DECREASING HIV PREVALENCE AND HCV COMMUNITY VIRAL LOAD AMONG PEOPLE WHO INJECT DRUGS IN KENYA AMIDST SCALE UP OF HARM REDUCTION AND ANTIVIRAL THERAPY, BUT REGIONAL AND GENDER DISPARITIES PERSIST

Authors:
Akiyama MJ[1], Nyakowa M[2], Ganatra N[2], Manley HN[1], Riback LR[1], Stone J[3], Vickerman P[3], Walker J[3]

[1] Albert Einstein College of Medicine/Montefiore Medical Center, New York, United States; [2] National AIDS and STI Control Programme, Kenya Ministry of Health, Nairobi, Kenya; [3] University of Bristol, Bristol, United Kingdom

Background:
Bloodborne infection surveillance among people who inject drugs (PWID) is critical to assessing differential subgroup exposure and the impact of interventions like needle and syringe programs (NSP) and antiviral therapy. In Kenya, previous HCV- and HIV-focused studies among PWID identified differences in prevalence by gender and region. Here, we evaluate changes following scale up of harm reduction, antiretroviral (ART) and direct-acting antiviral (DAA) therapies.

Methods:
We recruited 3,153 PWID from 17 NSPs in Kenya using respondent driven sampling from 2022-2024. Participants completed biobehavioral surveys and received HCV and HIV testing. We estimated the RDS-weighted HCV-antibody and HIV prevalence among PWID by region and gender and compared to prior 2015-2016 estimates.

Results:
Participants were predominantly male (90.3%), mean of 34.4 years old [SD±8.7]; most were recruited from Coastal Kenya (47.6%), followed by Nairobi (36.0%) and Western Kenya (14.4%). Overall, 17.1% (95%CI 15.0-19.2%) were HCV antibody-positive and 9.0% (7.3-10.7%) HIV-positive. Both HCV-antibody and HIV positivity were higher among females (HCV: 22.2% (14.9-29.5%); HIV: 30.8% (21.4-40.2%)) vs. males (HCV: 16.5% (14.3-18.7%); HIV: 6.7% (5.2-8.1%)).

Regionally, HCV-antibody prevalence has been stable in Coast (2024: 24.1% (20.6-27.5%)) vs. 2016: 23.6% (19.5-27.7%)), but has increased in Nairobi (2024: 17.1% (14.2-20.0%)) vs. (2016: 10.9% (8.4-13.3%)). Among those who were HCV antibody-positive, HCV viremia has decreased (62% vs. 81% in 2015). HIV prevalence has decreased in Coast (2024: 10.3% (8.2-12.3%) vs. 2016: 18.3% (14.1-22.4%)) and Nairobi (2024: 8.5% (5.9-11.0%) vs. 2016: 12.3% (10.4-14.2%).

Conclusion: ART, harm reduction, and more recently availability of DAA therapy have prevented the widespread increase of prevalence among PWID at levels seen in other populations. Decreasing HIV prevalence and HCV community viral load is promising but more work is needed given static or increased regional HCV-antibody prevalence. Higher HIV and HCV prevalence among females and regional differences highlight a need for targeted strategies.

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