

# IMPACT OF SCALING UP HARM REDUCTION INTERVENTIONS ON INJECTING RISK BEHAVIOURS, HIV INCIDENCE AND ART OUTCOMES AMONG PEOPLE WHO INJECT DRUGS IN KENYA

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## Background:

There has been an expansion of HIV epidemics in sub-Saharan Africa (SSA) among people who inject drugs (PWID). However, limited data exist on the impact of prevention interventions in this region. We use data from Kenya to fill this evidence gap.

## Methods:

Six rounds (R1 to R6) of bio-behavioural surveys using respondent-driven-sampling were conducted among PWID in Nairobi and Coastal Kenya over 2012-2015. Surveys collected self-reported data on demographics, risk behaviors, and intervention uptake. Dried blood spot samples were tested for HIV and HIV viral load. Regression analyses evaluated whether self-reported usage of opioid agonist therapy (OAT) or needle and syringe programmes (NSP) were associated with reduced injecting risk, increased ART uptake and viral suppression. HIV incidence was estimated through linking participants between rounds, and associations with NSP access were assessed.

## Results:

Overall, 4897 unique PWID participated in the study, with 3903 participating in >1 round. Most study participants were male (88.5%) with median duration of injecting of 3 years. The coverage of OAT and NSP increased from zero (R1) to 80-86% for NSP and 10-20% for OAT by R6. The proportion of HIV-positive individuals that were virally suppressed increased from 7-14% (R1) to 39-55% (R6). Usage of NSP was associated with reduced syringe sharing at last injection (odds ratio (OR)=0.33; 95%CI:0.26-0.41), while OAT usage was associated with reduced injecting frequency (rate ratio=0.17; 95%CI:0.16-0.18), increased ART coverage (OR=3.08; 95%CI:1.73-5.46) and improved viral suppression (OR=2.72; 95%CI:1.66-4.46). HIV incidence decreased from 6.10 (95%CI:3.56-9.77) to 1.49 (95%CI:0.79-2.54) per 100 person-years between the first and second half of the study. Accessing NSP was associated with lower HIV incidence (hazard ratio=0.22; 95%CI:0.083-0.61).

## Conclusion:

Our study produces novel evidence for the benefits of scaling up NSP and OAT on reducing injecting risk behaviours, improving ART outcomes, and reducing HIV incidence among PWID in SSA.

## Disclosure of Interest Statement:

None