

ESTIMATING THE POTENTIAL IMPACT OF INTEGRATING THE PROVISION OF HIV PRE-EXPOSURE PROPHYLAXIS THROUGH HARM REDUCTION INTERVENTIONS FOR PEOPLE WHO INJECT DRUGS

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Background: HIV pre-exposure prophylaxis (PrEP) is an effective HIV prevention intervention. Although WHO/UNAIDS recommends providing PrEP for people who inject drugs (PWID), coverage is negligible. Needle and syringe programmes (NSP) and opioid agonist therapy (OAT) can reduce HIV transmission and act as critical entry-points for other services. We evaluated the potential impact of integrating the provision of PrEP through OAT and NSP.

Methods: We used a static mathematical model to estimate the proportion of new HIV infections averted over 1-year from providing PrEP to 50% of HIV-negative PWID accessing NSP and/or OAT in high HIV prevalence (>5% among PWID) countries in 2025. For each country, the PrEP scenario was compared to a counterfactual scenario without PrEP. We parameterised the model using country-level estimates from systematic reviews on PWID population sizes, HIV prevalence, number accessing NSP and OAT, and effectiveness of PrEP (39-90% reduction), OAT (33-68%) and NSP (19-78%) against HIV transmission. For five countries with high HIV incidence (>5/100pyrs; India, South Africa, Pakistan, Russia and Myanmar), we also estimated the number of HIV infections prevented.

Results: We modelled 41 high prevalence countries accounting for 76.9% of the global PWID population. The country-level coverage of NSP and/or OAT ranged from 0.4-96.6% (median=44.7%). Our projections (Figure) suggest that integrating PrEP into NSP/OAT could prevent 0.1-3.0% of new HIV infections in low OAT/NSP coverage countries (coverage<20%; 15 countries), 4.5-10.8% of infections in moderate coverage countries (20-50%; 11 countries), and 11.5-35.2% of infections in high coverage countries (>50%; 15 countries). Over 1-year, 224-388 HIV infections are prevented in South Africa, 198-245 in India, 192-307 in Myanmar, 392-705 in Pakistan, and 134-240 in Russia.

Conclusion: Integrating PrEP within NSP/OAT could prevent considerable new HIV infections among PWID, highlighting the need for better evidence to help advocate for its expansion among PWID.

Disclosure of Interest Statement: None

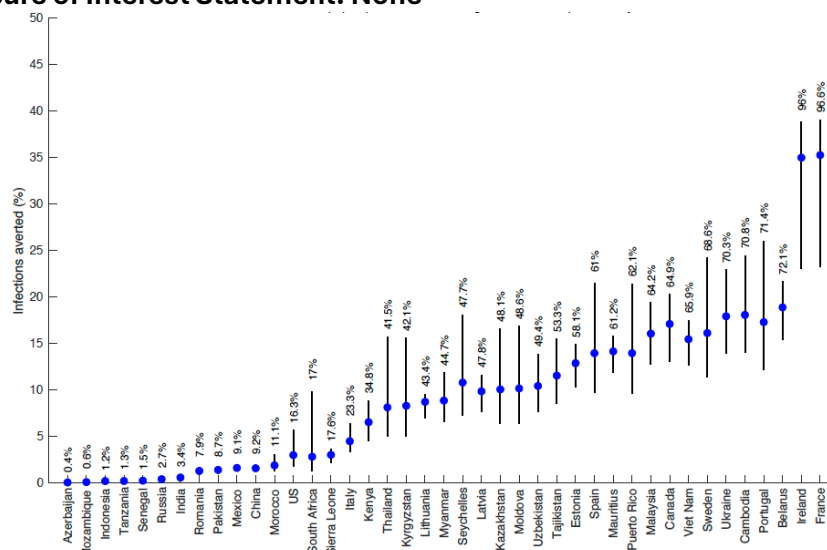


Figure: Potential 1-year impact of scaling up PrEP to 50% of PWID accessing NSP and/or OAT among PWID in countries with high HIV prevalence (>5%). Point estimates represent the median projections while the error bar represents the 95% uncertainty intervals.