

syphilis, HIV, and HCV screening increased by 4.4%, 4.3%, and 8.3%, respectively. The overall syphilis diagnosis rate was 15.4/100,000 and decreased over the study period. For HIV, the overall new diagnosis rate and prevalence was 5.1 and 45.9/100,000 respectively; for HCV the corresponding values were 82.8 and 551.5/100,000. The new diagnosis rates for HIV and HCV decreased over the study period while there were no significant changes in prevalence.

Conclusion In BC, prenatal screening for syphilis and HIV is high and improving annually with declining diagnosis rates. Previous research in BC suggests HCV prevalence in pregnant women in BC is underestimated based on risk-based screening. The low HCV screening rates and high prevalence observed in our study corroborates the need to consider broader prenatal HCV screening.

P3.198 SEVERITY OF MATERNAL HIV-1 DISEASE IS ASSOCIATED WITH ADVERSE BIRTH OUTCOMES IN MALAWIAN WOMEN

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Background HIV-infected women have increased risk of adverse birth outcomes, including low birth weight (LBW) and preterm delivery (PTD). We assessed whether severity of maternal HIV-1 disease - characterised by HIV-1 viral load in peripheral blood, HIV-1 viral load in placental blood, and maternal CD4+ T-cell count - was associated with LBW or PTD.

Methods We performed secondary analyses of The Malaria and HIV in Pregnancy prospective cohort, which enrolled HIV-positive, pregnant Malawian women from 2000–2004. Included participants (n=809) were antiretroviral treatment-naïve, normotensive women who delivered a live, singleton infant. Binomial regression models were used to assess unadjusted and adjusted prevalence ratios (PRs) and 95% confidence intervals (CI) of the effect of HIV-1 severity on prevalence of LBW and PTD.

Results The relationships between HIV-1 severity and LBW or PTD differed by malaria status. Among malaria-positive women (n=198), after adjustment for residence, education, primigravidity, and maternal anaemia, we observed no association between severity of HIV-1 disease and LBW or PTD. However among malaria-negative women (n=611), increasing peripheral viral load was significantly associated with LBW (adjusted PR: 1.41 per one-log₁₀ increase, 95% CI: 1.10, 1.82); results were similar for increasing placental viral load and LBW (adjusted PR: 1.23 per one-log₁₀ increase, 95% CI: 1.02, 1.49), and decreasing CD4+ T-cell count and LBW (adjusted PR per 100-cell/μL decrease: 1.12 per 95% CI: 1.04, 1.21). We observed a similar association between placental viral load and PTD (adjusted PR: 1.29 per one-log₁₀ increase, 95% CI: 1.02, 1.64) and CD4+ T-cell count and PTD (adjusted PR per 100-cell/μL decrease: 1.16 per 95% CI: 1.05, 1.28).

Conclusion Although our malaria-positive sample size was small, HIV-1 severity in this group appeared not to be associated with adverse birth outcomes. However in malaria-negative women, maternal HIV-1 disease severity was significantly associated with increased prevalence of LBW and PTD.

P3.199 FACTORS AFFECTING HIV PREVALENCE AMONG CLIENTS OF FEMALE SEX WORKERS IN 16 DISTRICTS OF SOUTHERN INDIA

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Background Clients of female sex workers (FSWs) are considered an important bridging population for HIV. This study aims to assess the impact of Avahan (India AIDS Initiative of Bill & Melinda Gates Foundation), through comparison of HIV prevalence between two surveys (2006–07 and 2009–10) among clients of FSWs across 16 districts in south India (n~7,000 per-round).

Methods Multilevel logistic regression analysis was performed using HIV as outcome, with individual variables at level 1 and district-level programme variables (from the Avahan computerised monitoring system) at level 2. Mean value of the programme indicators for the years 2007 & 2008 were used as district level variables.

Results HIV prevalence declined significantly from round 1 to round 2 (5.5% to 3.4%; p = 0.001). Clients' characteristics such as increased age (25–34 yrs-AOR = 2.22, 95% CI: 1.74.2.85, ≥ 35 yrs-AOR = 2.32, 95% CI: 1.75.3.07), being literate (AOR = 0.69, 95% CI: 0.58, 0.82), being separated/divorced/widowed compared to never married (AOR = 1.52, 95% CI: 1.02.2.26), had sex with 3 FSWs within past 6 months (AOR = 0.61, 95% CI: 0.43.0.87), anal sex with man/hijra in last 6 months (AOR = 1.48, 95% CI: 1.14, 1.91), being circumcised (AOR = 0.73, 95% CI: 0.57, 0.92) and had at least one STI symptom (AOR = 1.21, 95% CI: 1.00.1.46) were associated with being HIV positive. Among the programme variables, greater programme coverage was significantly associated with lower prevalence (AOR = 0.992, 95% CI: 0.985, 0.999).

Conclusions These results demonstrate that there was a decline in HIV prevalence among clients of FSWs over the course of the intervention and the districts with increased Avahan programme coverage had lower HIV prevalence. Further explorative analysis is required to understand the role of programme coverage on the reduction in HIV prevalence among clients in light of similar surveys among FSWs that showed a clearer association of increase in programme coverage between survey rounds and decrease in HIV.

P3.200 EFFECT OF PREGNANCY ON HIV-1 DISEASE PROGRESSION AMONG ANTIRETROVIRAL-NAIVE HIV-1 INFECTED WOMEN

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Background Among HIV-1 infected women who have not initiated full regimen antiretroviral therapy (ART), CD4 counts decline during pregnancy, possibly due to hemodilution. It is unclear if this drop is sustained beyond pregnancy, and if pregnancy results in accelerated HIV-1 disease progression.