

3HP Project: Community-led, peer-delivered model to integrate prevention, screening and treatment referral services for hepatitis (HBV, HCV and HAV) and PrEP-related services within HIV prevention interventions of MSM and transgender women in Chennai, India

Background: Men who have Sex with Men (MSM) and transgender women (TGW) face an elevated risk of contracting HIV and viral hepatitis (HBV, HCV, and HAV infections) (Chakrapani et al., 2019; Solomon et al., 2015). Both HIV and viral hepatitis can be transmitted sexually (condomless sex) and/or through sharing of needles/syringes. HAV and HBV infections can be prevented by vaccines. A recently completed study led by the applicant showed high levels of condomless anal sex, and low HBV vaccination among MSM and TGW. Minority stress and syndemic theories (Meyer 1995; Singer 1992) postulate that multiple stigmas faced by MSM and TGW – in relation to sexual or gender identity, HIV status, sex work status, and high levels of syndemic psychosocial conditions could increase the risk of contracting or transmitting HIV and viral hepatitis. Oral HIV pre-exposure prophylaxis (PrEP), despite its high effectiveness, is not available in public health programmes in India. Government-supported targeted HIV prevention interventions among MSM and TGW in India focus on condom use, and HIV testing/treatment referrals but do not offer information, screening, vaccination or treatment referral services for viral hepatitis. This project (named '3HP' for short) aims to address this missed opportunity by initiating and integrating PrEP-related services and HBV/HCV/HAH prevention, screening, vaccination and treatment referral services through CBOs that serve MSM and TGW in Chennai, a metro city in South India.

Aims: The study aims to: 1) develop a community-based, person-centred model (3HP project) of prevention and care for HBV/HCV/HAH infections (provision of information, counselling and referrals) and integration of PrEP-related services for MSM and TGW; 2) implement and assess the feasibility and acceptability of this model in collaboration with CBOs that provide HIV prevention services.

Methodology: This 2-year study will be implemented through two CBOs working with MSM and TGW in Chennai. The study will be implemented in two phases: *Phase 1-* Qualitative formative research (focus groups, and community consultations to co-design intervention elements) will be conducted to develop the prevention and care model to understand HBV/HCV/HAH-related risk behaviours, knowledge, testing, vaccination status and treatment experiences. *Phase 2-* Using a quasi-experimental research design, the 3HP model will be implemented primarily through peer counsellors, with support from existing HIV peer educators and outreach workers of CBOs. This peer-delivered intervention will include: a) provision of information on HBV/HCV/HAH and PrEP, b) safer sex, safer drug use and mental health counselling and c) referrals for screening and treatment of HBV/HCV/HAH infections. Those who are found negative after screening will be referred for HBV vaccination; if positive treatment referral and screening for HDV. Referral services for testing and treatment will be established with MSM/TGW-friendly private and government hospitals. In relation to PrEP, peer counsellors will offer PrEP-related information, referrals for initiation and adherence counselling. This community-based model will be assessed by conducting pre- and post-intervention surveys among independent samples of 300 MSM and 300 TGW recruited from the two participating CBOs.

Public health significance and future directions: CBOs serving MSM and TGW in India are involved in HIV prevention interventions. The proposed 3HP model will be integrated into the existing HIV service delivery of CBOs to reduce HBV/HCV/HAH burden. This model is consistent with the government's NGO/CBO involvement in HIV/STI prevention, ensuring acceptability and sustainability. If found to be effective, this 3HP model can be scaled up through the network of government-supported targeted HIV interventions and will contribute to achieving the goal of global health sector strategies on HIV and viral Hepatitis for the period 2022-2030 (WHO, 2022) and WHO's 'triple elimination initiative' (elimination of mother-to-child transmission of HIV, HBV & Syphilis).