

Exploring Barriers and Facilitators to Pharmacy-Based HIV Pre-Exposure Prophylaxis

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BACKGROUND

In the United States (US), approximately 1.2 million individuals are eligible for pre-exposure prophylaxis (PrEP) for Human Immunodeficiency Virus (HIV). PrEP is highly effective in reducing the spread of HIV, yet only 50% of people eligible for PrEP in the US are prescribed it.

To improve access, some states have passed legislation allowing patients to receive PrEP from a local pharmacy without requiring a doctor's prescription. These bills were enacted in recognition that pharmacists are the most accessible healthcare providers in the community. California was the first state to allow pharmacist prescribing of PrEP in 2019 (CA Senate Bill 159) and conditions within the bill were updated in 2022 (CA Senate Bill 339). Although pharmacy-led PrEP has the potential to reduce rates of HIV infection, the limited available evidence suggests that its adoption is low.

The overarching goal of our research is to better understand the complex factors influencing adoption of pharmacy-based PrEP to improve access to this intervention.

STUDY OBJECTIVES

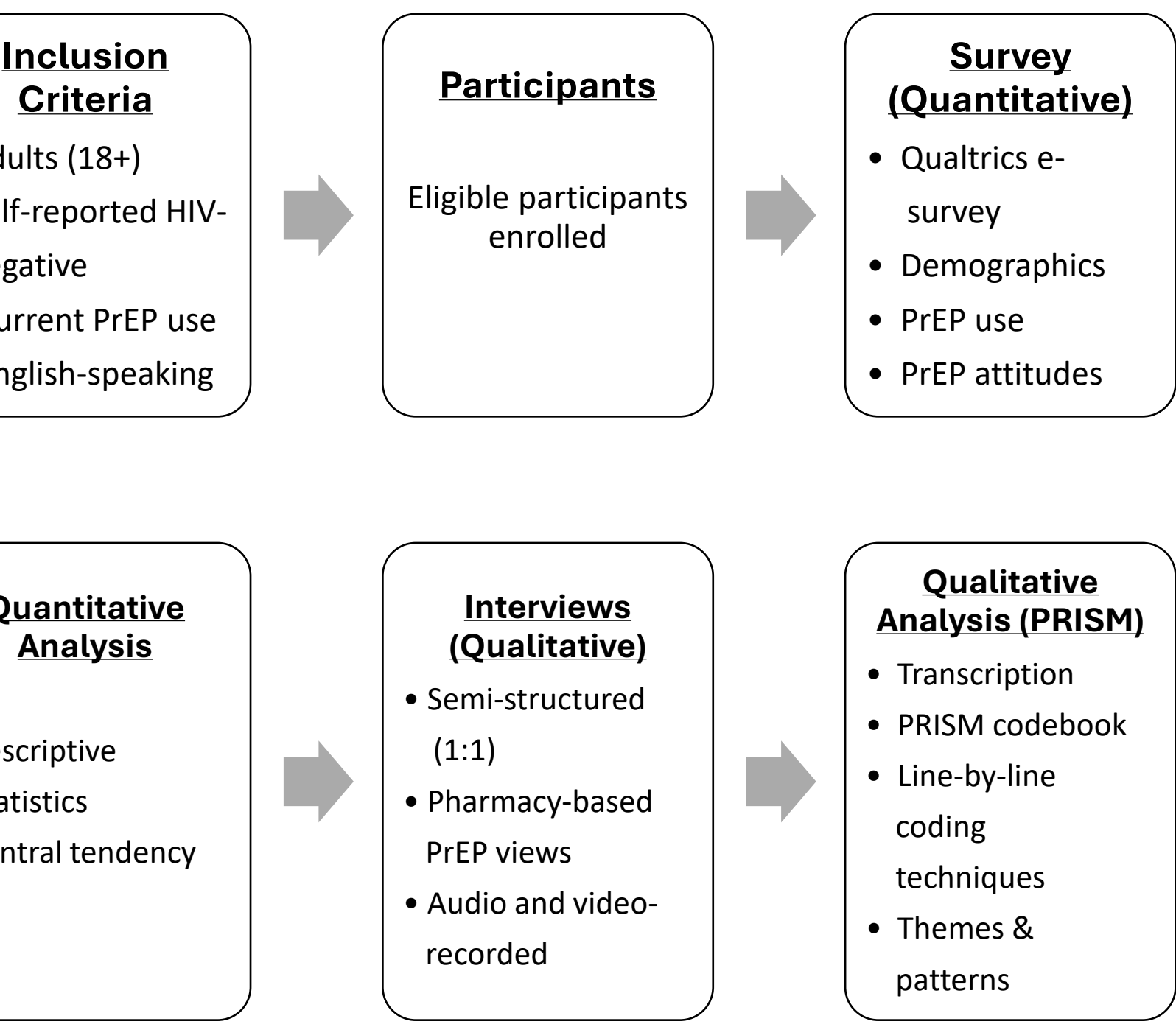
- To evaluate barriers and facilitators for implementation of pharmacy-based PrEP.
- To examine relationships between individual and organizational factors and attitudes toward pharmacy-based delivery of PrEP.

METHODS

Our parent study uses a mixed-methods study design grounded in implementation science. We present data derived from the patient-participant portion of the study in this multi-methods analysis. Data presented here focus on responses from participants using PrEP from HIV-affected communities.

- Inclusion criteria for this analysis**
- Adults with self-reported HIV negative status
 - Current use of PrEP
 - Able to speak and understand English

Participants completed an electronic survey (Qualtrics, Provo, UT) to collect basic demographic data, information about PrEP use, and attitudes regarding PrEP.



RESULTS

A total of 16 persons using PrEP were recruited for the study. They predominantly identified as male, gay, between the ages of 26-35 years, and Latinx. Most participants were currently using oral PrEP (Table 1). They shared experiences and opinions about why others were likely not on PrEP (Table 2). There was a general lack of awareness of pharmacy-led opportunities for people to obtain PrEP.

Table 1. Demographic characteristics of included participants		
Characteristic		N (%)
Sex at Birth	Male	16 (100%)
	Bisexual	2 (12%)
Sexual Orientation	Gay	13 (81%)
	Queer†	1 (6%)
	Straight	0 (0%)
	Prefer not to say	0 (0%)
Age Category	22 – 25 years old	3 (19%)
	26 – 30 years old	5 (31%)
	31 – 35 years old	5 (31%)
	36 years or older	3 (19%)
	African or African American	1 (6%)
Race/Ethnicity	Asian or Asian American	3 (19%)
	Asian/Pacific Islander	1 (6%)
	White or Caucasian	2 (12%)
	Latino/Latinx	8 (50%)
	Other†	1 (6%)
Which PrEP medication are you currently taking?	Brand tenofovir alafenamide/emtricitabine (Descovy®)	6 (38%)
	Brand tenofovir disoproxil fumarate/emtricitabine (Truvada®)	4 (25%)
	Generic tenofovir disoproxil fumarate/emtricitabine	5 (31%)
	Cabotegravir (Apretude®) injection	1 (6%)

Participants had various experiences and attitudes towards PrEP. All were prescribed PrEP by a physician, nurse practitioner, or physician's assistant. Only one participant had started on PrEP after a course of post-exposure prophylaxis (PEP). Most participants found PrEP affordable (94%). 81% preferred to take an oral form of PrEP while 19% would opt for an injectable form if their insurance covered it. Most were aware that PrEP does not protect people from sexually transmitted infections (94%), though opinions were mixed about the need to wear condoms with their partner.

Participants shared experiences and opinions about getting on PrEP. Only a few had heard about PrEP from their pharmacist. Most were connected to PrEP through friends, doctors, navigators, and advertisements. While all were currently on PrEP, they thought others were not on PrEP due to a variety of reasons, with the leading reasons being stigma around its use and lack of awareness. The majority of participants were not aware of existing California legislation (CA SB 159 and 339) that enabled pharmacists to furnish PrEP as a way for people to access these medications.

Table 2. Barriers to PrEP and Pharmacy-Delivered PrEP			
Survey Questions	Responses	Count (%)	Interview Quotes
Where have you heard or learned about HIV pre-exposure prophylaxis (PrEP)? ^a	Family member	0 (0%)	“She had been my doctor for a long time ...And I told her about how I had been, like, engaging in sexual activities and stuff. And she said because I’m a young male and I’m gay that she thought that it would be a really good idea. She had always been very pro- <u>PrEP</u> .” – Participant 11, male
	Magazine or news article	3 (19%)	
	Television or streaming advertisement	7 (44%)	
	Doctor or doctor's office	13 (81%)	
	Friend	11 (69%)	“I mean there's ads always running on Channel 5, Channel 7 showing Truvada and <u>Descovy</u> .” – Participant 3, male
	Pharmacist	3 (19%)	
	Social <u>media</u> ^b	7 (44%)	
	<u>Other</u> ^c	4 (25%)	
Did a <u>PrEP</u> navigator help you get on <u>PrEP</u> ?	No	7 (44%)	“I've met a lot of like <u>PrEP</u> navigators and stuff like that. And now I feel like I know a lot about it.” – Participant 12, male
	Yes	9 (56%)	
Why do you think many people are not taking <u>PrEP</u> for HIV <u>prevention</u> ? ^a	Cost of the medication	7 (44%)	“I only have few people and friends I came across that don't like medication. Most of them, they say the side effects they hear is scary.” – Participant 9, male
	<u>Have</u> to take a pill every day	8 (50%)	
	Misinformation about the <u>medication</u> ^b	5 (31%)	
	Side effects of the medication	5 (31%)	
	Stigma	9 (56%)	“...just like <u>the marketing</u> . It all seems very specifically marketed towards cisgender gay men, and like there's more people that can, you know, benefit from it. Any gender really.” – Participant 13, male
	The need to get lab or blood tests regularly	8 (50%)	
	Not aware of availability of the medication	12 (75%)	
	They don't have a doctor to ask for the medication	7 (44%)	
Have you heard about the Senate Bill 159 legislation that was passed in California?	No	12 (75%)	“I've never heard anyone in my circles say like oh, the stigma or oh, the side effects. It's usually just, yeah, money, accessibility, or being in a relationship.” – Participant 2, male
	Yes	2 (12%)	
Have you heard about the Senate Bill 339 legislation that was passed in California?	No	12 (75%)	“I think information ... that you don't necessarily have to go to your doctor to get it, that it is available <u>and pharmacists</u> can prescribe it. I think that that's something that could be kind of put out there a little bit more.” – Participant 8, male
	Yes	1 (6%)	
	I don't know	3 (19%)	“Vulnerable populations, like especially homeless people. I want it to be <u>really easy</u> for them to access [<u>PrEP</u>]. But if I don't know my pharmacists could get me the prescription, I know homeless people in my community don't know.” – Participant 13, male
Note: Some values do not sum to 100% due to missingness.			
^a Participants were able to select multiple items.			
^b Four participants indicated a specific social media platform: Instagram.			
^c Participants indicated word of mouth, LGBT leaders, billboards, and dating apps.			

RESULTS, cont.

Participants seemed warily supportive of pharmacy-led PrEP for other people, but were not interested in it for themselves. Questions remained about how it worked and logistics behind it. Ultimately, participants preferred to stay with their current systems of obtaining PrEP through their physician and clinic relationships due to convenience, integration of services with insurance, lab and pharmacy, and due to having previously established care.

- “They're handled by my provider just because I go in for my testing every three months and stuff. So I, you know, I know it's available for me if I can go to the pharmacy and get it. But it's just a lot easier just to have them done through my through my doctor.” – Participant 8, male
- “Is that a problem? Because isn't that bringing up they could just prescribe any medication or anything like that? Or, why do you have to go to your doctor to get medication? It's because they are the ones being held liable if something happens? Or, is it because of education reasons? – Participant 11, male
- “I think I would prefer to keep it with my PCP so that way they can have my blood work and everything in their file system. But I mean, I guess in times of emergency, I would go to a pharmacist to make sure that I'm able to get it if it's an emergency.” – Participant 15, male
- “Just based on my own situation, I'll continue to see my primary care doctor related to my PrEP care. And I kind of think we were just saying earlier, really, you're about like it's good for people that need to start accessing it and kind of figure things out. But yeah, in my situation, I'm good with seeing my current doctor for it.” – Participant 13, male

DISCUSSION

To advance pharmacy-led PrEP in California, several items should be considered:

- Current PrEP users do not seem to be aware that these services can be obtained through a pharmacy. While this may not be the target audience since they are already linked to care, this population serves as important advocates and sources of information for others who are not yet on PrEP.
- The best method for increasing visibility of pharmacy-based PrEP services is unclear. While advertisements and social media are more common avenues, most participants have heard about PrEP through personal relationships.
- Common barriers to starting PrEP such as low self-estimated risk, concerns about side effects, misinformation about efficacy, or concerns about cost could potentially be addressed by pharmacists through patient education.
- Educating the public and other health professionals about the logistics involved in obtaining PrEP through pharmacies may increase clarity about when it might be advantageous to use pharmacy-based services.

CONCLUSION

Despite over 6 years since California SB 159 was signed into law, participants taking oral PrEP remained largely unaware that pharmacies were an additional avenue consumers can use to obtain PrEP. Pharmacists must actively engage in providing PrEP and then spread awareness of the availability of the PrEP services to meet the ending the epidemic goal of increasing the number of persons accessing HIV prevention.

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