Informing HIV self-testing services in Malawi using Discrete Choice Experiments

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HIV self-testing (HIVST) has potential to improve equity in access to HIV testing and reach populations, including men and adolescents, underserved by standard-of-care services. This study examines relative preferences for HIVST services using Discrete Choice Experiments (DCE).

Two DCEs were conducted with adults in four rural, high HIV prevalence districts in Malawi. The DCE was administered to randomly selected household members with disproportionate allocation to either a DCE on a) HIVST delivery (n=771) or b) linkage to a confirmatory test and ART initiation after a positive self-test (n=554). Choice bundles of HIVST service characteristics were offered to participants, including option of standard-of-care. Preference heterogeneity was examined by sex and age using multinomial logit and latent class models.

Respondents preferred home delivery of HIVST kits to distribution through health facilities or mobile clinics. Local lay distributors were stronger drivers of HIVST uptake compared to alternative providers, including intimate partners and health workers. Oral HIVST kits were preferred to provider-delivered HIV testing or finger-prick HIVST. Small user fees (US$0.07 to 0.21) were strong disincentives, especially among women. Delivery options relating to pre-test support did not affect choice, though there was negative preference for the HIVST instruction leaflet as the sole means of post-test guidance.

Following a positive self-test, respondents preferred receiving information on confirmatory testing or HIV care by telephone compared to a leaflet, SMS reminder, or in-person support. Regarding location, respondents had negative preference for linking to mobile clinics over health facilities and their homes. For facility-based HIV care, service fees (US$0.14) and long waiting times (3 hours) were disincentives. HIV-specific service areas at clinics were significant drivers of linkage to care.

Sex and age significantly affected willingness to be tested. Men and younger people were more likely to choose to test for HIV, potentially due to outstanding demand. Similar age trends were observed for linkage to care, with older respondents less likely to access services.

Preferences elicited in the DCEs support proactive and low-cost distribution by lay providers and minimal support linking to facility-based care services. Sex and age-differentiated responses suggest that some aspects of HIVST services could be configured to reach more men and adolescents.