Exploring the Usefulness of Discrete Choice Experiments to Explain Preferences: The Case of HIV Testing Preferences Among Truck Drivers in Kenya

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Background: Understanding the demand for healthcare is a vital part of effective scale-up of interventions. However, the underlying preference structures of patients and clients are often unknown or poorly understood. Discrete choice experiments provide a tool for researchers to better understand these preference structures in relation to health seeking behaviour. This paper examines the usefulness of this tool in the context of a randomised controlled trial among long distance truck drivers in Kenya – a particularly difficult to reach population – and their preferences regarding HIV testing and counselling. Oral self-testing has been found to be broadly acceptable in Kenya, but it is unclear whether acceptability leads to higher uptake, and which characteristics of self-testing drive demand.

Methods: Using data from 150 truck drivers recruited into the intervention arm of a randomised control trial, this paper examines whether the stated preferences regarding HIV testing in a discrete choice experiment can help to explain actual test selected when offered HIV testing choices in the context of a research study. Key characteristics of HIV testing and counselling included the type of test; type of counselling; who administers the test; location; cost and time.

Results: The strongest driver of choice was cost, with participants preferring free, provider-administered HIV testing at a roadside clinic, using a finger-prick test, with in-person counselling, undertaken in the shortest possible time. Preferences diverged in two testing characteristics, between those who actually chose self-testing and those who did not: the type of test (p0.001) and the type of counselling (p=0.003). Self-testers preferred oral-testing to finger-prick testing (OR 1.26 p=0.005), while those choosing not to self-test preferred finger-prick testing (OR 0.56 p0.001). Those who chose not to self-test preferred in-person counselling to telephonic counselling (OR 0.64 p0.001), while self-testers were indifferent regarding the type of counselling. There were no preferences in either group regarding who administered the test.

Conclusions: We found stated preference structures helped explain the actual choices participants made regarding the type of HIV testing they accepted. Offering oral-testing may be an effective strategy for increasing willingness to test among certain groups of truck drivers. However, the importance of in-person counselling and support, and a lack of knowledge of, and trust in new diagnostic technologies may mean that continuing to offer provider-administered testing at roadside wellness centres will best align with the preferences of those who already attend these facilities.