Feasibility and Acceptability of Cervico-Vaginal Self-Sampling for STI Testing in Nairobi Pharmacies

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BACKGROUND

- **Sexually transmitted infections (STIs) are a significant global public health concern, with highest burden in low-resource settings where limited access to screening leads to delayed diagnosis**
- **WHO estimates >1 million curable STIs occur daily worldwide**
- **Human papillomavirus (HPV) types 16, 18, 31, 33, 45, 52, 58 are associated with most cervical cancer cases**
- **Self-sampling is a promising strategy to decentralise testing and improve early detection**
- **Pharmacies are widely accessed for reproductive health services**
- **Hypothesis: Pharmacy-based cervico-vaginal self-sampling would be feasible, acceptable, and help uncover undiagnosed STIs**

METHODS

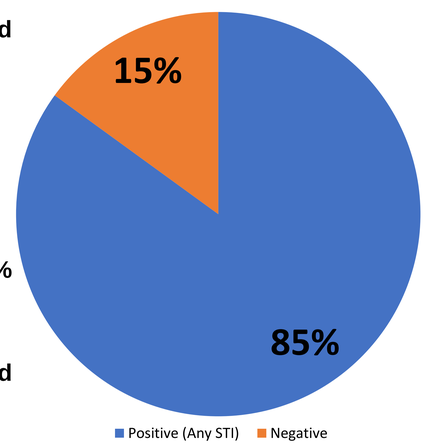
- **Design: Cross-sectional mixed-methods study among women aged 18–49 years at Nairobi pharmacies**
- **Quantitative: Structured survey administered to 350 women**
- **Sample Collection: 100 participants provided cervico-vaginal samples using Evalyn Brush**
- **Qualitative: 10 key informant interviews with pharmacy staff**
- **Data Analysis: R (descriptive statistics, ANOVA, regression); NVivo (thematic analysis)**
- **Lab Testing: PCR assays for STIs and high-risk HPV genotypes**

Cervico-vaginal self-sampling via pharmacies is highly feasible (88% easy) and acceptable (96.2%), uncovering a hidden STI burden (85% positive for ≥1 STI, 48% for high-risk HPV) among women in Nairobi.

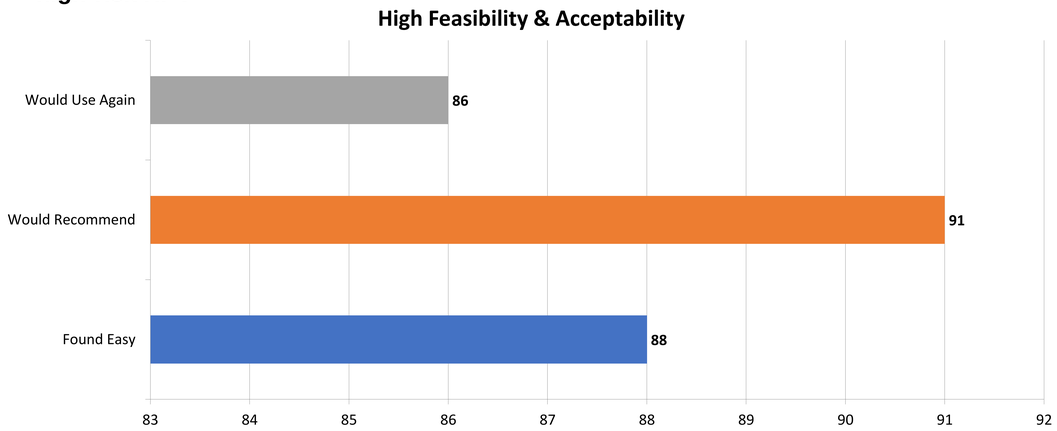
RESULTS

- **Self-sampling acceptability: 96.2% citing convenience and privacy**
- **Risky sexual behaviours are common: 95.2% reported unprotected sex**
- **68.3% experienced genitourinary symptoms**
- **Only 22.2% had prior STI diagnoses (screening gap)**
- **Feasibility high: 88% found the process easy, 91% would recommend, 86% would use again**
- **Pharmacists expressed strong support but highlighted need for training**
- **Lab results: 85% tested positive for ≥1 STI, 48% for high-risk HPV**

High Burden of Undiagnosed STIs



High Feasibility & Acceptability



CONCLUSIONS

- **Cervico-vaginal self-sampling is feasible and acceptable among women accessing pharmacies in Nairobi**
- **High burden of undiagnosed infections uncovered (85% STI+, 48% HR-HPV+)**
- **Pharmacies provide a scalable, community-centered platform to expand STI testing and reduce stigma**
- **Gap between positive attitudes and poor preventive practices highlights need for targeted interventions**
- **Scaling up pharmacy-based self-sampling with training and policy integration could strengthen STI control and advance women's reproductive health**

ADDITIONAL KEY INFORMATION

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KEYWORDS

STIs, HPV, self-sampling, women, pharmacies, feasibility, Kenya

PLAIN LANGUAGE SUMMARY

Women in Nairobi can easily and privately collect their own samples at local pharmacies to test for sexually transmitted infections. This study found that most women liked this approach, and importantly, it detected many infections that would otherwise go undiagnosed—helping connect more women to treatment.