CAB PrEP Compendium of End User Insights

Review of available published and gray literature on behavioral factors related to CAB PrEP and women

DECEMBER 2023







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Acronyms

AGYW

Adolescent Girls and Young Women

ART

Antiretroviral Therapy

BBC

Behavior Change Communication

DSD

Differentiated Service Delivery

FP

Family Planning

FSW

Female Sex Worker

HCW

Healthcare Worker

HIV

Human Immunodeficiency Virus

IPV

Intimate Partner Violence

PrEP

Pre-Exposure Prophylaxis

SBC

Social and Behavior Change

TDF

Theoretical Domains Framework

USAID

United States Agency for International Development



Introduction and Context

As of the creation of this review, CAB PrEP has not yet been widely introduced in sub-Saharan Africa. Zimbabwe was the first sub-Saharan country to approve CAB PrEP in October 2022.⁴¹ Since then, CAB PrEP has been approved in several African countries and has been submitted for approval in a number of others.

To date, CAB PrEP has been exclusively available in clinical trial and implementation study settings in sub-Saharan Africa with wider rollout expected in the future. As a result, data describing the behavioral factors of the use of CAB-PrEP among end users in Africa are limited and have been largely gathered in clinical trial settings. Additionally, data describing the behavioral factors of CAB PrEP use among women in Africa are limited.

At the time of this writing, there are no available data describing learnings derived from wider CAB PrEP rollout in African settings. Additional learnings on CAB PrEP are expected as implementation studies and rollout proceeds.



Objective

To help direct and inform CAB PrEP marketing and demand generation efforts by synthesizing relevant end-user insights about CAB PrEP and women from existing research.

Methodology

From September to November 2023, peer reviewed, published, and grey literature was reviewed to identify factors which may influence women's uptake and adherence to CAB PrEP across three major categories: capability, motivation, and opportunity.*

Inclusion criteria

Qualitative or quantitative studies on the use of CAB PrEP among women of any age in sub-Saharan Africa, including descriptive studies, human-centered design, and discrete choice experiments, published between 2015 and 2023. Due the limited available literature on this topic from sub-Saharan Africa, it is not possible to disaggregate the data by key population or age range.

Practical use

Understanding end users is a critical first step to establishing effective communication and informing program delivery. This document intends to help inform development and updating of national HIV prevention, combination prevention, and PrEP communication and demand generation strategies, campaigns and plans with CAB-specific insights.** It can also be shared with program implementers to inform communication and program delivery for CAB PrEP and method choice.

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*Michie S, van Stralen M, and West R. (2011) The behavior change wheel: A new method for characterizing and designing behavior change interventions. Implementation Science 6:42. https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-6-42
**See Dapivirine Ring Compendium of End User Insights, OPTIONS, March 2020 for end user insights specific to the PrEP Ring. www.prepwatch.org/wp-content/uploads/2020/04/OPTIONS_DapRing_EndUser_Compendium_2Mar2020.pdf



Approach

The basis of this compendium is a desk review* of published and gray literature, including qualitative and quantitative studies on the use of CAB PrEP by women** in sub-Saharan Africa. This review includes clinical trials, implementation studies, descriptive studies, human-centered design research, discrete choice experiments, and other research methodologies. 41 references yielded relevant findings and are included in this review from the below literature screened and accessible in the references section of this report. This review did not follow PRISMA guidelines for a systematic review and should not be considered as such.

Peer-Reviewed Literature

We screened 120 peer-reviewed articles, largely on PubMed; 62 met the criteria for inclusion and were reviewed.

Inclusion criteria

- Sub-Saharan Africa
- Published between 2015-2023
- Key Search Terms:
 - Women OR adolescent girls OR young women
 - AND drivers OR factors OR facilitators OR barriers
 - AND Cabotegravir OR long-acting PrEP OR CAB PrEP or CAB LA

Gray Literature

We screened 8 project websites, including HIV conference sites, HIV Prevention sites, and SBC project sites.

Selection criteria

- Sub-Saharan Africa
- Published between 2015-2023
- Key Search Terms:
 - Women OR adolescent girls OR young women
 - AND drivers OR factors OR facilitators OR barriers
 - AND Cabotegravir OR long-acting PrEP OR CAB PrEP or CAB LA

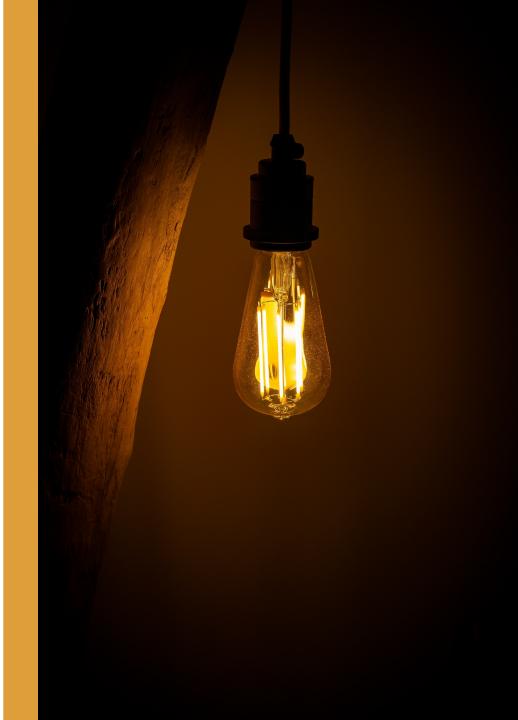
^{*}This review also includes input from several MOSAIC project stakeholders working in HIV Prevention and CAB PrEP. They were consulted to confirm findings from published literature and identify other potential sources of input.

**Due to the limited available literature on this topic from sub-Saharan Africa, it is not possible to disaggregate the data by key population, age range, or priority group.

Theoretical Framework

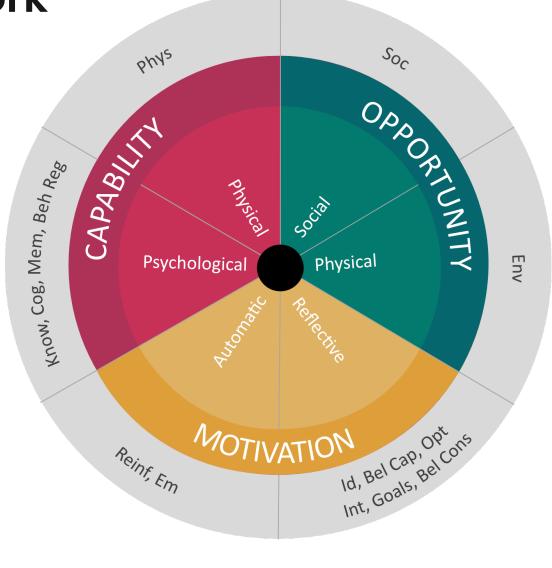
This review organizes behavioral factors along the **Theoretical Domains Framework (TDF)**. TDF was developed by a collaboration of behavioral scientists and implementation researchers who identified theories relevant to implementation and grouped constructs from these theories into large behavioral factor categories, or "domains". It was originally published in 2005 and updated in 2012 after being validated. It updates and builds on the **COM-B framework**,* adding more up-to-date understanding of the drivers of behavioral factors.

One important note on the TDF and COM-B frameworks: Structural factors are represented in the frameworks as opportunity factors in COM-B (external factors that make execution of a behavior possible) and corresponding, environmental context/resources and social influences in TDF, and play a role as drivers of end user behavior in this framework. We have included both factors that are at the individual level and the structural factors (health system, influencers, etc.) to align to the framework of analysis and thus ensure a comprehensive review of behavioral drivers of CAB uptake and use.



Theoretical Domains Framework

Soc Social influences Env Environmental context and resources Social/professional role and identity Id Beliefs about capabilities **Bel Cap** Opt **Optimism** Int **Intentions** Goals Goals **Bel Cons** Beliefs about consequences Reinf Reinforcement Em **Emotion** Know Knowledge Cognitive and interpersonal skills Cog Mem Memory, attention, and decision processes Behavioral regulation **Beh Req Phys** Physical skills





Definition of the TDF pillars

Each domain of the TDF framework is defined by a set of sub-factors, the table below defines all TDF sub-factors.

CAPABILITY

Knowledge: The extent to which an individual is aware of something leading to understanding of informed action.*

Physical, cognitive and interpersonal skills: An individual's ability or proficiency specific to a behavior.*

Memory, attention, and decision processes: The ability to retain information, focus selectively on aspects of the environment, and choose between two or more alternatives.*

Behavioral regulation: Anything aimed at managing or changing objectively observed or measured actions.*

OPPORTUNITY

Social influences: Interpersonal processes that can cause a person to change their thoughts, feelings or behaviors. These influences may include injunctive and descriptive norms and tangible or emotional aid provided by one individual or group to an individual by members in one's social network or community.* **

Environmental context and resources:

Any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence, and adaptive behavior.**

MOTIVATION

Beliefs about capability: Acceptance of the truth about an ability, talent, or facility that a person can put to constructive use. Includes: self-efficacy, beliefs, and self-esteem.**

Social/professional role and identity: A coherent set of behaviors and displayed personal qualities of an individual in a social or work setting. Includes: self-confidence, professional confidence, and group identity.**

Optimism: The confidence that things will happen for the best or that desired goals will be attained.**

Beliefs about consequences: Acceptance of the truth, reality, or validity about outcomes of a behavior in a given situation. Includes an individual's belief that positive or negative things will result if they perform a behavior. **

Reinforcement: Punishment, consequences, or sanctions for performing an undesired behavior or not performing a desired behavior; and reinforcement and incentives for performing the desired behavior.**

Intentions: A conscious decision to perform a behavior or a resolve to act in a certain way.**

Goals: Desired outcomes or end states that an individual wants to achieve. For example, goal setting, action planning.**

Emotion: A natural, instinctive state of mind resulting from one's circumstances, mood or relationship with others.**

^{*} Michie S, van Stralen M, and West R. (2011). The behavior change wheel: A method for characterizing and designing behavior change interventions. Implementation Science 6:42

^{**} Source of Definitions: Source: Atkins, L. Francis, J., Islam, R. et al. A guide to using the Theoretical Domains Framework of behavior change to investigate implementation problems. Implementation Sci 12, 77 (2017). Https://doi.org/10.1186/s13012-017-0605-9.

Definition of the TDF pillars as applied in this review

The table below describes all TDF sub-factors identified in the literature using illustrative examples.

CAPABILITY OPPORTUNITY MOTIVATION Social/professional role and identity: **Knowledge:** The extent to which an **Social influences:** The way one's thoughts, individual is aware of CAB PrEP, how CAB feelings or behaviors concerning CAB PrEP Aspects of CAB PrEP use that reinforce or PrEP is delivered, and/or HIV knowledge. respond to their environment. These contradict one's roles and/or the ways they influences may include norms and tangible identify socially or professionally (i.e., as a 'good/ethical provider'). Memory, attention, decision processes: or emotional support provided to an The ability to remember and decide to take individual by members in one's social CAB PrEP. network or community. Beliefs about consequences: The belief that CAB PrEP use will protect a user from HIV. **Environmental context and resources:** Any **Emotion:** A natural, instinctive state of mind circumstance of a person's situation or (e.g., fear, relief) resulting from one's use of environment that discourages or CAB PrEP. encourages CAB PrEP use.



Categorization of Behavioral Factors

EVIDENCE SOURCE LIMITATIONS

Most of the available and relevant literature describes *hypothetical factors* of CAB PrEP uptake and/or consistent use and is derived from formative research conducted through studies and projects that do not include product use and/or prior to approval and rollout of CAB PrEP in market (i.e., findings are not based on actual experience with the product). The hypothetical factors relevant to demand generation and communication make up the bulk of the literature and thus are included in this compendium. *Confirmed* factors are those that are known from studies and projects that included product use (i.e., clinical trials).

As a result, findings in this compendium are organized into two categories:

Hypothetical Behavioral Factors: Barriers and facilitators derived from formative research (descriptive studies, human-centered design projects, and discrete choice experiments) conducted without product use, including perspectives of those who do not have actual CAB PrEP experience and do not live in a setting where CAB PrEP has been made available and applicable learnings from oral PrEP rollout or the rollout of other medical interventions (i.e., family planning, etc.).

Confirmed Behavioral Factors: Barriers and facilitators with documented confirmation derived from CAB PrEP clinical trial data or from research conducted among those with experience using CAB PrEP.



Key Insights Overview

C	APABILITY	C	PPORTUNITY	N	OTIVATION
•	Prior familiarity with injections for other health services: End users' familiarity with the mode of administration of CAB PrEP due to experience with injectable contraceptives. Belief that regimen is simple to follow: Belief that CAB PrEP simplifies the PrEP regimen compared to oral PrEP. It offers greater perceived ease in adherence and eliminates the need to remember a daily pill. Awareness: Behavior change communication (BCC) materials may facilitate awareness and use of CAB PrEP.		parents/guardians. Availability in diverse service delivery settings: CAB PrEP may be offered in a range of health service delivery settings, including outside of traditional health facilities. Task sharing of injection delivery: Injections may be administered by a range of healthcare cadres, not only facility-based providers. Integration of CAB PrEP services with other SRH-related services. Provider training/capacity building in injection	✓ ✓	Perceived high efficacy of CAB PrEP in preventing HIV. CAB PrEP users appreciated that CAB PrEP is not potentially disruptive to sex, like other HIV prevention methods. High risk perception of acquiring HIV. Acceptance of the delivery modality and tolerable side effects of CAB PrEP. Administration of CAB PrEP by a healthcare professional is believed to increase safety of PrEP use.
•	Lack of knowledge or awareness of CAB PrEP among clients and providers.		Addinistration and effective counseling on PrEP choice. Negative attitudes or perceptions of CAB PrEP held by AGYW's parents/guardians and/or communities. Costs to clients associated with acquiring CAB PrEP (e.g., HIV testing, travel to clinics, time commitment, etc.). Lack of private spaces to administer injections. Potential shortage of providers who can administer and counsel on CAB PrEP. Potential supply chain issues such as CAB PrEP stockouts, needle supply and disposal needs, and cold chain requirements.	✓ ✓ ✓ ✓ ✓ ✓ ✓	Dislike or fear of needles/injections. Long-term and short-term side effects. Belief that CAB PrEP is not effective in preventing HIV. Safety and efficacy concerns for pregnant/breastfeeding women. Concerns about the risk of drug-resistant HIV and stopping CAB PrEP use, including concerns about "oral bridging" (intermittent use of oral PrEP when CAB PrEP injections are missed). Perceived loss of control or independence because CAB PrEP must be administered by a provider and can not be administered by oneself.

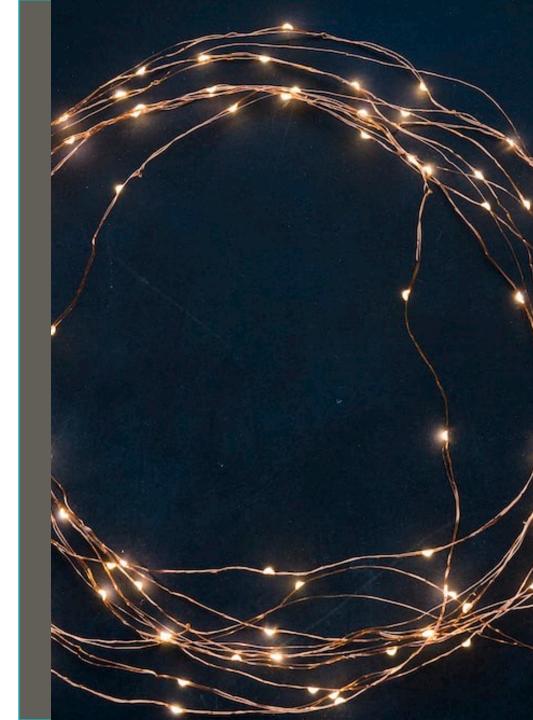


Behavioral Factors

The following slides include a summary of insights on behavioral facilitators and barriers across studies for each component of the TDF framework for CAB PrEP.

Confirmed facilitators to women's CAB PrEP use include high efficacy of CAB PrEP, discretion of product use, ease of adherence, and prior or current use of injectable contraceptives. Confirmed barriers include include side effects and fear of injections.

Hypothetical facilitators to women's CAB PrEP use include behavior change communication, differentiated service delivery, and provider capacity building. Significant hypothetical barriers to women's CAB PrEP use include risk of developing drug-resistant HIV, potential CAB-related strain on the healthcare system (facilities and providers), client costs associated with CAB PrEP use, and potential supply chain issues.



Behavioral Facilitators and Barriers: Capability



FACILITATORS

FAMILIARITY WITH INJECTIONS

End users' familiarity with the mode of administration of CAB PrEP due to experience with injectable contraceptives^{8,9,18}

PERCEIVED SIMPLICITY OF REGIMEN

CAB PrEP simplifies the PrEP regimen compared to oral PrEP. It offers greater perceived ease in adherence and eliminates the need to remember a daily pill.^{7,8,17,23,35,36}

CAB PrEP complements an active lifestyle, especially for youth and those who travel who may forget to pack or take pills. 18,23

APPOINTMENT REMINDERS TO FACILITATE ADHERENCE, a key learning from oral PrEP.^{3,24}

BEHAVIOR CHANGE COMMUNICATION (BCC) MATERIALS FACILITATE AWARENESS AND USE OF CAB PrEP

Both client- and provider-facing materials that emphasize high-efficacy and convenience of CAB PrEP, provide information on various PrEP options in non-technical language for women, and answers FAQs to support providers; based on key learnings from oral PrEP rollout.³

BCC materials to facilitate community sensitization and greater acceptance among key influencer groups of CAB PrEP and correct myths and misinformation.^{24, 27, 28, 29}

Materials dissemination through various channels – social media, billboards, interpersonal communication, etc.^{24, 28}

BARRIERS

LACK OF KNOWLEDGE OR AWARENESS of CAB PrEP among clients and providers.^{24,40}

Behavioral Facilitators and Barriers: Opportunity



FACILITATORS



End users report that CAB PrEP provides user discretion, preventing the negative social consequences of unintentional PrEP disclosure to others. 9,12,13,17,23,35

In one study, South African youth saw long-acting PrEP methods as providing greater discretion compared to oral PrEP. Unlike oral PrEP, CAB PrEP does not need to be carried around, stored covertly in households, or used in settings with unsupportive family members. Also, CAB PrEP offered greater discretion for those who did not wish to disclose to partners.²³

- BUY-IN OR SUPPORT FOR CAB PrEP USE FROM AGYW'S PARENTS/GUARDIANS⁹
- Injections may be administered by a range of healthcare cadres (including community, lay, and peer providers), not exclusively clinical physicians. This may result in less stigmatized services and reduce pressure on the health system.^{7,11,24,40}
- DIVERSE SERVICE DELIVERY OPTIONS

CAB PrEP may be offered in a range of settings, including those outside traditional health facilities (e.g., pharmacies, food banks, schools, and mobile health approaches). This may increase client reach, lower the travel burden to traditional health settings, and destignatize services. 11,16,20,21,24,27,30,40

INTEGRATION OF CAB PrEP SERVICES WITH OTHER SRH-RELATED SERVICES

To decrease the number of clinic visits, travel cost to the client, and pressure on health system.^{3,20,22,24,28,29}

- CAB PrEP INJECTIONS OFFERED FREE OF COST³⁹
- PROVIDER TRAINING/CAPACITY BUILDING

 To ensure that providers correctly administer injections and knowledgeably counsel clients on multiple options, in a non-judgmental manner. 3,7,11,24,27,28,32

Behavioral Facilitators and Barriers: Opportunity



Confirmed



Hypothetical

BARRIERS



Negative attitude of AGYW's parents/guardians and/or communities.

In a Kampala-based study, parents of AGYW were asked their thoughts on CAB PrEP. Many reported concern and belief in myths about the harms of CAB PrEP including that it causes infertility, changes in DNA, and/or cancer.²⁵

- COST TO CLIENTS ASSOCIATED WITH CAB PrEP-USE
 - Cost of drug, HIV testing, travel to clinics, time commitment, etc.^{6, 11, 16, 24, 40}
- LACK OF PRIVATE SPACES TO ADMINISTER INJECTIONS

 At healthcare facilities and limited private spaces elsewhere. 7,16,20,24,26,32,20,24
- POTENTIAL SHORTAGE OF PROVIDERS 11,22,24,28,30,40

Shortage of providers who can administer CAB PrEP.

CAB PrEP may strain provider time due to drug administration and counseling demands and increase their workload.

LOGISTICAL BURDEN ASSOCIATED WITH CLINIC VISITS

Such as the need to remember appointments, distance and travel, long wait times, and inconvenient opening times at facilities. CAB PrEP shots are not on the same schedule as injectable contraceptives, which may lead to unintentional PrEP disclosure due to increased clinic visits or client fatigue and missed visits. 18,20,24,26,27,34,40

SUPPLY CHAIN ISSUES

Such as potential CAB PrEP stock outs and issues with cold chain requirement; sufficient needles and needle disposal will be needed. 4,6,7,16,22,24,28,40

- PROVIDERS' STIGMATIZING ATTITUDES TOWARDS CLIENTS INQUIRING ABOUT OR USING HIV PREVENTION^{11,20}
- **DISCOMFORT WITH INJECTION LOCATION**, the buttocks, perceived as invasive. 18

Behavioral Facilitators and Barriers: Motivation



Confirmed



Hypothetical

FACILITATORS



One study including South African youth found that participants' top priority in any PrEP product was efficacy; and for some, this overrode other concerns such as fear of pain from injection.²³

In the clinical study HPTN 084-01, when asked what they liked about CAB PrEP, most (55%) of African female adolescents reported that they liked that CAB PrEP offers prevention from HIV.8

Some end users perceive CAB PrEP as highly efficacious due to beliefs that injections are more effective than other forms of medication.²³

Some women appreciate that CAB PrEP becomes effective quickly after administration.^{1,6,18,28,31}

- CAB USERS APPRECIATED THAT CAB PrEP IS NOT POTENTIALLY DISRUPTIVE TO SEX, like other HIV prevention methods. 12,13,36
- HIGH RISK PERCEPTION

The HPTN 084 open-label extension study found that those who chose CAB PrEP over oral PrEP appeared at higher risk for HIV: more likely to not live with partners, have experienced recent physical intimate partner violence, and to have been paid for sex.⁵

✓ ACCEPTANCE OF DELIVERY MODALITY AND MANAGEABLE SIDE EFFECTS

In the HPTN 084-01 study, needle size (1½ inch) and site of administration (gluteal muscle) were generally deemed acceptable by participants.⁸

During HPTN 084-01, CAB PrEP was found to be tolerable, with no discontinuations of product due to adverse events.9

BELIEF THAT CAB PrEP PREVENTS HIV FROM ALL TYPES OF SEXUAL EXPOSURES

Some women appreciate that CAB PrEP can reduce HIV risk not only through vaginal sex, but through other types of HIV exposures.^{27,28}

ADMINISTRATION OF CAB PrEP BY A HEALTHCARE PROFESSIONAL is believed to increase safety of PrEP use and reduce chances of mistakes.^{6,30}

Behavioral Facilitators and Barriers: Motivation



BARRIERS

- **DISLIKE OR FEAR OF NEEDLES/INJECTIONS**8,18,35
- Including injection site pain, injection site reaction, nausea, headaches, dizziness, etc.^{8,12,17,22,23,35,36,38}
 The CAB PrEP injection is seen as irreversible. Unlike oral PrEP, if the user experiences unwanted consequences they cannot just stop taking it; concern that CAB PrEP stays in the system.^{12,17,35}
- CONCERNS ABOUT EFFICACY

 Some AGYW during clinical trials expressed concerns that CAB PrEP may not be effective in preventing HIV.¹²
- CONCERNS FOR PREGNANT/BREASTFEEDING WOMEN

 Desire for pregnancy arose as one reason some may opt for oral PrEP instead of CAB PrEP. Some concern exists that since CAB PrEP is not yet approved for use by pregnant/breastfeeding women, the safety and efficacy profile for CAB PrEP use among this population is unknown.³⁸
- CONCERNS ABOUT THE RISK OF DRUG-RESISTANT HIV, ORAL BRIDGING AND STOPPING CAB PrEP-USE

 Oral PrEP is to be taken for a period of time after stopping CAB PrEP. Additionally, oral PrEP is to be used between missed doses of CAB PrEP ("oral bridging"). Oral bridging may be difficult for those who already have adherence issues with oral PrEP. 4,6,11,16,27,28,30,33,40
- PERCEIVED LOSS OF CONTROL OR INDEPENDENCE

 CAB PrEP must be administered by a provider and cannot be administered by oneself. 24,28,29,30

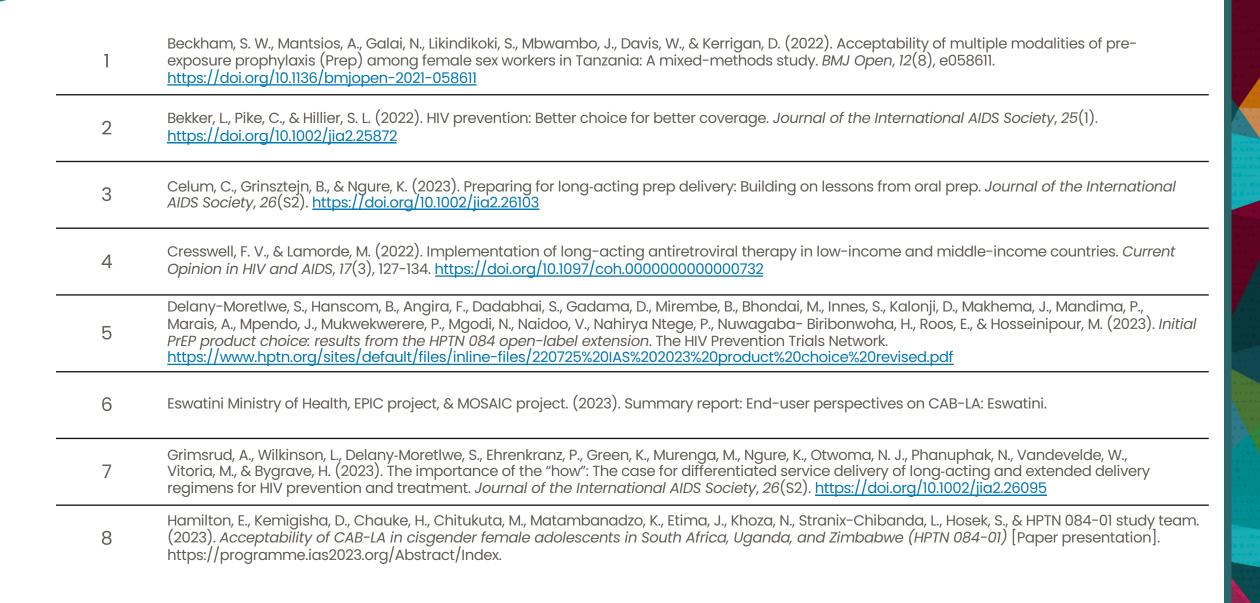


Select Key Remaining Gaps

As CAB PrEP research and implementation continues, it is expected that additional learnings on behavioral factors of CAB PrEP demand and use among women will emerge. The table below summarizes some of the relevant, key gaps identified through review of existing published and gray literature, and through input from a select group of stakeholders engaged with CAB PrEP research and implementation. While not an exhaustive list of gaps, these are intended to provide prompts and stimuli to those working to understand end-user behavior of CAB PrEP among women. Some of these gaps are filled by partial insights or anecdotal information while others remain full gaps in understanding.

CAPABILITY	 What types of reminder techniques work to facilitate consistent use of CAB PrEP?
	 What types of communication messaging, strategies, and tools best influence CAB PrEP demand and consistent use.?
	 What knowledge gaps need to be addressed? What types of misinformation persists about CAB PrEP (i.e.: effectiveness, drug resistance)?
	 What messages and communication techniques address knowledge and awareness of CAB PrEP? Which work best and with whom (clients, providers, community, etc.)?
	 Will CAB PrEP offer an opportunity for women to feel more in control?
	 How can providers feel comfortable and confident in recommending and supporting CAB PrEP use among clients?
	What is the emotional cost of using CAB PrEP for women?
OPPORTUNITY	 How can health systems adapt to make CAB PrEP more available and accessible for women?
	 What is the extent to which task sharing and differentiated service delivery may be addressed by government and other key stakeholders to improve demand and access among AGYW?
	 What are the ways in which specific influencers (peers, partners, parents) facilitate and/or limit CAB PrEP access and use and which successful interventions can encourage their support?
	 In addition to training, what are the types of interventions and techniques targeting providers that work best to improve client-centered care for CAB PrEP?
MOTIVATION	 What are the barriers and facilitators to oral bridging and successful approaches to ensure adherence?
	 How do the unique service delivery requirements (i.e., administration in medical setting) of CAB PrEP affect women's uptake and continued use (i.e., capability to use) of the product?
	 Does hearing the experiences of other women using CAB PrEP affect uptake/use? What types of testimonials are most compelling (i.e., type of information, messaging used, type of interaction)?





9	Hamilton, E., Kemigisha, D., Chauke, H., Chitukuta, M., Matambanadzo, K., Etima, J., Khoza, N., Stranix-Chibanda, L., Hosek, S., & HPTN 084-01 study team. (2023, July). Acceptability of CAB LA in cisgender female adolescents in South Africa, Uganda, and Zimbabwe (HPTN 084-01). The HIV Prevention Trials Network. https://www.hptn.org/sites/default/files/inline-files/HPTN%20084-01_Accept%20CAB-LA%20IAS%202023_V1rv.pdf
10	Harling, G., Muya, A., Ortblad, K. F., Mashasi, I., Dambach, P., Ulenga, N., Barnhart, D., Mboggo, E., Oldenburg, C. E., Bärnighausen, T., & Spiegelman, D. (2019). HIV risk and pre-exposure prophylaxis interest among female bar workers in Dar es Salaam: Cross-sectional survey. <i>BMJ Open</i> , 9(3), e023272. https://doi.org/10.1136/bmjopen-2018-023272
11	Henderson, M., Schmidt, H. A., Chitembo, L., Peralta, H., Alaama, A. S., Johnson, C., Baggaley, R., & Schaefer, R. (2023). The future of pre-exposure prophylaxis (Prep) for HIV prevention: A global qualitative consultation on provider perspectives on new products and differentiated service delivery. AIDS and Behavior, 27(11), 3755-3766. https://doi.org/10.1007/s10461-023-04093-1
12	Hosek, S., Hamilton, E. L., Ngo, J., Jiao, Y., Hanscom, B., Delany-Moretiwe, S., Ngodi, N. M., Siziba, B., Naido, I., Mirembe, B. G., Kamira, B., Marzinke, M. A., McCoig, C., Spiegel, H., & Stranix-Chibanda, L. (2023, February). CAB LA for HIV prevention in African cisgender female adolescents (HPTN 084-01) [Paper presentation]. CROI 2023. https://www.natap.org/2023/CROI/croi_26.htm
13	Hosek, S., & Stranix-Chibanda, L. (2023). What will it take to bring LAED medication regimens to young people? <i>Journal of the International AIDS Society, 26</i> (S2). https://doi.org/10.1002/jia2.26098
14	Jamieson, L., Johnson, L. F., Nichols, B. E., Delany-Moretlwe, S., Hosseinipour, M. C., Russell, C., & Meyer-Rath, G. (2022). The relative cost-effectiveness of long-acting injectable Cabotegravir versus oral pre-exposure prophylaxis: A modelled economic evaluation and threshold analysis in South Africa based on the HPTN 083 and 084 trials. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4047136
15	Jansen van Vuuren, C. J., Lewis, L., Harkoo, I., Dawood, H., & Mansoor, L. E. (2023). Experience with contraceptive dosage forms and interest in novel prep technologies in women. <i>AIDS and Behavior</i> , 27(11), 3596-3602. https://doi.org/10.1007/s10461-023-04072-6
16	Kityo, C., Cortes, C. P., Phanuphak, N., Grinsztejn, B., & Venter, F. (2022). Barriers to uptake of long-acting antiretroviral products for treatment and prevention of HIV in low- and middle-income countries (LMICs). Clinical Infectious Diseases, 75(Supplement_4), S549-S556. https://doi.org/10.1093/cid/ciac752

17	Liuu, A., & Buchbinder, S. (2023, May 1). CROI 2023: Epidemiologic trends and prevention for HIV and other sexually transmitted infections. PubMed Central (PMC). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10266866/
18	Lorenzetti, L., Dinh, N., Van der Straten, A., Fonner, V., Ridgeway, K., Rodolph, M., Schaefer, R., Schmidt, H. A., & Baggaley, R. (2023). Systematic review of the values and preferences regarding the use of injectable pre-exposure prophylaxis to prevent HIV acquisition. <i>Journal of the International AIDS Society</i> , 26(S2). https://doi.org/10.1002/jia2.26107
19	Mantsios, A., Muraleetharan, O., Donastorg, Y., Perez, M., Gomez, H., Shembilu, C., Beckham, S. W., Karver, T. S., Davis, W., Likindikoki, S., Mbwambo, J., Barrington, C., & Kerrigan, D. (2022). "She is the one who knows": A qualitative exploration of oral and injectable prep as part of a community empowerment approach to HIV prevention among female sex workers in the Dominican Republic and Tanzania. PLOS Global Public Health, 2(9), e0000981. https://doi.org/10.1371/journal.pgph.0000981
20	Mataboge, P., Nzenze, S., Mthimkhulu, N., Mazibuko, M., Kutywayo, A., Butler, V., Naidoo, N., & Mullick, S. (2023). Planning for decentralized, simplified prep: Learnings from potential end users in ga-rankuwa, Gauteng, South Africa. <i>Frontiers in Reproductive Health</i> , 4. https://doi.org/10.3389/frph.2022.1081049
21	Meyer-Rath, G., Jamieson, L., & Pillay, Y. (2023). What will it take for an injectable ARV to change the face of the HIV epidemic in high-prevalence countries? Considerations regarding drug costs and operations. <i>Journal of the International AIDS Society</i> , 26(S2). https://doi.org/10.1002/jia2.26106
22	Mgodi, N. M., Murewanhema, G., Moyo, E., Samba, C., Musuka, G., Dzinamarira, T., & Brown, J. M. (2023). Advancing the use of long-acting extended delivery formulations for HIV prevention in sub-saharan Africa: Challenges, opportunities, and recommendations. <i>Journal of the International AIDS Society</i> , 26(S2). https://doi.org/10.1002/jia2.26115
23	Montgomery, E. T., Atujuna, M., Krogstad, E., Hartmann, M., Ndwayana, S., O'Rourke, S., Bekker, L., Van der Straten, A., & Minnis, A. M. (2019). The invisible product: Preferences for sustained-release, long-acting pre-exposure prophylaxis to HIV among South African youth. <i>JAIDS Journal of Acquired Immune Deficiency Syndromes</i> , 80(5), 542-550. https://doi.org/10.1097/qai.000000000001960
24	Moyo, E., Murewanhema, G., Musuka, G., & Dzinamarira, T. (2022). Long-acting injectable drugs for HIV-1 pre-exposure prophylaxis: Considerations for Africa. <i>Tropical Medicine and Infectious Disease</i> , 7(8), 154. https://doi.org/10.3390/tropicalmed7080154

25	Mulumba, E., Asiimwe Bire, F., Kalule Nabunya, H., Zalwango, A., Kyomukama, E., Kamira, Nakabiito, C., Mirembe, B. G., & Etima, J. (n.d.). Parent/guardians knowledge, attitudes and perceptions on long-acting injectable Cabotegravir (CAB LA) for HIV prevention and study participation in HPTN 084-01 Study: tales from Mu-JHU, Kampala site. The HIV Prevention Trials Network. https://www.hptn.org/sites/default/files/inline-files/EMMIE%2BMULUMBA%2Be-poster%2BIAS%2B2023%2BFinal.pdf
26	PrEPWatch. (2023, October 10). Injectable CAB for PrEP. https://www.prepwatch.org/products/injectable-cab-for-prep/
27	PROMISE Collaboration, & CHOICE. (n.d.). Stakeholder conversations to inform delivery of new HIV prevention methods in Zimbabwe.
28	PROMISE Collaboration, MOSAIC Project, & Ministry of Health, Government of Republic of Zambia. (n.d.). Informing delivery of new HIV prevention methods in Zambia: end user and provider perceptions across five provinces.
29	PROMISE Collaboration. (n.d.). Stakeholder conversations to inform delivery of multiple HIV prevention methods in Kenya.
30	PROMISE Collaboration. (n.d.). Stakeholder conversations to inform delivery of new HIV prevention methods in South Africa.
31	Quaife, M., Eakle, R., Cabrera Escobar, M. A., Vickerman, P., Kilbourne-Brook, M., Mvundura, M., Delany-Moretlwe, S., & Terris-Prestholt, F. (2017). Divergent preferences for HIV prevention: A discrete choice experiment for multipurpose HIV prevention products in South Africa. <i>Medical Decision Making</i> , 38(1), 120-133. https://doi.org/10.1177/0272989x17729376
32	South Africa to begin piloting injectable prep in early 2023. (2022, November 7). aidsmap.com. https://www.aidsmap.com/news/nov-2022/south-africa-begin-piloting-injectable-prep-early-2023

33	Spinelli, M. A., Grinsztejn, B., & Landovitz, R. J. (2022). Promises and challenges: Cabotegravir for preexposure prophylaxis. <i>Current Opinion in HIV and AIDS</i> , 17(4), 186-191. https://doi.org/10.1097/coh.000000000000000000000000000000000000
34	Sued, O., Nardi, N., & Spadaccini, L. (2022). Key population perceptions and opinions about long-acting antiretrovirals for prevention and treatment: A scoping review. <i>Current Opinion in HIV and AIDS</i> , 17(3), 145-161. https://doi.org/10.1097/coh.00000000000000734
35	Tolley, E. E., Li, S., Zangeneh, S. Z., Atujuna, M., Musara, P., Justman, J., Pathak, S., Bekker, L., Swaminathan, S., Stanton, J., Farrior, J., & Sista, N. (2019). Acceptability of a long-acting injectable HIV prevention product among US and African women: Findings from a phase 2 clinical trial (HPTN 076). <i>Journal of the International AIDS Society</i> , 22(10). https://doi.org/10.1002/jia2.25408
36	Tolley, E. E., Zangeneh, S. Z., Chau, G., Eron, J., Grinsztejn, B., Humphries, H., Liu, A., Siegel, M., Bertha, M., Panchia, R., Li, S., Cottle, L., Rinehart, A., Margolis, D., Jennings, A., McCauley, M., & Landovitz, R. J. (2020). Acceptability of long-acting injectable Cabotegravir (CAB LA) in HIV-uninfected individuals: HPTN 077. AIDS and Behavior, 24(9), 2520-2531. https://doi.org/10.1007/s10461-020-02808-2
37	ViiV Healthcare. (2023, October 5). Worldwide registration Cabotegravir long-acting for PrEP. Retrieved November 21, 2023, from https://viivhealthcare.com/content/dam/cf-viiv/viivhealthcare/en_GB/pdf/cab-prep-wwrs-5oct2023-for-external-use.pdf
38	ViiV Healthcare. (2023, July). IAS 2023 Abstract Slides [Paper presentation]. International Aids Society 2023.
39	Wara, N. J., Mvududu, R., Marwa, M. M., Gómez, L., Mashele, N., Orrell, C., Moucheraud, C., Kinuthia, J., John-Stewart, G., Myer, L., Hoffman, R., Pintye, J., & Davey, D. L. (2022). Preferences and acceptability for long-acting prep agents among pregnant and postpartum women with experience using daily oral prep in South Africa and Kenya. https://doi.org/10.1101/2022.10.29.22281701
40	World Health Organization. (2022). <i>Guidelines on long-acting injectable Cabotegravir for HIV prevention</i> . https://iris.who.int/bitstream/handle/10665/360830/9789240054165-eng.pdf
41	Zimbabwe is the first country in Africa to announce regulatory approval for long-acting injectable cabotegravir for HIV prevention. (2022, November 1). World Health Organization (WHO). https://www.who.int/news/item/01-11-2022-zimbabwe-first-country-in-africa-announced-regulatory-approval-for-long-acting-injectable-cabotegravir-for-hiv-prevention

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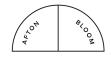




























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