Can HIV Self-testing Help Reach Those at Risk for HIV and Not Accessing Traditional Testing Services in Senegal?

In Senegal, key populations bear a disproportionate burden of HIV and they face important barriers to accessing HIV services, such as pervasive stigma and criminalization. HIV self-testing (HIVST) may provide an important opportunity to overcome these barriers and reach these populations, most of whom are unaware of their HIV status. Senegal is one of the countries in sub-Saharan Africa where an HIVST policy is under development, but existing evidence on acceptability of HIVST and strategies for effective implementation in the region is limited.

This brief highlights findings from assessing the acceptability of HIVST for key populations and people in their social and sexual networks, and the effectiveness of HIVST in reaching first-time testers. The research will help inform appropriately scaled implementation of HIVST in Senegal and across West Africa.

**METHODS**

We aimed to distribute the HIVST kits to populations with increased vulnerability of HIV acquisition and high levels of health care related stigma, including men who have sex with men (MSM), sex workers and their clients, and people who inject drugs (PWID). HIVST distribution was led by study partner, Enda Santé, who used two distribution approaches:

- **Venue-based approach**: Direct, assisted distribution of HIVST kits through outreach in target venues, including sex work venues, bars, nightclubs, hot spots, mobile clinics, and health facilities that provide services to key populations.

- **Social network-based approach**: Providing a primary recipient with one HIVST kit for themselves, and two additional test kits to distribute to individuals within their network.

Study results demonstrate that HIVST provides a complimentary approach to reach populations who may face barriers to engagement with existing and routine HIV testing services.

We asked participants who received the HIVST kit through venue-based distribution to complete a pre-test and a post-test questionnaire to capture HIV risk behaviors, HIV testing history, motivation for testing, and acceptability of HIVST. Pre-test questionnaires were administered by trained interviewers at the distribution site and post-test questionnaires were conducted by phone two weeks later. Data from social network-based distribution was only obtained from the primary recipient as follow-up was not possible for the network-based HIVST kit recipients (see Figure 1, next page).

**KEY MESSAGES**

- Use and acceptability of HIVST was high among all participants.
- HIVST provided a complimentary approach to reach first-time testers and key populations.
- Confirmatory testing and linkage to care remain a challenge.
### RESULTS

**Who participated in the study?**
In total, 1,776 HIVST kits were distributed to people in Dakar and Ziguinchor: 1,085 completed the pre-test and 827 completed the post-test questionnaires.

**Figure 2  Characteristics of pre-test participants**

- **Median age**: 29
- **Reported sex at birth**: 54% female and 46% male
- **Testing history**: 48% first-time testers, 28% ever tested but not within last 12 months, 25% tested within the last 12 months
- **Reported membership in at least one key population**: 30%
  - 17% sex workers (13% female and 4% male)
  - 14% MSM
  - 4% PWID
  - 2% transgender women
Use and acceptability of HIVST was high among all participants.
The vast majority of participants (94 percent) reported using the HIVST, most within two days of receiving it (89 percent). Nearly three-fourths of participants (74 percent), including both first-time testers and those reporting previous testing, felt comfortable using the HIVST. A majority (94 percent) thought their friends and family would use an HIVST, 86 percent found the instructions easy to follow, and 95 percent reported they would recommend HIVST to others.

HIVST can effectively engage first-time testers in Senegal.
Among those who reported using the HIVST, 44 percent were first-time testers. Young adults (ages 18–23) and males had higher odds of being first-time testers, suggesting that traditional testing services are currently not reaching these groups in Senegal and that HIVST has the potential to engage them.

Expanding access to HIVST may increase HIV testing among key populations.
HIVST was able to reach a large proportion of key populations who had never taken an HIV test (39 percent) as well as those who had not.

Figure 3  HIV testing history among key populations: pre-test survey (N=1,085)

<table>
<thead>
<tr>
<th>Key populations* (N=325; 30%)</th>
<th>First-time tester</th>
<th>Tested within the last 12 months</th>
<th>Tested, but not in the last 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female sex workers* (N=136; 13%)</td>
<td>21%</td>
<td>28%</td>
<td>52%</td>
</tr>
<tr>
<td>Male sex workers* (N=38; 4%)</td>
<td>26%</td>
<td>24%</td>
<td>50%</td>
</tr>
<tr>
<td>Men who have sex with men (N=148; 14%)</td>
<td>22%</td>
<td>29%</td>
<td>49%</td>
</tr>
<tr>
<td>People who inject drugs (N=40; 4%)</td>
<td>20%</td>
<td>18%</td>
<td>63%</td>
</tr>
<tr>
<td>Trans women (N=19; 2%)</td>
<td>6%</td>
<td>39%</td>
<td>53%</td>
</tr>
</tbody>
</table>

*p<0.001
tested in the last year (28 percent) (Figure 3). About half or more of male sex workers, MSM, PWID, and transgender women reached through HIVST reported never having tested for HIV. HIVST provides an opportunity to reach key populations, increase uptake of testing, and thus have a role in linking people living with HIV to diagnosis and treatment services.

Confirmatory testing and linkage to care and treatment remain a challenge.

Among the post-test respondents who reported their result, nearly 3 percent (n=19) had a HIVST reactive result (Figure 4), which was associated with being a first-time tester. Among those with a reactive HIVST, less than half (n=9) went for confirmatory testing. None of those with an invalid test result (n=14) went for follow-up testing. HIVST strategies in Senegal may require more active mechanisms for follow up and support to improve linkage to confirmatory testing and care.

CONCLUSION AND NEXT STEPS

The results from this study demonstrate that HIVST provides a complimentary approach to reach populations who may face barriers to engagement with existing and routine HIV testing services. Primarily, this includes key populations and first-time testers. The study also highlights the importance of leveraging existing venues and networks for distribution of HIVST kits.

Results from this study and lessons learned are being utilized by government and stakeholders to inform the strategy for scaling up HIVST in Senegal. Sustained engagement with government and stakeholders is needed to facilitate the implementation and scale-up of HIVST and subsequent linkage to care in Senegal.

Figure 4 HIV self-reported results among post-test respondents (N=656)

2.9%

Reactive

2.1%

Invalid