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Could disparities in PrEP uptake limit the public health benefit?



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The population-level public health benefits of HIV pre-exposure prophylaxis (PrEP) in preventing HIV transmissions among gay, bisexual, and other men who have sex with men (hereafter referred to as MSM) have been shown by decreases in new HIV diagnoses in settings with high PrEP uptake, including where HIV testing and treatment are already high.¹ In New South Wales, Australia, following the establishment of a large PrEP implementation study, new HIV diagnoses among MSM in the 12 months after PrEP roll-out decreased by 25.1%, and recent HIV diagnoses (ie, diagnoses among men who acquired HIV in the previous 12 months) decreased by 31.5%.¹ In the UK, where PrEP uptake among MSM has increased rapidly since 2015,² new HIV diagnoses among MSM decreased by 40% from 3165 in 2014, to 1908 in 2018.² Furthermore, modelling suggests that the incidence of new HIV infections among MSM in the UK has decreased by 65% over this period.²

In their Article in *The Lancet Public Health*, Nadia Hanum and colleagues³ make an important contribution to the literature on PrEP uptake among MSM. In their prospective cohort of MSM recruited from three genitourinary medicine clinics in south-east England, UK, PrEP awareness increased from 43% in 2013, to 92% in 2016. Similarly, PrEP initiation increased rapidly and, like in other settings, was highest among men who reported higher risk sexual behaviours.³ Their findings also add to the increasing evidence of disparities in uptake of PrEP among MSM. PrEP uptake was more likely in men who reported high risk sexual practices and older men, and was less likely in men without a university education, who were not employed, had unstable housing, or had less or no money for basic needs.³ A limitation of the study was that the analyses of factors associated with PrEP uptake were based on a sub-sample of 460 men, a high proportion of whom were of white ethnicity, highly educated, and in a stable economic situation.³ Combined with the local nature of the study, these limitations mean that the study findings might not be generalisable to MSM in the rest of the UK.

Nonetheless, the findings of Hanum and colleagues regarding disparities in PrEP uptake reinforce results from other settings. Research in the USA has shown that

people from ethnic minorities and marginalised groups are less likely to initiate PrEP.⁴ Australian studies of MSM have shown that men who are younger, less educated or not in full-time work, and less engaged with gay communities were less likely to use PrEP.^{5,6} Similarly, in France, researchers found that MSM who were eligible for PrEP but not using it were more likely to be younger, students, less “out” about their sexuality, living in smaller cities, have less HIV prevention knowledge, and live in areas with fewer PrEP access points.⁷

Maximising persistence of PrEP use among MSM who are at high risk is crucial to reducing HIV transmission. However, disparities similar to those for PrEP uptake have been associated with decreased PrEP adherence and discontinuation of PrEP. An Australian analysis of data on dispensing of government-subsidised PrEP showed that a low proportion of days covered by PrEP and PrEP discontinuation were associated with younger age, receiving a PrEP prescription from a low PrEP caseload physician, and prescription from a physician in an outer urban area.⁸ Being a government benefit recipient was also associated with discontinuation.⁸ In the USA, increased rates of discontinuation have been found in younger people and Black MSM.⁹ The COVID-19 pandemic might present additional challenges to PrEP persistence. Among 864 MSM in an Australian online prospective cohort who were recruited in April, 2020, 42% of PrEP users stopped using PrEP after the introduction of COVID-19-related restrictions.¹⁰ Although for many men this cessation of use was related to a concomitant reduction in sexual risk behaviour, concerns remain about appropriately timed re-initiation, especially among men who are younger, culturally diverse, economically disadvantaged, or less attached to the gay community.

Although the rapid PrEP uptake among MSM most at risk of HIV in the UK and elsewhere is a good outcome, disparities in PrEP uptake and persistence are likely to lead to an uneven effect of PrEP in reducing HIV transmissions. Indeed, in the 12 months after rapid scale-up of PrEP in New South Wales, diagnoses with evidence of recent HIV infection decreased by 48.7% among Australian-born men, but by only 21.4% among Asian-born men, and increased by 23.5% among men born in other countries.¹ Decreases were also

much greater in central Sydney (54.2%) than in outer suburban areas (7.3%).¹

Hanum and colleagues note that the forthcoming commissioning of PrEP by the National Health Service in England might increase PrEP use among eligible MSM and reduce socioeconomic disparities;³ however, evidence from other settings suggests that mere public subsidy and availability might not be sufficient to ensure equitable uptake and public health impact. PrEP programme implementers and policy makers will need to understand these disparities and develop specific interventions to address them to harness the potential public health, community, and individual benefits of PrEP.

We declare no competing interests.

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