

C. Bossard¹, M. Chihana¹, S. Nicholas¹, D. Mauambeta², N. Conan¹, A. Lid², E. Nicco², D. Weinstein², L.O'Connell³, A. Ndembera⁴, T. Ellman³, E. Poulet¹

¹Epicentre, Paris, ²Médecins sans frontières, Malawi, ³SAMU Médecins sans frontières, ⁴Ministry of Health, Malawi

Introduction

- Female sex workers (FSWs) are 14 times more likely to be infected with HIV than adult women in general population. They face a greater risk of physical and sexual violence, stigma, health issues, limited access to health care and social support.
- Nsanje is the southernmost district in Malawi and has a long border with Mozambique.
- In Nsanje district, a large population of resident and migrant women is engaged in sex work along the transport routes to local and migrant - mainly male - labour sites.
- FSW represent a highly vulnerable group requiring a specific approach. Since 2013, MSF FSW project is a community-based FSW peer-led intervention aiming to provide comprehensive care.

Methods

Study design: Cross-sectional study

- All participants
- Standardized questionnaire
- HIV, syphilis, gonorrhea and chlamydia laboratory tests

Eligibility criteria

- HIV positive participants: CD4 count and viral load (VL)
- Age ≥13 years
- Had a sexual intercourse with someone other than their main partner in the last 30 days in exchange of money or goods
- Have lived and/or worked in the study area within the last 6 months

Study population: eligible

Sample size: 350

Sampling method: respondent-driven sampling (RDS)

Study site

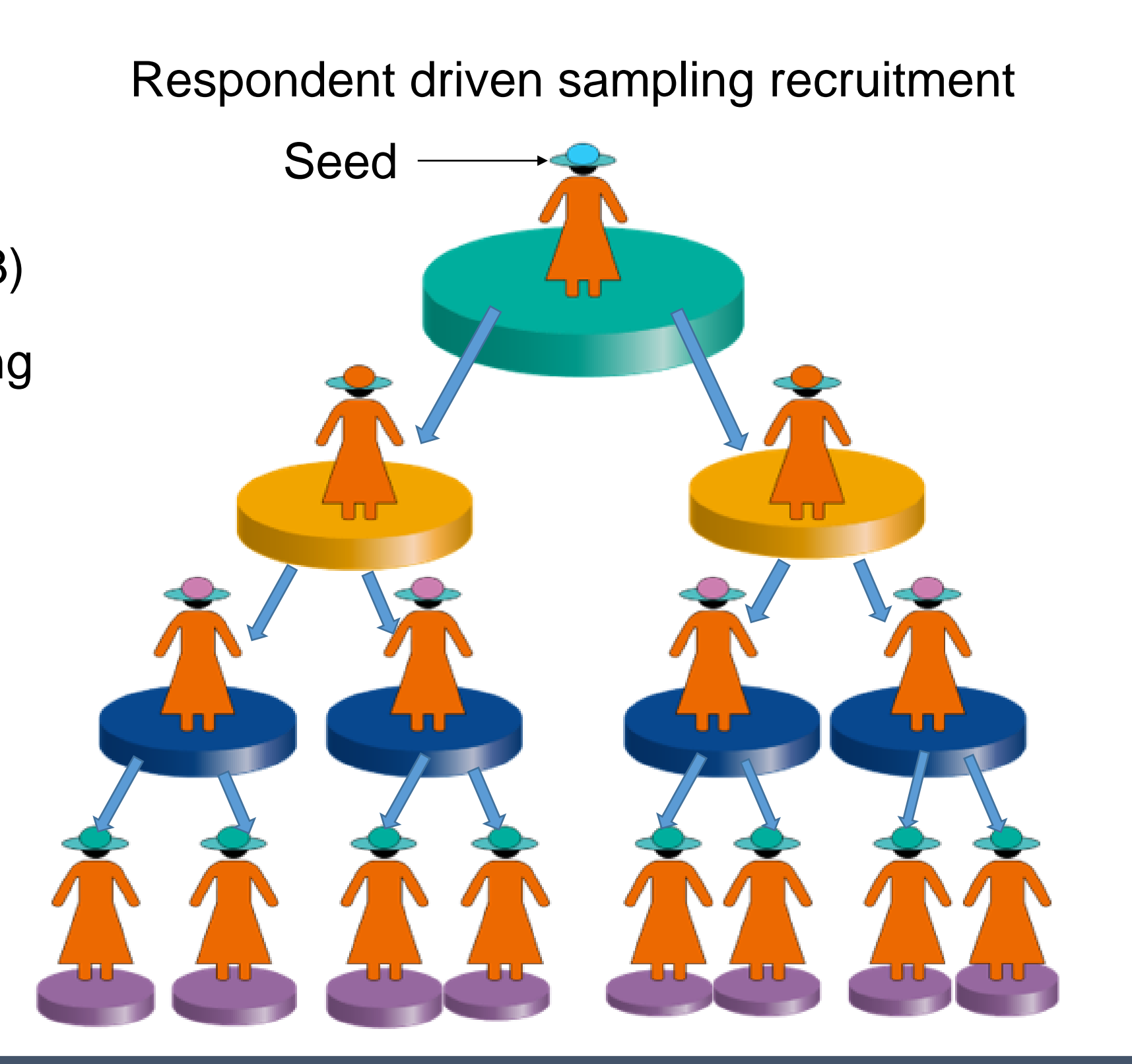
- Rural area in southern Malawi
- HIV prevalence among women (15-49 years): 14.0% (95%CI: 12.7- 15.4)
- Lodges in 3 study sites: Fatima (site 1), Bangula (site 2), Nsanje Boma (site 3)

Primary objective: To measure the HIV positive status awareness among FSWs living and/or working in Nsanje district.

Inclusion: February-April 2019

Respondent driven sampling (RDS)

- For hard-to-reach populations
- Starts with a small number of peers (seeds)
- Expands through successive waves of peer recruitment
- 2-part incentive given for time and transport
- Analysis : exclusion of seeds, crude and RDS-adjusted proportions



Results

Inclusion

- 18 seeds led to 389 recruits to come in the study site over a maximum of 8 waves.
- 26 were not eligible.
- 363 participants were included in the analysis.

Participant characteristics

Included, N	363
Age, median [IQR], years	26 [20,34]
13-19 years old, n (%)	85 (23.4%)
Age at sex work start, median [IQR], years	20 [16,25]
Single as marital status, n (%)	288 (79.3%)
Always lived in Nsanje, n (%)	287 (79.1%)
Main reasons for starting sex work, n (RDS-adjusted %*)	
Need of money	270 (86.1%)
To support family	197 (57.9%)
Abandoned by husband or family / husband or family passed away	128 (32.0%)
Most FSWs engaged with sex work in their early adulthood, were single (10% widowed) and always lived in Nsanje.	
The majority started sex work because they needed money, to support their family or after they have been abandoned by their husband or their family, or their husband or family passed away.	

History of family planning

	n	% crude	% adjusted	95%CI
At least one pregnancy	292	80.4	78.1	73.4-82.3
At least one unwanted / unplanned pregnancy	210	71.9	72.4	67.0-77.2
At least one abortion or miscarriage	59	20.2	17.9	14.1-22.5

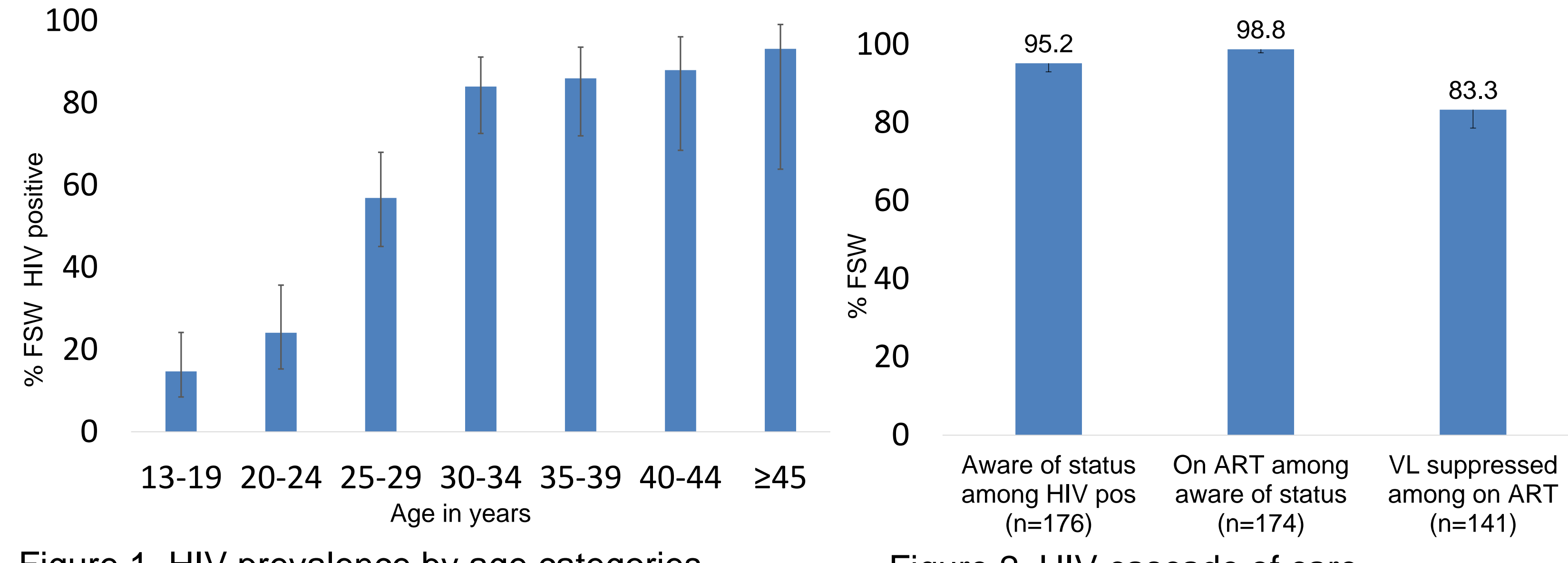
- The majority of FSWs had at least one pregnancy, and most of them had at least one unwanted or unplanned pregnancy.
- 1 FSW out of 5 had at least one abortion or miscarriage.

Sexual violence (SV) and risk behavior

	n	% crude	% adjusted	95%CI
Ever experienced any form of SV	186	48.1	52.4	47.3-57.6
At least once experience of SV in the previous month	86	46.2	56.8	49.6-63.8
Have ever been forced by a police officer to have sex against the will	32	8.8	8.0	5.7-11.1
Inconsistent condom use with clients	176	48.5	52.9	47.8-58.1
Among inconsistent use, did not used one last time	48	35.3	40.0	31.8-48.8
Among HIV negative, ever used PEP	36	38.0	41.1	31.4-51.5

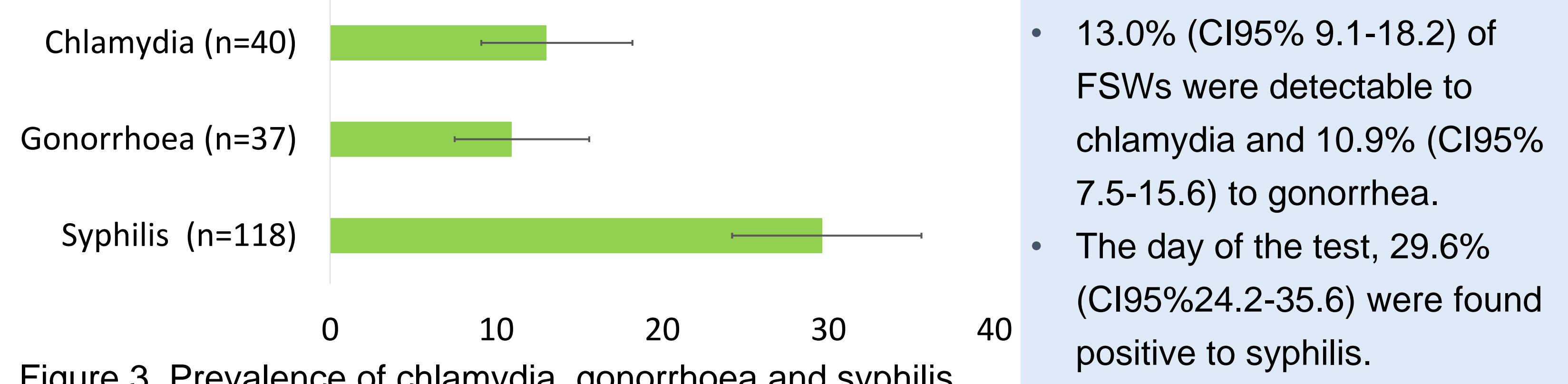
- Half of FSWs ever experienced SV. Among them, 57% experienced it at least once last month. 8% have ever been forced to have sex with a police officer against her will.
- Half of FSWs declared using condoms inconsistently. Among them, a third did not use one last time.
- Among HIV negative FSWs, 38% reported having ever used PEP.

HIV prevalence and HIV cascade of care among positive participants



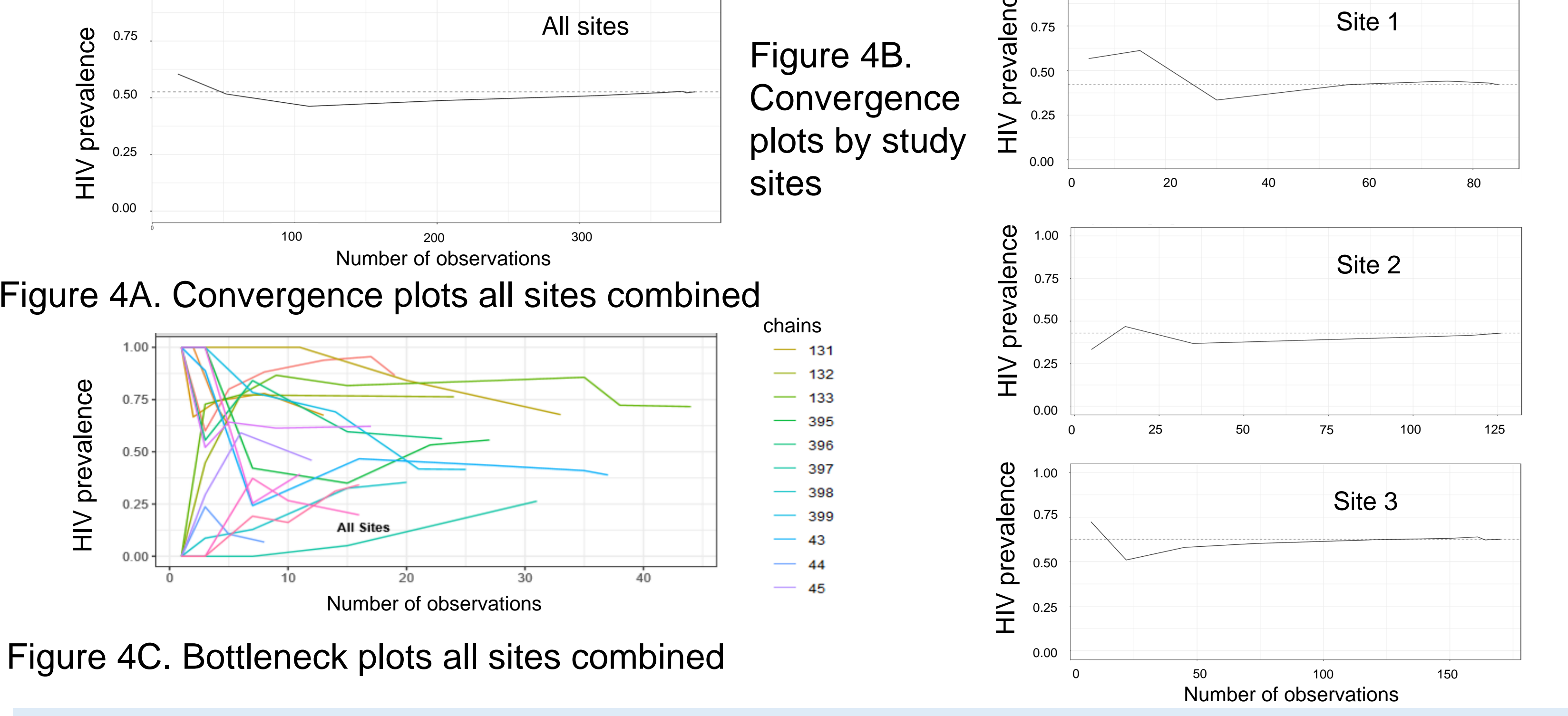
- Figure 1. HIV prevalence by age categories
- Figure 2. HIV cascade of care
- 186 FSWs tested positive to HIV the day of the study.
 - HIV overall prevalence (adjusted) = 52.2% (CI95% 47.2-57.6).
 - The majority of HIV positive FSWs were already aware of their status. Among FSWs aware of their status, only 2 declared not being on ART.
 - Among FSWs who reported being on ART, 83.3% were virologically suppressed.

STI prevalence



- 13.0% (CI95% 9.1-18.2) of FSWs were detectable to chlamydia and 10.9% (CI95% 7.5-15.6) to gonorrhoea.
- The day of the test, 29.6% (CI95%24.2-35.6) were found positive to syphilis.

RDS diagnosis – Convergence and bottleneck plots of the RDS-2 HIV prevalence estimate



- Figure 4A. Convergence plots all sites combined
- Figure 4B. Convergence plots by study sites
- Figure 4C. Bottleneck plots all sites combined
- RDS diagnosis displays the cumulative RDS-2 estimates of HIV prevalence over number of participants recruited to the study all sites combined (Figure 4A), by study sites (Figure 4B) and by seeds (Figure 4C).
 - The RDS-II estimate for HIV prevalence shows good convergence for all sites combined and the estimate is relatively stable from 350 observations. However as demonstrated by the bottleneck plot (4C), not all chains converge towards a singular HIV prevalence estimate and the convergence plot (4B) demonstrates HIV prevalence is higher in site 3.

Summary & Discussion

- Extremely vulnerable population with poor access to health care: high exposure to sexual violence, high prevalence of HIV and STIs.
 - Poor uptake of preventive measures among the HIV negative FSWs & strong increase of HIV prevalence after 20 years old.
 - Successful experience in the district, after 6 years of MSF engagement: high awareness of HIV-positive status and good engagement with all steps of the cascade of care.
- ➡ High impact focusing on prevention among adolescents <19 years.
 - ➡ Need to focus on education, understanding, access and uptake of preventive measures and ensure access to pre-exposure prophylaxis (PrEP).
 - ➡ Need for targeted interventions ensuring empowerment of FSWs & increased awareness of FSWs rights among stakeholders.