

# **Bridging the know-do gap: Developing strategies to improve oral HIV pre-exposure prophylaxis uptake using implementation science theory**

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## **Background:**

Although pre-exposure prophylaxis (PrEP) is highly effective at preventing HIV, its uptake remains low among individuals at higher risk of acquiring HIV. While studies have identified barriers and facilitators (determinants) of PrEP use, few translate these into actionable strategies. We used implementation science theory to develop theory-informed strategies to address PrEP implementation gaps.

## **Methods:**

A scoping review of PrEP use determinants sourced 142 peer-reviewed journal articles published from 2018-2024 from Australia, United Kingdom, Canada, and New Zealand. To inform strategy development, initiation and continuation determinants from the review were mapped to the Theoretical Domains Framework (TDF) and Behaviour Change Techniques (BCTs), while prescribing determinants were mapped to the Consolidated Framework for Implementation Research (CFIR) and Expert Recommendations for Implementing Change (ERIC).

## **Results:**

Our analysis yielded 41 implementation strategies derived from/matched to 49 facilitators and 70 barriers. Generally, PrEP use and prescribing barriers related to lack of knowledge, cost, multiple stigmas, restrictive policies, and limited healthcare service capacity. To increase PrEP use, consumer-targeted strategies involved promoting alternative dosing regimens, cheaper personal importation of PrEP, PrEP access points, and dosing reminder tools; delivered through targeted health promotion, peers and peer-led services, and culturally-appropriate healthcare. Healthcare provider-targeted strategies involved increasing PrEP knowledge and awareness, supporting culturally-appropriate care delivery, navigating patients' PrEP concerns, and addressing stigma through training and education. Clinic-level strategies included task-shifting to nurses/pharmacists/peer-workers, telehealth expansion, strengthening referral pathways, and streamlining appointments. Socio-environmental/healthcare system-level strategies included reducing PrEP costs, funding target-population services, implementation/review of inclusive eligibility criteria, PEP-to-PrEP clinical pathways, and streamlining PrEP care.

## **Conclusion:**

Australia can maximise the impact of oral PrEP implementation by applying theory-informed strategies. Our approach generated tailored strategies that leveraged existing facilitators to respond to multi-level barriers to PrEP implementation. These strategies can address identified gaps, supporting broader adoption and equitable access.

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**AI declaration:**

AI has been used in this submission for language editing and proofreading for spelling and grammar.