

HIV among female sex workers in Kenya: prevalence, risk behaviours and prevention services Thesis submitted to fulfil the requirements for the degree of "Doctor in Health Sciences", Academic year 2024-2025



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A brief background on our topic of research

- Globally, female sex workers (FSW) have nearly 10 times the risk of HIV infection compared to generalpopulation women.
- In Africa, sex workers significantly contribute to new HIV infections, and drive infections in the general population, sustaining the HIV epidemic.
- Efforts to reduce HIV among FSW in Kenya have been ongoing since the 1980s, with renewed focus after 2010.
- Sex worker programs have evolved to include a mix of biological interventions (e.g., HIV testing), Behavioral interventions (e.g., risk reduction education and counseling) and Structural interventions (e.g., addressing social and legal barriers).
- These programs are primarily peer-led and adopt a program learning approach to test and refine best practices.

What questions did we want to answer

- Determine the current prevalence of HIV among FSW in Mombasa, Kenya and changes in prevalence over the last 20 years.
- Assess the implementation of oral PrEP introduction as part of a combination prevention approach for FSW in Kenya.
- iii. Evaluate changes in condom use as a marker for changes in behavioural risk among FSW initiating oral PrEP during national scale-up.
- iv. Determine the unit cost of HIV and PrEP services, and specific cost drivers of FSW HIV/STI and PrEP services.

Promoters

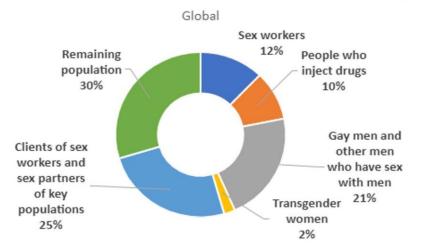
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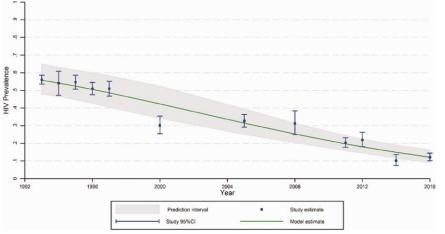
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How did we go about it and what did we find?

- Aim 1: Cross sectional study of 876 FSW using a novel multistage sampling method, and mathematical modelling from eleven published studies from 1993 to 2016 for trends.
 - HIV prevalence in FSW was 12.1% and prevalence declined by about 30% between 1993 and 2016.



- Aim 2: Implementation research and developmental evaluation of an oral PrEP scale-up program, providing PrEP services for sex workers through public & private health facilities and special sex worker clinics (drop-in centers).
 - 17,700 FSW started PrEP in three years between January 2017 and December 2019.
- Aim 3: Cohort follow-up using routinely collected service delivery data to compare condom use at the month 1, and month 3 visits to the PrEP initiation visit.
 - Condom use was significantly higher at both month one and month three visits compared to at PrEP initiation.
- Aim 4: A top-down costing study on the unit cost of sex worker services at two drop-in centers.
 - Average cost of USD 105.93 per FSW per year to offer comprehensive services.

About the student and the research group



This research was conducted at the International Centre for Reproductive Health, Kenya (ICRHK).

The student and his promoters extend their heartfelt gratitude to the entire ICRHK research community and the study participants.

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Griffins Manguro is a medical doctor. His research work is focused on sexual and reproductive health, specifically in HIV/sexually transmitted infections, family planning, and adolescent health. He holds a Degree in Medicine and surgery from Moi University Kenya, and a Master in Global Health from the University of Washington, Seattle, USA.

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