

HIV INCIDENCE AND IMPACT OF OPIATE AGONIST THERAPY AMONG PEOPLE WHO INJECT DRUGS ENGAGED WITH HARM-REDUCTION PROGRAMMES IN TWO PROVINCES IN SOUTH AFRICA: A RETROSPECTIVE COHORT STUDY (2021 – 2025)

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Background

Evidence of the impact of opioid agonist therapy (OAT) on HIV incidence among people who inject drugs (PWID) in South Africa is limited. We estimated HIV incidence and the association of OAT initiation with HIV seroconversion among PWID engaged in harm-reduction services in South Africa.

Methods

We conducted a retrospective cohort study using data from community-based harm reduction programs in Ehlanzeni and Tshwane districts from 10/2021–12/2025. PWID who were ≥18 years and HIV negative at baseline, with at least one follow-up HIV test, were included. Person-year (PY) was accrued from baseline until HIV seroconversion or the last recorded HIV negative test. Seroconversion was assumed to occur midpoint between the last negative and first positive test. The association between HIV seroconversion and OAT initiation in the program was assessed using Cox proportional hazards models that controlled for age and gender, stratifying by district. Hazard ratios (HR) with 95% confidence intervals (CIs) are reported.

Results

Among 3,981 PWID accessing services with a recorded HIV test, 587 met the inclusion criteria. At baseline, 90.5% were male, 41.4% were <30 years, and 14.5% were using OAT. During follow-up, 49 (8.3%) participants seroconverted, yielding an HIV incidence of 11.5 per 100 PY (95%CI 8.53–15.2). Incidence was higher in Tshwane (23.8 per 100 PY, 95%CI: 14.7–36.4) than in Ehlanzeni (8.32 per 100 PY, 95% CI: 5.5–12.0). The estimate from the multivariable Cox model suggests that OAT initiation is associated with reduced HIV seroconversion by 52% (Adjusted HR 0.48, 95%CI 0.22–1.04).

Conclusion

Estimates were suggestive of reduced hazard of HIV seroconversion among PWID who initiated OAT in the program, although confidence intervals included the null. Despite high HIV incidence, OAT coverage is low, highlighting the need for harm-reduction scale-up.

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