

Title: Peer-led delivery model for HIV self-testing in female sex workers: Designing the model based on research and participatory strategies in urban Blantyre, Malawi

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Text: **Background:** Provision of targeted HIV services is required amongst female sex workers in Malawi considering a substantially high prevalence of HIV in this group currently estimated at 70.7%. Attainment of the UNAIDS 90-90-90 targets needs wider coverage of HIV testing services using novel strategies for reaching marginalised populations including female sex workers. A growing body of research evidence demonstrates that HIV self-testing is an attractive addition for increasing uptake of HIV testing services in underserved groups. We present a peer-led model for providing HIV self-testing in female sex workers informed by formative research and participatory methods in urban Blantyre, Malawi.

Methods: A synthesis of qualitative results from a formative rapid ethnographic assessment was conducted to inform the development and design of a draft peer-led model for providing HIVST amongst female sex workers. A follow-up three-day stakeholder participatory workshop with 16 participants including 14 female sex workers was conducted to refine the draft model.

Results: The development of a peer-model was informed by insights from the target population describing critical elements to consider in the model design such as attributes of the peer-distributor, creating demand, screening eligible clients, providing information of how to self-test and linking clients to health care. Desirable attributes of a peer-distributor included a good knowledge of HIV testing process, popular among peers, command influence and respect. Depending on the context, flexibility in available approaches for creating demand and actual distribution of test-kits was preferred by sex workers. Sex workers placed on incentivising demand for self-testing using lubricants and condoms, providing demonstration of the self-testing process and safeguarding the privacy of clients. Non-disclosure of test-results to a peer-distributor was preferred to avoid conflict linked to potential breach of confidential information. Providing specific

information to foster linkage to care such as names of a referral facility and a focal person were valued by participants.

Conclusions: A peer-led model for providing HIV self-testing among female sex workers was developed based on aspirations of the beneficiaries and pragmatic insights from implementers. Formative participatory methods proved vital in providing useful context specific ingredient in the design of the model for optimising outcomes following implementation.