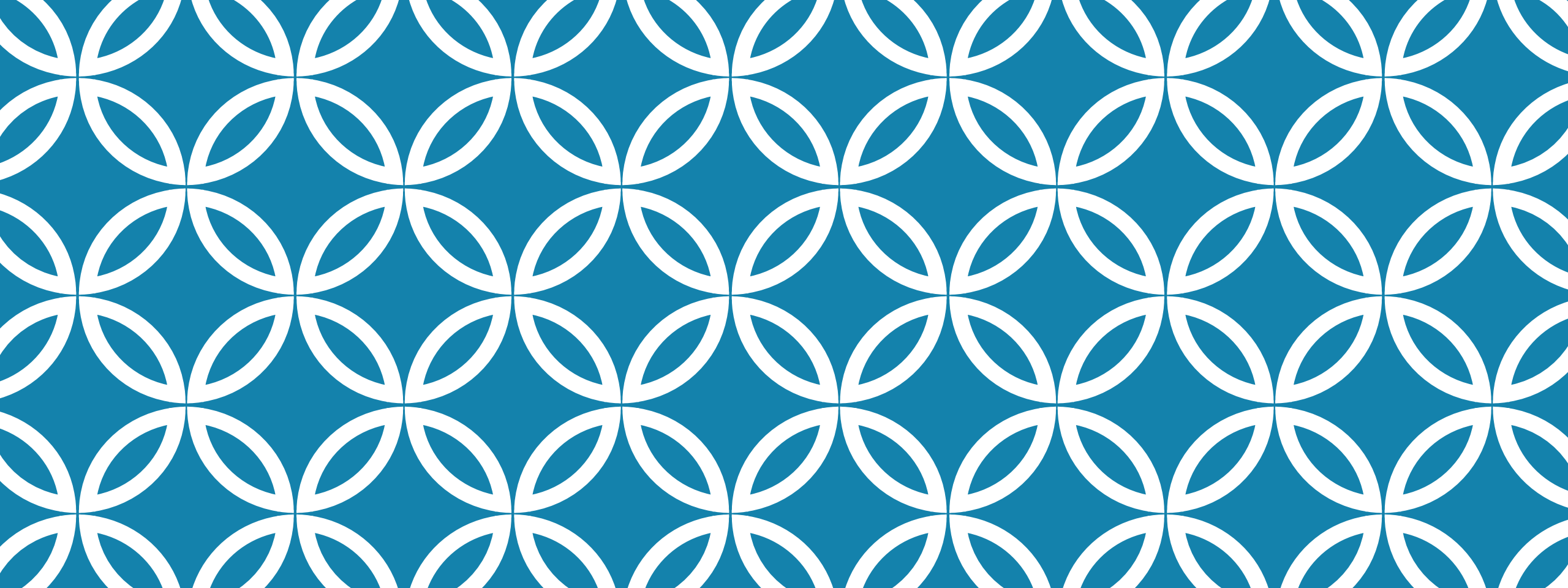
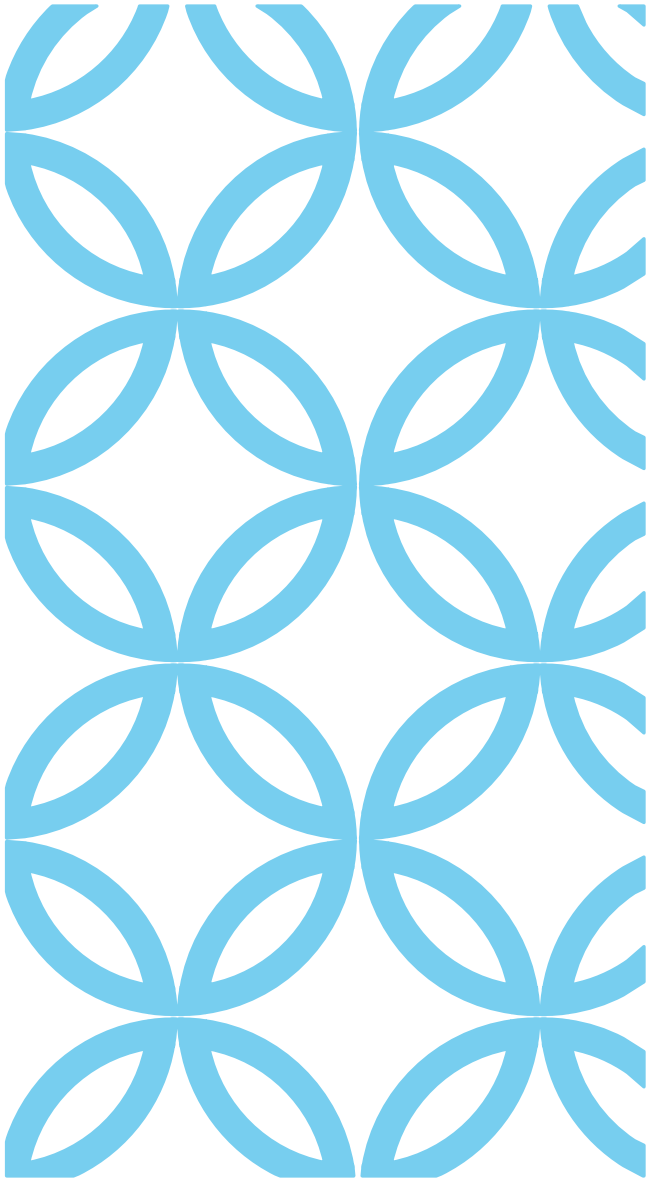




GEOGRAPHIC HETEROGENEITY OF HIV AMONGST A COHORT OF FEMALE SEX WORKERS IN NAIROBI, KENYA CAHR 2021

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Kenya has the third largest HIV epidemic in the world.

Although HIV incidence in Kenya has shown signs of recent decline, more targeted interventions are needed for key populations, including female sex workers (FSWs), to decrease incidence further.

One approach is to target interventions at geographic 'hotspots' where FSWs meet their clients. In order to inform such approaches, we aimed to understand heterogeneity in the distribution of HIV prevalence by hotspots and by residence within Nairobi.

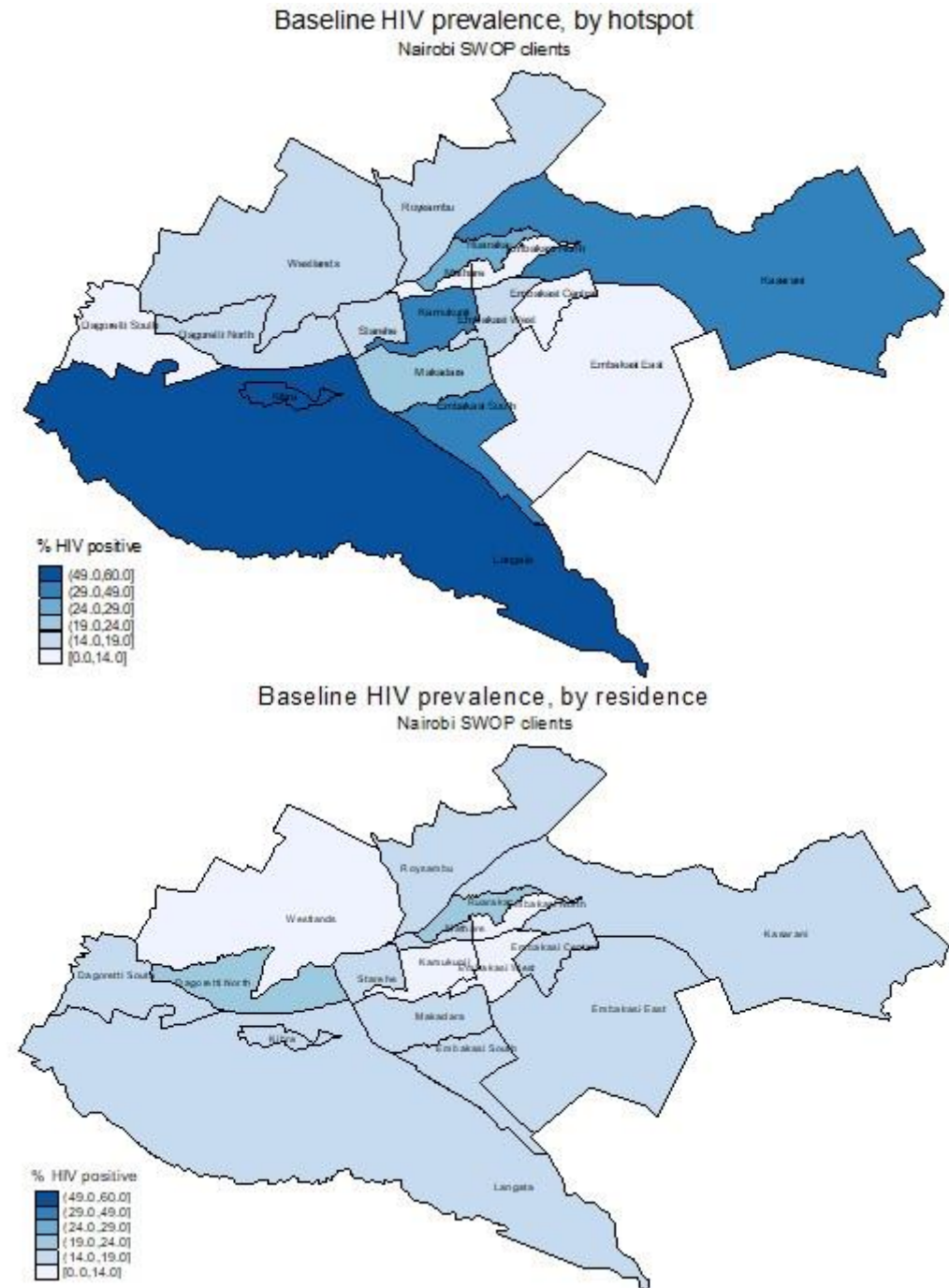
INTRODUCTION

METHODS

Data were collected as part of enrolment in the Sex Workers Outreach Program (SWOP) in Nairobi, Kenya from 2014 to 2017.

The geographic unit of analysis was constituency (n=17); hotspots and residences were aggregated to the constituency level.

Inequality in the geographic distribution of HIV prevalence by sex work hotspot and residence was measured using the Gini coefficient; coefficient scores range from 0 to 1, with a score closer to 1 indicating perfect inequality. 95% confidence intervals (95% CI) were generated using 1000 bootstrapped estimates in Stata.



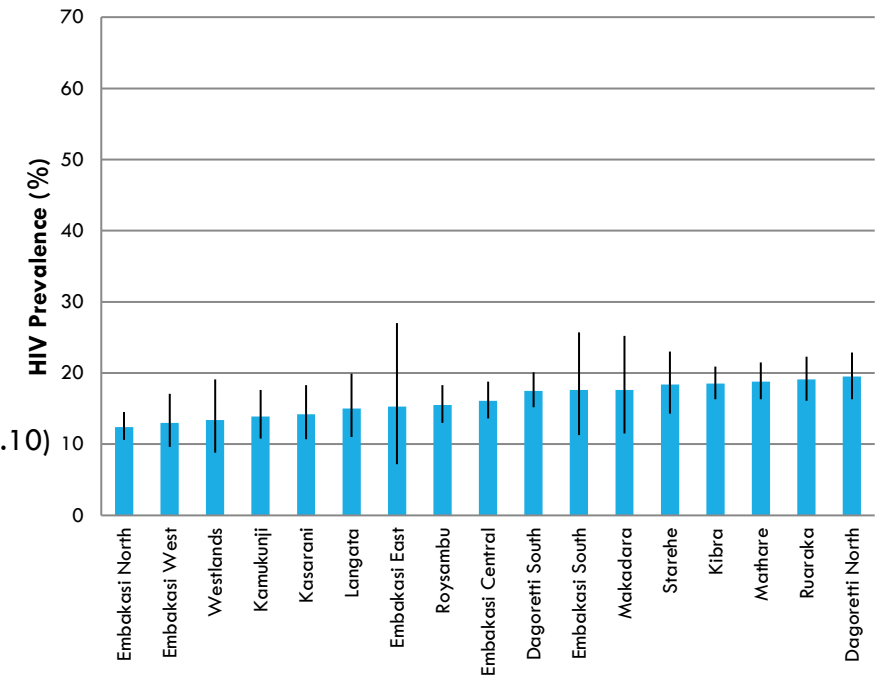
RESULTS

A total of 11,899 FSWs were included. Median age of FSWs was 29 years (IQR: 24-35), with a median of 5 clients (IQR: 3-10) in the previous week.

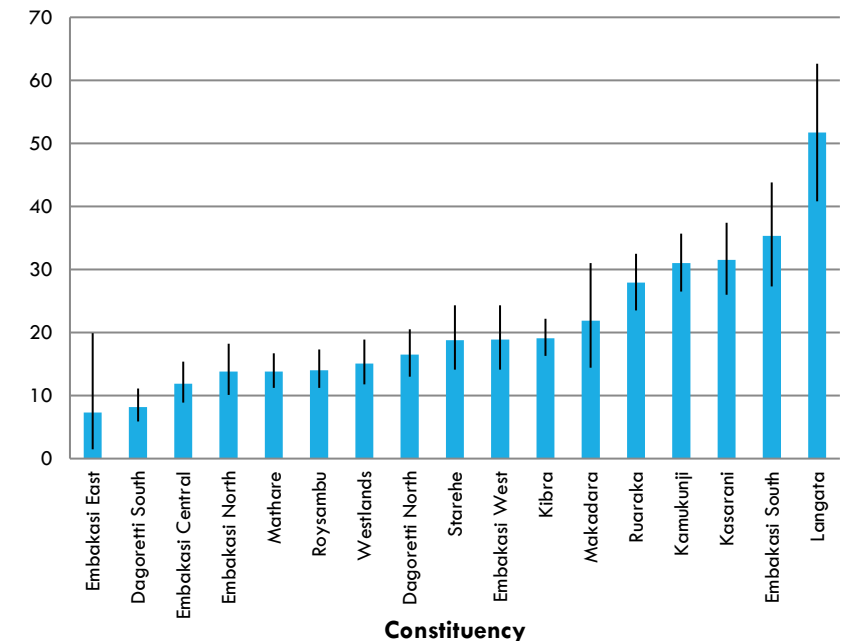
Overall HIV prevalence was 16%, with a range between 7%-52% between constituencies. The Gini coefficient was 0.41 (95%CI: 0.25-0.58) for hotspot constituency, indicating high inequality in the distribution of HIV prevalence.

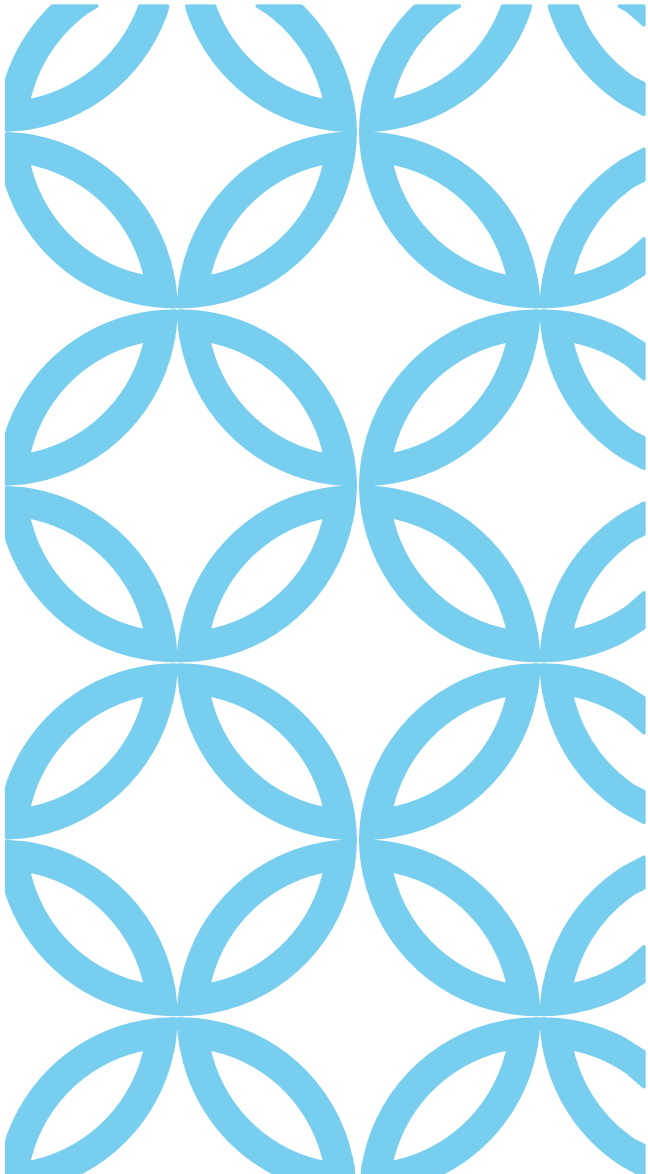
Approximately 55% of HIV positive FSWs worked in 4 constituencies. In contrast, constituency of residence had a Gini coefficient of 0.08 (95% CI: 0.06-0.10), suggesting minimal heterogeneity by residence.

Gini (residence): 0.08 (0.06-0.10)



Gini (hotspot): 0.41 (0.25-0.58)





Not all hotspots are created equal - HIV prevalence amongst FSWs within hotspots is highly heterogeneous across Nairobi.

As HIV declines in Kenya, tailoring interventions to FSWs at highest HIV risk becomes increasingly important, in order to reduce HIV incidence toward UNAIDS 2030 targets.

CONCLUSION

We thank all study participants and acknowledge the contributions made by SWOP staff.



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