CALIFORNIA HIV / AIDS POLICY RESEARCH CENTERS

Are California pharmacists ready to provide long-acting injectable pre-exposure prophylaxis (PrEP) for HIV prevention?

Pharmacists are recognized in the U.S. National HIV/AIDS Strategy for their potential role in amplifying access to HIV prevention and care services to end the HIV epidemic.[1] Pharmacies are located in most communities and may be perceived as a convenient and less stigmatizing access point for services such as HIV testing and pre-exposure prophylaxis (PrEP), a highly effective HIV prevention method. For this reason, an increasing number of states explicitly recognize pharmacists as health care providers and have expanded their scope of practice to enable PrEP provision.[2] In California, Senate Bill 159 (SB 159, 2019) permits pharmacists to initiate up to 60 days of oral PrEP before referral to a primary care provider.[3] This legislation was intended to mitigate the persistently low uptake of PrEP among people who could benefit by leveraging the largely untapped potential of pharmacy access.

Alongside the need for new PrEP delivery channels, a rapidly expanding marketplace of PrEP products is diversifying HIV prevention options. In December 2021, the U.S. FDA approved long-acting injectable cabotegravir (CAB-LA), the first alternative to daily oral PrEP.[4] Once established with two monthly injections, CAB-LA is administered every 60 days as an intramuscular injection in the gluteal muscle. Long-acting injectable PrEP has several potential advantages over oral PrEP, including more privacy and fewer adherence challenges, and may be preferred by some groups who experience higher risk of HIV acquisition (e.g., transgender people, people who inject drugs).[5,6] Recognizing the value of diverse PrEP options to increase equitable access to HIV prevention, proposed California legislation (SB 339) would expand SB 159 to explicitly permit pharmacists to initiate both current and future PrEP formulations, including injectables.[7]

In view of FDA approval of CAB-LA and the favorable policy environment in California for expanding pharmacists' role in HIV prevention, we evaluated pharmacists' potential as providers of long-acting injectable PrEP in the California Pharmacist Study. Specifically, we assessed pharmacists' attitudes about the provision of injectable PrEP, existing PrEP services (i.e., oral PrEP provision), and what characteristics of the pharmacy setting (e.g., availability of private rooms) could facilitate or hinder provision of injectable PrEP.

California Pharmacist Study

In late 2022, we recruited and surveyed 919 California pharmacists and pharmacy students about the provision of HIV prevention and other services in their pharmacies and their personal attitudes about and willingness to provide pharmacist-initiated PrEP. Detailed information about the methods and participants of the California Pharmacist Study has been previously reported.[8] Briefly, most survey participants (84%) were practicing licensed pharmacists, and 43% currently or most recently worked in a community pharmacy. These survey data were complemented with semi-structured interviews conducted among 30 pharmacists from diverse pharmacy settings in rural and urban areas across California. Qualitative data were analyzed via Rapid Analysis Process;[9] excerpts presented in this report have been edited for clarity.

Summary of Findings

- California pharmacists and pharmacy students are overwhelmingly supportive of providing HIV prevention services, including pharmacist-initiated oral PrEP as enabled by SB 159.
- More than half (53%) reported being willing to administer long-acting injectable PrEP, even with the knowledge that the current delivery method requires gluteal injection.
- Willingness was higher among those working in pharmacies that offer oral PrEP under SB 159 (65% vs. 51%), suggesting that addressing barriers to and increasing implementation of pharmacist-initiated oral PrEP may pave the way for injectable PrEP access in these settings.
- Space constraints may act as a barrier to long-acting injectable PrEP administration, yet almost half (48%) reported already having a private room or temporary pop-up space that may be suitable for provision of injectable PrEP.
- Pharmacies need support to develop appropriate models to fit oral and injectable PrEP delivery into their workflows in a manner that preserves clients' safety and privacy.
- Addressing implementation barriers related to medication access and payment is necessary to galvanize efforts of pharmacists who have demonstrated a clear interest and have the infrastructure needed to prescribe and deliver long-acting injectable PrEP.

Results

PrEP provision and attitudes

One in four participants (27%) had training on providing PrEP and/or post-exposure prophylaxis (PEP) in a pharmacy setting. One in ten (11%) reported that pharmacists at their pharmacy initiate daily oral PrEP as authorized by SB 159. Another 19% were unsure. Despite low training and implementation, participants expressed highly supportive attitudes around providing (oral) PrEP under SB 159, with 96% agreeing that pharmacy-based PrEP/PEP provision is important and 81% reporting being willing to prescribe PrEP to pharmacy clients.

Participants were also asked whether they would be willing to administer long-acting injectable PrEP at their pharmacy if provided with training, compensation, and a private room. Half (53%) reported that they would be willing, while the rest were unsure (23%) or unwilling (24%). Participants from pharmacies that currently provide PrEP under SB 159 (n=96) were somewhat more likely to report being willing to administer injectable PrEP than participants from pharmacies that were not implementing oral PrEP (65% vs. 51%).

Pharmacy characteristics

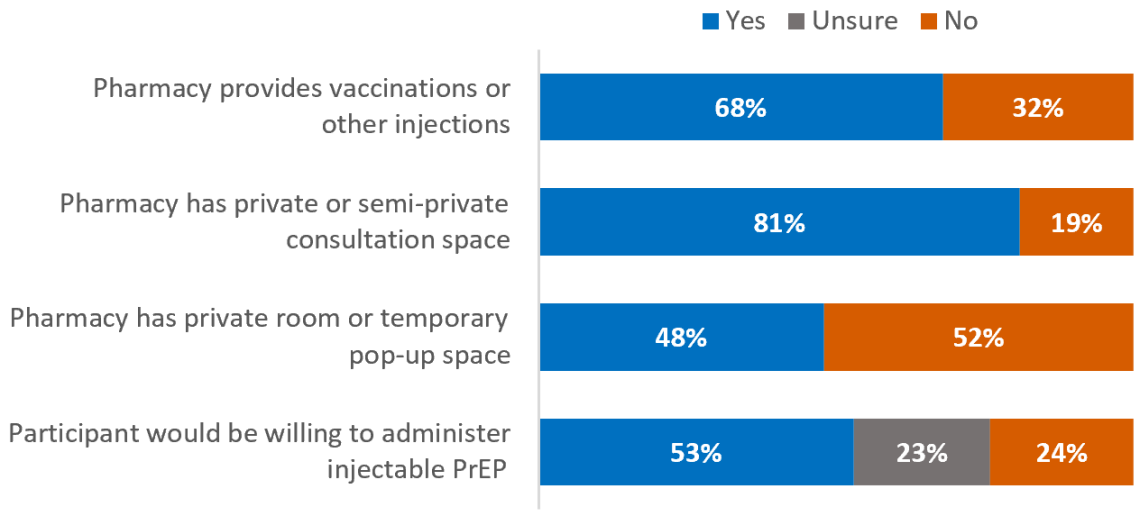
Two-thirds of participants (68%) reported that their pharmacy provides vaccinations or other injections (**Figure 1**). Participants from community pharmacies were more likely to report that their pharmacy provides injections than those from other settings (87% vs. 53%). Among all participants who reported injection provision, most indicated that pharmacists perform intramuscular (92%) and/or subcutaneous (74%) injections.

Most participants (81%) reported that their pharmacy has private or semi-private spaces for consultation and service provision, most commonly private rooms (40%), private consultation windows

(28%), permanent semi-private spaces such as cubicles (17%), and/or temporary pop-up spaces with flexible walls (9%). Among participants from community pharmacies only, more than 90% reported that their pharmacy has private or semi-private spaces, although private consultation windows (44%) were more common than private rooms (35%).

Overall and regardless of setting, 48% of participants reported having a private area that may be suitable for CAB-LA administration (i.e., private room or temporary pop-up space, not including consultation windows).

Figure 1. Indicators of pharmacist readiness to provide long-acting injectable HIV pre-exposure prophylaxis (PrEP) among participants in the California Pharmacist Study, 2022.



Pharmacist perspectives

As in the survey, participants in qualitative interviews expressed mixed views on administering injectable PrEP in pharmacies. Some welcomed the chance to provide injectable PrEP to their patients and considered it feasible based on pharmacists' scope of practice and existing pharmacy infrastructure.

> *We have private spaces, we have a little enclosure where we do the vaccinations. And some of [our other locations] also have health corners which are little offices where they can they do some of their vaccinations… Yeah, [long-acting injectable PrEP] is definitely possible. I would love to see that.*
> – Participant 28, community pharmacist/administrator at a national chain

> *I would prefer to give an injectable, because it's a lot easier, and I don't have to worry about compliance or adherence for patients. I'm very comfortable with giving vaccinations.*
> – Participant 9, community pharmacist/owner of a suburban independent pharmacy

However, others described multilevel barriers that could limit their ability to implement injectable PrEP. The most commonly reported barrier was a lack of training in administering gluteal injections.

> *There's a lot of things I just wish we could get trained on that would be within our scope… One would be gluteal injections. We're not trained on that. And so if we get the training, I'd do it, no hesitation… If [I] got some good training, I'm all over that.*
> – Participant 17, hospital pharmacist

A few pharmacists raised concerns about personal safety and liability administering gluteal injections in their pharmacy. A community pharmacist who owned an independent pharmacy in a mid-size city stated:

> *We already have the ability of doing flu shots and psychiatric injections [administered] in the gluteal area... I think [the] problem comes with if there is a pharmacist concern[ed] with the possibility of the patient being positive—that might change someone's opinion because… it could potentially involve blood. So yeah, there's still a relatively low chance of having a transmission, but you know, it's a higher chance than if they were to just take an oral pill.*
> – Participant 8

Some participants were also deterred by structural issues such as not having a private space and lack of payment for services. A community pharmacist who owned an independent pharmacy in a rural town explained the potential difficulty of creating a private space:

> *Well we can't. If it's going to be gluteal, we're going to have to build an enclosed meeting room, and we could not do that with our current physical structure. I'm not opposed to it. But it would take some more doing. We would have to revamp part of the pharmacy to accommodate that kind of privacy.*
> – Participant 7

Several other independent community pharmacists who owned their practices described challenges in ordering specialty drugs and receiving payment for administering injectable PrEP:

> *We couldn't even order the drugs. We couldn't order them because the doctor's office wants to prescribe and they want us to dispense. Only six pharmacies nationwide can order it because it's a specialty drug. For us pharmacists, even if we have patients coming in asking [about long-acting injectable PrEP]—which we do—we can't do anything for them. And that medication requires a doctor's prescription, and we're not yet able to provide it.*
> – Participant 3

> *In the setting of SB 159 where the pharmacists will be providing that long-acting injectable, I think there also needs to be a method of reimbursement for the pharmacist, for not only providing the assessment but also for administering the injection. So there need to be reimbursement mechanisms for pharmacists to be able to provide these services. I think it's essential.*
> – Participant 5

Despite these challenges, about half of interview participants supported expanding pharmacists' scope of practice to include gluteal injections for PrEP. Several mentioned that pharmacists have demonstrated their ability to administer various types of injectable drug formulations, including the COVID-19 vaccine.

There's precedent to doing gluteal injections. We have pharmacists engaged in long-acting antipsychotic injectables. So they're doing this already for other drugs. So I personally don't see that as a limitation.
– Participant 4, academic pharmacist with a clinical practice

I mean, we gave vaccinations even before COVID. We essentially are immunizing in pharmacies… I don't see the problem with giving injections. After all, most of the people we give the vaccinations, we don't know their HIV status, anyway.
– Participant 18, independent community pharmacist serving multiple suburban areas

Discussion

Pharmacies may be a valuable new delivery channel to increase access to PrEP, including long-acting injectable PrEP. In our survey of over 900 California pharmacists and pharmacy students, we found high support for pharmacy-based PrEP provision, despite low overall implementation of oral PrEP as authorized by SB 159. When asked about pharmacy provision of *injectable* PrEP, half of participants overall and two-thirds of those from pharmacies already providing pharmacist-initiated oral PrEP expressed willingness to administer injectable PrEP. The higher willingness observed among those at pharmacies that already provide oral PrEP suggests that addressing barriers to and increasing implementation of SB 159 for oral PrEP may pave the way for injectable PrEP access in pharmacy settings.

As was evident in both the survey and qualitative interviews, pharmacists are already key providers of injectable products, ranging from their critical role in community access to the COVID-19 vaccination to other specialty injections (e.g., antipsychotic medications). These findings are a promising signal that pharmacist delivery of CAB-LA and/or other future injectable PrEP products may be feasible in many pharmacy settings. Nearly half of those surveyed reported that their pharmacy already has a private space (whether permanent or temporary) that may be suitable for PrEP consultations, administration of injections, and/or the conduct of requisite HIV testing to verify HIV-negative status. Still, many other pharmacies would need to adapt existing semi-private spaces for long-acting injectable PrEP provision. In addition, pharmacies need support to develop appropriate implementation models to fit oral and injectable PrEP delivery into their workflows in a manner that both meets patient preferences and does not undermine the pharmacy's bottom line. Community-based demonstration projects are critical to understand in which pharmacy settings, including mobile pharmacies, injectable PrEP delivery could most benefit the surrounding community.

Previously documented barriers to implementing pharmacist-initiated oral PrEP in California, such as lack of training and staff time constraints, also remain relevant to injectable PrEP. Our qualitative data suggest that pharmacist provision of injectable PrEP may come with additional barriers related to access to the medication (e.g., specialty pharmacy status) and payment for the medication. Some, but not all, pharmacists expressed discomfort with administering gluteal injections specifically. Additional training and/or peer-to-peer knowledge sharing from pharmacists experienced with intramuscular injections may mitigate these concerns. Notably, the PrEP development pipeline includes injectable products which could be delivered through subcutaneous injections and administered in less private sites than the gluteal muscle;[10] these options may expand possibilities for pharmacy delivery.

To maximize the possibility that pharmacy-based PrEP could be widely scaled and increase equity in access to HIV prevention, research about pharmacist attitudes must be complemented with parallel research from people who could benefit from PrEP. The preferences of people interested in initiating or continuing PrEP through pharmacy access should guide the development of potential implementation

models in tandem with pharmacist input, consistent with an implementation science approach.[11] For example, although pharmacies are an HIV "status neutral" environment, HIV testing, PrEP counseling, and the delivery of injections related to HIV prevention can be highly sensitive. For this reason, identification of a pharmacy-based delivery model that preserves patients' dignity, safety, and privacy is essential to ensure the success of this PrEP delivery channel, especially for groups who may benefit from PrEP but have historically had less reliable access to HIV prevention due to the intersection of barriers related to racism, homophobia and transphobia, and stigma.

In summary, pharmacists' supportive attitudes, current scope of practice, and existing pharmacy infrastructure suggest that there is strong potential to increase access to new long-acting injectable forms of HIV prevention in California pharmacies. Addressing implementation barriers related to medication access and payment is necessary to galvanize efforts of pharmacists who have demonstrated a clear interest and the necessary infrastructure to prescribe and deliver long-acting injectable PrEP. Once complemented with information about the preferences of people who might benefit from PrEP, pharmacy access to long-acting injectable PrEP could become an important community-based delivery channel to accelerate the goals of the National HIV/AIDS Strategy.

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