

Background

- Globally, progress has been made over the years to reduce the HIV/AIDS pandemic.
- In Zimbabwe, a ten percent decrease in new infections was recorded between 2016 and 2018, from 42,000 to 38,000 annually (UNAIDS, 2019)
- However, different types of populations remain disproportionately affected, with MSMs being some of the most affected populations.
- HIV prevalence among MSMs in Zimbabwe is as high as 23% in Harare alone compared to 12.7% nationally (MoHCC, 2019).
- One of the major interventions in fighting this epidemic has been finding HIV positives, linking them to treatment and achieving viral load suppression among those on treatment.
- Thus HIV Index case testing (ICT) is increasingly an important approach for finding the remaining HIV positives.
- Zimbabwe is embracing this approach through a large national HIV program funded by USAID.
- For this program, implemented by PSI Zimbabwe, we target key populations including MSMs for HIV testing. The program collates MSM client level data for implementation adaptation as well as reporting purposes. To strengthen index testing, these data are routinely analyzed to actively inform better ICT programming.

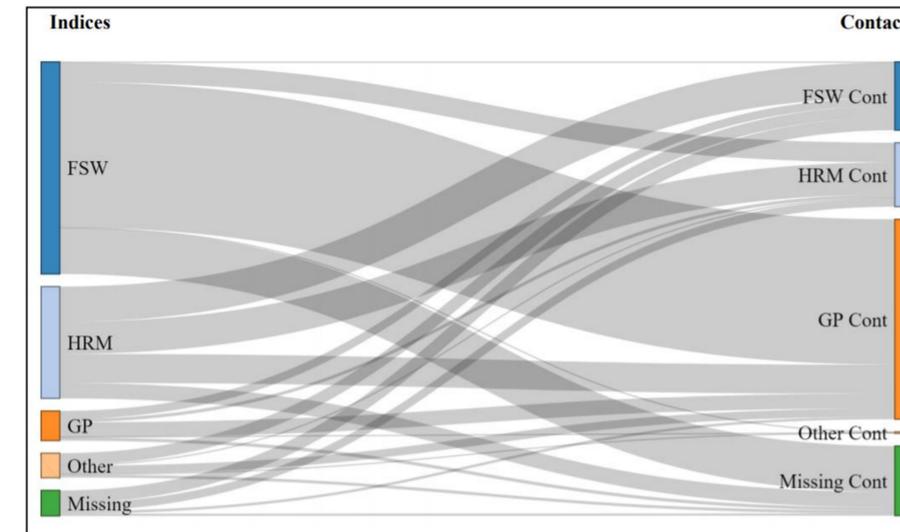
Description

- In order to reach MSMs for HIV testing services, PSI employs members of the MSM community (enhanced peer mobilizers) to reach their own peers.
- This approach helps with making the service confidential to MSMs as it addresses general stigma and discrimination that is often associated with general health care workers toward the population.
- Those who test positive are incentivized to provide their contacts for contact tracing.
- The program collates both indices' and contacts' client level data to draw sexual trees that illustrate complex sexual webs.
- For this abstract we used 798 indices' and 1380 contacts' routine program data from the period June to August 2019 to examine relationships present in ICT sexual network trees. Descriptive analysis and logistic regression modeling were conducted using R. Logistic regression predicted HIV positive status.

Lessons Learned

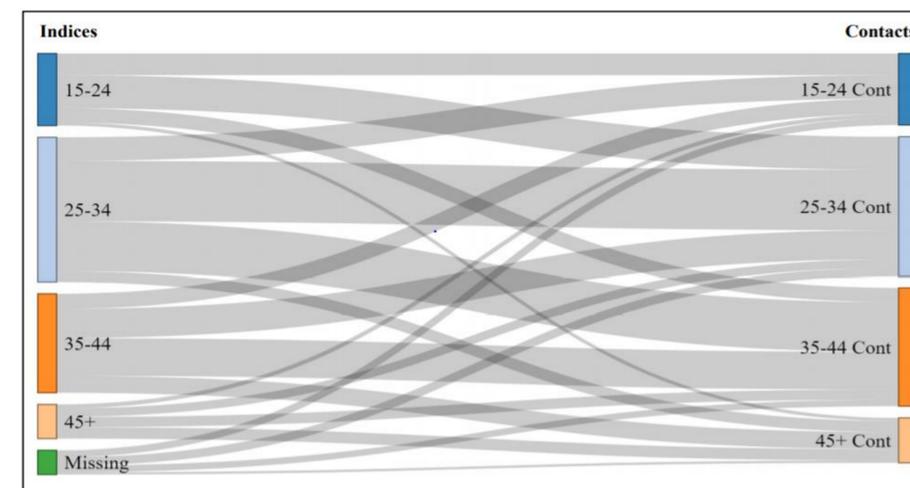
We found that sexual networks among high risk populations are not isolated to high risk populations (Fig 1).

Fig 1. Distribution of Indices and their contacts Partnership Types



As many as 38% of female sex worker indices are linked to the general population while 4% were high-risk males. We also observed significant age differences between indices and their partners. About 5% of those ages 15 to 24 years had partners who were age 45 years plus (Fig 2).

Fig 2. Indices and their contacts age distribution



Further we found that men had 1.85 times more positive contacts than women (OR=1.85; 95% CI 1.55-2.20) and that older ages were more likely to be positive (OR=1.015; 95% CI 1.005-1.025) while contacts in age-disparate relationships (younger or older) had 1.38 times greater odds of a positive test (OR=1.38; 95% CI 1.01-1.88).

Conclusions

These findings show that high risk populations are intricately connected with the general population thus spreading risk to entire populations. Further, the findings suggest that HIV index testing can be better yielding if targeted based on relationship type, inter-alia age disparate between the indices and contacts. For instance, targeting indices reporting older partners will provide better yield.