Informing targeted HIV self-testing service delivery in Malawi and Zambia – A multi-country discrete choice experiment (489/500 words max)

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Background

The HIV burden remains highly concentrated in Southern Africa, with estimated adult (15 – 49 years old) prevalence in 2015 of 9.1% and 12.9% in Malawi and Zambia respectively. HIV self-testing (HIVST) is a new approach to HIV testing where a person collects his/her own specimen, performs an HIV test and interprets the result, either alone or with someone he/she trusts. Discrete choice experiments (DCEs) are used in health economics to elicit preferences and values for hypothetical goods and to optimize the introduction of new technologies. We designed two DCEs exploring people's preferences for HIVST distribution and linkage to care following a reactive self-test. DCEs were embedded in a household survey in rural Malawi and Zambia.

Methods

Following formative qualitative research and literature reviews, DCEs were adapted for Malawi and Zambia. Within the context of a representative household survey, participants aged 16 or above were randomly allocated to either a DCE on: HIVST distribution (n=771 in Malawi and n=417 in Zambia) or linkage to confirmatory testing and ART initiation for individuals with reactive self-test (n=554 in Malawi and n=301 in Zambia). The two unlabelled experiments presented three possible choices: two HIVST distribution (or linkage to care) strategies and an opt-out option. We analysed data using multinomial logit, nested logit and latent class models to explore observable preference heterogeneity by country, age, gender and HIV testing experience.

Results

Community-based HIVST distribution was preferred to facility-based distribution in both Malawi and Zambia. Participants preferred to receive HIVST at home or at a distributor's home to mobile clinics or drugstores. The home of the HTC (HIV testing and counselling) provider for confirmatory testing after a reactive self-test was preferred in Malawi. Distributor's medical training (lay distributor versus HTC provider) did not affect uptake, however HIVST distribution via sexual partner was not acceptable, particularly among men. Oral fluid tests were preferred to blood-based HIV self-tests, regardless of whether the test was delivered by a provider or self-administered. Method of support for self-testing did not seem to affect people's willingness to self-test, however HIVST price had a strong negative impact on uptake.

Upon receiving a reactive test result, respondents preferred the option of a phone call to support linkage to care rather than an SMS, a personal visit or no follow-up. At the testing facility, user fee and waiting time to receive confirmatory testing were strong disincentives to link to care. Finally, separation of HIV services waiting room from other health care services at the testing facility was reported as more convenient in Malawi but not in Zambia.

Conclusions

These findings suggest that community-based distribution and linkage are critical aspects of HIVST delivery. DCE results were consistent across countries with similar HIV context and can inform multi-country implementation and scale up strategy across settings. A critical next step is to explore preferences of populations among whom HTC uptake and linkage to care are known to be low, such as men, youth and key populations.