01081

INTERPRETATION OF HIV SELF-TEST RESULTS AMONG PREP USERS IN KENYA

Peter Mogere[1], Ashley R. Bardon[3,5], Catherine Kiptinness[1], Richard Magara[1], Snaidah Ongachi[1], Sarah Mbaire[1], Stephen Gakuo[1], Dorothy Mangale[4], Nelly Mugo[1,3], Jared Baeten[3,5,6*], Katrina F. Ortblad[3,4], Kenneth Ngure[2,3]

[1]Center for Clinical Research, Kenya Medical Research Institute, Nairobi, Kenya, [2]Department of Community Health, Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya, [3]Department of Global Health, University of Washington, Seattle, WA, USA, [4]Public Health Sciences Division, Fred Hutchinson Cancer Research Center, Seattle, WA, USA, [5]Department of Epidemiology, University of Washington, Seattle, WA, USA, [6]Department of Medicine, University of Washington, Seattle, WA, USA, [*]Current affiliation: Gilead Sciences, Foster City, CA, USA

BACKGROUND

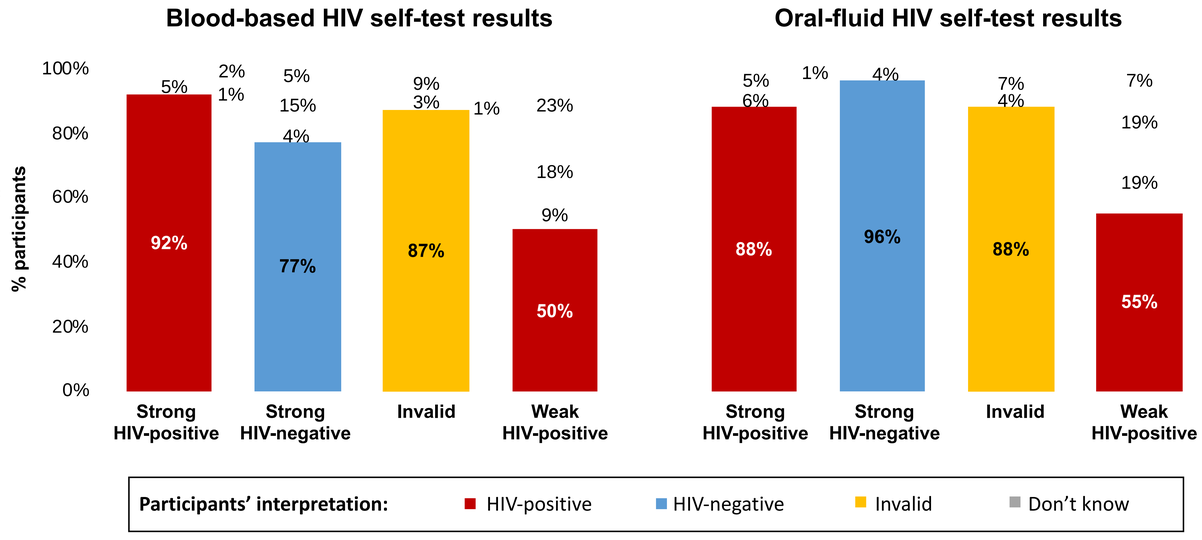
- Clients on PrEP are recommended to test for HIV every three months to detect any potential breakthrough HIV infection.
- HIV self-testing (HIVST) has the potential to support PrEP continuation by moving regular HIV testing from the clinic to the home.
- We measured how well PrEP clients in Kenya could interpret HIVST results to understand the feasibility for this differentiated model of PrEP delivery.

METHODS

- We used data from the intervention arms of a three-arm randomized implementation trial testing a model of six-month PrEP dispensing supported with interim HIVST at three months.
- Eligible participants were ≥18 years and had been using PrEP for 1 month.
- Participants in the intervention arms received a six-month PrEP supply and either two blood-based (BB) or oral-fluid (OF) HIV self-tests, which included instruction guides with pictures of how to interpret the self-test results.
- At enrollment, these participants also received HIVST training and completed a BB or OF self-test with the guidance of a clinical provider.
- At six months, after potentially two opportunities to use the self-tests, participants were asked to interpret pre-printed colored images of BB or OF HIVST results (strong HIV-positive; strong HIV-negative; invalid; weak HIV-positive), presented in a random order.
- We used descriptive statistics to report how well participants interpreted HIVST results.

Most PrEP users correctly interpreted HIVST results. However, incorrect interpretation was not uncommon despite personalized HIVST training and prior use experience.

Figure 1. HIVST result interpretations by type of HIVST (blood-based vs oral-fluid)



RESULTS

- From November 2018 to December 2020, 83% (137/166) of participants in the BB HIVST arm, and 84% (137/163) of participants in the OF HIVST arm returned for a 6-month follow-up visit and interpreted images of HIVST results.
- Participants had a median age of 33 years (IQR 28-41) and 8 years in school (IQR 8-12).
- Correct interpretation of strong-positive results was 92% (126/137) and 88% (121/137) among participants in BB & OF HIVST arms, respectively (**Fig. 1**).
- Strong-negative results were correctly interpreted by 77% (105/137) and 96% (132/137) of participants in BB & OF, respectively.
- In both arms, participants' correct interpretation of invalid and weak HIV-positive results was similar (invalid: ~87%; weak HIV-positive: ~50%).

CONCLUSIONS

- More research is needed to understand ways to support clients' interpretation of HIVST results to ensure the quality of future community-delivered HIV prevention services supported with HIVST.

ACKNOWLEDGEMENTS

We would like to acknowledge all trial participants and staff at Partners in Health and Research Development research and care clinic in Thika that contributed to this study.

FUNDING

NIMH R01 MH113572 & NCATS TL1 TR002318

AUTHOR CONTACT

Peter Mogere, Project Director
patandi@pipsthika.org