Expanding community-delivered HIV pre-exposure prophylaxis models in Pakistan

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Nearly 300 000 people were estimated to be living with HIV in Pakistan in 2023 (*1*) and the country is experiencing an increasing HIV epidemic among key populations, especially among men who have sex with men (MSM) (5.4%) and transgender people (7.5%) (*2*). HIV prevalence among MSM increased from 3.1% in 2011 to 5.4% in 2016 and from 7.2% to 7.5% among transgender people in the same period (*2*).

HIV prevalence among the general population is low in Pakistan, however, Sindh, the second largest province, has the highest burden of HIV among transgender in Larkana (18.2%), MSM in Karachi (9.2%) and female sex workers (FSWs) in Sukkur (8.8%), compared to national prevalence among the same key populations (7.1%, 5.4%, 2.2%, respectively).

In Pakistan, community-based organizations (CBOs) deliver prevention services to key populations, including condom and lubricant distribution, HIV testing, harm reduction, HIV self-testing, and pre-exposure prophylaxis (PrEP). These CBOs are usually sub-recipients of the Global Fund grant for HIV response, with United Nations Development Programme (UNDP) as the principal recipient. Treatment and HIV medications are provided through designated treatment centres managed by the provincial HIV programmes.

Oral PrEP is highly effective in preventing HIV infection when taken as prescribed. WHO recommends PrEP as a core component of the HIV prevention package for key populations, providing additional HIV prevention choice for people who prefer not to use condom (*1,2*). This option has shown promising results when used with traditional prevention measures like condom use (*3,4*). Studies have shown almost 99% effectiveness of PrEP for the prevention of HIV infection when used consistently as prescribed (*4,5*). New long-acting injectable PrEP is now available as additional option for those who face adherence issues with oral PrEP. However, despite its effectiveness and availability, uptake is negatively influenced by social, cultural, structural, and behavioural factors such as accessibility, cost, stigma, and awareness in at-risk communities (*6,7*).

In Pakistan, PrEP was first introduced in June 2022 in Sindh Province by the provincial Communicable Disease Control (HIV/AIDS), Directorate of General Health Services, which oversees the implementation of HIV care and prevention in the province (*8,9*). It was initiated with support from UNDP, WHO and UNAIDS and was the first in the country. The ART centre model was adopted and CBO staff members were responsible for identifying clients who could benefit from PrEP among the key populations they served. These were then referred to the ART centres for enrolment, medication and follow-up. The programme focused on MSMs, transgender sex workers (TGSWs) and FSWs. Partners of people living with HIV (PLHIV) (serodiscordant couples) were also offered PrEP. The fixed drug combination, Tenofovir/Lamivudine, was used as daily and event-driven PrEP.

The initial 2 years of PrEP rollout in Sindh were suboptimal, with 23% of expected clients accessing services (*8*). Several challenges and barriers to the uptake of PrEP were identified during informal discussions with community members. The discussions revealed stigma and discrimination as the major barrier, especially stigma associated with attending ART centres to access PrEP (*8*). This deterred clients from seeking PrEP initiation and continuation because of the requirement to visit a physician at the ART centres, which were traditionally perceived as facilities to serve PLHIV. Clients feared isolation from peers, sexual networks and families if spotted at ART centres or due to privacy and confidentiality concerns. This was exacerbated by long waiting time for baseline testing, PrEP prescription and dispensation.

During formal and informal stakeholder engagements, PrEP delivery through CBOs was suggested as an alternative strategy (*10*). This was discussed with the provincial Communicable Disease Control (HIV/AIDS), and Directorate General of Health Services, Sindh, which took the lead in expanding PrEP service delivery through CBOs. Subsequently, updated standard protocols and roll-out plans were developed in consultation with partners (UNDP, WHO, UNAIDS) and formally launched on 30 May 2024 (*11*). CBOs were assessed and licensed to prescribe PrEP by the Sindh Health Care Commission, the provincial regulatory authority. Onsite physicians were trained on PrEP delivery. The processes included identifi-

cation of PrEP beneficiaries during outreaches and bringing them to drop-in centres to assess their eligibility, offer PrEP and dispense PrEP medicines, if agreed, with a follow-up screening for HIV, hepatitis B, syphilis and serum creatinine level, if required, in accordance with WHO guidelines.

With the rollout of the CBO model in 17 sites in Sindh Province, we believe that the expanded and simplified community-led PrEP delivery models will help bridge the gaps in HIV prevention services in the province. Progressive simplification, task sharing and decentralized PrEP delivery models may improve accessibility and service uptake among key populations. Peers and communities will play an important role in improving awareness and adherence to PrEP.

During the first quarter (July–September 2024) of introducing the community-based PrEP, we observed a 7% increase in new PrEP initiations compared to quarter 2 (Apr-Jun 2024) of initiating PrEP (*8*). The programme faced a stockout of HIV rapid diagnostic kits for at least 15 days in quarter 3 and this prevented new initiations. Some logistics challenges can be expected for any new service model, and we expect some improvements over time.

Lessons from the Sindh experience can inform nationwide implementation and scale-up of PrEP models. Some innovations to consider are non-medicalized nurse-led models and integration of self-testing for HIV, hepatitis and sexually transmitted infections, based on the WHO recommendations. This can encourage the much needed simplification, decentralization and introduction of community-based treatment services and monitoring. Bold actions by one province can be helpful for others.

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