# Engagement in the HIV care continuum among female sex workers in Lilongwe, Malawi

**Lancaster KE**[1], Lungu T[2], Hosseinipour MC[1,2], Chadwick K[3], Dibb Z[3], Go VF[1], Pence BW[1,] Powers KA[1], Hoffman IF[1,2], Miller WC[1]

[1]University of North Carolina, Chapel Hill, NC, United States; [2]UNC Project, Lilongwe, Malawi; [3]Theatre for a Change, Lilongwe, Malawi

## BACKGROUND

- Female sex workers (FSW) are a key population at great risk for HIV acquisition and transmission within generalized epidemics of sub-Saharan Africa
- HIV prevalence among FSW in Malawi has been as high as 71%, the highest FSW prevalence globally[1,2]
- Treatment as prevention strategies are highly dependent on full engagement within the HIV care continuum[3]
- Engagement in the HIV care continuum among FSW is scarcely documented for this key population

## OBJECTIVE

- To assess FSW engagement in the HIV care continuum in Lilongwe, Malawi

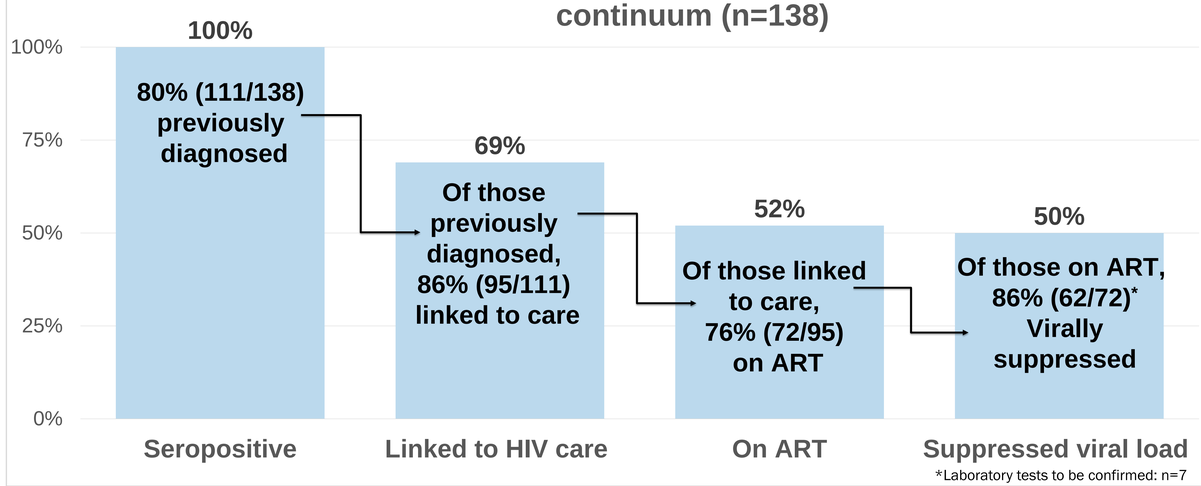
## METHODS

- In July and August 2014, we recruited 200 FSW in Lilongwe, Malawi using venue-based sampling, who were ≥18 years old and reported exchanging money for sex in the past 12 months
- Seropositive FSW, identified using HIV rapid testing, received Pima rapid CD4 counts and HIV-1 RNA levels using dried blood spots
- We estimated proportions for HIV seroprevalence, previous HIV diagnosis (self-report), linkage to HIV care (self-report of ever having seen an HIV care provider), current ART status (self-report), and viral load suppression (≤5000 copies/ml)

## RESULTS

- HIV seroprevalence was 69% (n=138)
- HIV-infected FSW were young, living in a bar or bottle shop, in sex work for ≥3 years, and reporting 10-29 paying sexual partners per week (**Table 1**)
- Among newly diagnosed FSW that previously tested negative, the median time since last HIV test was 11 months (IQR: 3-17)
- Median CD4 among all newly diagnosed FSW was 464 cells/mm$^3$ (IQR: 276-632)

**Figure 1. Proportion of HIV-infected FSW engaged in the HIV care continuum (n=138)**




- Of all the HIV-infected FSW, the majority were linked to HIV care and over half were receiving ART. Just under half of all HIV-infected FSW were virally suppressed.
- Of the previously diagnosed HIV-infected FSW, a substantial proportion were linked to HIV care. Of those linked in care, the majority were on ART. Among those on ART, nearly all were virally suppressed and 67% (n=48) reported never skipping pills within the prior month.

**Table 1 Characteristics of HIV-infected FSW (n=138)**

| | n (%) |
|---|---|
| Age in years | |
| 18-24 | 57 (41.3) |
| 25-29 | 44 (31.9) |
| ≥30 | 37 (26.8) |
| Housing | |
| Private house | 17 (12.3) |
| Bar or Bottle shop | 80 (58.0) |
| Guesthouse or hotel | 41 (29.7) |
| Duration of sex work in years | |
| <1.0 | 15 (10.9) |
| 1.0-2.9 | 46 (33.3) |
| ≥3.0 | 77 (55.8) |
| Number of paying sexual partners per week* | |
| <10 | 27 (19.6) |
| 10-29 | 66 (47.8) |
| ≥30 | 44 (31.9) |
| Previous HIV diagnosis | |
| Positive | 111 (80.4) |
| Negative | 20 (14.5) |
| Never tested or never received results | 7 (5.1) |

*Missing data due to not knowing or refused to answer: Number of paying sexual partners per week: n=2

## CONCLUSIONS

- FSW in Lilongwe have a high HIV prevalence and proportion of newly diagnosed HIV infections
- Substantial proportion of HIV-infected FSW are experiencing inadequate engagement in the HIV care continuum
- Although the majority of FSW who are on ART are virally suppressed, ART uptake and adherence are sub-optimal
- To reduce ongoing transmission and improve health outcomes, increased FSW engagement in the HIV care continuum is urgently needed
- Incorporation of universal testing and treatment strategies for all FSW in Malawi must be strongly considered

## ACKNOWLEDGEMENTS

- This work was supported by the NIH Research Training Grant (R25 TW009340) funded by the Fogarty International Center, the NIH Office of the Director Office of AIDS Research, ORWH, NCI, and NHLBI, the NIAID T32 training grant (T32 AI0700), and the UNC Center for AIDS Research, an NIH funded program (P30 AI50410).

## REFERENCES

1. Baral, S., et al. (2012). "Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis." Lancet Infectious Diseases 12(7): 538-549.
2. National AIDS Commission (2006). Malawi Biological and Behavioural Surveillance Survey (BBSS), 2006. Lilongwe, Malawi.
3. Gardner, E.M., et al. (2011). "The spectrum of engagement in HIV care and its relevance to test-and-treat strategies for prevention of HIV infection." Clinical Infectious Diseases 52(6): 793-800.