## Title

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# Long-acting injectable ART and PrEP among women in six cities across the United States: A qualitative analysis of who would benefit the most

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Ethics Approval

IRB approval was obtained at all participating sites prior to interview initiation. The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Consent to Participate

Informed consent was obtained from all individual participants included in the study prior to the interview.

## Abstract

Long-acting injectable (LAI) modalities have been developed for ART and PrEP. Women face unique barriers to LAI use yet little research has examined women's perceptions of potential LAI HIV therapy candidates. We conducted 89 in-depth interviews at six Women's Interagency HIV Study (WIHS) sites with women living with HIV (n=59) and HIV-negative women (n=30) from 2017–2018. Interviews were recorded, transcribed, and analyzed using thematic content analysis. Participants identified specific sub-populations who could most benefit from LAI over daily pills: 1) young people; 2) women with childcare responsibilities; 3) people with adherence-related psychological distress; 4) individuals with multiple sex partners; and 5) people facing structural insecurities such as homelessness. Women are underserved by current HIV care options and their perspectives are imperative to ensure a successful scale-up of LAI PrEP and LAI ART that prioritizes equitable access and benefit for all individuals.

### Keywords

Long-acting injectable (LAI); pre-exposure prophylaxis (PrEP); Antiretroviral therapy (ART); women; HIV/AIDS; qualitative research

## Introduction

The global scale-up of antiretroviral therapy (ART) and pre-exposure prophylaxis (PrEP) has transformed the individual- and population-level burdens of HIV. However, long-term prevention and treatment efficacy require daily pill taking, which is impeded by individual-level factors such as forgetfulness and pill fatigue [1], interpersonal concerns around privacy and disclosure [2], and structural factors such as housing insecurity and inadequate access to care [3]. To help address these barriers, long-acting injectable (LAI) formulations of antiretrovirals for HIV prevention and treatment are currently in late phases of clinical trials or regulatory approvals [4,5]. LAI ART demonstrated non-inferiority to oral ART in phase III trials (First Long-Acting Injectable Regimen (FLAIR) and Antiretroviral Therapy as Long Acting Suppression (ATLAS) studies) [6], and monthly LAI ART was approved by the Food and Drug Administration (FDA) in January 2021. The majority of LAI ART trial participants (99% in FLAIR and 97% in ATLAS) preferred LAI to oral ART [7,8]. A bi-monthly version of LAI PrEP was more effective than daily oral PrEP in Phase III trials with cisgender men and transgender women [9], as well as with cisgender women [10]. Study participants preferred the LAI formulation to oral PrEP, and in May 2021 a rolling drug application for LAI PrEP was initiated with the FDA [11–15].

As LAI ART and LAI PrEP move towards approval and real-world implementation, researchers have begun to explore facilitators and barriers to successful scale-up and uptake across diverse sub-populations [11,14,16–25]. Other fields can provide lessons about the implementation of new modalities, medications, and procedures [26]: experiences with LAI and reversible contraceptives, oral PrEP, and voluntary male circumcision, suggest that product attributes such as efficacy and minimization of side effects are not enough to produce "demand" [27,28]. Rather, patient-level psychosocial and structural factors, such as perceived risk of HIV infection, medical mistrust, cost, insurance access, and transportation,

can be influential deterrents that compromise uptake of a new modality [22,29]. Clinic-level factors, such as openness to new products and clinical capacity, can also serve as barriers [27]. In addition, potential provider biases about who should have access to a new modality can influence which patients learn about and are offered a new product. These intersecting factors can result in the inequitable distribution of new biomedical products and may disadvantage already marginalized populations.

The version of LAI ART approved by the FDA will only be available to patients who are already virally suppressed or who are HIV treatment-naïve [30]. Once LAI PrEP is approved by the FDA, patients will first receive a five-week lead-in course of short-acting oral cabotegravir to ensure the safety of the drug [31,32]; patients who struggle with daily pill adherence may not progress beyond the lead-in. LAI PrEP and LAI ART modalities will initially be made available to a limited patient population; this population will not necessarily include those facing adherence-related challenges who are most in need of additional options. One ongoing trial, LATITUDE (Long-Acting Therapy to Improve Treatment Success in Daily Life), aims to address this gap by testing LAI ART among people with histories of oral ART nonadherence. It also provides monetary incentives and interpersonal adherence support, which is often absent in real-world HIV care [33].

In order to achieve population-level increases in viral suppression and limit new infections, it is imperative to increase treatment options for all patients, not just those in LAI clinical trials who up to this point are primarily adherent and male [30]. Instead, implementation of these new LAI modalities should aim to reach underserved patient populations, especially those who experience barriers to adherence, a category that includes women, youth/young adults, people who sell sex and/or use drugs, and people experiencing homelessness [14]. Thus, a gap remains between the population that will initially be served by the new modalities (i.e., LAI ART for those already virally suppressed) and the population for which LAI antiretrovirals may be the best option for maintaining adherence [27].

Nascent work has examined provider perceptions of LAI ART [18] and LAI PrEP [14]. However, it is unclear whether providers' beliefs regarding which women could most benefit from LAI HIV therapy align with the perceptions of potential LAI antiretroviral candidates. As women are one of the subpopulations underserved by current HIV care options, it is important to consider their perspectives on the scale-up of LAI PrEP and LAI ART [34,35]. To that end, we interviewed women at risk for HIV and women living with HIV (WLWH) about whom they believed could most benefit from LAI HIV therapy and why. Such insight is essential to achieve equitable distribution of new modalities as efforts to scale up LAI HIV therapy progress.

## METHODS

Qualitative interviews were conducted with 89 participants in the Women's Interagency HIV Study (WIHS), the largest national prospective cohort study of WLWH and women at risk for HIV in the US. Interviews were conducted across six WIHS sites: Atlanta, GA; San Francisco, CA; Washington, DC; Chapel Hill, NC; Bronx, NY; and Chicago, IL. Between November 2017 and October 2018, we conducted 15 interviews at each site

(10 with WLWH and 5 with women at risk for HIV), with the exception of Washington DC, where 14 interviews were conducted. We sampled participants to include a range of ages, race/ethnicities, time living with HIV, and employment. Participants provided informed consent prior to each interview. Interviews were conducted by two master's-level research associates trained in qualitative interviewing; each interview lasted approximately 60 minutes. Interviews were conducted in English, digitally recorded and professionally transcribed. Participants received $50 plus travel compensation. The Institutional Review Boards at all participating sites provided approval. In addition to the qualitative interview, participants were asked about their age, race/ethnicity, educational attainment, relationship status, and insurance coverage (Table I). We also asked women about their product preference using the following questions for PrEP: *"Given the choice between shots of PrEP every two months and daily pills to prevent HIV (i.e., PrEP), which would you prefer?: 1) Shots of PrEP every two months; 2) Daily pills (i.e., oral PrEP); 3) No preference; or 4) won't take PrEP regardless of formulation"* and the following for ART: *"Given the choice between shots of ART every month and daily pills to treat HIV which would you prefer?: 1) Shots of ART every month; 2) Daily pills (i.e., oral ART); or 3) No preference*. Since not all women were familiar with LAI modalities, we included a brief description prior to interview questions.

Interview questions were open-ended and focused on women's attitudes towards LAI ART or LAI PrEP, how to facilitate its scale-up, beliefs regarding who would most benefit from injectable HIV therapy, and perceived barriers and facilitators towards using LAI HIV therapy. We did not provide women with a list of specific sub-groups and ask which group would most benefit; the categories of individuals women raised were organic and unprompted.

We used a thematic content approach to analyze women's responses [36,37]. Three study team members (MP, EK, SR) conducted line-by-line open coding on the first five interviews to develop a provisional coding scheme; thematic codes from existing literature were subsequently incorporated to include both theory-based and emergent concepts. Study members then cross-coded a random sample of 15 additional transcripts to refine the code dictionary and develop a codebook, which was reviewed and amended by other team members [38]. Two coders (EK, SR) then applied this final coding scheme to all interview transcripts. When needed, the study team held meetings to discuss potential additional codes and resolve any discrepancies.

## RESULTS

The majority of study participants were women of color (96%) and the median age was 51 years (range 32–72). One-quarter had less than a high school education, 30% had a high school diploma, 29% had some college, and 16% had a graduate degree (Table I). Most women were unemployed (66%) and earned <$12,000/year (59%). When women at risk for HIV were asked about their preference for PrEP regimens, half preferred LAI PrEP, 23% preferred pills, and 23% preferred neither; over half (57%) of WLWH stated a preference for LAI over daily pills, 34% would prefer oral ART and 8% would prefer neither. Published papers [22,25,39] describe women's perceived barriers and facilitators to LAI ART and

LAI PrEP use, and examine their personal preferences toward LAI versus oral versions of ART and PrEP. This manuscript builds on those data by highlighting whom women thought would be the candidates best suited for LAI ART and PrEP. Women framed these decisions based on their perceptions about barriers to LAI versus oral formulations, and on the unique characteristics of a given population (e.g., young people's perceived higher HIV risk and lower likelihood of adherence to daily medication).

Thematic coding of the qualitative transcripts identified five specific sub-populations who women thought could most benefit from LAI HIV therapy over daily pills: 1) young people; 2) women with childcare responsibilities; 3) people with adherence-related psychological distress; 4) individuals with multiple sex partners; and 5) people facing structural insecurities such as homelessness.

## Young people

Many participants highlighted that young people could benefit from LAI antiretrovirals, with a particular focus on HIV prevention and increased autonomy. They described youth as more sexually active than adults, and thus in need of access to PrEP and preventive health behaviors: *"When you're young you're highly sexual. I have young nieces, and I want them to know about that, to learn about it, so I can teach them how to protect themselves"* (Black, 50–59,[1] WLWH, Atlanta). Numerous responses invoked a life-course perspective about young people's sexual behavior and described protection as a long-term goal, akin to an annual flu shot:

> "You got girls and boys, they're hopping from bed to bed, break up this week and go with somebody else, so I think it would be good if they do [LAI PrEP] because they will protect they self just the same way they protect they self with the flu shot"
>
> (Biracial, 60–69, HIV-negative, Bronx).

Others referred explicitly to the importance of PrEP access in the context of life experiences such as education and marriage: *"College kids definitely should take it. If you want to be somebody, you don't want to have this [HIV] hanging over your head. So you take the medication and continue your education and be who you want to be"* (Black, 50–59, WLWH, Chicago). Some participants made distinctions between the needs of young men versus young women, alluding to the gendered differences in health behavior: "*I think girls would, if it were for girls. Boys are a different kind of creature who are very hard to get to the doctor, who believe their invincibility just carries them through the entire life"* (Black, 50–59, HIV-negative, Bronx). Participants connected young women's sexual independence to HIV prevention, *"So I can give that to my 18-year-old and she would be okay if she sleeps with somebody that claimed they don't have it [HIV]? I like that"* (Black, 40–49, WLWH, San Francisco). Another interviewee drew together the importance of young people's life planning with more immediate overlapping concerns around poor communication and multiple partners: *"For the younger generation that wants to be married, that wants a family and that is out there promiscuous, they do need it. Especially when your communication is not lining up with your sex partner"* (Black, 40–49, HIV-negative,

[1]Ages are reported in ranges by decade in order to maintain participant confidentiality.

Chicago). Participants stressed that youth would primarily benefit from LAI PrEP, as they were less likely to adhere to daily oral medication.

While nearly all responses focused on how young people could benefit from LAI PrEP, a few women highlighted the benefits of LAI ART, which were framed in terms of sexual autonomy:

> A younger woman, I think, would say, 'I want to take that shot. I ain't got to tell nobody I'm positive, if they're not ready, I don't disclose if I'm not ready. If I take the shot, I'm undetectable, I'm fine. I don't have to disclose if I don't want to"
>
> (Black, 40–49, WLWH, Washington DC).

This theme of autonomy has implications for LAI versions of both ART and PrEP as they do not require adhering to daily pills.

### Women with childcare responsibilities

Interviewees frequently singled out women with childcare responsibilities as individuals who could benefit from LAI antiretrovirals, with a focus on LAI ART. They described a litany of gendered care work, and explained how LAI ART would simplify the daily lives of WLWH: *"Women can benefit, because most have kids, husband, work, and juggling. There's all that craziness. And taking medicine every day is really challenging, like busy, busy schedule. The shot makes life much easier, I would say"* (Black, 50–59, WLWH, Washington DC). Participants often drew on their own experiences and emphasized that reducing pill burdens for WLWH must be accompanied by considerations of accessibility:

> "It would be a big help to a lot of women. I have to deal with my kids, I have to do this, that and the other thing. If you could do them all the same day. Like for me once every six months you go in and get the shot and see your doctor, or do the once-a-month thing and have it at places that are close-by to where you live, so it doesn't take you an hour to get back and forth from the clinic…"
>
> (Black, 60–69, WLWH, San Francisco).

This sentiment about how women must balance multiple responsibilities was echoed by other participants, who also noted the emotional toll of taking a daily pill:

> "I know that I have to take the pill, I'm going to take it when I finish feeding him, and then cooking dinner, I'm cleaning up, then I'm going to–oh, god, I didn't take the pill. Let me go take the pill, but if they go get the shot once a month, and then the whole month, they can just do what they do with the kids. Don't have to so much focus on, did I take the pill? Did I take that? Where's the pill–call the pharmacist–because it's hard, taking a pill'"
>
> (Black, 40–49, WLWH, Washington DC).

Having access to LAI ART would not only facilitate adherence, but also simplify women's lives in ways that would allow them to focus more on childcare responsibilities.

### People with adherence-related psychological distress

The majority of participants also connected daily pill-taking with psychological barriers, with a focus on individuals living with HIV. They explained that adherence may be a source of psychological distress for those who had been living with HIV for long periods of time.

> "People that have a hard time with compliance. It's not easy for everybody to take meds regularly, for the rest of your life. There's a lot of psychological issues that go with that. So I think they would prefer medication once a month over the daily, because if the daily is bringing them down, that's no good"
>
> (Biracial, 50–59, WLWH, San Francisco).

Women also suggested that taking oral ART every day could trigger psychological conditions like depression: *"Sometimes it's depressing just seeing them [pill bottles] sitting up there, know I have to do this the rest of my life"* (Black, 60–69, WLWH, Bronx). Treatment fatigue was also raised as one side-effect of lifelong adherence *"People that have been taking meds for a long time and are tired of taking meds. It's been 20, 30 years, and they're like, I'm tired, you know?"* (Black, 40–49, WLWH, Washington DC). This highlights how LAI ART could benefit individuals living with HIV, and remove some of the psychological stressors associated with daily pill taking.

### Individuals with multiple sex partners

Participants suggested that people with multiple sexual partners would be good candidates for LAI PrEP: "*The ones that like to mess around with different type of people, they don't have the same partner, they have different ones, they'll be good with the shot*" (Black, 50–59, WLWH, Atlanta). Women also shared how LAI PrEP might benefit sex workers who face increased vulnerability to infection—and who many also deemed 'irresponsible':

> "I guess somebody that's really sexually active, really not being careful. I'll just say prostituting or whatever… that'll be good for them to take the shot. Because [if] you're out there being loose then, you know"
>
> (Black, 50–59, HIV-negative, UNC).

Some participants described how women engaged in sex work face structural insecurities that place them at risk for HIV, and that LAI PrEP could better be integrated into their lives: *"Because they're prostitutes, and a lot of them feel stuck…So I think they would probably do it [LAI PrEP] just to feel like they secure"* (Black, 40–49, HIV-negative, San Francisco). Respondents also identified other groups whom they imagined were having sex in ways that might place them at risk for HIV infection or transmission: "*I really think anybody that doesn't have their life together, that has different sex partners would benefit…whether it be prostitutes, gays, you know"* (Black, 30–39, HIV-negative, UNC). This highlights how LAI versions of PrEP could benefit individuals who may be at increased risk and lack the stability to take a daily pill to prevent HIV.

### People facing structural insecurities such as homelessness

Women described LAI versions of ART and PrEP as a good option for people experiencing structural insecurities such as homelessness. Multiple women described the challenges of storing and accessing one's pills while experiencing homelessness:

> "We're living homeless and we don't know where our medication is every day. I'm trying to find a roof over my head. For someone who doesn't have a consistent roof over their head…they might not be able to get their stuff because people, they do throw people's stuff away. So maybe in that kind of setting they would need to go into a doctor's office and get the injection"
>
> (Black, 50–59, HIV-negative, San Francisco).

In contrast, the practical realities of managing one's possessions were also cited as a reason why routine, monthly appointments might be difficult for people experiencing homelessness. Women stressed the need to find alternative methods of distribution for LAI ART and PrEP, such as mobile vans, that would not require clinic visits:

> "The crowd that would need to get it, or would want to have it, are the ones that on the streets. They have all their stuff with them. So it's hard for them to plan to go into and make any appointments because who is going to watch their things? If you had something like a van…And would get a person a sense of that important because we'll meet you here and you come and get your shot and then you can go and we'll see you next month"
>
> (Caucasian, 50–59, HIV-negative, San Francisco).

This response highlights how concerns about accessibility may decrease the appeal of LAI ART and PrEP for people who would otherwise benefit from them, and the need for scale-up to include novel forms of healthcare delivery.

## DISCUSSION

This paper explored women's perceptions of who might benefit most from LAI HIV therapy, which included several sub-populations: young people, people with multiple sex partners, women with childcare responsibilities, people facing psychological distress, and people facing housing or other socio-economic insecurities. Notably, these same subpopulations face demonstrated barriers to oral ART and PrEP adherence [40–46]. Qualitative research has found that many WLWH—including those interviewed for this study—would prefer LAI versions of their medication [22,25]. The broad enthusiasm for LAI modalities is an encouraging indication that LAI antiretrovirals will increase patient autonomy in HIV care. However, framing the scale-up of LAI PrEP and ART in terms of improved patient choice neglects existing population-level disparities in adherence to oral antiretrovirals. In one study with LAI ART clinical trial participants, people thought LAI ART could be an option for *anyone* living with HIV, but specified that it would be especially good for young people and those with busy or "unstable" lives [19]. Women interviewed for this study echoed these responses and felt that while LAI could benefit everybody, there were certain sub-populations for whom LAI antiretrovirals could greatly increase adherence. This suggests broadly shared perceptions among people living with and at risk for HIV about

the subpopulations most in need of an alternative to existing HIV treatment and prevention regimens.

Participants repeatedly described young people as good candidates for LAI antiretrovirals, often by referring to habits of their young family members. They perceived young people to have multiple sexual partners and felt that LAI PrEP would alleviate the suboptimal adherence to oral PrEP that might result from having both an active sex life and a busy or irregular schedule [47]. In addition, women highlighted how youth living with HIV faced challenges associated with consistent management of a chronic condition while still maturing [43,48]. Previous research among young people has identified similar themes. Qualitative research with young men who have sex with men (YMSM) revealed substantial interest in LAI PrEP; in a survey of youth living with HIV, 88% expressed “probable or definite willingness” to use LAI ART [23,47]. Young people (aged 13 to 24) accounted for 21% of new HIV infections in the US in 2018, and are less likely than older adults to use PrEP [49,50]. YMSM carry the majority of the disease burden among young people, but several participants raised gendered differences and suggested that young women would be better candidates for LAI formulations because they are more comfortable visiting the doctor [50]. For YMSM, barriers to regular clinic visits include stigma toward LGBTQ populations within the healthcare system, HIV- and PrEP-related stigma, and social norms that associate masculinity with self-sufficiency [24,51–53]. Furthermore, women’s healthcare is structured around female reproductive concerns and normalized through standards like the “well woman visit” with no parallels for the sexual and reproductive needs of young men [54].

Women drew upon their own experiences when discussing the ways that LAI ART could mitigate treatment fatigue and depression associated with lifelong medication adherence [44,55]. Most of these responses came from participants speaking about LAI ART for treatment of HIV, but LAI PrEP could similarly address the psychological barriers associated with long-term pill regimens. Similar to prior studies, women in this study emphasized the stresses of motherhood and caretaking as barriers to oral ART adherence [40]. Responses drew upon personal experiences of juggling complex domestic responsibilities that distract from or take precedence over diligent daily pill-taking. Gendered expectations surrounding care work within the household are compounded by a lack of publicly available child care in the US. Increased childcare burdens are associated with sub-optimal ART adherence, as is living in a house with children [40,41]; adherence decreases with each additional child in a household [56]. Although the majority of women in this study focused on ART for HIV treatment when describing how LAI might support those with burdensome childcare responsibilities, these sentiments would likely apply similarly to LAI PrEP. The implementation of LAI contraception suggests that while women preferred the less frequent dosing of LAI contraception compared to the daily birth control pill, semi-regular clinic appointments can still be a challenge for patients to sustain over a long period of time [57]. LAI HIV prevention and treatment implementation should anticipate these similar challenges and incorporate supportive services such as free on-site childcare at clinics [58].

Study participants also thought that people with multiple sexual partners would make appropriate candidates for LAI PrEP and ART, including sex workers. The Centers for

Disease Control and Prevention considers anyone who engages in commercial sex to be a candidate for oral PrEP [59,60]. Cisgender women who use drugs are frequently grouped together with female sex workers in HIV research because the subpopulations both face criminalization and stigma as barriers to HIV prevention and treatment [61]. While study participants identified sex workers as suitable candidates for LAI PrEP because of the risk associated with having multiple partners—a behavioral risk factor—female sex workers themselves have expressed interest in LAI PrEP because of its potential to mitigate structural insecurities that make adherence to daily pill-taking difficult [17]. Interestingly, interviewees highlighted exactly these insecurities when discussing the benefits of LAI PrEP and LAI ART for people who experience homelessness. Research has identified homelessness, injection drug use, and female sex work as syndemic co-factors in the HIV epidemic [62,63]. Women did not mention pregnancy prevention or sexually transmitted infections when discussing these theme, which future research could explore in more detail.

Supporting HIV medication adherence will involve more than making LAI ART and LAI PrEP available to these intersecting, vulnerable subpopulations. Although LAI modalities may sidestep the challenges of daily pill-taking, they introduce new barriers [64]. Lessons can be learned from the introduction of LAI contraceptives as an alternative to the oral birth control pill. While LAI birth control was successful in clinical trials, it was less successful during implementation because of barriers to regular clinic attendance for injections and unforeseen side effects [57,65,66]. The most promising interventions to improve LAI contraceptive continuation rates have been structured counselling and alternative models of provision, including self-administration and administration at non-clinic sites such as pharmacies [57]. Women discussed how housing insecurity may be a barrier to both keeping track of pills and regular clinic attendance. Mobile clinics, pharmacies, self-administration, methadone clinics, and mail-order prescriptions have all been raised as possible alternatives [22]. Self-administration is especially appealing because it would mitigate the challenge of adherence to daily pills without undermining the important patient autonomy that pills provide [67].

## Strengths and Limitations

This study was conducted among a geographically representative sample of WLWH and women at risk for HIV across six US cities. Women in WIHS mirror the national HIV epidemic and can therefore provide unique insights that clinical trial participants—who are more likely to be medically adherent and face fewer barriers than those who do not participate—cannot. The median age of this WIHS sample was 51 years, though nearly one-third of the sample included women of reproductive age. However, women over 55 in the US are the only group for whom HIV incidence did not decrease from 2010–2017 [68], and the majority of WLWH in the US are over 50, highlighting the need to incorporate these voices. This study elicited responses based on individual women's experiences and their impressions of others' experiences, limiting the reliability of these results for specific sub-populations. Lastly, some women had not heard about LAI modalities, so their responses regarding who could most benefit were formulated in the moment based on standardized information provided by the interviewer, and therefore may reflect attitudes that are more instinctive than cultivated.

### Conclusions

As LAI ART and LAI PrEP are discussed among social networks and incorporated into clinical settings, it is imperative to consider the potential disconnect between whom providers think should be offered LAI antiretrovirals, and whom people at risk for and living with HIV think could most benefit [14,69]. Tensions around who is eligible for, and offered, new modalities of HIV treatment and prevention will become increasingly salient as additional formulations continue to be tested (e.g., long-acting pills, patches, and implants) [70]. Future LAI studies should incorporate as broad a population as possible to best tailor the scale-up of LAI HIV antiretrovirals to meet the needs of individuals who struggle with adherence and can thus benefit the most from this modality. Research should also directly engage providers and patients to identify ways to facilitate equity in patient-provider decision making and to ensure that the scale up of LAI antiretrovirals does not exacerbate existing health disparities. Employing a user-centered and community-informed approach to rolling out LAI modalities may improve its perceived relevance and increase usage among target populations. As LAI HIV therapy for treatment and prevention is rolled out, systems must be structured to enable access to all individuals, and providers must consider equitable ways to identify subpopulations who would benefit from LAI use and those who might be better candidates for daily pills.

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#### Conflicts of Interest

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## References

1. Van Tam V, Pharris A, Thorson A, Alfven T, Larsson M. "It is not that I forget, it's just that I don't want other people to know": barriers to and strategies for adherence to antiretroviral therapy among HIV patients in Northern Vietnam. AIDS care. 2011;23:139–45. [PubMed: 21259125]

2. Skhosana N, Struthers H, Gray G, McIntyre J. HIV disclosure and other factors that impact on adherence to antiretroviral therapy: the case of Soweto, South Africa. Afr J AIDS Res. 2006;5:17–26. [PubMed: 25875143]

3. Charania MR, Marshall KJ, Lyles CM, Crepaz N, Kay LS, Koenig LJ, et al. Identification of evidence-based interventions for promoting HIV medication adherence: findings from a systematic review of U.S.-based studies, 1996–2011. AIDS Behav. 2014;18:646–60. [PubMed: 24043269]

4. Clement ME, Kofron R, Landovitz RJ. Long-acting injectable cabotegravir for the prevention of HIV infection. Curr Opin in HIV and AIDS. 2020;15:19–26. [PubMed: 31644481]

5. Landovitz RJ, Kofron R, McCauley M. The Promise and Pitfalls of Long Acting Injectable Agents for HIV Prevention. Curr Opin HIV AIDS. 2016;11:122–8. [PubMed: 26633643]

6. Murray M, Antela A, Mills A, Huang J, Jäger H, Bernal E, et al. Patient-reported outcomes in ATLAS and FLAIR participants on long-acting regimens of cabotegravir and rilpivirine over 48 weeks. AIDS Behav. 2020;24: 3533–3544. [PubMed: 32447500]

7. Swindells S, Andrade-Villanueva J-F, Richmond GJ, Rizzardini G, Baumgarten A, Masiá M, et al. Long-acting cabotegravir and rilpivirine for maintenance of HIV-1 suppression. N Engl J Med. 2020;382:1112–23. [PubMed: 32130809]

8. Markham A Cabotegravir plus Rilpivirine: First approval. Drugs. 2020;80:915–22. [PubMed: 32495274]

9. Long-acting injectable cabotegravir is highly effective for the prevention of HIV infection in cisgender men and transgender women who have sex with men | The HIV Prevention Trials Network [Internet]. [cited 2020 Jun 18]. Available from: https://www.hptn.org/news-and-events/press-releases/long-acting-injectable-cabotegravir-highly-effective-prevention-hiv

10. World Health Organization. Trial results reveal that long-acting injectable cabotegravir as PrEP is highly effective in preventing HIV acquisition in women [Internet]. [cited 2020 Nov 9]. Available from: https://www.who.int/news/item/09-11-2020-trial-results-reveal-that-long-acting-injectable-cabotegravir-as-prep-is-highly-effective-in-preventing-hiv-acquisition-in-women

11. Tolley EE, Zangeneh SZ, Chau G, Eron J, Grinsztejn B, Humphries H, et al. Acceptability of long-acting injectable cabotegravir (CAB LA) in HIV-uninfected individuals: HPTN 077. AIDS Behav. 2020;24:2520–2531. [PubMed: 32052214]

12. Markowitz M, Frank I, Grant RM, Mayer KH, Elion R, Goldstein D, et al. Safety and tolerability of long-acting cabotegravir injections in HIV-uninfected men (ECLAIR): A multicentre, double-blind, randomised, placebo-controlled, phase 2a trial. The Lancet HIV. 2017;4:e331–40. [PubMed: 28546090]

13. Murray MI, Markowitz M, Frank I, Grant RM, Mayer KH, Hudson KJ, et al. Satisfaction and acceptability of cabotegravir long-acting injectable suspension for prevention of HIV: Patient perspectives from the ECLAIR trial. HIV Clin Trials. 2018;19:129–38. [PubMed: 30445896]

14. Kerrigan D, Mantsios A, Grant R, Markowitz M, Defechereux P, La Mar M, et al. Expanding the menu of hiv prevention options: a qualitative study of experiences with long-acting injectable cabotegravir as prep in the context of a phase II trial in the united states. AIDS Behav. 2018;22:3540–9. [PubMed: 29290075]

15. ViiV Healthcare initiates rolling submission of new drug application with US FDA for long-acting cabotegravir for prevention of HIV [Internet]. [cited 2021 Sep 13]. Available from: https://viivhealthcare.com/en-gb/media/press-releases/2021/may/viiv-healthcare-initiates-rolling/

16. Biello KB, Edeza A, Salhaney P, Biancarelli DL, Mimiaga MJ, Drainoni ML, et al. A missing perspective: Injectable pre-exposure prophylaxis for people who inject drugs. AIDS Care. 2019;31:1214–20. [PubMed: 30822103]

17. Footer KHA, Lim S, Rael CT, Greene GJ, Carballa-Diéguez A, Giguere R, et al. Exploring new and existing PrEP modalities among female sex workers and women who inject drugs in a U.S. city. AIDS Care. 2019;31:1207–13. [PubMed: 30822101]

18. Simoni JM, Beima-Sofie K, Mohamed ZH, Christodoulou J, Tapia K, Graham SM, et al. Long-acting injectable antiretroviral treatment acceptability and preferences: a qualitative study among us providers, adults living with HIV, and parents of youth living with HIV. AIDS Patient Care STDs. 2019;33:104–11. [PubMed: 30844308]

19. Kerrigan D, Mantsios A, Gorgolas M, Montes M-L, Pulido F, Brinson C, et al. Experiences with long acting injectable ART: A qualitative study among PLHIV participating in a Phase II study of cabotegravir + rilpivirine (LATTE-2) in the United States and Spain. PLoS One. 2018;13(1): e0190487. [PubMed: 29304154]
20. Meyers K, Wu Y, Brill A, Sandfort T, Golub SA. To switch or not to switch: Intentions to switch to injectable PrEP among gay and bisexual men with at least twelve months oral PrEP experience. PLoS One. 2018;13:e0200296. [PubMed: 30024903]
21. Tolley EE, Li S, Zangeneh SZ, Atujuna M, Musara P, Justman J, et al. Acceptability of a long-acting injectable HIV prevention product among US and African women: findings from a phase 2 clinical Trial (HPTN 076). J Int AIDS Soc. 2019;22:e25408. [PubMed: 31651098]
22. Philbin MM, Parish C, Kinnard EN, Reed SE, Kerrigan D, Alcaide M, et al. A multi-site study of women living with HIV's perceived barriers to, and interest in, long-acting injectable anti-retroviral therapy. J Acquir Immune Defic Syndr. 2020;84:263–70. [PubMed: 32530905]
23. Weld ED, Rana MS, Dallas RH, Camacho-Gonzalez AF, Ryscavage P, Gaur AH, et al. Interest of youth living with HIV in long-acting rntiretrovirals. J Acquir Immune Defic Syndr. 2019;80:190–7. [PubMed: 30418298]
24. Biello KB, Hosek S, Drucker MT, Belzer M, Mimiaga MJ, Marrow E, et al. Preferences for injectable prep among young U.S. cisgender men and transgender women and men who have sex with men. Arch Sex Behav. 2018;47:2101–7. [PubMed: 28929260]
25. Philbin MM, Parish C, Kinnard E, Reed R, Kerrigan D, Alcaide M, et al. Attitudes towards long-acting injectable pre-exposure prophylaxis (PrEP) among women participating in the Women's Interagency HIV Study (WIHS): A qualitative study across six United States cities. AIDS and Behavior. 2020;25:667–678.
26. Castor D, Meyers K, Allen S. The only way is up: priorities for implementing long-acting antiretrovirals for HIV prevention and treatment. Curr Opin HIV AIDS. 2020;15:73–80. [PubMed: 31688333]
27. Rana AI, Castillo-Mancilla JR, Tashima KT, Landovitz RL. Advances in long-acting agents for the treatment of HIV infection. Drugs. 2020;80:535–45. [PubMed: 32180205]
28. Dubé K, Campbell DM, Perry KE, Kanazawa JT, Saberi P, Sauceda JA, et al. Reasons people living with HIV might prefer oral daily antiretroviral therapy, long-acting formulations, or future HIV remission options. AIDS Res and Hum Retroviruses. 2020;aid.2020.0107.
29. Mantsios A, Murray M, Karver TS, Davis W, Margolis D, Kumar P, et al. efficacy and freedom: Patient experiences with the transition from daily oral to long-acting injectable antiretroviral therapy to treat HIV in the context of phase 3 trials. AIDS Behav. 2020;24: 3473–3481. [PubMed: 32410051]
30. Fernandez C, van Halsema CL. Evaluating cabotegravir/rilpivirine long-acting, injectable in the treatment of HIV infection: emerging data and therapeutic potential. HIV AIDS (Auckl). 2019;11:179–92. [PubMed: 31447590]
31. Landovitz RJ, Donnell D, Clement ME, Hanscom B, Cottle L, Coelho L, et al. Cabotegravir for HIV prevention in cisgender men and transgender women. N Engl J Med. 2021;385:595–608. [PubMed: 34379922]
32. HIV Prevention Trials Network I. HPTN 084: A phase 3 double blind safety and efficacy study of long-acting injectable cabotegravir compared to daily oral TDF/FTC for pre-exposure prophylaxis in HIV-uninfected women [Internet]. 2019. Available from: https://www.hptn.org/sites/default/files/inline-files/HPTN%20084%20Protocol%2C%20FINAL%2C%20v2.0%20of%206Nov2019_web.pdf
33. Currier JS. Monthly Injectable Antiretroviral Therapy — Version 1.0 of a New Treatment Approach. N Engl J Med. 2020;382:1164–5. [PubMed: 32130808]
34. Benning L, Mantsios A, Kerrigan D, Coleman JS, Golub E, Blackstock O, et al. Examining adherence barriers among women with HIV to tailor outreach for long-acting injectable antiretroviral therapy. BMC Women's Health. 2020;20:152. [PubMed: 32711509]
35. Mantsios A, Murray M, Karver TS, Davis W, Margolis D, Kumar P, et al. "I feel empowered": Women's perspectives on and experiences with long-acting injectable antiretroviral therapy in the USA and Spain. Cult Health Sex. 2020;1–13.

36. Buetow S Thematic analysis and its reconceptualization as ‘saliency analysis.’ Health Serv Res Policy. 2010;15:123–5.
37. Glaser BG, Strauss AL. The discovery of grounded theory: strategies for qualitative research. 1967.
38. MacQueen K, McLellan E, Kay K. Codebook development for team-based qualitative analysis. Cultural Anthropology Methods. 1998;10:31–6.
39. A Qualitative Exploration of Women’s Interest in Long-Acting Injectable antiretroviral therapy across six cities in the Women’s Interagency HIV Study: Intersections with current and past injectable medication and substance use. AIDS Patient Care STDs. 2021;35:23–30. [PubMed: 33400587]
40. Holstad MM, Spangler S, Higgins M, Dalmida SG, Sharma S. Psychosocial characteristics associated with both antiretroviral therapy adherence and risk behaviors in women living with HIV. AIDS Behav. 2016;20:1084–96. [PubMed: 26452670]
41. Merenstein D, Schneider MF, Cox C, Schwartz R, Weber K, Robison E, et al. Association of child care burden and household composition with adherence to highly active antiretroviral therapy in the Women’s Interagency HIV Study. AIDS Patient Care STDs. 2009;23:289–96. [PubMed: 19243274]
42. Cornelius T, Jones M, Merly C, Welles B, Kalichman MO, Kalichman SC. Impact of food, housing, and transportation insecurity on ART adherence: a hierarchical resources approach. AIDS Care. 2017;29:449–57. [PubMed: 27846730]
43. MacDonell K, Naar-King S, Huszti H, Belzer M. Barriers to medication adherence in behaviorally and perinatally infected youth living with HIV. AIDS Behav. 2013;17:86–93. [PubMed: 23142855]
44. Claborn KR, Meier E, Miller MB, Leffingwell TR. A systematic review of treatment fatigue among HIV-infected patients prescribed antiretroviral therapy. Psychol Health Med. 2015;20:255–65. [PubMed: 25110152]
45. Sidebottom D, Ekström AM, Strömdahl S. A systematic review of adherence to oral pre-exposure prophylaxis for HIV – how can we improve uptake and adherence? BMC Infect Dis [Internet]. 2018;18:581.
46. Remien RH, Stirratt MJ, Nguyen N, Robbins RN, Pala AN, Mellins CA. Mental health and HIV/AIDS: The need for an integrated response. AIDS. 2019;33:1411–20. [PubMed: 30950883]
47. Meyers K, Rodriguez K, Moeller RW, Gratch I, Markowitz M, Halkitis PN. High interest in a long-acting injectable formulation of pre-exposure prophylaxis for HIV in young men who have sex with men in NYC: a P18 cohort substudy. PLoS One. 2014;9(12): e114700. [PubMed: 25502768]
48. Thurston IB, Bogart LM, Wachman M, Closson EF, Skeer MR, Mimiaga MJ. Adaptation of an HIV medication adherence intervention for adolescents and young adults. Cogn Behav Pract. 2014;21:191–205. [PubMed: 25452680]
49. Siegler AJ, Mouhanna F, Giler RM, Weiss K, Pembleton E, Guest J, et al. The prevalence of pre-exposure prophylaxis use and the pre-exposure prophylaxis-to-need ratio in the fourth quarter of 2017, United States. Ann Epidemiol. 2018;28:841–9. [PubMed: 29983236]
50. CDC. HIV and Youth [Internet] Centers for Disease Control and Prevention. 2020 [cited 2020 Jun 10]. Available from: http://www.cdc.gov/hiv/group/age/youth/index.html
51. Courtenay WH. Constructions of masculinity and their influence on men’s well-being: A theory of gender and health. Soc Sci Med. 2000;50:1385–401. [PubMed: 10741575]
52. A ME Ashford Kristin, Fallin-Bennett Amanda, Jennifer Hatcher. Primary care providers’ attitudes related to LGBTQ people: A narrative literature review. Health Promot Prac. 2019;20:173–187.
53. Martos AJ, Wilson PA, Gordon AR, Lightfoot M, Meyer IH. “Like finding a unicorn”: Healthcare preferences among lesbian, gay, and bisexual people in the United States. Soc Sci Med. 2018;208:126–33. [PubMed: 29803970]
54. Philbin MM, Parker CM, Parker RG, Wilson PA, Garcia J, Hirsch JS. Gendered social institutions and preventive healthcare seeking for black men who have sex with men: The promise of biomedical HIV prevention. Arch Sex Behav. 2018;47:2091–100. [PubMed: 29926263]
55. Jaiswal J, Francis MD, Singer SN, Dunlap KB, Cox AB, Greene R. “Worn out”: Coping strategies for managing antiretroviral treatment fatigue among urban people of color living with HIV who were recently disengaged from outpatient HIV care. J HIV/AIDS Soc Serv. 2020;19:173–87.

56. Merenstein DJ, Schneider MF, Cox C, Schwartz R, Weber K, Robison E, et al. Association between living with children and adherence to highly active antiretroviral therapy in the Women's Interagency HIV Study. Pediatrics. 2008;121:e787–93. [PubMed: 18381507]
57. Myers JE, Ellman TM, Westhoff C. Injectable agents for pre-exposure prophylaxis: lessons learned from contraception to inform HIV prevention. Cur Opin in HIV AIDS. 2015;10:271–7.
58. Stein MD, Crystal S, Cunningham WE, Ananthanarayanan A, Andersen RM, Turner BJ, et al. Delays in seeking HIV care due to competing caregiver responsibilities. Am J Public Health. 2000;90:1138–40. [PubMed: 10897195]
59. Peitzmeier S, Tomko C, Wingo E, Sawyer A, Sherman S, Glass N, et al. Acceptability of pre-exposure prophylaxis and vaginal rings for HIV prevention among female sex workers in Baltimore, MD. AIDS Care. 2017;29:1453–7. [PubMed: 28271718]
60. Sex Workers | HIV by Group | HIV/AIDS | CDC [Internet]. 2020 [cited 2020 Jun 10]. Available from: http://www.cdc.gov/hiv/group/sexworkers.html
61. Glick JL, Russo R, Jivapong B, Rosman L, Pelaez D, Footer KHA, et al. The PrEP care continuum among cisgender women who sell sex and/or use drugs globally: A systematic review. AIDS Behav. 2020;24:1312–33. [PubMed: 31807973]
62. Mendenhall E, Singer M. What constitutes a syndemic? Methods, contexts, and framing from 2019. Curr Opin HIV AIDS. 2020;15:213–7. [PubMed: 32412998]
63. Jain JP, Strathdee SA, Patterson TL, Semple SJ, Harvey-Vera A, Magis-Rodríguez C, et al. Perceived barriers to pre-exposure prophylaxis use and the role of syndemic factors among female sex workers in the Mexico-United States border region: a latent class analysis. AIDS Care. 2020;32:557–66. [PubMed: 31163975]
64. Friedland GH. HIV Medication Adherence: The intersection of biomedical, behavioral, and social science research and clinical practice. J Acquir Immune Defic Syndr. 2006;43:S3. [PubMed: 17133202]
65. Paul C, Skegg DC, Williams S. Depot medroxyprogesterone acetate. Patterns of use and reasons for discontinuation. Contraception. 1997;56:209–14. [PubMed: 9408701]
66. Davidson AR, Kalmuss D, Cushman LF, Romero D, Heartwell S, Rulin M. Injectable contraceptive discontinuation and subsequent unintended pregnancy among low-income women. Am J Public Health. 1997;87:1532–4. [PubMed: 9314810]
67. Havens JP, Scarsi KK, Sayles H, Klepser DG, Swindells S, Bares SH. Acceptability and feasibility of a pharmacist-led human immunodeficiency virus pre-exposure prophylaxis program in the midwestern United States. Open Forum Infect Dis. 2019;6:ofz365. [PubMed: 31412131]
68. Centers for Disease Control and Prevention. Women | Gender | HIV by Group | HIV/AIDS | CDC [Internet]. CDC.gov. 2018 [cited 2018 May 21]. Available from: https://www.cdc.gov/hiv/group/gender/women/index.html
69. Willie TC, Stockman JK, Keene DE, Calabrese SK, Alexander KA, Kershaw TS. Social networks and its impact on women's awareness, interest, and uptake of hiv pre-exposure prophylaxis (PrEP): implications for women experiencing intimate partner violence. J Acquir Immune Defic Syndr. 2019;80:386–93. [PubMed: 30570528]
70. Beymer MR, Holloway IW, Pulsipher C, Landovitz RJ. Current and future PrEP medications and modalities: On-demand, injectables, and topicals. Curr HIV/AIDS Rep. 2019;16:349–58. [PubMed: 31222499]

**Table I:**

Demographic Characteristics

| Characteristic | Total (N=89) | Median | Percentage |
|---|---|---|---|
| **Age (32–72) years** | | 51 | |
| 32–39 | 14 | | 16% |
| 40–49 | 22 | | 25% |
| 50–59 | 38 | | 43% |
| 60+ | 15 | | 17% |
| **Race** | | | |
| Black/African-American | 68 | | 76% |
| Caucasian | 4 | | 5% |
| Hispanic | 4 | | 5% |
| Biracial | 10 | | 1% |
| Other (Native American) | 5 | | 6% |
| **Education** | | | |
| Less than high school | 22 | | 25% |
| Completed high school/GED | 27 | | 30% |
| Some college | 26 | | 29% |
| College or graduate school | 14 | | 16% |
| **Household Income** [a] | | $10,800 | |
| $0 – $11,999 | 40 | | 47% |
| $12,000+ | 46 | | 53% |
| **Relationship Status** | | | |
| Single | 37 | | 42% |
| Dating > 6 months | 21 | | 24% |
| Married/long-term partnership | 31 | | 34% |
| **Children** | | | |
| Has children | 69 | | 78% |
| Does not have children | 20 | | 22% |
| **Insurance** | | | |
| Uninsured | 8 | | 9% |
| Public insurance | 73 | | 82% |
| Private/other insurance | 8 | | 9% |
| **Previous knowledge of PrEP** | | | |
| Knew of PrEP | 17 | | 57% |
| Did not know of PrEP | 13 | | 43% |
| **Preferred PrEP modality** | | | |
| Would prefer LAI PrEP | 16 | | 54% |
| Would prefer oral PrEP | 7 | | 23% |

| Characteristic | Total (N=89) | Median | Percentage |
|---|---|---|---|
| Would prefer neither | 7 | | 23% |
| **Preferred ART modality** | | | |
| Would prefer LAI ART | 34 | | 58% |
| Would prefer oral ART | 20 | | 34% |
| Would prefer neither | 5 | | 8% |

[a]Some values missing/unanswered