Differentiated and simplified oral HIV pre-exposure prophylaxis (PrEP) models hold the key to virtually eliminating HIV transmission in Australia by 2030

Tyson Arapali[1]
Sarah Warzywoda[1]
Anthony K J Smith[2]
Curtis Chan
Timothy R Broady[2]
Erin Sullivan[3]
Catherine MacPhail[4]
Mohamed A Hammoud[1]
Alexander Dowell-Day[1]
Benjamin R Bavinton[1]

1 Kirby Institute, UNSW Sydney, Sydney, NSW.
2 Centre for Social Research in Health, UNSW Sydney, Sydney, NSW.
3 Centre for Population Health, New South Wales Ministry of Health, Sydney, NSW.
4 University of Wollongong, Wollongong, NSW.

tarapali@kirby.unsw.edu.au

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Australia's Ninth National HIV Strategy 2024–2030 calls for the virtual elimination of human immunodeficiency virus (HIV) transmission by 2030.[1] This is defined as a 90% reduction from 2010 levels, or no more than 91 notifications per year. In 2023 there were 722 people newly diagnosed with HIV.[2] To reach virtual elimination, the strategy calls to "increase the use of one or more forms of effective HIV prevention in people at risk of HIV infection to 90% by 2025 and 95% by 2030".[1] Australia is at a critical moment in the HIV epidemic and we must assess how to strengthen current prevention and treatment programs.

A key component of our HIV response is oral HIV pre-exposure prophylaxis (PrEP), which is a highly effective HIV biomedical preventive pill taken daily or around the time of sex.[3] In addition to other preventives, such as condoms, testing, and treatment as prevention (people living with HIV who are receiving treatment and have undetectable levels of the virus cannot transmit HIV), PrEP has helped reduce HIV incidence among gay, bisexual, and other men who have sex with men (GBMSM) in Australia (456 diagnoses in 2023; a 43% decline over ten years), who represent the majority of people diagnosed with HIV infection in Australia.[2] Despite HIV notifications falling in Australian-born GBMSM, overseas-born GBMSM have not experienced the same decrease (267 diagnoses in 2023; a 2% decline over ten years).[2] Other priority populations in the Ninth National HIV Strategy, such as heterosexual migrants, Aboriginal and Torres Strait Islander peoples, sex workers, and people who inject drugs, have also not seen reductions in HIV incidence, but HIV rates are small when compared with their overall populations.[1,2] Although there are few transgender people recorded as being diagnosed with HIV infection each year (zero in 2023), HIV notifications in this population are likely to be under-reported due to historical problems with surveillance data collection.[1] From 2018 to 2024, over 85 000 people in Australia accessed PrEP through Medicare (including ~69% of GBMSM who have a higher likelihood of acquiring HIV).[2,4] However, despite women comprising 15% of new notifications in Australia, PrEP use among women is low (2.8% of all prescriptions).[4] These disparities illustrate the need to increase PrEP access, uptake and retention among all priority populations if we are to virtually eliminate HIV transmission by 2030.

Traditional PrEP care models in Australia involve in-person appointments with a doctor, who screens for PrEP eligibility, tests for HIV and provides a prescription, with follow-up appointments every three months.[5] Key populations who have a higher likelihood of acquiring HIV continue to encounter barriers to PrEP access, such as limited reach of targeted health promotion messaging, stigma, cost and limited access to knowledgeable and confident PrEP prescribers.[6,7] The World Health Organization recommends addressing these barriers through differentiated service delivery models of care, where individuals have access to various health care options to suit their specific needs.[8]

Although newer PrEP technologies are still being developed or yet to make it to Australia (such as long-acting injectables), this perspective article explores PrEP care models that could increase equitable access to oral PrEP in Australia.[9] These include approaches that reduce financial barriers, shift clinical tasks from medical practitioners to other health care workers, and leverage innovative technologies.

Reducing or removing the cost of PrEP

The cumulative costs of medication, consultations and pathology can hinder PrEP access. In the PrEP APPEAL study, 23.6% of PrEP-eligible participants did not take PrEP because it was too expensive; and in the PrEPARE 2023 study, 12.5% of current and recent users struggled to pay for PrEP.[10,11] Several strategies could address cost as a barrier: publicly funded programs; importing generic PrEP; increasing the time between follow-up appointments; including PrEP in the federal government's 60-day prescriptions program; and promoting non-daily dosing regimens.

Publicly funded programs

Countries such as the United Kingdom and South Africa have introduced targeted publicly funded programs that reduce or remove cost barriers, although they may be restricted by limited clinic locations or capacity to see high volumes of patients.[12,13] In Australia, citizens, permanent residents and eligible migrants have access to subsidised PrEP medication and doctors' appointments through Medicare. However, some individuals still experience cost barriers, particularly those ineligible for Medicare.[14] In September 2025, the federal government entered into a funding agreement with state and territory governments (currently signatories include New South Wales, South Australia, the Northern Territory, and Victoria) to subsidise PrEP for Medicare-ineligible individuals, with the programs to commence at the discretion of each state and territory government sometime thereafter.[15] Additional programs that partially or fully subsidise PrEP care warrant consideration, particularly those addressing barriers presented by PrEP suitability

criteria, Medicare eligibility, and geographical location of services.

Importing generic PrEP

Australia allows personal importation of cheaper generic versions of PrEP from online overseas suppliers.[16] Despite difficulties such as complicated ordering processes, upfront costs, concerns about medication quality, and delivery delays, importation allows individuals to access PrEP at a reduced cost.[6,16] Further support from government for promotion and guidance of personal importation may be needed, as this has historically relied on volunteer-led websites.

Other cost-reducing strategies

Several other strategies could also reduce costs. First, increasing the time between clinical follow-up appointments from once every three months to once every six to twelve months, and potentially incorporating interim testing via electronic pathology forms, self-testing, or self-collected sample kits.[17] Second, allowing Medicare-eligible individuals to access 60 days' worth of PrEP for the price of 30 days through the federal government's 60-day prescription program, effectively halving medication costs.[18] Third, promoting the use of non-daily regimens such as event-driven PrEP.[5]

Shifting tasks from medical practitioners to other health care workers

General practitioners have an important role in PrEP delivery in Australia and should continue to be supported with training and funding. However, models that share care and shift routine tasks to nurses, pharmacists and trained key population peer workers can also facilitate access to culturally inclusive health care and increase service capacity. Implementation of these models would need to adapt to each state, as they have their own laws governing who can prescribe and supply PrEP.

Nurse-led PrEP

Expanding the PrEP prescribing workforce to include nurses could increase clinic capacity and appointment availability, particularly in rural and remote communities with limited access to doctors.[19] Provisions exist in NSW for registered nurses at publicly funded sexual health services to provide PrEP to their patients without a prescription.[20] Implementation and scale-up would need to be coupled with ongoing training and support, adequate funding, clinical guidelines, and clear referral pathways for complex cases, in addition to expanding nurses' scope of practice.

Pharmacist-led PrEP

Studies outside of Australia have found that programs allowing pharmacists to provide PrEP result in higher PrEP initiation rates and lower discontinuation rates compared with standard care.[21] Studies have also shown that many individuals, particularly young people, prefer to access PrEP through pharmacies, because of its simplicity, convenience and discretion.[10,21,22] Trials in NSW, Queensland and Victoria that allow pharmacists to supply certain prescription-only medications could inform the design of future pharmacist-led oral PrEP care models. Learnings from international programs show that these models can benefit from incentivised delivery of pharmacist-led PrEP, ongoing training and support, and clear protocols for collaboration with other health care providers.[21,22]

Peer-led PrEP

Trained members of target populations could provide more culturally sensitive care, particularly for members of target populations who may avoid mainstream services because of stigma.[23] For example, peer-led services in Vietnam and Thailand have resulted in substantial increases in PrEP uptake and improved retention rates for GBMSM and transgender women.[24,25] In Australia, peers have been integrated into some sexual health services (eg, a[TEST] [https://endinghiv.org.au/test-often/book-a-test/] in NSW, M Clinic in Western Australia [https://www.mclinic.org.au/], and PRONTO! in Victoria [https://thorneharbour.org/services/pronto/]), but they are limited by service location (largely inner-city metropolitan), and not all offer access to PrEP. These models need adequate funding and support, and freedom to maintain their community-led nature.

Integrating innovative technologies into health care delivery

Digital health and diagnostic technologies provide opportunities to simplify PrEP service delivery, and include both telehealth and diagnostic testing innovations.

Telehealth

Virtual consultations (phone and video), online patient questionnaires, instant messaging, and electronic prescriptions can help overcome PrEP access barriers such as cost, stigma, and geographical constraints.[26] Telehealth PrEP models, such as MyCheck (implemented by a publicly funded sexual health clinic in NSW) and private telehealth services, were crucial during the COVID-19 pandemic to ensure individuals maintained access to PrEP.[27] Despite private telehealth services being subsidised by Medicare, cost remains a barrier.[28] Other challenges to PrEP telehealth access include digital literacy gaps, internet access disparities, in-person care linkage, lack of holistic care, and underutilisation by the public sector.[27,28] Expanding public and private models presents a valuable opportunity for health care services to connect to more individuals who have a higher likelihood of acquiring HIV.

Diagnostic testing innovations

HIV point-of-care tests (PoCTs) and HIV self-tests use similar visually interpreted lateral flow test technologies — the difference is who administers them. PoCTs enable a wide variety of health care

workers to offer diagnostic services and same-day PrEP initiation, and have been used in the United States by pharmacists to provide PrEP starter packs, and in South Africa to reduce time to PrEP initiation for pregnant women in antenatal care.[29,30] HIV self-tests allow individuals to test themselves at home or another convenient location, and have been used to deliver PrEP telehealth services.[31] PoCTs and HIV self-tests are not as sensitive as laboratory tests, particularly for individuals already taking PrEP or who have recently acquired HIV.[32] Some clinical PrEP guidelines (such as in the US) allow PoCTs to be used to initiate PrEP, but not for ongoing access.[32] The Australian PrEP guidelines state that laboratory tests must be conducted to initiate or continue PrEP; and, if found to be safe and effective, the guidelines would require updating to integrate PoCTs and HIV self-tests into PrEP care models.[5]

Self-collected sample kits enable individuals to collect pathology samples at home or another convenient location before sending them away for laboratory testing. A US-based program found the use of self-collected sample kits to be acceptable to replace three out of the four in-person consultations a year with telehealth consultations.[33] In NSW, the Dried Blood Spot program provides mail-order self-collected sample kits, but these HIV test kits have not been integrated into any PrEP care models.[34] These kits could be included in current PrEP care models without needing any policy changes.

Conclusion

Australia is well placed to optimise current HIV prevention options such as oral PrEP. By reducing financial barriers through publicly funded programs, personal importation of cheaper generic medication, and use of non-daily dosing regimens, PrEP can be made more affordable. Sharing care and shifting tasks to nurses, pharmacists, and peer workers provide the opportunity to increase PrEP access points and facilitate more culturally appropriate care. In addition, the integration of telehealth services and diagnostic technologies provides opportunities to overcome stigma and geographical barriers. No single model will meet the needs of all individuals who have a higher likelihood of acquiring HIV, and new models require tailoring and evaluation for the Australian context. Implementation of differentiated and simplified PrEP care models, tailored to the specific needs of key populations, has the potential to increase equitable access to PrEP and achieve virtual elimination of HIV transmission by 2030.

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