Preferences for HIV self-testing distribution and linkage to care models: results from discrete choice experiments in Zimbabwe (350 words + 1 figure max)

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Background

New HIV testing strategies are needed to reach the UN's 90-90-90 target. HIV self-testing (HIVST) can increase uptake, but users' perspectives on optimal models of distribution and linkage to post-test services are uncertain. We explored preferences in rural Zimbabwe using discrete choice experiments (DCE).

Methods

DCEs are a quantitative survey method that present respondents with repeated choices between packages of service characteristics and allow the relative strength of preferences for each service characteristic to be estimated. Embedded within a population-based survey following door-to-door HIVST kits distribution by community volunteers (CVs) in Mazowe and Mberengwa districts, we administered two DCEs: one on distribution preferences and another on post-test/confirmatory testing preferences. Using the DCE, we simulated changes to confirmatory testing uptake at local public hospitals and Population Services International (PSI) outreach clinics attributable to hypothetical changes to service characteristics. Analysis among the general population and key groups used multinomial logit to identify subgroup heterogeneity in preferences.

Results

The distribution and linkage DCEs surveyed 296 and 496 participants, respectively, with 43% and 38% men in each. Free kits distribution by local CVs, and provision of multiple kits to whole households were strongest preferred attributes particularly relative to low user-fee (US$0.25 cents) and mobile clinic distribution. Men significantly preferred individual rather than whole household kit distribution. Testing support options (in-person or telephone) were less important, although never-testers valued phone helpline.

The strongest linkage preferences were for free services, within a short walking distance, with HIV treatment immediately available (Figure 1). Men reported higher willingness to link than women. Aversion to service fees increased with age.

Simulations suggested that antiretroviral therapy (ART) availability at PSI outreach clinics would increase linkage at this location, with lesser effects from extended opening hours and reduced congestion. Negative effects of service fees were strongest among men and the never-tested group.

Conclusions

Community-based approaches incorporating free distribution of HIVST by local volunteers, and convenient ART access were the strongest relative preferences identified. Accommodating linkage preferences to reach "resistant testers" with HIVST may maximise uptake of post-test services. Ensuring consistent ART at mobile PSI outreach clinics is likely to increase initial linkage rates.

Figure 1. "Linkage to care" DCE results. Service characteristics with a positive utility were preferred; those with a negative utility were disliked.