The Pharmacy-based HIV prevention and Sexual Health Engagement Services (PHASES) Project: Implementation strategies and mechanisms for pharmacist-delivered HIV/STI prevention care in Philadelphia, USA

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Background*:* Pharmacy-based services can expand equitable access to HIV prevention and sexual health care in communities with barriers to traditional clinical services. However, many U.S. states have restrictive pharmacy scope of practice laws, making it difficult for pharmacists to initiate essential preventive care including HIV pre-exposure prophylaxis (PrEP), HIV post-exposure prophylaxis (PEP) and doxycycline PEP (doxyPEP). We aimed to develop implementation strategies and elicit underlying mechanisms to deliver pharmacist-based sexual health services in Philadelphia, an urban setting in the United States with high HIV/STI incidence in a state with restrictive pharmacy laws.

Methods*:* We utilized a structured Implementation Mapping approach to develop Pharmacy-based HIV prevention and Sexual Health Engagement Services (PHASES), a model of care to provide HIV testing and initiate PrEP, PEP, and doxyPEP in pharmacies. Grounded in the Consolidated Framework for Implementation Research, we conducted interviews and focus group discussions with community partners and implementers to address key barriers. We developed a logic model and obtained feedback to refine implementation strategies, determine change mechanisms, and select implementation outcomes. We used these data to design implementation protocols and materials for the resulting intervention.

Results*:* From October 24, 2024, to April 24, 2025, we iteratively convened with pharmacists, community partners, program implementers, experts, and key collaborators (n=16) to develop the PHASES program through Implementation Mapping. Specific implementation strategies included building a coalition between public health sectors, pharmacies, and community and academic partners, developing a formal blueprint for our setting, utilizing financial strategies, and identifying practice champions. The PHASES program addresses restrictive state legislation by drawing upon existing models of local standing orders and developing protocols to integrate status neutral HIV/STI services into pharmacies. Within PHASES, pharmacists can provide HIV testing and initiate PrEP, PEP, and doxyPEP, with referrals to primary care, sexual health providers, and telehealth providers for continuation of care, while operating within legislative restrictions.

Conclusions*:* Implementation Mapping can engage key collaborators and partners to develop a model for implementing pharmacy-based HIV prevention and sexual health services. We identified implementation strategies and change mechanisms to pilot the PHASES intervention in community pharmacies. Further research is needed to evaluate the program's implementation success.