients who choose to follow up via a phone call receive a \$15 gift card. PHI Denver markets their program through social media and paper marketing, such as flyers and business cards. The agency trains staff on their HIVST protocol.

Lessons Learned and Promising Practices

These examples can help agencies understand the elements involved in creating or enhancing HIVST programs in communities. Most agencies began devising their programs by first determining their programmatic goals, conversing with agencies with existing HIVST programs, and speaking with the populations they aimed to reach. These steps are crucial for successful program development. After these first steps, agencies can outline each component of their HIVST program (see Appendix A).

Another key step to developing an HIVST program is deciding which HIVST to use. Using the oral HIVST is beneficial for agencies because they can rapidly distribute oral tests without establishing a contract with a laboratory, the client does not need to draw blood, and the client receives their result within 20-40 minutes. A disadvantage of oral HIVST is that the window period for detection of HIV infection is greater than the window period for an antigen/antibody laboratory test.⁹

Information on the test window period for oral HIVST is included in the package insert for the commercially available oral HIVST, and is important to include if another self-testing product is used. Recommendations about retesting if the client falls within the test window period and/or has future HIV exposure should be explained. In addition, if a client reports recent exposure to HIV or symptoms of acute HIV infection such as persistent fever, swollen throat or lymph nodes, or other severe flu-like symptoms, they should be referred immediately to their doctor or other local clinic for acute infection testing. ¹⁶

Agencies might consider DBS collection so that both STI and HIV testing are possible. The STI extra-genital testing swabs (oral, vaginal, and rectal) and DBS specimen can be sent together to a laboratory with provided packaging and paid postage. Agencies expressed concern regarding HIVST funding and program sustainability. Due to COVID-19 restrictions, many agencies have switched course and are relying on the more expensive oral HIVST¹⁵ rather than the more economical rapid HIV test performed by staff despite the lack of additional funding.

Once the type of HIVST is determined, there are several considerations for choosing a test distribution method. Agencies may decide to mail the tests themselves or engage the manufacturer. A few agencies, particularly state HDs, prefer to mail the HIVSTs themselves so they can have direct oversight on how the program is run and not have to provide the test manufacturer with clients' contact information. However, having the test shipped by the manufacturer can save money and requires less staff time. Agencies also offer the option of having the client pick up their test in person. This option mitigates barriers such as not having stable housing or confidentiality concerns. Finally, many CBOs offer to deliver the HIVST to their clients. Because their clients are not geographically spread out (relative to statewide health departments), they find delivery to be a useful tool in reaching clients without access to transportation or who might decline receiving a test by mail. Alternatively, the test might be provided through a mobile van unit.

It may be helpful for clients to receive materials in addition to the test and package insert (oral HIVST), such as informational documents and prevention and risk reduction supplies. Agencies with limited staff capacity can rely on these local-specific referral documents as their way to link clients to care after HIVST. If it is financially viable, agencies can provide prevention and risk reduction supplies like condoms, lubricant, safe injection kits, hand sanitizer, and cloth masks with the HIVST when outreach services are halted or access to clinical sites is limited. Many agencies customize local resources by geographic location of the requesting client.

When building a framework for an HIVST program, it is vital to include systems for meeting clients' needs around self-testing and for follow-up and linkage to HIV care and prevention resources. Providing the option for real-time support via phone or video call may alleviate client stress, support correct use of the test, and allow opportunities for counseling and immediate linkage. A HIPAA-secure online survey is a useful tool to obtain test results, especially if staff capacity is reduced. Many online survey platforms ensure HIPAA compliance, usually through business associate agreements.

Agencies may find it helpful to provide incentives and query their focus population about incentive preferences. Some may consider an incentive to encourage HIVST, receipt of test result or other information, and/or post-test survey

completion. Another option for agencies that have limited financial resources is to have a more sizeable gift card that is raffled off at certain time intervals to clients who complete a post-test survey. Sending emails, texts, and/or phone calls to remind clients to complete the HIVST and post-test survey is another way to increase completion rates. Some agencies establish a certain number of follow-up attempts.

Another way many agencies, especially CBOs, have success in receiving test results is by scheduling a phone or video call with the client at the time they request their test, so that staff can be virtually present during the test. This allows agencies to obtain results, provide counseling, and link to care all at once.

No matter how agencies obtain test results, it is important to link clients to confirmatory testing and HIV care or PrEP care as soon as possible (preferably within 24 hours). To increase linkage to HIV prevention and care, it is advantageous for agencies to provide follow-up care themselves (if they are able to) or leverage existing partnerships with clinics and organizations that can provide that care.

Conclusion

Many agencies across the United States had to quickly adapt policies and procedures to use HIVST to supplement or replace in-person testing due to the COVID-19 pandemic. This project identifies agencies that have developed promising HIVST models based on community input, selection of tests that meet the needs of their client base, distribution methods that reduce barriers, testing processes that facilitate immediate counseling and linkage to care, marketing and promotion through thoughtfully targeted channels, and strategies to obtain feedback from clients for program improvement. HIVST scale-up is urgently needed during the COVID-19 pandemic and will continue to be an important tool for HIV diagnosis to achieve the goal of ending the HIV epidemic in the United States, even after COVID-19 restrictions are lifted.

References

- 1. U.S. Department of Health and Human Services. About ending the HIV epidemic: A plan for America. https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview. Updated October 14, 2020.
- 2. U.S. Department of Health and Human Services. US statistics. https://www.hiv.gov/hiv-basics/overview/data-and-trends/statistics. Updated June 30, 2020.
- 3. Centers for Disease Control and Prevention. HIV self-testing (home testing). https://www.cdc.gov/hiv/basics/hiv-testing/hiv-self-tests.html/. Updated October 23, 2020.
- 4. U.S. Food and Drug Administration. Facts about in-home HIV testing. https://www.fda.gov/consumers/consumer-updates/facts-about-home-hiv-testing. Updated June 25, 2020.
- 5. Tuaillon E, Kania D, Pisoni A, et al. Dried blood spot tests for the diagnosis and therapeutic monitoring of HIV and viral hepatitis B and C. *Front Microbiol*. 2020;11(373).
- 6. Centers for Disease Control and Prevention. HIV Self-Testing Guidance [press release]. https://www.cdc.gov/nchhstp/dear_colleague/2020/dcl-042820-HIV-self-testing-guidance.html. April 28, 2020.
- 7. Centers for Disease Control and Prevention. Public health activity guidance. https://www.cdc.gov/coronavirus/2019-ncov/hcp/non-covid-19-client-interaction.html. Updated April 9, 2020.
- 8. Centers for Disease Control and Prevention. Strengthening the nations' HIV prevention workforce: Capacity building assistance for high-impact HIV prevention. https://www.cdc.gov/hiv/funding/announcements/ps19-1904/executive-summary.html. Published April 2019.
- 9. U.S. Department of Health and Human Services. HIV testing overview. https://www.hiv.gov/hiv-basics/hiv-testing/learn-about-hiv-testing/overview. Updated September 25, 2020.
- 10. van Loo IHM, Dukers-Muijrers NHTM, Heuts R, van der Sande MAB, Hoebe CJPA. Screening for HIV, hepatitis B and syphilis on dried blood spots: A promising method to better reach hidden high-risk populations with self-collected sampling. *PLoS ONE*. 2017;12(10):e0186722–e0186722.
- 11. Centers for Disease Control and Prevention. PrEP (Pre-exposure prophylaxis). https://www.cdc.gov/hiv/basics/prep.html. Updated November 3, 2020.
- 12. Centers for Disease Control and Prevention. PEP (Post-exposure prophylaxis). https://www.cdc.gov/hiv/basics/pep.html. Updated October 21, 2020.
- 13. Centers for Disease Control and Prevention. HIV treatment as prevention. https://www.cdc.gov/hiv/risk/art/index.html. Updated March 3, 2020.
- 14. Centers for Disease Control and Prevention. PROMISE for HIP. https://www.cdc.gov/hiv/effective-interventions/treat/promise-for-hip?Sort=Priority%3A%3Aasc&Intervention%20Name=Promise%20for%20HIP. Last Reviewed July 21, 2020.
- 15. OraQuick. OraQuick® In-Home HIV Test. https://shop.oraquick.com/. 2016.
- 16. Centers for Disease Control and Prevention. Implementing HIV testing in nonclinical settings: A guide for HIV testing providers. March 2, 2016.

Appendix

Appendix A. Health department and community-based organization HIV self-testing program components, United States, July-September 2020.

	Type of	HIV Test	How to	Request a HIV Self-	Distribution of HIV Self-Tests*				
	OraQuick Dried In-Home Blood HIV Test Spot Collection		Online Survey/ Form	Contacts Agency via Phone Call, Text, Email, and/or Social Media	In- Person	Mailed by Agency	Mailed by OraSure	Pick-up/ Drive- through	Delivered by Staff
Health Department	9	0	9	0	0	8	1	0	0
СВО	18	0	5	13	3	14	0	8	7
Total	27	0	14	13	3	22	1	8	7

	Materials in Addition to HIV Self-Test and Test Instructions											
	Agency Contact Information	What to do after testing	Handout about pre- exposure prophyl- axis (PrEP)	Handout about HIV	Local Resources for HIV and/or PrEP Care	Condoms/ Lubricant	Harm Reduction Kits	COVID-19 Materials (info sheet, hand sanitizer, cloth mask)	Agency- branded items (e.g. water bottles, cum rags)	None		
Health Department	6	4	3	2	7	2	0	0	0	0		
СВО	10	4	6	1	5	10	1	3	2	4		
Total	16	8	9	3	12	12	1	3	2	4		

	How the	e Agency Obtai	ins Test Re	esults*	Link	age to HIV C	Care**	Linkage to PrEP Care**			
	Phone Call After Testing	Phone/Video Call During Testing	Survey	None***	Yes	Only if client requests it	No	Yes	Only if client requests it	No	
Health Department	1	1	4	4	2	2	5	2	1	6	
СВО	8	13	2	0	17	1	1	14	2	3	
Total	9	14	6	4	19	3	6	16	3	9	

	Data Collection, Management, and Evaluation Platform*											
	REDCap	SurveyMonkey	Excel	Evaluation Web	Internal database	Google Drive	Paper Forms	Other				
Health Department	4	3	3	2	1	0	2	1 (1 Johns Hopkins database)				
СВО	0	2	6	6	4	2	4	4 (1 Smartsheet, 1 WordPress, 1 Casewatch, 1 Healthvana)				
Total	4	5	9	8	5	2	6	5				

	Marketing*						Inc	Staff Training on HIV Self-Testing Program			
	Social Media & Websites	Dating apps	Print Media (magazines, bus stations, billboards, etc.)	Radio Ads	None	Gift cards	Agency- branded items (swag)	Items that are provided only at special events (e.g. PRIDE, National HIV Testing Day)	None	Yes	No
Health Department	5	3	2	1	2	1	0	0	8	2	7
СВО	14	3	7	1	2	5	1	2	11	12	7
Total	19	6	9	2	4	6	1	2	19	14	14

^{*} Multiple responses were offered by some agencies.

^{**} For the purposes of this project, linkage to care is defined as the agency following up with the client to help them find and schedule confirmatory testing, HIV care, or PrEP care after an HIVST.

^{***}Denotes organizations that opted not to collect test results.