Association Between Silent Transfers and Virologic Outcomes Among Female Sex Workers on ART in Kenya

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BACKGROUND

- Tracing studies from 2003-2015 in sub-Saharan Africa estimate that up to 50% of individuals classified as **lost to follow-up** have re-engaged in HIV care at different facilities without formal documentation.
- These largely untracked **"silent transfers"** may obscure programmatic estimates of retention, disrupt continuity of care, and compromise treatment outcomes.
- In Kenya, HIV prevalence in 2021 was estimated as 29.3% among **female sex workers (FSW)** compared with 4.3% in the general population

There has been limited study of the prevalence of silent transfers and the **relationship between silent transfers and virologic outcomes** among FSW in Kenya.

METHODS

Data collection

- 3,850 FSW on ART with **electronic health records** in Nairobi, Kenya and served by nine **Sex Workers Outreach Program sites** were included in analyses.

Key measures

Silent transfers were defined as documented engagement in care at two or more clinics **without a formal transfer recorded** and were identified using the National Unique Patient Identifier.

Four virologic outcomes were assessed: persistent suppression (viral load suppression (VLS) at **baseline** and **current visit**), new suppression (VLS at current visit only), viral rebound (VLS at baseline visit only), and persistent viremia (VLS at neither visit) with VLS defined with a cut point of **<200 HIV RNA copies/mL**.

Analytic approach

- **Multinomial logistic regression** assessed the association between silent transfers and virologic outcomes, adjusting for education, delayed ART initiation (>30 days after diagnosis), and current site.

Silent transfers were significantly associated with increased likelihood of persistent viremia among FSW in Kenya

RESULTS

- A total of 152 (3.9%) FSW experienced a **silent transfer** since ART initiation with **nearly half transferring from clinics outside of Nairobi** (n=64).
- ~10% of all FSW (384, 10.5%) experienced **viral rebound** and 1% (34, 0.9%) of FSW experienced persistent viremia.
- Experiencing a silent transfer was significantly associated with **increased likelihood of persistent viremia** (aOR: 4.27, 95%CI [1.57, 12.64]) compared to persistent suppression. Notably, no participants with new VLS had experienced silent transfer.

Table 1 Results of multivariable multinomial logistic regression between silent transfer and virologic outcomes adjusted for potential confounders among female sex workers from 9 Sex Workers Outreach Program sites under Partners for Health and Development in Africa in Nairobi, Kenya

	New suppression (n=11, 0.3%) vs persistent suppression (n=3245, 88.3%), adjusted Odds Ratio (aOR)	Viral rebound (n=384, 10.5) vs persistent suppression, aOR	Persistent viremia (n=34, 0.9%) vs persistent suppression, aOR
Silent transfer			
No	Ref	Ref	Ref
Yes	0.00 [0.00, 0.00]*	0.77 [0.38, 1.54]	4.27 [1.57, 11.64]

*Due to people with new suppression all belong to the non-silent transfer group, the aOR for this group is 0.
**Delayed ART initiation is defined as initiating ART 30 days after HIV diagnosis

CONCLUSIONS

- Silent transfers are associated with persistent virologic failure.
- Silent transfers are ongoing and likely intensifying as funding interruptions in US-provided foreign aid continue.
- The results emphasize the importance of **sustained funding to support stronger data integration to reduce transfers, improve continuity of care, and lower the risk of persistent viremia among key populations.**

ADDITIONAL KEY INFORMATION

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PLAIN LANGUAGE SUMMARY

Among **female sex workers** on HIV treatment in Nairobi, those who **switched clinics without an official transfer** were more likely to have unsuppressed viral load, suggesting **worse treatment outcomes**. This highlights the need for **increased coordination between clinics** and **sustained funding** to keep people consistently connected to effective HIV care.